

Amazon Billing and Cost Management



Amazon Billing and Cost Management: API Reference

Table of Contents

Welcome	1
Amazon Cost Explorer	1
Amazon Billing and Cost Management Dashboards	1
Amazon Data Exports	1
Amazon Pricing Calculator	2
Amazon Billing and Cost Management Recommended Actions	2
Amazon Billing	2
Amazon Budgets	2
Amazon Cost Optimization Hub	3
Amazon Cost and Usage Report	4
Amazon Web Services China Region Free Tier	4
Amazon Web Services Invoicing	4
Amazon Price List	6
Tax Settings	7
Actions	8
Amazon Cost Explorer	15
CreateAnomalyMonitor	18
CreateAnomalySubscription	26
CreateCostCategoryDefinition	30
DeleteAnomalyMonitor	36
DeleteAnomalySubscription	38
DeleteCostCategoryDefinition	40
DescribeCostCategoryDefinition	43
GetAnomalies	47
GetAnomalyMonitors	52
GetAnomalySubscriptions	56
GetApproximateUsageRecords	61
GetCommitmentPurchaseAnalysis	65
GetCostAndUsage	70
GetCostAndUsageComparisons	81
GetCostAndUsageWithResources	90
GetCostCategories	101
GetCostComparisonDrivers	110
GetCostForecast	119

GetDimensionValues	127
GetReservationCoverage	141
GetReservationPurchaseRecommendation	153
GetReservationUtilization	163
GetRightsizingRecommendation	175
GetSavingsPlanPurchaseRecommendationDetails	185
GetSavingsPlansCoverage	189
GetSavingsPlansPurchaseRecommendation	196
GetSavingsPlansUtilization	202
GetSavingsPlansUtilizationDetails	208
GetTags	215
GetUsageForecast	224
ListCommitmentPurchaseAnalyses	232
ListCostAllocationTagBackfillHistory	236
ListCostAllocationTags	240
ListCostCategoryDefinitions	245
ListCostCategoryResourceAssociations	249
ListSavingsPlansPurchaseRecommendationGeneration	253
ListTagsForResource	257
ProvideAnomalyFeedback	260
StartCommitmentPurchaseAnalysis	263
StartCostAllocationTagBackfill	267
StartSavingsPlansPurchaseRecommendationGeneration	271
TagResource	274
UntagResource	277
UpdateAnomalyMonitor	280
UpdateAnomalySubscription	283
UpdateCostAllocationTagsStatus	289
UpdateCostCategoryDefinition	293
Amazon Billing and Cost Management Dashboards	297
CreateDashboard	299
DeleteDashboard	303
GetDashboard	306
GetResourcePolicy	311
ListDashboards	314
ListTagsForResource	317

TagResource	320
UntagResource	323
UpdateDashboard	326
Amazon Data Exports	329
CreateExport	331
DeleteExport	337
GetExecution	341
GetExport	347
GetTable	353
ListExecutions	359
ListExports	364
ListTables	369
ListTagsForResource	374
TagResource	379
UntagResource	383
UpdateExport	387
Amazon Pricing Calculator	392
BatchCreateBillScenarioCommitmentModification	394
BatchCreateBillScenarioUsageModification	399
BatchCreateWorkloadEstimateUsage	407
BatchDeleteBillScenarioCommitmentModification	415
BatchDeleteBillScenarioUsageModification	420
BatchDeleteWorkloadEstimateUsage	425
BatchUpdateBillScenarioCommitmentModification	430
BatchUpdateBillScenarioUsageModification	435
BatchUpdateWorkloadEstimateUsage	442
CreateBillEstimate	448
CreateBillScenario	456
CreateWorkloadEstimate	463
DeleteBillEstimate	470
DeleteBillScenario	473
DeleteWorkloadEstimate	476
GetBillEstimate	479
GetBillScenario	485
GetPreferences	490
GetWorkloadEstimate	493

ListBillEstimateCommitments	498
ListBillEstimateInputCommitmentModifications	503
ListBillEstimateInputUsageModifications	508
ListBillEstimateLineItems	514
ListBillEstimates	519
ListBillScenarioCommitmentModifications	524
ListBillScenarios	529
ListBillScenarioUsageModifications	534
ListTagsForResource	540
ListWorkloadEstimates	544
ListWorkloadEstimateUsage	549
TagResource	555
UntagResource	559
UpdateBillEstimate	563
UpdateBillScenario	570
UpdatePreferences	577
UpdateWorkloadEstimate	582
Amazon Billing and Cost Management Recommended Actions	587
ListRecommendedActions	588
Amazon Billing	591
AssociateSourceViews	592
CreateBillingView	596
DeleteBillingView	602
DisassociateSourceViews	605
GetBillingView	609
GetResourcePolicy	613
ListBillingViews	616
ListSourceViewsForBillingView	621
ListTagsForResource	625
TagResource	628
UntagResource	631
UpdateBillingView	634
Amazon Budgets	638
CreateBudget	640
CreateBudgetAction	657
CreateNotification	664

CreateSubscriber	669
DeleteBudget	674
DeleteBudgetAction	678
DeleteNotification	683
DeleteSubscriber	687
DescribeBudget	692
DescribeBudgetAction	702
DescribeBudgetActionHistories	707
DescribeBudgetActionsForAccount	713
DescribeBudgetActionsForBudget	718
DescribeBudgetNotificationsForAccount	723
DescribeBudgetPerformanceHistory	728
DescribeBudgets	736
DescribeNotificationsForBudget	747
DescribeSubscribersForNotification	753
ExecuteBudgetAction	759
ListTagsForResource	764
TagResource	768
UntagResource	772
UpdateBudget	776
UpdateBudgetAction	790
UpdateNotification	798
UpdateSubscriber	803
Amazon Cost Optimization Hub	807
GetPreferences	809
GetRecommendation	812
ListEfficiencyMetrics	819
ListEnrollmentStatuses	824
ListRecommendations	828
ListRecommendationSummaries	833
UpdateEnrollmentStatus	838
UpdatePreferences	841
Amazon Cost and Usage Report	844
DeleteReportDefinition	845
DescribeReportDefinitions	848
ListTagsForResource	853

ModifyReportDefinition	857
PutReportDefinition	860
TagResource	865
UntagResource	869
Amazon Web Services China Region Free Tier	871
GetAccountActivity	873
GetAccountPlanState	878
GetFreeTierUsage	881
ListAccountActivities	885
UpgradeAccountPlan	889
Amazon Web Services Invoicing	891
BatchGetInvoiceProfile	893
CreateInvoiceUnit	897
CreateProcurementPortalPreference	902
DeleteInvoiceUnit	910
DeleteProcurementPortalPreference	913
GetInvoicePDF	917
GetInvoiceUnit	921
GetProcurementPortalPreference	926
ListInvoiceSummaries	931
ListInvoiceUnits	939
ListProcurementPortalPreferences	943
ListTagsForResource	948
PutProcurementPortalPreference	952
TagResource	958
UntagResource	961
UpdateInvoiceUnit	964
UpdateProcurementPortalPreferenceStatus	968
Amazon Price List	972
DescribeServices	973
GetAttributeValues	978
GetPriceListFileUrl	983
GetProducts	987
ListPriceLists	993
Tax Settings	998
BatchDeleteTaxRegistration	1000

BatchGetTaxExemptions	1003
BatchPutTaxRegistration	1007
DeleteSupplementalTaxRegistration	1017
DeleteTaxRegistration	1020
GetTaxExemptionTypes	1023
GetTaxInheritance	1026
GetTaxRegistration	1029
GetTaxRegistrationDocument	1035
ListSupplementalTaxRegistrations	1038
ListTaxExemptions	1042
ListTaxRegistrations	1046
PutSupplementalTaxRegistration	1053
PutTaxExemption	1057
PutTaxInheritance	1061
PutTaxRegistration	1064
Data Types	1074
Amazon Cost Explorer	1087
AnalysisDetails	1092
AnalysisSummary	1093
Anomaly	1096
AnomalyDateInterval	1099
AnomalyMonitor	1100
AnomalyScore	1104
AnomalySubscription	1105
CommitmentPurchaseAnalysisConfiguration	1109
ComparisonMetricValue	1110
CostAllocationTag	1112
CostAllocationTagBackfillRequest	1114
CostAllocationTagStatusEntry	1116
CostAndUsageComparison	1117
CostCategory	1120
CostCategoryInheritedValueDimension	1123
CostCategoryProcessingStatus	1125
CostCategoryReference	1126
CostCategoryResourceAssociation	1129
CostCategoryRule	1131

CostCategorySplitChargeRule	1133
CostCategorySplitChargeRuleParameter	1135
CostCategoryValues	1136
CostComparisonDriver	1138
CostDriver	1141
Coverage	1143
CoverageByTime	1144
CoverageCost	1145
CoverageHours	1146
CoverageNormalizedUnits	1148
CurrentInstance	1150
DateInterval	1154
DimensionValues	1156
DimensionValuesWithAttributes	1158
DiskResourceUtilization	1159
DynamoDBCapacityDetails	1161
EBSResourceUtilization	1162
EC2InstanceDetails	1164
EC2ResourceDetails	1167
EC2ResourceUtilization	1170
EC2Specification	1172
ElastiCacheInstanceDetails	1173
ESInstanceDetails	1175
Expression	1177
ForecastResult	1181
GenerationSummary	1183
Group	1185
GroupDefinition	1186
Impact	1187
InstanceDetails	1189
MemoryDBInstanceDetails	1191
MetricValue	1193
ModifyRecommendationDetail	1194
NetworkResourceUtilization	1195
RDSInstanceDetails	1197
RecommendationDetailData	1200

RecommendationDetailHourlyMetrics	1208
RedshiftInstanceDetails	1210
ReservationAggregates	1212
ReservationCoverageGroup	1216
ReservationPurchaseRecommendation	1217
ReservationPurchaseRecommendationDetail	1219
ReservationPurchaseRecommendationMetadata	1226
ReservationPurchaseRecommendationSummary	1228
ReservationUtilizationGroup	1230
ReservedCapacityDetails	1232
ResourceDetails	1233
ResourceTag	1234
ResourceUtilization	1236
ResultByTime	1237
RightsizingRecommendation	1239
RightsizingRecommendationConfiguration	1241
RightsizingRecommendationMetadata	1242
RightsizingRecommendationSummary	1244
RootCause	1246
RootCauseImpact	1248
SavingsPlans	1249
SavingsPlansAmortizedCommitment	1252
SavingsPlansCoverage	1254
SavingsPlansCoverageData	1255
SavingsPlansDetails	1257
SavingsPlansPurchaseAnalysisConfiguration	1259
SavingsPlansPurchaseAnalysisDetails	1261
SavingsPlansPurchaseRecommendation	1267
SavingsPlansPurchaseRecommendationDetail	1269
SavingsPlansPurchaseRecommendationMetadata	1274
SavingsPlansPurchaseRecommendationSummary	1276
SavingsPlansSavings	1280
SavingsPlansUtilization	1282
SavingsPlansUtilizationAggregates	1284
SavingsPlansUtilizationByTime	1286
SavingsPlansUtilizationDetail	1288

ServiceSpecification	1290
SortDefinition	1291
Subscriber	1292
TagValues	1294
TargetInstance	1296
TerminateRecommendationDetail	1298
TotalImpactFilter	1299
UpdateCostAllocationTagsStatusError	1301
UtilizationByTime	1303
Amazon Billing and Cost Management Dashboards	1303
CostAndUsageQuery	1305
CostCategoryValues	1307
DashboardReference	1309
DateTimeRange	1311
DateTimeValue	1312
DimensionValues	1313
DisplayConfig	1315
Expression	1317
GraphDisplayConfig	1319
GroupDefinition	1320
QueryParameters	1321
ReservationCoverageQuery	1323
ReservationUtilizationQuery	1325
ResourceTag	1327
SavingsPlansCoverageQuery	1328
SavingsPlansUtilizationQuery	1330
TableDisplayConfigStruct	1332
TagValues	1333
Widget	1335
WidgetConfig	1337
Amazon Data Exports	1337
Column	1339
DataQuery	1341
DestinationConfigurations	1343
ExecutionReference	1344
ExecutionStatus	1345

Export	1347
ExportReference	1349
ExportStatus	1351
RefreshCadence	1353
ResourceTag	1354
S3Destination	1355
S3OutputConfigurations	1357
Table	1359
TablePropertyDescription	1361
ValidationExceptionField	1363
Amazon Pricing Calculator	1364
AddReservedInstanceAction	1366
AddSavingsPlanAction	1367
BatchCreateBillScenarioCommitmentModificationEntry	1368
BatchCreateBillScenarioCommitmentModificationError	1370
BatchCreateBillScenarioCommitmentModificationItem	1372
BatchCreateBillScenarioUsageModificationEntry	1374
BatchCreateBillScenarioUsageModificationError	1377
BatchCreateBillScenarioUsageModificationItem	1379
BatchCreateWorkloadEstimateUsageEntry	1382
BatchCreateWorkloadEstimateUsageError	1385
BatchCreateWorkloadEstimateUsageItem	1387
BatchDeleteBillScenarioCommitmentModificationError	1391
BatchDeleteBillScenarioUsageModificationError	1393
BatchDeleteWorkloadEstimateUsageError	1395
BatchUpdateBillScenarioCommitmentModificationEntry	1397
BatchUpdateBillScenarioCommitmentModificationError	1398
BatchUpdateBillScenarioUsageModificationEntry	1400
BatchUpdateBillScenarioUsageModificationError	1402
BatchUpdateWorkloadEstimateUsageEntry	1404
BatchUpdateWorkloadEstimateUsageError	1406
BillEstimateCommitmentSummary	1408
BillEstimateCostSummary	1411
BillEstimateInputCommitmentModificationSummary	1412
BillEstimateInputUsageModificationSummary	1414
BillEstimateLineItemSummary	1417

BillEstimateSummary	1421
BillInterval	1423
BillScenarioCommitmentModificationAction	1424
BillScenarioCommitmentModificationItem	1426
BillScenarioSummary	1428
BillScenarioUsageModificationItem	1431
CostAmount	1434
CostDifference	1435
Expression	1436
ExpressionFilter	1438
FilterTimestamp	1439
HistoricalUsageEntity	1440
ListBillEstimateLineItemsFilter	1442
ListBillEstimatesFilter	1444
ListBillScenariosFilter	1446
ListUsageFilter	1448
ListWorkloadEstimatesFilter	1450
NegateReservedInstanceAction	1452
NegateSavingsPlanAction	1453
UsageAmount	1454
UsageQuantity	1455
UsageQuantityResult	1456
ValidationExceptionField	1457
WorkloadEstimateSummary	1458
WorkloadEstimateUsageItem	1461
WorkloadEstimateUsageQuantity	1465
Amazon Billing and Cost Management Recommended Actions	1465
ActionFilter	1467
RecommendedAction	1469
RequestFilter	1472
ValidationExceptionField	1473
Amazon Billing	1473
ActiveTimeRange	1475
BillingViewElement	1476
BillingViewHealthStatus	1480
BillingViewListElement	1481

CostCategoryValues	1484
DimensionValues	1486
Expression	1487
ResourceTag	1489
StringSearch	1490
TagValues	1491
TimeRange	1493
ValidationExceptionField	1494
Amazon Budgets	1494
Action	1496
ActionHistory	1499
ActionHistoryDetails	1501
ActionThreshold	1502
AutoAdjustData	1503
Budget	1505
BudgetedAndActualAmounts	1511
BudgetNotificationsForAccount	1512
BudgetPerformanceHistory	1513
CalculatedSpend	1516
CostCategoryValues	1517
CostTypes	1519
Definition	1522
Expression	1523
ExpressionDimensionValues	1525
HealthStatus	1527
HistoricalOptions	1529
IamActionDefinition	1531
Notification	1533
NotificationWithSubscribers	1536
ResourceTag	1537
ScpActionDefinition	1538
Spend	1540
SsmActionDefinition	1542
Subscriber	1544
TagValues	1546
TimePeriod	1548

Amazon Cost Optimization Hub	1549
AccountEnrollmentStatus	1552
AuroraDbClusterStorage	1554
AuroraDbClusterStorageConfiguration	1555
BlockStoragePerformanceConfiguration	1556
ComputeConfiguration	1557
ComputeSavingsPlans	1559
ComputeSavingsPlansConfiguration	1560
DbInstanceConfiguration	1562
DynamoDbReservedCapacity	1563
DynamoDbReservedCapacityConfiguration	1564
EbsVolume	1566
EbsVolumeConfiguration	1567
Ec2AutoScalingGroup	1568
Ec2AutoScalingGroupConfiguration	1569
Ec2Instance	1571
Ec2InstanceConfiguration	1572
Ec2InstanceSavingsPlans	1573
Ec2InstanceSavingsPlansConfiguration	1574
Ec2ReservedInstances	1576
Ec2ReservedInstancesConfiguration	1577
EcsService	1581
EcsServiceConfiguration	1582
EfficiencyMetricsByGroup	1583
ElastiCacheReservedInstances	1585
ElastiCacheReservedInstancesConfiguration	1586
EstimatedDiscounts	1589
Filter	1590
InstanceConfiguration	1594
LambdaFunction	1595
LambdaFunctionConfiguration	1596
MemoryDbReservedInstances	1597
MemoryDbReservedInstancesConfiguration	1598
MetricsByTime	1601
MixedInstanceConfiguration	1603
OpenSearchReservedInstances	1604

OpenSearchReservedInstancesConfiguration	1605
OrderBy	1608
PreferredCommitment	1609
RdsDbInstance	1610
RdsDbInstanceConfiguration	1611
RdsDbInstanceStorage	1612
RdsDbInstanceStorageConfiguration	1613
RdsReservedInstances	1615
RdsReservedInstancesConfiguration	1616
Recommendation	1620
RecommendationSummary	1625
RedshiftReservedInstances	1626
RedshiftReservedInstancesConfiguration	1627
ReservedInstancesCostCalculation	1630
ReservedInstancesPricing	1631
ResourceCostCalculation	1633
ResourceDetails	1634
ResourcePricing	1638
SageMakerSavingsPlans	1640
SageMakerSavingsPlansConfiguration	1641
SavingsPlansCostCalculation	1643
SavingsPlansPricing	1644
StorageConfiguration	1646
SummaryMetricsResult	1647
Tag	1648
TimePeriod	1649
Usage	1650
ValidationExceptionDetail	1652
Amazon Cost and Usage Report	1652
ReportDefinition	1654
ReportStatus	1659
Tag	1660
Amazon Web Services China Region Free Tier	1661
ActivityReward	1662
ActivitySummary	1663
DimensionValues	1665

Expression	1667
FreeTierUsage	1669
MonetaryAmount	1672
Amazon Web Services Invoicing	1672
AmountBreakdown	1675
BillingPeriod	1677
Contact	1678
CurrencyExchangeDetails	1679
DateInterval	1681
DiscountsBreakdown	1682
DiscountsBreakdownAmount	1683
EinvoiceDeliveryPreference	1685
Entity	1687
FeesBreakdown	1688
FeesBreakdownAmount	1689
Filters	1691
InvoiceCurrencyAmount	1693
InvoicePDF	1695
InvoiceProfile	1697
InvoiceSummariesFilter	1699
InvoiceSummariesSelector	1701
InvoiceSummary	1702
InvoiceUnit	1705
InvoiceUnitRule	1708
ProcurementPortalPreference	1710
ProcurementPortalPreferenceSelector	1716
ProcurementPortalPreferenceSummary	1718
PurchaseOrderDataSource	1723
ReceiverAddress	1724
ResourceTag	1727
SupplementalDocument	1728
TaxesBreakdown	1729
TaxesBreakdownAmount	1730
TestEnvPreference	1732
TestEnvPreferenceInput	1735
ValidationExceptionField	1737

Amazon Price List	1738
AttributeValue	1739
Filter	1740
PriceList	1742
Service	1744
Tax Settings	1744
AccountDetails	1747
AccountMetaData	1749
AdditionalInfoRequest	1751
AdditionalInfoResponse	1755
Address	1760
Authority	1763
BatchDeleteTaxRegistrationError	1764
BatchPutTaxRegistrationError	1766
BrazilAdditionalInfo	1768
CanadaAdditionalInfo	1769
DestinationS3Location	1771
EgyptAdditionalInfo	1772
EstoniaAdditionalInfo	1773
ExemptionCertificate	1774
GeorgiaAdditionalInfo	1775
GreeceAdditionalInfo	1776
IndiaAdditionalInfo	1777
IndonesiaAdditionalInfo	1778
IsraelAdditionalInfo	1780
ItalyAdditionalInfo	1781
Jurisdiction	1783
KenyaAdditionalInfo	1784
MalaysiaAdditionalInfo	1785
PolandAdditionalInfo	1787
RomaniaAdditionalInfo	1788
SaudiArabiaAdditionalInfo	1789
SourceS3Location	1790
SouthKoreaAdditionalInfo	1791
SpainAdditionalInfo	1793
SupplementalTaxRegistration	1794

SupplementalTaxRegistrationEntry	1796
TaxDocumentMetadata	1798
TaxExemption	1800
TaxExemptionDetails	1802
TaxExemptionType	1804
TaxInheritanceDetails	1806
TaxRegistration	1807
TaxRegistrationDocFile	1810
TaxRegistrationDocument	1811
TaxRegistrationEntry	1812
TaxRegistrationWithJurisdiction	1815
TurkeyAdditionalInfo	1818
UkraineAdditionalInfo	1820
UzbekistanAdditionalInfo	1821
ValidationExceptionField	1822
VerificationDetails	1823
VietnamAdditionalInfo	1824
Common Parameters	1826
Common Errors	1829

Welcome

Amazon Cost Explorer

You can use the Cost Explorer API to programmatically query your cost and usage data. You can query for aggregated data such as total monthly costs or total daily usage. You can also query for granular data. This might include the number of daily write operations for Amazon DynamoDB database tables in your production environment.

Service Endpoint

The Cost Explorer API provides the following endpoint:

- <https://ce.us-east-1.amazonaws.com>

For information about the costs that are associated with the Cost Explorer API, see [Amazon Cost Management Pricing](#).

Amazon Billing and Cost Management Dashboards

Amazon Billing and Cost Management Dashboards is a service that enables you to create, manage, and share dashboards that combine multiple visualizations of your Amazon cost and usage data. You can combine multiple data sources including Cost Explorer, Savings Plans, and Reserved Instance metrics into unified dashboards, helping you analyze spending patterns and share cost insights across your organization.

You can use the Amazon Billing and Cost Management Dashboards API to programmatically create, manage, and share dashboards. This includes creating custom dashboards, configuring widgets, managing dashboard permissions, and sharing dashboards across accounts in your organization.

Amazon Data Exports

You can use the Data Exports API to create customized exports from multiple Amazon cost management and billing datasets, such as cost and usage data and cost optimization recommendations.

The Data Exports API provides the following endpoint:

- <https://bcm-data-exports.us-east-1.api.aws>

Amazon Pricing Calculator

You can use the Pricing Calculator API to programmatically create estimates for your planned cloud use. You can model usage and commitments such as Savings Plans and Reserved Instances, and generate estimated costs using your discounts and benefit sharing preferences.

The Pricing Calculator API provides the following endpoint:

- <https://bcm-pricing-calculator.us-east-1.api.aws>

Amazon Billing and Cost Management Recommended Actions

You can use the Amazon Billing and Cost Management Recommended Actions API to programmatically query your best practices and recommendations to optimize your costs.

The Amazon Billing and Cost Management Recommended Actions API provides the following endpoint:

- <https://bcm-recommended-actions.us-east-1.api.aws>

Amazon Billing

You can use the Billing API to programmatically list the billing views available to you for a given time period. A billing view represents a set of billing data.

The Billing API provides the following endpoint:

<https://billing.us-east-1.api.aws>

Amazon Budgets

Use the Amazon Budgets API to plan your service usage, service costs, and instance reservations. This API reference provides descriptions, syntax, and usage examples for each of the actions and data types for the Amazon Budgets feature.

Budgets provide you with a way to see the following information:

- How close your plan is to your budgeted amount or to the free tier limits
- Your usage-to-date, including how much you've used of your Reserved Instances (RIs)
- Your current estimated charges from Amazon, and how much your predicted usage will accrue in charges by the end of the month
- How much of your budget has been used

Amazon updates your budget status several times a day. Budgets track your unblended costs, subscriptions, refunds, and RIs. You can create the following types of budgets:

- **Cost budgets** - Plan how much you want to spend on a service.
- **Usage budgets** - Plan how much you want to use one or more services.
- **RI utilization budgets** - Define a utilization threshold, and receive alerts when your RI usage falls below that threshold. This lets you see if your RIs are unused or under-utilized.
- **RI coverage budgets** - Define a coverage threshold, and receive alerts when the number of your instance hours that are covered by RIs fall below that threshold. This lets you see how much of your instance usage is covered by a reservation.

Service Endpoint

The Amazon Budgets API provides the following endpoint:

- <https://budgets.amazonaws.com>

For information about costs that are associated with the Amazon Budgets API, see [Amazon Cost Management Pricing](#).

Amazon Cost Optimization Hub

You can use the Cost Optimization Hub API to programmatically identify, filter, aggregate, and quantify savings for your cost optimization recommendations across multiple Amazon Regions and Amazon accounts in your organization.

The Cost Optimization Hub API provides the following endpoint:

- <https://cost-optimization-hub.us-east-1.amazonaws.com>

Amazon Cost and Usage Report

You can use the Amazon Cost and Usage Report API to programmatically create, query, and delete Amazon Cost and Usage Report definitions.

Amazon Cost and Usage Report track the monthly Amazon costs and usage associated with your Amazon Web Services account. The report contains line items for each unique combination of Amazon product, usage type, and operation that your Amazon account uses. You can configure the Amazon Cost and Usage Report to show only the data that you want, using the Amazon Cost and Usage Report API.

Service Endpoint

The Amazon Cost and Usage Report API provides the following endpoint:

- cur.us-east-1.amazonaws.com

Amazon Web Services China Region Free Tier

You can use the Amazon Free Tier API to query programmatically your Free Tier usage data.

Free Tier tracks your monthly usage data for all free tier offers that are associated with your Amazon Web Services account. You can use the Free Tier API to filter and show only the data that you want.

Service endpoint

The Free Tier API provides the following endpoint:

- <https://freetier.cn-northwest-1.api.amazonwebservices.com.cn>

For more information, see [Using the Amazon Free Tier](#) in the *Amazon Billing User Guide*.

Amazon Web Services Invoicing

Amazon Invoice Configuration

You can use Amazon Invoice Configuration APIs to programmatically create, update, delete, get, and list invoice units. You can also programmatically fetch the information of the invoice receiver. For example, business legal name, address, and invoicing contacts.

You can use Amazon Invoice Configuration to receive separate Amazon invoices based your organizational needs. By using Amazon Invoice Configuration, you can configure invoice units that are groups of Amazon Web Services accounts that represent your business entities, and receive separate invoices for each business entity. You can also assign a unique member or payer account as the invoice receiver for each invoice unit. As you create new accounts within your Organizations using Amazon Invoice Configuration APIs, you can automate the creation of new invoice units and subsequently automate the addition of new accounts to your invoice units.

Amazon Procurement Portal Preferences

You can use Amazon Procurement Portal Preferences APIs to programmatically create, update, delete, get, and list procurement portal connections and e-invoice delivery settings. You can also programmatically fetch and modify the status of procurement portal configurations. For example, SAP Business Network or Coupa connections, configure e-invoice delivery and purchase order retrieval features.

You can use Amazon Procurement Portal Preferences to connect e-invoice delivery to your procurement portals based on your organizational needs. By using Amazon Procurement Portal Preferences, you can configure connections to SAP Business Network and Coupa procurement portals that retrieve purchase orders and deliver Amazon invoices on the same day they are generated. You can also set up testing environments to validate invoice delivery without affecting live transactions, and manage contact information for portal setup and support.

Administrative users should understand that billing read-only policies will show all procurement portal connection details. Review your IAM policies to ensure appropriate access controls are in place for procurement portal preferences.

Amazon Invoice Management

You can use Amazon Invoice Management APIs to programmatically list invoice summaries and get invoice documents. You can also programmatically fetch invoice documents with S3 pre-signed URLs.

You can use Amazon Invoice Management to access invoice information based on your organizational needs. By using Amazon Invoice Management, you can retrieve paginated lists of invoice summaries that include invoice metadata such as invoice IDs, amounts, and currencies

without downloading documents. You can also download invoice documents in PDF format using S3 pre-signed URLs with built-in expiration. As you manage invoices across your organization using Amazon Invoice Management APIs, you can create invoice retrieval processes and integrate invoice data into your financial systems.

Service endpoint

You can use the following endpoints for Amazon Invoice Configuration, Amazon Procurement Portal Preferences, and Amazon Invoice Management:

- <https://invoicing.us-east-1.api.aws>

Amazon Price List

The Amazon Price List API is a centralized and convenient way to programmatically query Amazon for services, products, and pricing information. The Amazon Price List uses standardized product attributes such as Location, Storage Class, and Operating System, and provides prices at the SKU level. You can use the Amazon Price List to do the following:

- Build cost control and scenario planning tools
- Reconcile billing data
- Forecast future spend for budgeting purposes
- Provide cost benefit analysis that compare your internal workloads with Amazon

Use `GetServices` without a service code to retrieve the service codes for all Amazon Web Services services, then `GetServices` with a service code to retrieve the attribute names for that service. After you have the service code and attribute names, you can use `GetAttributeValues` to see what values are available for an attribute. With the service code and an attribute name and value, you can use `GetProducts` to find specific products that you're interested in, such as an AmazonEC2 instance, with a Provisioned IOPS volumeType.

You can use the following endpoints for the Amazon Price List API:

- Amazon Price List Bulk API: <https://pricing.cn-northwest-1.amazonaws.com.cn>
- Amazon Price List Query API: <https://api.pricing.cn-northwest-1.amazonaws.com.cn>

For more information, see [Using the Amazon Price List API](#) in the *Amazon Billing User Guide*.

Tax Settings

You can use the tax setting API to programmatically set, modify, and delete the tax registration number (TRN), associated business legal name, and address (Collectively referred to as "TRN information"). You can also programmatically view TRN information and tax addresses ("Tax profiles").

You can use this API to automate your TRN information settings instead of manually using the console.

Service Endpoint

- <https://tax.us-east-1.amazonaws.com>

Actions

The following actions are supported by Amazon Cost Explorer:

- [CreateAnomalyMonitor](#)
- [CreateAnomalySubscription](#)
- [CreateCostCategoryDefinition](#)
- [DeleteAnomalyMonitor](#)
- [DeleteAnomalySubscription](#)
- [DeleteCostCategoryDefinition](#)
- [DescribeCostCategoryDefinition](#)
- [GetAnomalies](#)
- [GetAnomalyMonitors](#)
- [GetAnomalySubscriptions](#)
- [GetApproximateUsageRecords](#)
- [GetCommitmentPurchaseAnalysis](#)
- [GetCostAndUsage](#)
- [GetCostAndUsageComparisons](#)
- [GetCostAndUsageWithResources](#)
- [GetCostCategories](#)
- [GetCostComparisonDrivers](#)
- [GetCostForecast](#)
- [GetDimensionValues](#)
- [GetReservationCoverage](#)
- [GetReservationPurchaseRecommendation](#)
- [GetReservationUtilization](#)
- [GetRightsizingRecommendation](#)
- [GetSavingsPlanPurchaseRecommendationDetails](#)
- [GetSavingsPlansCoverage](#)
- [GetSavingsPlansPurchaseRecommendation](#)
- [GetSavingsPlansUtilization](#)

- [GetSavingsPlansUtilizationDetails](#)
- [GetTags](#)
- [GetUsageForecast](#)
- [ListCommitmentPurchaseAnalyses](#)
- [ListCostAllocationTagBackfillHistory](#)
- [ListCostAllocationTags](#)
- [ListCostCategoryDefinitions](#)
- [ListCostCategoryResourceAssociations](#)
- [ListSavingsPlansPurchaseRecommendationGeneration](#)
- [ListTagsForResource](#)
- [ProvideAnomalyFeedback](#)
- [StartCommitmentPurchaseAnalysis](#)
- [StartCostAllocationTagBackfill](#)
- [StartSavingsPlansPurchaseRecommendationGeneration](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateAnomalyMonitor](#)
- [UpdateAnomalySubscription](#)
- [UpdateCostAllocationTagsStatus](#)
- [UpdateCostCategoryDefinition](#)

The following actions are supported by Amazon Billing and Cost Management Dashboards:

- [CreateDashboard](#)
- [DeleteDashboard](#)
- [GetDashboard](#)
- [GetResourcePolicy](#)
- [ListDashboards](#)
- [ListTagsForResource](#)
- [TagResource](#)
- [UntagResource](#)

- [UpdateDashboard](#)

The following actions are supported by Amazon Data Exports:

- [CreateExport](#)
- [DeleteExport](#)
- [GetExecution](#)
- [GetExport](#)
- [GetTable](#)
- [ListExecutions](#)
- [ListExports](#)
- [ListTables](#)
- [ListTagsForResource](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateExport](#)

The following actions are supported by Amazon Pricing Calculator:

- [BatchCreateBillScenarioCommitmentModification](#)
- [BatchCreateBillScenarioUsageModification](#)
- [BatchCreateWorkloadEstimateUsage](#)
- [BatchDeleteBillScenarioCommitmentModification](#)
- [BatchDeleteBillScenarioUsageModification](#)
- [BatchDeleteWorkloadEstimateUsage](#)
- [BatchUpdateBillScenarioCommitmentModification](#)
- [BatchUpdateBillScenarioUsageModification](#)
- [BatchUpdateWorkloadEstimateUsage](#)
- [CreateBillEstimate](#)
- [CreateBillScenario](#)
- [CreateWorkloadEstimate](#)
- [DeleteBillEstimate](#)

- [DeleteBillScenario](#)
- [DeleteWorkloadEstimate](#)
- [GetBillEstimate](#)
- [GetBillScenario](#)
- [GetPreferences](#)
- [GetWorkloadEstimate](#)
- [ListBillEstimateCommitments](#)
- [ListBillEstimateInputCommitmentModifications](#)
- [ListBillEstimateInputUsageModifications](#)
- [ListBillEstimateLineItems](#)
- [ListBillEstimates](#)
- [ListBillScenarioCommitmentModifications](#)
- [ListBillScenarios](#)
- [ListBillScenarioUsageModifications](#)
- [ListTagsForResource](#)
- [ListWorkloadEstimates](#)
- [ListWorkloadEstimateUsage](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateBillEstimate](#)
- [UpdateBillScenario](#)
- [UpdatePreferences](#)
- [UpdateWorkloadEstimate](#)

The following actions are supported by Amazon Billing and Cost Management Recommended Actions:

- [ListRecommendedActions](#)

The following actions are supported by Amazon Billing:

- [AssociateSourceViews](#)

- [CreateBillingView](#)
- [DeleteBillingView](#)
- [DisassociateSourceViews](#)
- [GetBillingView](#)
- [GetResourcePolicy](#)
- [ListBillingViews](#)
- [ListSourceViewsForBillingView](#)
- [ListTagsForResource](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateBillingView](#)

The following actions are supported by Amazon Budgets:

- [CreateBudget](#)
- [CreateBudgetAction](#)
- [CreateNotification](#)
- [CreateSubscriber](#)
- [DeleteBudget](#)
- [DeleteBudgetAction](#)
- [DeleteNotification](#)
- [DeleteSubscriber](#)
- [DescribeBudget](#)
- [DescribeBudgetAction](#)
- [DescribeBudgetActionHistories](#)
- [DescribeBudgetActionsForAccount](#)
- [DescribeBudgetActionsForBudget](#)
- [DescribeBudgetNotificationsForAccount](#)
- [DescribeBudgetPerformanceHistory](#)
- [DescribeBudgets](#)
- [DescribeNotificationsForBudget](#)

- [DescribeSubscribersForNotification](#)
- [ExecuteBudgetAction](#)
- [ListTagsForResource](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateBudget](#)
- [UpdateBudgetAction](#)
- [UpdateNotification](#)
- [UpdateSubscriber](#)

The following actions are supported by Amazon Cost Optimization Hub:

- [GetPreferences](#)
- [GetRecommendation](#)
- [ListEfficiencyMetrics](#)
- [ListEnrollmentStatuses](#)
- [ListRecommendations](#)
- [ListRecommendationSummaries](#)
- [UpdateEnrollmentStatus](#)
- [UpdatePreferences](#)

The following actions are supported by Amazon Cost and Usage Report:

- [DeleteReportDefinition](#)
- [DescribeReportDefinitions](#)
- [ListTagsForResource](#)
- [ModifyReportDefinition](#)
- [PutReportDefinition](#)
- [TagResource](#)
- [UntagResource](#)

The following actions are supported by Amazon Web Services China Region Free Tier:

- [GetAccountActivity](#)
- [GetAccountPlanState](#)
- [GetFreeTierUsage](#)
- [ListAccountActivities](#)
- [UpgradeAccountPlan](#)

The following actions are supported by Amazon Web Services Invoicing:

- [BatchGetInvoiceProfile](#)
- [CreateInvoiceUnit](#)
- [CreateProcurementPortalPreference](#)
- [DeleteInvoiceUnit](#)
- [DeleteProcurementPortalPreference](#)
- [GetInvoicePDF](#)
- [GetInvoiceUnit](#)
- [GetProcurementPortalPreference](#)
- [ListInvoiceSummaries](#)
- [ListInvoiceUnits](#)
- [ListProcurementPortalPreferences](#)
- [ListTagsForResource](#)
- [PutProcurementPortalPreference](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateInvoiceUnit](#)
- [UpdateProcurementPortalPreferenceStatus](#)

The following actions are supported by Amazon Price List:

- [DescribeServices](#)
- [GetAttributeValues](#)
- [GetPriceListFileUrl](#)
- [GetProducts](#)

- [ListPriceLists](#)

The following actions are supported by Tax Settings:

- [BatchDeleteTaxRegistration](#)
- [BatchGetTaxExemptions](#)
- [BatchPutTaxRegistration](#)
- [DeleteSupplementalTaxRegistration](#)
- [DeleteTaxRegistration](#)
- [GetTaxExemptionTypes](#)
- [GetTaxInheritance](#)
- [GetTaxRegistration](#)
- [GetTaxRegistrationDocument](#)
- [ListSupplementalTaxRegistrations](#)
- [ListTaxExemptions](#)
- [ListTaxRegistrations](#)
- [PutSupplementalTaxRegistration](#)
- [PutTaxExemption](#)
- [PutTaxInheritance](#)
- [PutTaxRegistration](#)

Amazon Cost Explorer

The following actions are supported by Amazon Cost Explorer:

- [CreateAnomalyMonitor](#)
- [CreateAnomalySubscription](#)
- [CreateCostCategoryDefinition](#)
- [DeleteAnomalyMonitor](#)
- [DeleteAnomalySubscription](#)
- [DeleteCostCategoryDefinition](#)
- [DescribeCostCategoryDefinition](#)

- [GetAnomalies](#)
- [GetAnomalyMonitors](#)
- [GetAnomalySubscriptions](#)
- [GetApproximateUsageRecords](#)
- [GetCommitmentPurchaseAnalysis](#)
- [GetCostAndUsage](#)
- [GetCostAndUsageComparisons](#)
- [GetCostAndUsageWithResources](#)
- [GetCostCategories](#)
- [GetCostComparisonDrivers](#)
- [GetCostForecast](#)
- [GetDimensionValues](#)
- [GetReservationCoverage](#)
- [GetReservationPurchaseRecommendation](#)
- [GetReservationUtilization](#)
- [GetRightsizingRecommendation](#)
- [GetSavingsPlanPurchaseRecommendationDetails](#)
- [GetSavingsPlansCoverage](#)
- [GetSavingsPlansPurchaseRecommendation](#)
- [GetSavingsPlansUtilization](#)
- [GetSavingsPlansUtilizationDetails](#)
- [GetTags](#)
- [GetUsageForecast](#)
- [ListCommitmentPurchaseAnalyses](#)
- [ListCostAllocationTagBackfillHistory](#)
- [ListCostAllocationTags](#)
- [ListCostCategoryDefinitions](#)
- [ListCostCategoryResourceAssociations](#)
- [ListSavingsPlansPurchaseRecommendationGeneration](#)
- [ListTagsForResource](#)

- [ProvideAnomalyFeedback](#)
- [StartCommitmentPurchaseAnalysis](#)
- [StartCostAllocationTagBackfill](#)
- [StartSavingsPlansPurchaseRecommendationGeneration](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateAnomalyMonitor](#)
- [UpdateAnomalySubscription](#)
- [UpdateCostAllocationTagsStatus](#)
- [UpdateCostCategoryDefinition](#)

CreateAnomalyMonitor

Service: Amazon Cost Explorer

Creates a new cost anomaly detection monitor with the requested type and monitor specification.

Request Syntax

```
{
  "AnomalyMonitor": {
    "CreationDate": "string",
    "DimensionalValueCount": number,
    "LastEvaluatedDate": "string",
    "LastUpdatedDate": "string",
    "MonitorArn": "string",
    "MonitorDimension": "string",
    "MonitorName": "string",
    "MonitorSpecification": {
      "And": [
        "Expression"
      ],
      "CostCategories": {
        "Key": "string",
        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
      },
      "Dimensions": {
        "Key": "string",
        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
        "Expression"
      ],
      "Tags": {
        "Key": "string",
        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
      }
    },
    "MonitorType": "string"
  },
  "ResourceTags": [
```

```
{
  "Key": "string",
  "Value": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[AnomalyMonitor](#)

The cost anomaly detection monitor object that you want to create.

Type: [AnomalyMonitor](#) object

Required: Yes

[ResourceTags](#)

An optional list of tags to associate with the specified [AnomalyMonitor](#). You can use resource tags to control access to your monitor using IAM policies.

Each tag consists of a key and a value, and each key must be unique for the resource. The following restrictions apply to resource tags:

- Although the maximum number of array members is 200, you can assign a maximum of 50 user-tags to one resource. The remaining are reserved for Amazon use
- The maximum length of a key is 128 characters
- The maximum length of a value is 256 characters
- Keys and values can only contain alphanumeric characters, spaces, and any of the following: `_ . : / = + @ -`
- Keys and values are case sensitive
- Keys and values are trimmed for any leading or trailing whitespaces
- Don't use `aws :` as a prefix for your keys. This prefix is reserved for Amazon use

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Syntax

```
{  
  "MonitorArn": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

MonitorArn

The unique identifier of your newly created cost anomaly detection monitor.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

The following are sample requests and responses of the `CreateAnomalyMonitor` operation.

Example 1

The following example for the `CreateAnomalyMonitor` operation creates an Amazon managed services monitor with resource tags.

Sample Request

```
{
  "AnomalyMonitor": {
    "MonitorName": "Monitor name",
    "MonitorType": "DIMENSIONAL",
    "MonitorDimension": "SERVICE"
  },
  "ResourceTags": [
    {
      "Key": "tag key",
      "Value": "tag value"
    }
  ]
}
```

Sample Response

```
{
  "MonitorArn": "arn:${partition}:ce::${account-id}:anomalymonitor/${monitor-id}"
}
```

Example 2

The following example for the `CreateAnomalyMonitor` operation creates an Amazon managed linked account monitor.

Sample Request

```
{
  "AnomalyMonitor": {
    "MonitorName": "Monitor name",
    "MonitorType": "DIMENSIONAL",
    "MonitorDimension": "LINKED_ACCOUNT"
  }
}
```

Sample Response

```
{
  "MonitorArn": "arn:${partition}:ce:${account-id}:anomalymonitor/${monitor-id}"
}
```

Example 3

The following example for the `CreateAnomalyMonitor` operation creates an Amazon managed cost allocation tag monitor.

Sample Request

```
{
  "AnomalyMonitor": {
    "MonitorName": "Monitor name",
    "MonitorType": "DIMENSIONAL",
    "MonitorDimension": "TAG",
    "MonitorSpecification": {
      "Tags": {
        "Key": "tag key"
      }
    }
  }
}
```

Sample Response

```
{
  "MonitorArn": "arn:${partition}:ce:${account-id}:anomalymonitor/${monitor-id}"
}
```

Example 4

The following example for the `CreateAnomalyMonitor` operation creates an Amazon managed cost category monitor.

Sample Request

```
{
  "AnomalyMonitor": {
    "MonitorName": "Monitor name",
```

```
    "MonitorType": "DIMENSIONAL",
    "MonitorDimension": "COST_CATEGORY",
    "MonitorSpecification": {
      "CostCategories": {
        "Key": "cost category key"
      }
    }
  }
}
```

Sample Response

```
{
  "MonitorArn": "arn:${partition}:ce:${account-id}:anomalymonitor/${monitor-id}"
}
```

Example 5

The following example for the `CreateAnomalyMonitor` operation creates a customer managed linked account monitor. You can track up to ten linked accounts with a single monitor.

Sample Request

```
{
  "AnomalyMonitor": {
    "MonitorName": "Monitor name",
    "MonitorType": "CUSTOM",
    "MonitorSpecification": {
      "Dimensions": {
        "Key": "LINKED_ACCOUNT",
        "Values": [
          "000011112222",
          "111122223333"
        ]
      }
    }
  }
}
```

Sample Response

```
{
```

```
"MonitorArn": "arn:${partition}:ce:${account-id}:anomalymonitor/${monitor-id}"
}
```

Example 6

The following example for the `CreateAnomalyMonitor` operation creates a customer managed cost allocation tag monitor. You can track up to ten tag values with a single monitor.

Sample Request

```
{
  "AnomalyMonitor": {
    "MonitorName": "Monitor name",
    "MonitorType": "CUSTOM",
    "MonitorSpecification": {
      "Tags": {
        "Key": "tag key",
        "Values": [
          "tag value 1",
          "tag value 2"
        ]
      }
    }
  }
}
```

Sample Response

```
{
  "MonitorArn": "arn:${partition}:ce:${account-id}:anomalymonitor/${monitor-id}"
}
```

Example 7

The following example for the `CreateAnomalyMonitor` operation creates a customer managed cost category monitor. You can track one value with a single monitor.

Sample Request

```
{
  "AnomalyMonitor": {
    "MonitorName": "Monitor name",
```

```
    "MonitorType": "CUSTOM",
    "MonitorSpecification": {
      "CostCategories": {
        "Key": "cost category key",
        "Values": [ "cost category value" ]
      }
    }
  }
}
```

Sample Response

```
{
  "MonitorArn": "arn:${partition}:ce:${account-id}:anomalymonitor/${monitor-id}"
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

CreateAnomalySubscription

Service: Amazon Cost Explorer

Adds an alert subscription to a cost anomaly detection monitor. You can use each subscription to define subscribers with email or SNS notifications. Email subscribers can set an absolute or percentage threshold and a time frequency for receiving notifications.

Request Syntax

```
{
  "AnomalySubscription": {
    "AccountId": "string",
    "Frequency": "string",
    "MonitorArnList": [ "string" ],
    "Subscribers": [
      {
        "Address": "string",
        "Status": "string",
        "Type": "string"
      }
    ],
    "SubscriptionArn": "string",
    "SubscriptionName": "string",
    "Threshold": number,
    "ThresholdExpression": {
      "And": [
        "Expression"
      ],
      "CostCategories": {
        "Key": "string",
        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
      },
      "Dimensions": {
        "Key": "string",
        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
        "Expression"
      ],
      "Tags": {
```

```
        "Key": "string",
        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
    }
},
"ResourceTags": [
    {
        "Key": "string",
        "Value": "string"
    }
]
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AnomalySubscription

The cost anomaly subscription object that you want to create.

Type: [AnomalySubscription](#) object

Required: Yes

ResourceTags

An optional list of tags to associate with the specified [AnomalySubscription](#). You can use resource tags to control access to your subscription using IAM policies.

Each tag consists of a key and a value, and each key must be unique for the resource. The following restrictions apply to resource tags:

- Although the maximum number of array members is 200, you can assign a maximum of 50 user-tags to one resource. The remaining are reserved for Amazon use
- The maximum length of a key is 128 characters
- The maximum length of a value is 256 characters
- Keys and values can only contain alphanumeric characters, spaces, and any of the following:
_ . : / = + @ -

- Keys and values are case sensitive
- Keys and values are trimmed for any leading or trailing whitespaces
- Don't use `aws :` as a prefix for your keys. This prefix is reserved for Amazon use

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Syntax

```
{  
  "SubscriptionArn": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[SubscriptionArn](#)

The unique identifier of your newly created cost anomaly subscription.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownMonitorException

The cost anomaly monitor does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

CreateCostCategoryDefinition

Service: Amazon Cost Explorer

Creates a new cost category with the requested name and rules.

Request Syntax

```
{
  "DefaultValue": "string",
  "EffectiveStart": "string",
  "Name": "string",
  "ResourceTags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "Rules": [
    {
      "InheritedValue": {
        "DimensionKey": "string",
        "DimensionName": "string"
      },
      "Rule": {
        "And": [
          "Expression"
        ],
        "CostCategories": {
          "Key": "string",
          "MatchOptions": [ "string" ],
          "Values": [ "string" ]
        },
        "Dimensions": {
          "Key": "string",
          "MatchOptions": [ "string" ],
          "Values": [ "string" ]
        },
        "Not": "Expression",
        "Or": [
          "Expression"
        ],
        "Tags": {
          "Key": "string",
```

```

        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
    }
},
"Type": "string",
"Value": "string"
}
],
"RuleVersion": "string",
"SplitChargeRules": [
{
    "Method": "string",
    "Parameters": [
        {
            "Type": "string",
            "Values": [ "string" ]
        }
    ],
    "Source": "string",
    "Targets": [ "string" ]
}
]
}

```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

DefaultValue

The default value for the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: $^(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)$$

Required: No

EffectiveStart

The cost category's effective start date. It can only be a billing start date (first day of the month). If the date isn't provided, it's the first day of the current month. Dates can't be before the previous twelve months, or in the future.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+ -]\d\d:\d\d)|Z)$`

Required: No

Name

The unique name of the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)$`

Required: Yes

ResourceTags

An optional list of tags to associate with the specified [CostCategory](#). You can use resource tags to control access to your cost category using IAM policies.

Each tag consists of a key and a value, and each key must be unique for the resource. The following restrictions apply to resource tags:

- Although the maximum number of array members is 200, you can assign a maximum of 50 user-tags to one resource. The remaining are reserved for Amazon use
- The maximum length of a key is 128 characters
- The maximum length of a value is 256 characters
- Keys and values can only contain alphanumeric characters, spaces, and any of the following:
_ . : / = + @ -
- Keys and values are case sensitive
- Keys and values are trimmed for any leading or trailing whitespaces

- Don't use `aws:` as a prefix for your keys. This prefix is reserved for Amazon use

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

[Rules](#)

The cost category rules used to categorize costs. For more information, see [CostCategoryRule](#).

Type: Array of [CostCategoryRule](#) objects

Array Members: Minimum number of 1 item. Maximum number of 500 items.

Required: Yes

[RuleVersion](#)

The rule schema version in this particular cost category.

Type: String

Valid Values: `CostCategoryExpression.v1`

Required: Yes

[SplitChargeRules](#)

The split charge rules used to allocate your charges between your cost category values.

Type: Array of [CostCategorySplitChargeRule](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

Response Syntax

```
{
  "CostCategoryArn": "string",
  "EffectiveStart": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategoryArn

The unique identifier for your newly created cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

EffectiveStart

The cost category's effective start date. It can only be a billing start date (first day of the month).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+ -]\d\d:\d\d)|Z)$`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit on the number of resources you can create, or exceeded the size of an individual resource.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteAnomalyMonitor

Service: Amazon Cost Explorer

Deletes a cost anomaly monitor.

Request Syntax

```
{  
  "MonitorArn": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

MonitorArn

The unique identifier of the cost anomaly monitor that you want to delete.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownMonitorException

The cost anomaly monitor does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteAnomalySubscription

Service: Amazon Cost Explorer

Deletes a cost anomaly subscription.

Request Syntax

```
{
  "SubscriptionArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

SubscriptionArn

The unique identifier of the cost anomaly subscription that you want to delete.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownSubscriptionException

The cost anomaly subscription does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteCostCategoryDefinition

Service: Amazon Cost Explorer

Deletes a cost category. Expenses from this month going forward will no longer be categorized with this cost category.

Request Syntax

```
{
  "CostCategoryArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
  "CostCategoryArn": "string",
  "EffectiveEnd": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

EffectiveEnd

The effective end date of the cost category as a result of deleting it. No costs after this date is categorized by the deleted cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([\+-]\d\d:\d\d)|Z)$`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DescribeCostCategoryDefinition

Service: Amazon Cost Explorer

Returns the name, Amazon Resource Name (ARN), rules, definition, and effective dates of a cost category that's defined in the account.

You have the option to use `EffectiveOn` to return a cost category that's active on a specific date. If there's no `EffectiveOn` specified, you see a Cost Category that's effective on the current date. If cost category is still effective, `EffectiveEnd` is omitted in the response.

Request Syntax

```
{  
  "CostCategoryArn": "string",  
  "EffectiveOn": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

EffectiveOn

The date when the cost category was effective.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([\+-]\d\d:\d\d)|Z)$`

Required: No

Response Syntax

```
{
  "CostCategory": {
    "CostCategoryArn": "string",
    "DefaultValue": "string",
    "EffectiveEnd": "string",
    "EffectiveStart": "string",
    "Name": "string",
    "ProcessingStatus": [
      {
        "Component": "string",
        "Status": "string"
      }
    ],
    "Rules": [
      {
        "InheritedValue": {
          "DimensionKey": "string",
          "DimensionName": "string"
        },
        "Rule": {
          "And": [
            "Expression"
          ],
          "CostCategories": {
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
          },
          "Dimensions": {
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
          },
          "Not": "Expression",
          "Or": [
            "Expression"
          ],
        }
      }
    ]
  }
}
```

```

    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "Type": "string",
  "Value": "string"
}
],
"RuleVersion": "string",
"SplitChargeRules": [
  {
    "Method": "string",
    "Parameters": [
      {
        "Type": "string",
        "Values": [ "string" ]
      }
    ],
    "Source": "string",
    "Targets": [ "string" ]
  }
]
}
}
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategory

The structure of Cost Categories. This includes detailed metadata and the set of rules for the CostCategory object.

Type: [CostCategory](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetAnomalies

Service: Amazon Cost Explorer

Retrieves all of the cost anomalies detected on your account during the time period that's specified by the `DateInterval` object. Anomalies are available for up to 90 days.

Request Syntax

```
{
  "DateInterval": {
    "EndDate": "string",
    "StartDate": "string"
  },
  "Feedback": "string",
  "MaxResults": number,
  "MonitorArn": "string",
  "NextPageToken": "string",
  "TotalImpact": {
    "EndValue": number,
    "NumericOperator": "string",
    "StartValue": number
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

DateInterval

Assigns the start and end dates for retrieving cost anomalies. The returned anomaly object will have an `AnomalyEndDate` in the specified time range.

Type: [AnomalyDateInterval](#) object

Required: Yes

Feedback

Filters anomaly results by the feedback field on the anomaly object.

Type: String

Valid Values: YES | NO | PLANNED_ACTIVITY

Required: No

MaxResults

The number of entries a paginated response contains.

Type: Integer

Required: No

MonitorArn

Retrieves all of the cost anomalies detected for a specific cost anomaly monitor Amazon Resource Name (ARN).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [`\S\s`]*

Required: No

NextPageToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: [`\S\s`]*

Required: No

TotalImpact

Filters anomaly results by the total impact field on the anomaly object. For example, you can filter anomalies `GREATER_THAN 200.00` to retrieve anomalies, with an estimated dollar impact greater than 200.

Type: [TotalImpactFilter](#) object

Required: No

Response Syntax

```
{
  "Anomalies": [
    {
      "AnomalyEndDate": "string",
      "AnomalyId": "string",
      "AnomalyScore": {
        "CurrentScore": number,
        "MaxScore": number
      },
      "AnomalyStartDate": "string",
      "DimensionValue": "string",
      "Feedback": "string",
      "Impact": {
        "MaxImpact": number,
        "TotalActualSpend": number,
        "TotalExpectedSpend": number,
        "TotalImpact": number,
        "TotalImpactPercentage": number
      },
      "MonitorArn": "string",
      "RootCauses": [
        {
          "Impact": {
            "Contribution": number
          },
          "LinkedAccount": "string",
          "LinkedAccountName": "string",
          "Region": "string",
          "Service": "string",
          "UsageType": "string"
        }
      ]
    }
  ],
  "NextPageToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Anomalies

A list of cost anomalies.

Type: Array of [Anomaly](#) objects

NextPageToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetAnomalyMonitors

Service: Amazon Cost Explorer

Retrieves the cost anomaly monitor definitions for your account. You can filter using a list of cost anomaly monitor Amazon Resource Names (ARNs).

Request Syntax

```
{
  "MaxResults": number,
  "MonitorArnList": [ "string" ],
  "NextPageToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

MaxResults

The number of entries that a paginated response contains.

Type: Integer

Required: No

MonitorArnList

A list of cost anomaly monitor ARNs.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NextPageToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "AnomalyMonitors": [
    {
      "CreationDate": "string",
      "DimensionalValueCount": number,
      "LastEvaluatedDate": "string",
      "LastUpdatedDate": "string",
      "MonitorArn": "string",
      "MonitorDimension": "string",
      "MonitorName": "string",
      "MonitorSpecification": {
        "And": [
          "Expression"
        ],
        "CostCategories": {
          "Key": "string",
          "MatchOptions": [ "string" ],
          "Values": [ "string" ]
        },
        "Dimensions": {
          "Key": "string",
          "MatchOptions": [ "string" ],
          "Values": [ "string" ]
        },
        "Not": "Expression",
        "Or": [
          "Expression"
        ],
        "Tags": {
          "Key": "string",
          "MatchOptions": [ "string" ],
          "Values": [ "string" ]
        }
      }
    }
  ]
}
```

```
    },  
    "MonitorType": "string"  
  }  
],  
"NextPageToken": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AnomalyMonitors

A list of cost anomaly monitors that includes the detailed metadata for each monitor.

Type: Array of [AnomalyMonitor](#) objects

NextPageToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownMonitorException

The cost anomaly monitor does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetAnomalySubscriptions

Service: Amazon Cost Explorer

Retrieves the cost anomaly subscription objects for your account. You can filter using a list of cost anomaly monitor Amazon Resource Names (ARNs).

Request Syntax

```
{
  "MaxResults": number,
  "MonitorArn": "string",
  "NextPageToken": "string",
  "SubscriptionArnList": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

MaxResults

The number of entries a paginated response contains.

Type: Integer

Required: No

MonitorArn

Cost anomaly monitor ARNs.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NextPageToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SubscriptionArnList

A list of cost anomaly subscription ARNs.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "AnomalySubscriptions": [
    {
      "AccountId": "string",
      "Frequency": "string",
      "MonitorArnList": [ "string" ],
      "Subscribers": [
        {
          "Address": "string",
          "Status": "string",
          "Type": "string"
        }
      ],
      "SubscriptionArn": "string",
      "SubscriptionName": "string",
      "Threshold": number,
      "ThresholdExpression": {
        "And": [
          "Expression"
        ],
        "CostCategories": {
```

```
    "Key": "string",
    "MatchOptions": [ "string" ],
    "Values": [ "string" ]
  },
  "Dimensions": {
    "Key": "string",
    "MatchOptions": [ "string" ],
    "Values": [ "string" ]
  },
  "Not": "Expression",
  "Or": [
    "Expression"
  ],
  "Tags": {
    "Key": "string",
    "MatchOptions": [ "string" ],
    "Values": [ "string" ]
  }
}
],
"NextPageToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AnomalySubscriptions

A list of cost anomaly subscriptions that includes the detailed metadata for each one.

Type: Array of [AnomalySubscription](#) objects

NextPageToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownSubscriptionException

The cost anomaly subscription does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetApproximateUsageRecords

Service: Amazon Cost Explorer

Retrieves estimated usage records for hourly granularity or resource-level data at daily granularity.

Request Syntax

```
{
  "ApproximationDimension": "string",
  "Granularity": "string",
  "Services": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ApproximationDimension

The service to evaluate for the usage records. You can choose resource-level data at daily granularity, or hourly granularity with or without resource-level data.

Type: String

Valid Values: SERVICE | RESOURCE

Required: Yes

Granularity

How granular you want the data to be. You can enable data at hourly or daily granularity.

Type: String

Valid Values: DAILY | MONTHLY | HOURLY

Required: Yes

Services

The service metadata for the service or services you want to query. If not specified, all elements are returned.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "LookbackPeriod": {
    "End": "string",
    "Start": "string"
  },
  "Services": {
    "string" : number
  },
  "TotalRecords": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

LookbackPeriod

The lookback period that's used for the estimation.

Type: [DateInterval](#) object

Services

The service metadata for the service or services in the response.

Type: String to long map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Valid Range: Minimum value of 0.

TotalRecords

The total number of usage records for all services in the services list.

Type: Long

Valid Range: Minimum value of 0.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

The following is a sample request of the `GetApproximateUsageRecords` operation.

This example illustrates one usage of `GetApproximateUsageRecords`.

Sample Request

```
{
  "ApproximationDimension": "SERVICE",
  "Granularity": "HOURLY"
}
```

The following is a sample response of the `GetApproximateUsageRecords` operation.

This example illustrates one usage of `GetApproximateUsageRecords`.

Sample Response

```
{
  "LookbackPeriod": {
    "End": "2023-12-31",
    "Start": "2023-12-01"
  },
  "Services": {
    "Amazon Virtual Private Cloud": 336,
    "Amazon Relational Database Service": 1344,
    "AmazonCloudWatch": 350,
    "Tax": 0,
    "Amazon DynamoDB": 672
  },
  "TotalRecords": 2702
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetCommitmentPurchaseAnalysis

Service: Amazon Cost Explorer

Retrieves a commitment purchase analysis result based on the AnalysisId.

Request Syntax

```
{
  "AnalysisId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AnalysisId

The analysis ID that's associated with the commitment purchase analysis.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^\[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

Required: Yes

Response Syntax

```
{
  "AnalysisCompletionTime": "string",
  "AnalysisDetails": {
    "SavingsPlansPurchaseAnalysisDetails": {
      "AdditionalMetadata": "string",
      "CurrencyCode": "string",
      "CurrentAverageCoverage": "string",
      "CurrentAverageHourlyOnDemandSpend": "string",
      "CurrentMaximumHourlyOnDemandSpend": "string",
      "CurrentMinimumHourlyOnDemandSpend": "string",
      "CurrentOnDemandSpend": "string",
      "EstimatedAverageCoverage": "string",
    }
  }
}
```

```

    "EstimatedAverageUtilization": "string",
    "EstimatedCommitmentCost": "string",
    "EstimatedMonthlySavingsAmount": "string",
    "EstimatedOnDemandCost": "string",
    "EstimatedOnDemandCostWithCurrentCommitment": "string",
    "EstimatedROI": "string",
    "EstimatedSavingsAmount": "string",
    "EstimatedSavingsPercentage": "string",
    "ExistingHourlyCommitment": "string",
    "HourlyCommitmentToPurchase": "string",
    "LatestUsageTimestamp": "string",
    "LookbackPeriodInHours": "string",
    "MetricsOverLookbackPeriod": [
      {
        "CurrentCoverage": "string",
        "EstimatedCoverage": "string",
        "EstimatedNewCommitmentUtilization": "string",
        "EstimatedOnDemandCost": "string",
        "StartTime": "string"
      }
    ],
    "UpfrontCost": "string"
  }
},
"AnalysisId": "string",
"AnalysisStartedTime": "string",
"AnalysisStatus": "string",
"CommitmentPurchaseAnalysisConfiguration": {
  "SavingsPlansPurchaseAnalysisConfiguration": {
    "AccountId": "string",
    "AccountScope": "string",
    "AnalysisType": "string",
    "LookBackTimePeriod": {
      "End": "string",
      "Start": "string"
    }
  },
  "SavingsPlansToAdd": [
    {
      "InstanceFamily": "string",
      "OfferingId": "string",
      "PaymentOption": "string",
      "Region": "string",
      "SavingsPlansCommitment": number,
      "SavingsPlansType": "string",

```

```
        "TermInYears": "string"
      }
    ],
    "SavingsPlansToExclude": [ "string" ]
  }
},
"ErrorCode": "string",
"EstimatedCompletionTime": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AnalysisCompletionTime

The completion time of the analysis.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: $^{\backslash}d\{4\}-\backslash d\backslash d-\backslash d\backslash dT\backslash d\backslash d:\backslash d\backslash d:\backslash d\backslash d(([\+-]\backslash d\backslash d:\backslash d\backslash d)|Z)$$

AnalysisDetails

Details about the analysis.

Type: [AnalysisDetails](#) object

AnalysisId

The analysis ID that's associated with the commitment purchase analysis.

Type: String

Length Constraints: Fixed length of 36.

Pattern: $^{\backslash}[\backslash S\backslash s]\{8\}-\backslash [\backslash S\backslash s]\{4\}-\backslash [\backslash S\backslash s]\{4\}-\backslash [\backslash S\backslash s]\{4\}-\backslash [\backslash S\backslash s]\{12\}$$

AnalysisStartedTime

The start time of the analysis.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(\d{2}|\d{3})Z$`

AnalysisStatus

The status of the analysis.

Type: String

Valid Values: SUCCEEDED | PROCESSING | FAILED

CommitmentPurchaseAnalysisConfiguration

The configuration for the commitment purchase analysis.

Type: [CommitmentPurchaseAnalysisConfiguration](#) object

ErrorCode

The error code used for the analysis.

Type: String

Valid Values: NO_USAGE_FOUND | INTERNAL_FAILURE |
INVALID_SAVINGS_PLANS_TO_ADD | INVALID_SAVINGS_PLANS_TO_EXCLUDE |
INVALID_ACCOUNT_ID

EstimatedCompletionTime

The estimated time for when the analysis will complete.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(\d{2}|\d{3})Z$`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AnalysisNotFoundException

The requested analysis can't be found.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetCostAndUsage

Service: Amazon Cost Explorer

Retrieves cost and usage metrics for your account. You can specify which cost and usage-related metric that you want the request to return. For example, you can specify `BlendedCosts` or `UsageQuantity`. You can also filter and group your data by various dimensions, such as `SERVICE` or `AZ`, in a specific time range. For a complete list of valid dimensions, see the [GetDimensionValues](#) operation. Management account in an organization in Amazon Organizations have access to all member accounts.

For information about filter limitations, see [Quotas and restrictions](#) in the *Billing and Cost Management User Guide*.

Request Syntax

```
{
  "BillingViewArn": "string",
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "Granularity": "string",
```

```
"GroupBy": [
  {
    "Key": "string",
    "Type": "string"
  }
],
"Metrics": [ "string" ],
"NextPageToken": "string",
"TimePeriod": {
  "End": "string",
  "Start": "string"
}
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[BillingViewArn](#)

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to Amazon Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/!:_+=.-@]{1,43}$`

Required: No

[Filter](#)

Filters Amazon costs by different dimensions. For example, you can specify SERVICE and LINKED_ACCOUNT and get the costs that are associated with that account's usage of that service. You can nest Expression objects to define any combination of dimension filters. For more information, see [Expression](#).

Valid values for MatchOptions for Dimensions are EQUALS and CASE_SENSITIVE.

Valid values for MatchOptions for CostCategories and Tags are EQUALS, ABSENT, and CASE_SENSITIVE. Default values are EQUALS and CASE_SENSITIVE.

Type: [Expression](#) object

Required: No

[Granularity](#)

Sets the Amazon cost granularity to MONTHLY or DAILY, or HOURLY. If Granularity isn't set, the response object doesn't include the Granularity, either MONTHLY or DAILY, or HOURLY.

Type: String

Valid Values: DAILY | MONTHLY | HOURLY

Required: Yes

[GroupBy](#)

You can group Amazon costs using up to two different groups, either dimensions, tag keys, cost categories, or any two group by types.

Valid values for the DIMENSION type are AZ, INSTANCE_TYPE, LEGAL_ENTITY_NAME, INVOICING_ENTITY, LINKED_ACCOUNT, OPERATION, PLATFORM, PURCHASE_TYPE, SERVICE, TENANCY, RECORD_TYPE, and USAGE_TYPE.

When you group by the TAG type and include a valid tag key, you get all tag values, including empty strings.

Type: Array of [GroupDefinition](#) objects

Required: No

[Metrics](#)

Which metrics are returned in the query. For more information about blended and unblended rates, see [Why does the "blended" annotation appear on some line items in my bill?](#)

Valid values are AmortizedCost, BlendedCost, NetAmortizedCost, NetUnblendedCost, NormalizedUsageAmount, UnblendedCost, and UsageQuantity.

Note

If you return the `UsageQuantity` metric, the service aggregates all usage numbers without taking into account the units. For example, if you aggregate `usageQuantity` across all of Amazon EC2, the results aren't meaningful because Amazon EC2 compute hours and data transfer are measured in different units (for example, hours and GB). To get more meaningful `UsageQuantity` metrics, filter by `UsageType` or `UsageTypeGroups`.

`Metrics` is required for `GetCostAndUsage` requests.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

NextPageToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

TimePeriod

Sets the start date and end date for retrieving Amazon costs. The start date is inclusive, but the end date is exclusive. For example, if `start` is `2017-01-01` and `end` is `2017-05-01`, then the cost and usage data is retrieved from `2017-01-01` up to and including `2017-04-30` but not including `2017-05-01`.

Type: [DateInterval](#) object

Required: Yes

Response Syntax

```
{
  "DimensionValueAttributes": [
    {
      "Attributes": {
        "string" : "string"
      },
      "Value": "string"
    }
  ],
  "GroupDefinitions": [
    {
      "Key": "string",
      "Type": "string"
    }
  ],
  "NextPageToken": "string",
  "ResultsByTime": [
    {
      "Estimated": boolean,
      "Groups": [
        {
          "Keys": [ "string " ],
          "Metrics": {
            "string" : {
              "Amount": "string",
              "Unit": "string"
            }
          }
        }
      ]
    },
    {
      "TimePeriod": {
        "End": "string",
        "Start": "string"
      },
      "Total": {
        "string" : {
          "Amount": "string",
          "Unit": "string"
        }
      }
    }
  ]
}
```

```
    }  
  }  
]  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

DimensionValueAttributes

The attributes that apply to a specific dimension value. For example, if the value is a linked account, the attribute is that account name.

Type: Array of [DimensionValuesWithAttributes](#) objects

GroupDefinitions

The groups that are specified by the `Filter` or `GroupBy` parameters in the request.

Type: Array of [GroupDefinition](#) objects

NextPageToken

The token for the next set of retrievable results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

ResultsByTime

The time period that's covered by the results in the response.

Type: Array of [ResultByTime](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

BillExpirationException

The requested report expired. Update the date interval and try again.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

RequestChangedException

Your request parameters changed between pages. Try again with the old parameters or without a pagination token.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

Examples

Example

The following is a sample request and response of the `GetCostAndUsage` operation that you can use to retrieve your Amazon S3 costs. For more complex examples, such as multi-level groupings, see [Expression](#).

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetCostAndUsage
{
  "TimePeriod": {
    "Start": "2017-09-01",
    "End": "2017-10-01"
  },
  "Granularity": "MONTHLY",
  "Filter": {
    "Dimensions": {
      "Key": "SERVICE",
      "Values": [
        "Amazon Simple Storage Service"
      ]
    }
  },
  "GroupBy": [
    {
      "Type": "DIMENSION",
      "Key": "SERVICE"
    },
    {
      "Type": "TAG",
      "Key": "Environment"
    }
  ]
}
```

```
    }
  ],
  "Metrics":["BlendedCost", "UnblendedCost", "UsageQuantity"]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "GroupDefinitions": [
    {
      "Key": "SERVICE",
      "Type": "DIMENSION"
    },
    {
      "Key": "Environment",
      "Type": "TAG"
    }
  ],
  "ResultsByTime": [
    {
      "Estimated": false,
      "Groups": [
        {
          "Keys": [
            "Amazon Simple Storage Service",
            "Environment$Prod"
          ],
          "Metrics": {
            "BlendedCost": {
              "Amount": "39.1603300457",
              "Unit": "USD"
            },
            "UnblendedCost": {
              "Amount": "39.1603300457",
              "Unit": "USD"
            },
            "UsageQuantity": {
              "Amount": "173842.5440074444",
```

```
        "Unit": "N/A"
      }
    }
  },
  {
    "Keys": [
      "Amazon Simple Storage Service",
      "Environment$Test"
    ],
    "Metrics": {
      "BlendedCost": {
        "Amount": "0.1337464807",
        "Unit": "USD"
      },
      "UnblendedCost": {
        "Amount": "0.1337464807",
        "Unit": "USD"
      },
      "UsageQuantity": {
        "Amount": "15992.0786663399",
        "Unit": "N/A"
      }
    }
  }
],
"TimePeriod": {
  "End": "2017-10-01",
  "Start": "2017-09-01"
},
"Total": {}
}
]
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)

- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetCostAndUsageComparisons

Service: Amazon Cost Explorer

Retrieves cost and usage comparisons for your account between two periods within the last 13 months. If you have enabled multi-year data at monthly granularity, you can go back up to 38 months.

Request Syntax

```
{
  "BaselineTimePeriod": {
    "End": "string",
    "Start": "string"
  },
  "BillingViewArn": "string",
  "ComparisonTimePeriod": {
    "End": "string",
    "Start": "string"
  },
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  }
},
```

```
"GroupBy": [  
  {  
    "Key": "string",  
    "Type": "string"  
  }  
],  
"MaxResults": number,  
"MetricForComparison": "string",  
"NextPageToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[BaselineTimePeriod](#)

The reference time period for comparison. This time period serves as the baseline against which other cost and usage data will be compared. The interval must start and end on the first day of a month, with a duration of exactly one month.

Type: [DateInterval](#) object

Required: Yes

[BillingViewArn](#)

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to Amazon Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/!:_+=.-@]{1,43}$`

Required: No

ComparisonTimePeriod

The comparison time period for analysis. This time period's cost and usage data will be compared against the baseline time period. The interval must start and end on the first day of a month, with a duration of exactly one month.

Type: [DateInterval](#) object

Required: Yes

Filter

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
 - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
 - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
 - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
 - Specify the `Dimensions` field to define a filter that acts on the [DimensionValues](#).
 - For each filter type, you can set the dimension name and values for the filters that you plan to use.
 - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the Region is a full name (for example, `REGION==US East (N. Virginia)`).
 - The corresponding `Expression` for this example is as follows:

```
{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }
```
 - As shown in the previous example, lists of dimension values are combined with `OR` when applying the filter.
 - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
 - For example, you can filter for linked account names that start with "a".

- The corresponding Expression for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": ["STARTS_WITH"], "Values": ["a"] } }`
- Compound Expression types with logical operations.
 - You can use multiple Expression types and the logical operators AND/OR/NOT to create a list of one or more Expression objects. By doing this, you can filter by more advanced options.
 - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
 - The corresponding Expression for this example is as follows: `{ "And": [{ "Or": [{ "Dimensions": { "Key": "REGION", "Values": ["us-east-1", "us-west-1"] } }, { "Tags": { "Key": "TagName", "Values": ["Value1"] } }] }, { "Not": { "Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] } } }] }`

Note

Because each Expression can have only one operator, the service returns an error if more than one is specified. The following example shows an Expression object that creates an error: `{ "And": [...], "Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] } }`

The following is an example of the corresponding error message: "Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"

Note

For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to LINKED_ACCOUNT, REGION, or RIGHTSIZING_TYPE.

For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to LINKED_ACCOUNT.

Type: [Expression](#) object

Required: No

[GroupBy](#)

You can group results using the attributes DIMENSION, TAG, and COST_CATEGORY.

Type: Array of [GroupDefinition](#) objects

Required: No

[MaxResults](#)

The maximum number of results that are returned for the request.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 2000.

Required: No

[MetricForComparison](#)

The cost and usage metric to compare. Valid values are AmortizedCost, BlendedCost, NetAmortizedCost, NetUnblendedCost, NormalizedUsageAmount, UnblendedCost, and UsageQuantity.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

[NextPageToken](#)

The token to retrieve the next set of paginated results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "CostAndUsageComparisons": [
    {
      "CostAndUsageSelector": {
        "And": [
          "Expression"
        ],
        "CostCategories": {
          "Key": "string",
          "MatchOptions": [ "string" ],
          "Values": [ "string" ]
        },
        "Dimensions": {
          "Key": "string",
          "MatchOptions": [ "string" ],
          "Values": [ "string" ]
        },
        "Not": "Expression",
        "Or": [
          "Expression"
        ],
        "Tags": {
          "Key": "string",
          "MatchOptions": [ "string" ],
          "Values": [ "string" ]
        }
      },
      "Metrics": {
        "string" : {
          "BaselineTimePeriodAmount": "string",
          "ComparisonTimePeriodAmount": "string",
          "Difference": "string",
          "Unit": "string"
        }
      }
    }
  ],
  "NextPageToken": "string",
  "TotalCostAndUsage": {
```

```
"string" : {
  "BaselineTimePeriodAmount": "string",
  "ComparisonTimePeriodAmount": "string",
  "Difference": "string",
  "Unit": "string"
}
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostAndUsageComparisons

An array of comparison results showing cost and usage metrics between `BaselineTimePeriod` and `ComparisonTimePeriod`.

Type: Array of [CostAndUsageComparison](#) objects

NextPageToken

The token to retrieve the next set of paginated results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

TotalCostAndUsage

A summary of the total cost and usage, comparing amounts between `BaselineTimePeriod` and `ComparisonTimePeriod` and their differences. This total represents the aggregate total across all paginated results, if the response spans multiple pages.

Type: String to [ComparisonMetricValue](#) object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetCostAndUsageWithResources

Service: Amazon Cost Explorer

Retrieves cost and usage metrics with resources for your account. You can specify which cost and usage-related metric, such as `BlendedCosts` or `UsageQuantity`, that you want the request to return. You can also filter and group your data by various dimensions, such as `SERVICE` or `AZ`, in a specific time range. For a complete list of valid dimensions, see the [GetDimensionValues](#) operation. Management account in an organization in Amazon Organizations have access to all member accounts.

Hourly granularity is only available for EC2-Instances (Elastic Compute Cloud) resource-level data. All other resource-level data is available at daily granularity.

Note

This is an opt-in only feature. You can enable this feature from the Cost Explorer Settings page. For information about how to access the Settings page, see [Controlling Access for Cost Explorer](#) in the *Amazon Billing and Cost Management User Guide*.

Request Syntax

```
{
  "BillingViewArn": "string",
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ]
  }
}
```

```
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "Granularity": "string",
  "GroupBy": [
    {
      "Key": "string",
      "Type": "string"
    }
  ],
  "Metrics": [ "string" ],
  "NextPageToken": "string",
  "TimePeriod": {
    "End": "string",
    "Start": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[BillingViewArn](#)

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to Amazon Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/!_+=.-@]{1,43}$`

Required: No

Filter

Filters Amazon Web Services costs by different dimensions. For example, you can specify SERVICE and LINKED_ACCOUNT and get the costs that are associated with that account's usage of that service. You can nest Expression objects to define any combination of dimension filters. For more information, see [Expression](#).

The GetCostAndUsageWithResources operation requires that you either group by or filter by a ResourceId. It requires the [Expression](#) "SERVICE = Amazon Elastic Compute Cloud - Compute" in the filter.

Valid values for MatchOptions for Dimensions are EQUALS and CASE_SENSITIVE.

Valid values for MatchOptions for CostCategories and Tags are EQUALS, ABSENT, and CASE_SENSITIVE. Default values are EQUALS and CASE_SENSITIVE.

Type: [Expression](#) object

Required: Yes

Granularity

Sets the Amazon cost granularity to MONTHLY, DAILY, or HOURLY. If Granularity isn't set, the response object doesn't include the Granularity, MONTHLY, DAILY, or HOURLY.

Type: String

Valid Values: DAILY | MONTHLY | HOURLY

Required: Yes

GroupBy

You can group Amazon Web Services costs using up to two different groups: DIMENSION, TAG, COST_CATEGORY.

Type: Array of [GroupDefinition](#) objects

Required: No

Metrics

Which metrics are returned in the query. For more information about blended and unblended rates, see [Why does the "blended" annotation appear on some line items in my bill?](#)

Valid values are `AmortizedCost`, `BlendedCost`, `NetAmortizedCost`, `NetUnblendedCost`, `NormalizedUsageAmount`, `UnblendedCost`, and `UsageQuantity`.

Note

If you return the `UsageQuantity` metric, the service aggregates all usage numbers without taking the units into account. For example, if you aggregate `usageQuantity` across all of Amazon EC2, the results aren't meaningful because Amazon EC2 compute hours and data transfer are measured in different units (for example, hour or GB). To get more meaningful `UsageQuantity` metrics, filter by `UsageType` or `UsageTypeGroups`.

`Metrics` is required for `GetCostAndUsageWithResources` requests.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NextPageToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

TimePeriod

Sets the start and end dates for retrieving Amazon Web Services costs. The range must be within the last 14 days (the start date cannot be earlier than 14 days ago). The start date is inclusive, but the end date is exclusive. For example, if `start` is `2017-01-01` and `end` is `2017-05-01`, then the cost and usage data is retrieved from `2017-01-01` up to and including `2017-04-30` but not including `2017-05-01`.

Type: [DateInterval](#) object

Required: Yes

Response Syntax

```
{
  "DimensionValueAttributes": [
    {
      "Attributes": {
        "string" : "string"
      },
      "Value": "string"
    }
  ],
  "GroupDefinitions": [
    {
      "Key": "string",
      "Type": "string"
    }
  ],
  "NextPageToken": "string",
  "ResultsByTime": [
    {
      "Estimated": boolean,
      "Groups": [
        {
          "Keys": [ "string" ],
          "Metrics": {
            "string" : {
              "Amount": "string",
              "Unit": "string"
            }
          }
        }
      ]
    },
    {
      "TimePeriod": {
        "End": "string",
        "Start": "string"
      },
      "Total": {
        "string" : {
          "Amount": "string",
          "Unit": "string"
        }
      }
    }
  ]
}
```

```
    }  
  }  
]  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

DimensionValueAttributes

The attributes that apply to a specific dimension value. For example, if the value is a linked account, the attribute is that account name.

Type: Array of [DimensionValuesWithAttributes](#) objects

GroupDefinitions

The groups that are specified by the `Filter` or `GroupBy` parameters in the request.

Type: Array of [GroupDefinition](#) objects

NextPageToken

The token for the next set of retrievable results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

ResultsByTime

The time period that's covered by the results in the response.

Type: Array of [ResultByTime](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

BillExpirationException

The requested report expired. Update the date interval and try again.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

RequestChangedException

Your request parameters changed between pages. Try again with the old parameters or without a pagination token.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

Examples

Example

The following is a sample request and response of the `GetCostAndUsageWithResources` operation that enables you to retrieve your Amazon EC2 costs. For more complex examples, such as multi-level groupings, see [Expression](#).

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetCostAndUsageWithResources
{
  "TimePeriod": {
    "Start": "2018-11-19",
    "End": "2018-11-20"
  },
  "Granularity": "DAILY",
  "Filter": {
    "Dimensions": {
      "Key": "SERVICE",
      "Values": [
        "Amazon Elastic Compute Cloud - Compute"
      ]
    }
  },
  "GroupBy": [
    {
      "Type": "DIMENSION",
      "Key": "RESOURCE_ID"
    }
  ],
  "Metrics": ["BlendedCost", "UnblendedCost", "UsageQuantity"]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "GroupDefinitions": [
    {
      "Key": "RESOURCE_ID",
      "Type": "DIMENSION"
    }
  ],
  "ResultsByTime": [
    {
      "Estimated": true,
      "Groups": [
        {
          "Keys": [
            "i-00cb32c5f3163"
          ],
          "Metrics": {
            "BlendedCost": {
              "Amount": "0.0927335232",
              "Unit": "USD"
            },
            "UnblendedCost": {
              "Amount": "0.1276",
              "Unit": "USD"
            },
            "UsageQuantity": {
              "Amount": "24.0010557602",
              "Unit": "N/A"
            }
          }
        }
      ],
      {
        "Keys": [
          "i-04a0089019f41"
        ],
        "Metrics": {
          "BlendedCost": {
            "Amount": "0.1656",
```

```
    "Unit": "USD"
  },
  "UnblendedCost": {
    "Amount": "0.1656",
    "Unit": "USD"
  },
  "UsageQuantity": {
    "Amount": "24.0018044403",
    "Unit": "N/A"
  }
}
},
{
  "Keys": [
    "i-03b49bda9fdef"
  ],
  "Metrics": {
    "BlendedCost": {
      "Amount": "0.0927335232",
      "Unit": "USD"
    },
    "UnblendedCost": {
      "Amount": "0.0116",
      "Unit": "USD"
    },
    "UsageQuantity": {
      "Amount": "24.0009345564",
      "Unit": "N/A"
    }
  }
}
},
{
  "Keys": [
    "i-0e56e09d11711"
  ],
  "Metrics": {
    "BlendedCost": {
      "Amount": "0.0927335232",
      "Unit": "USD"
    },
    "UnblendedCost": {
      "Amount": "0.1392",
      "Unit": "USD"
    }
  },
}
```

```
        "UsageQuantity": {
            "Amount": "24.0011066563",
            "Unit": "N/A"
        }
    ],
    "TimePeriod": {
        "End": "2018-11-20T00:00:00Z",
        "Start": "2018-11-19T00:00:00Z"
    },
    "Total": {}
}
]
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetCostCategories

Service: Amazon Cost Explorer

Retrieves an array of cost category names and values incurred cost.

Note

If some cost category names and values are not associated with any cost, they will not be returned by this API.

Request Syntax

```
{
  "BillingViewArn": "string",
  "CostCategoryName": "string",
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "MaxResults": number,
  "NextPageToken": "string",
```

```
"SearchString": "string",
"SortBy": [
  {
    "Key": "string",
    "SortOrder": "string"
  }
],
"TimePeriod": {
  "End": "string",
  "Start": "string"
}
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[BillingViewArn](#)

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to Amazon Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/!_+.=.-@]{1,43}$`

Required: No

[CostCategoryName](#)

The unique name of the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)$`

Required: No

Filter

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
 - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
 - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
 - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
 - Specify the `Dimensions` field to define a filter that acts on the [DimensionValues](#).
 - For each filter type, you can set the dimension name and values for the filters that you plan to use.
 - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the `Region` is a full name (for example, `REGION==US East (N. Virginia)`).
 - The corresponding `Expression` for this example is as follows:

```
{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }
```
 - As shown in the previous example, lists of dimension values are combined with `OR` when applying the filter.
 - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
 - For example, you can filter for linked account names that start with "a".
 - The corresponding `Expression` for this example is as follows:

```
{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": [ "STARTS_WITH" ], "Values": [ "a" ] } }
```
- Compound `Expression` types with logical operations.
 - You can use multiple `Expression` types and the logical operators `AND/OR/NOT` to create a list of one or more `Expression` objects. By doing this, you can filter by more advanced options.

- For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
- The corresponding Expression for this example is as follows:

```
{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] }}, {"Tags": { "Key": "TagName", "Values": ["Value1"] } } ] }, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] }}} ] }
```

 **Note**

Because each Expression can have only one operator, the service returns an error if more than one is specified. The following example shows an Expression object that creates an error:

```
{ "And": [ ... ], "Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } }
```

The following is an example of the corresponding error message: "Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"

 **Note**

For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to LINKED_ACCOUNT, REGION, or RIGHTSIZING_TYPE.

For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to LINKED_ACCOUNT.

Type: [Expression](#) object

Required: No

MaxResults

This field is only used when the `SortBy` value is provided in the request.

The maximum number of objects that are returned for this request. If `MaxResults` isn't specified with the `SortBy` value, the request returns 1000 results as the default value for this parameter.

For `GetCostCategories`, `MaxResults` has an upper quota of 1000.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextPageToken

If the number of objects that are still available for retrieval exceeds the quota, Amazon returns a `NextPageToken` value in the response. To retrieve the next batch of objects, provide the `NextPageToken` from the previous call in your next request.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SearchString

The value that you want to search the filter values for.

If you don't specify a `CostCategoryName`, `SearchString` is used to filter cost category names that match the `SearchString` pattern. If you specify a `CostCategoryName`, `SearchString` is used to filter cost category values that match the `SearchString` pattern.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SortBy

The value that you sort the data by.

The key represents the cost and usage metrics. The following values are supported:

- BlendedCost
- UnblendedCost
- AmortizedCost
- NetAmortizedCost
- NetUnblendedCost
- UsageQuantity
- NormalizedUsageAmount

The supported key values for the `SortOrder` value are `ASCENDING` and `DESCENDING`.

When you use the `SortBy` value, the `NextPageToken` and `SearchString` key values aren't supported.

Type: Array of [SortDefinition](#) objects

Required: No

TimePeriod

The time period of the request.

Type: [DateInterval](#) object

Required: Yes

Response Syntax

```
{
  "CostCategoryNames": [ "string" ],
  "CostCategoryValues": [ "string" ],
  "NextPageToken": "string",
  "ReturnSize": number,
  "TotalSize": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategoryNames

The names of the cost categories.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)$`

CostCategoryValues

The cost category values.

If the `CostCategoryName` key isn't specified in the request, the `CostCategoryValues` fields aren't returned.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)$`

NextPageToken

If the number of objects that are still available for retrieval exceeds the quota, Amazon returns a `NextPageToken` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

ReturnSize

The number of objects that are returned.

Type: Integer

TotalSize

The total number of objects.

Type: Integer

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

BillExpirationException

The requested report expired. Update the date interval and try again.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

RequestChangedException

Your request parameters changed between pages. Try again with the old parameters or without a pagination token.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetCostComparisonDrivers

Service: Amazon Cost Explorer

Retrieves key factors driving cost changes between two time periods within the last 13 months, such as usage changes, discount changes, and commitment-based savings. If you have enabled multi-year data at monthly granularity, you can go back up to 38 months.

Request Syntax

```
{
  "BaselineTimePeriod": {
    "End": "string",
    "Start": "string"
  },
  "BillingViewArn": "string",
  "ComparisonTimePeriod": {
    "End": "string",
    "Start": "string"
  },
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
}
```

```
"GroupBy": [  
  {  
    "Key": "string",  
    "Type": "string"  
  }  
],  
"MaxResults": number,  
"MetricForComparison": "string",  
"NextPageToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[BaselineTimePeriod](#)

The reference time period for comparison. This time period serves as the baseline against which other cost and usage data will be compared. The interval must start and end on the first day of a month, with a duration of exactly one month.

Type: [DateInterval](#) object

Required: Yes

[BillingViewArn](#)

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to Amazon Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/!:_+=.-@]{1,43}$`

Required: No

ComparisonTimePeriod

The comparison time period for analysis. This time period's cost and usage data will be compared against the baseline time period. The interval must start and end on the first day of a month, with a duration of exactly one month.

Type: [DateInterval](#) object

Required: Yes

Filter

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
 - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
 - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
 - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
 - Specify the `Dimensions` field to define a filter that acts on the [DimensionValues](#).
 - For each filter type, you can set the dimension name and values for the filters that you plan to use.
 - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the `Region` is a full name (for example, `REGION==US East (N. Virginia)`).
 - The corresponding `Expression` for this example is as follows:

```
{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }
```
 - As shown in the previous example, lists of dimension values are combined with `OR` when applying the filter.
 - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
 - For example, you can filter for linked account names that start with "a".

- The corresponding Expression for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": ["STARTS_WITH"], "Values": ["a"] } }`
- Compound Expression types with logical operations.
 - You can use multiple Expression types and the logical operators AND/OR/NOT to create a list of one or more Expression objects. By doing this, you can filter by more advanced options.
 - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
 - The corresponding Expression for this example is as follows: `{ "And": [{ "Or": [{ "Dimensions": { "Key": "REGION", "Values": ["us-east-1", "us-west-1"] } }, { "Tags": { "Key": "TagName", "Values": ["Value1"] } }] }, { "Not": { "Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] } } }] }`

Note

Because each Expression can have only one operator, the service returns an error if more than one is specified. The following example shows an Expression object that creates an error: `{ "And": [...], "Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] } }`

The following is an example of the corresponding error message: "Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"

Note

For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to LINKED_ACCOUNT, REGION, or RIGHTSIZING_TYPE.

For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to LINKED_ACCOUNT.

Type: [Expression](#) object

Required: No

[GroupBy](#)

You can group results using the attributes DIMENSION, TAG, and COST_CATEGORY. Note that SERVICE and USAGE_TYPE dimensions are automatically included in the cost comparison drivers analysis.

Type: Array of [GroupDefinition](#) objects

Required: No

[MaxResults](#)

The maximum number of results that are returned for the request.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10.

Required: No

[MetricForComparison](#)

The cost and usage metric to compare. Valid values are AmortizedCost, BlendedCost, NetAmortizedCost, NetUnblendedCost, NormalizedUsageAmount, UnblendedCost, and UsageQuantity.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

[NextPageToken](#)

The token to retrieve the next set of paginated results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "CostComparisonDrivers": [
    {
      "CostDrivers": [
        {
          "Metrics": {
            "string" : {
              "BaselineTimePeriodAmount": "string",
              "ComparisonTimePeriodAmount": "string",
              "Difference": "string",
              "Unit": "string"
            }
          },
          "Name": "string",
          "Type": "string"
        }
      ],
      "CostSelector": {
        "And": [
          "Expression"
        ],
        "CostCategories": {
          "Key": "string",
          "MatchOptions": [ "string" ],
          "Values": [ "string" ]
        },
        "Dimensions": {
          "Key": "string",
          "MatchOptions": [ "string" ],
          "Values": [ "string" ]
        },
        "Not": "Expression",
        "Or": [
          "Expression"
        ],
        "Tags": {
          "Key": "string",
```

```
        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
    },
    "Metrics": {
        "string" : {
            "BaselineTimePeriodAmount": "string",
            "ComparisonTimePeriodAmount": "string",
            "Difference": "string",
            "Unit": "string"
        }
    }
},
"NextPageToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostComparisonDrivers

An array of comparison results showing factors that drive significant cost differences between BaselineTimePeriod and ComparisonTimePeriod.

Type: Array of [CostComparisonDriver](#) objects

NextPageToken

The token to retrieve the next set of paginated results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)

- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetCostForecast

Service: Amazon Cost Explorer

Retrieves a forecast for how much Amazon Web Services predicts that you will spend over the forecast time period that you select, based on your past costs.

Request Syntax

```
{
  "BillingViewArn": "string",
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "Granularity": "string",
  "Metric": "string",
  "PredictionIntervalLevel": number,
  "TimePeriod": {
    "End": "string",
    "Start": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to Amazon Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/!:_+=.-@]{1,43}$`

Required: No

Filter

The filters that you want to use to filter your forecast. The GetCostForecast API supports filtering by the following dimensions:

- AZ
- INSTANCE_TYPE
- LINKED_ACCOUNT
- OPERATION
- PURCHASE_TYPE
- REGION
- SERVICE
- USAGE_TYPE
- USAGE_TYPE_GROUP
- RECORD_TYPE
- OPERATING_SYSTEM
- TENANCY

- SCOPE
- PLATFORM
- SUBSCRIPTION_ID
- LEGAL_ENTITY_NAME
- DEPLOYMENT_OPTION
- DATABASE_ENGINE
- INSTANCE_TYPE_FAMILY
- BILLING_ENTITY
- RESERVATION_ID
- SAVINGS_PLAN_ARN

Type: [Expression](#) object

Required: No

Granularity

How granular you want the forecast to be. You can get 3 months of DAILY forecasts or 18 months of MONTHLY forecasts.

The GetCostForecast operation supports only DAILY and MONTHLY granularities.

Type: String

Valid Values: DAILY | MONTHLY | HOURLY

Required: Yes

Metric

Which metric Cost Explorer uses to create your forecast. For more information about blended and unblended rates, see [Why does the "blended" annotation appear on some line items in my bill?](#)

Valid values for a GetCostForecast call are the following:

- AMORTIZED_COST
- BLENDED_COST
- NET_AMORTIZED_COST
- NET_UNBLENDED_COST

- UNBLENDED_COST

Type: String

Valid Values: BLENDED_COST | UNBLENDED_COST | AMORTIZED_COST | NET_UNBLENDED_COST | NET_AMORTIZED_COST | USAGE_QUANTITY | NORMALIZED_USAGE_AMOUNT

Required: Yes

PredictionIntervalLevel

Cost Explorer always returns the mean forecast as a single point. You can request a prediction interval around the mean by specifying a confidence level. The higher the confidence level, the more confident Cost Explorer is about the actual value falling in the prediction interval. Higher confidence levels result in wider prediction intervals.

Type: Integer

Valid Range: Minimum value of 51. Maximum value of 99.

Required: No

TimePeriod

The period of time that you want the forecast to cover. The start date must be equal to or no later than the current date to avoid a validation error.

Type: [DateInterval](#) object

Required: Yes

Response Syntax

```
{
  "ForecastResultsByTime": [
    {
      "MeanValue": "string",
      "PredictionIntervalLowerBound": "string",
      "PredictionIntervalUpperBound": "string",
      "TimePeriod": {
        "End": "string",
        "Start": "string"
      }
    }
  ]
}
```

```
    }
  }
],
"Total": {
  "Amount": "string",
  "Unit": "string"
}
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ForecastResultsByTime

The forecasts for your query, in order. For DAILY forecasts, this is a list of days. For MONTHLY forecasts, this is a list of months.

Type: Array of [ForecastResult](#) objects

Total

How much you are forecasted to spend over the forecast period, in USD.

Type: [MetricValue](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

Examples

Example

The following example shows how to retrieve a forecast using the `GetCostForecast` operation.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetCostForecast
{
  "TimePeriod": {
    "Start": "2017-10-25",
    "End": "2017-10-27"
  },
  "Granularity": "DAILY",
  "Filter": {
    "Dimensions": {
      "Key": "SERVICE",
      "Values": [
        "Amazon Simple Storage Service"
      ]
    }
  }
}
```

```
},
"Metric": "BLENDED_COST",
"PredictionIntervalLevel": 85
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "ForecastResultsByTime": [
    {
      "MeanValue": "37.0786663399",
      "PredictionIntervalLowerBound": "34.9970026341",
      "PredictionIntervalUpperBound": "39.1603300457",
      "TimePeriod": {
        "End": "2018-10-26",
        "Start": "2018-10-25"
      }
    },
    {
      "MeanValue": "37.0786663399",
      "PredictionIntervalLowerBound": "34.9970026341",
      "PredictionIntervalUpperBound": "39.1603300457",
      "TimePeriod": {
        "End": "2018-10-27",
        "Start": "2018-10-26"
      }
    }
  ],
  "Total": {
    "Amount": "74.1573326798",
    "Unit": "USD"
  }
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetDimensionValues

Service: Amazon Cost Explorer

Retrieves all available filter values for a specified filter over a period of time. You can search the dimension values for an arbitrary string.

Request Syntax

```
{
  "BillingViewArn": "string",
  "Context": "string",
  "Dimension": "string",
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "MaxResults": number,
  "NextPageToken": "string",
  "SearchString": "string",
  "SortBy": [
    {
      "Key": "string",
      "SortOrder": "string"
    }
  ]
}
```

```
    }
  ],
  "TimePeriod": {
    "End": "string",
    "Start": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[BillingViewArn](#)

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to Amazon Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/:_+=.-@]{1,43}$`

Required: No

[Context](#)

The context for the call to `GetDimensionValues`. This can be `RESERVATIONS` or `COST_AND_USAGE`. The default value is `COST_AND_USAGE`. If the context is set to `RESERVATIONS`, the resulting dimension values can be used in the `GetReservationUtilization` operation. If the context is set to `COST_AND_USAGE`, the resulting dimension values can be used in the `GetCostAndUsage` operation.

If you set the context to `COST_AND_USAGE`, you can use the following dimensions for searching:

- `AZ` - The Availability Zone. An example is `us-east-1a`.
- `BILLING_ENTITY` - The Amazon seller that your account is with. Possible values are the following:

- Amazon(Amazon Web Services): The entity that sells Amazon Web Services services.
- AISPL (Amazon Internet Services Pvt. Ltd.): The local Indian entity that's an acting reseller for Amazon Web Services services in India.
- Amazon Web Services Marketplace: The entity that supports the sale of solutions that are built on Amazon by third-party software providers.
- CACHE_ENGINE - The Amazon ElastiCache operating system. Examples are Windows or Linux.
- DEPLOYMENT_OPTION - The scope of Amazon Relational Database Service deployments. Valid values are SingleAZ and MultiAZ.
- DATABASE_ENGINE - The Amazon Relational Database Service database. Examples are Aurora or MySQL.
- INSTANCE_TYPE - The type of Amazon EC2 instance. An example is m4.xlarge.
- INSTANCE_TYPE_FAMILY - A family of instance types optimized to fit different use cases. Examples are Compute Optimized (for example, C4, C5, C6g, and C7g), Memory Optimization (for example, R4, R5n, R5b, and R6g).
- INVOICING_ENTITY - The name of the entity that issues the Amazon invoice.
- LEGAL_ENTITY_NAME - The name of the organization that sells you Amazon services, such as Amazon Web Services.
- LINKED_ACCOUNT - The description in the attribute map that includes the full name of the member account. The value field contains the Amazon ID of the member account.
- OPERATING_SYSTEM - The operating system. Examples are Windows or Linux.
- OPERATION - The action performed. Examples include RunInstance and CreateBucket.
- PLATFORM - The Amazon EC2 operating system. Examples are Windows or Linux.
- PURCHASE_TYPE - The reservation type of the purchase that this usage is related to. Examples include On-Demand Instances and Standard Reserved Instances.
- RESERVATION_ID - The unique identifier for an Amazon Reservation Instance.
- SAVINGS_PLAN_ARN - The unique identifier for your Savings Plans.
- SAVINGS_PLANS_TYPE - Type of Savings Plans (EC2 Instance or Compute).
- SERVICE - The Amazon service such as Amazon DynamoDB.
- TENANCY - The tenancy of a resource. Examples are shared or dedicated.
- USAGE_TYPE - The type of usage. An example is DataTransfer-In-Bytes. The response for the GetDimensionValues operation includes a unit attribute. Examples include GB and Hrs.

- **USAGE_TYPE_GROUP** - The grouping of common usage types. An example is Amazon EC2: CloudWatch – Alarms. The response for this operation includes a unit attribute.
- **REGION** - The Amazon Web Services Region.
- **RECORD_TYPE** - The different types of charges such as Reserved Instance (RI) fees, usage costs, tax refunds, and credits.
- **RESOURCE_ID** - The unique identifier of the resource. ResourceId is an opt-in feature only available for last 14 days for EC2-Compute Service.

If you set the context to **RESERVATIONS**, you can use the following dimensions for searching:

- **AZ** - The Availability Zone. An example is `us-east-1a`.
- **CACHE_ENGINE** - The Amazon ElastiCache operating system. Examples are Windows or Linux.
- **DEPLOYMENT_OPTION** - The scope of Amazon Relational Database Service deployments. Valid values are `SingleAZ` and `MultiAZ`.
- **INSTANCE_TYPE** - The type of Amazon EC2 instance. An example is `m4.xlarge`.
- **LINKED_ACCOUNT** - The description in the attribute map that includes the full name of the member account. The value field contains the Amazon ID of the member account.
- **PLATFORM** - The Amazon EC2 operating system. Examples are Windows or Linux.
- **REGION** - The Amazon Web Services Region.
- **SCOPE (Utilization only)** - The scope of a Reserved Instance (RI). Values are regional or a single Availability Zone.
- **TAG (Coverage only)** - The tags that are associated with a Reserved Instance (RI).
- **TENANCY** - The tenancy of a resource. Examples are shared or dedicated.

If you set the context to **SAVINGS_PLANS**, you can use the following dimensions for searching:

- **SAVINGS_PLANS_TYPE** - Type of Savings Plans (EC2 Instance or Compute)
- **PAYMENT_OPTION** - The payment option for the given Savings Plans (for example, All Upfront)
- **REGION** - The Amazon Web Services Region.
- **INSTANCE_TYPE_FAMILY** - The family of instances (For example, m5)
- **LINKED_ACCOUNT** - The description in the attribute map that includes the full name of the member account. The value field contains the Amazon ID of the member account.
- **SAVINGS_PLAN_ARN** - The unique identifier for your Savings Plans.

Type: String

Valid Values: COST_AND_USAGE | RESERVATIONS | SAVINGS_PLANS

Required: No

Dimension

The name of the dimension. Each Dimension is available for a different Context. For more information, see Context. LINK_ACCOUNT_NAME and SERVICE_CODE can only be used in [CostCategoryRule](#).

Type: String

Valid Values: AZ | INSTANCE_TYPE | LINKED_ACCOUNT | PAYER_ACCOUNT | LINKED_ACCOUNT_NAME | OPERATION | PURCHASE_TYPE | REGION | SERVICE | SERVICE_CODE | USAGE_TYPE | USAGE_TYPE_GROUP | RECORD_TYPE | OPERATING_SYSTEM | TENANCY | SCOPE | PLATFORM | SUBSCRIPTION_ID | LEGAL_ENTITY_NAME | DEPLOYMENT_OPTION | DATABASE_ENGINE | CACHE_ENGINE | INSTANCE_TYPE_FAMILY | BILLING_ENTITY | RESERVATION_ID | RESOURCE_ID | RIGHTSIZING_TYPE | SAVINGS_PLANS_TYPE | SAVINGS_PLAN_ARN | PAYMENT_OPTION | AGREEMENT_END_DATE_TIME_AFTER | AGREEMENT_END_DATE_TIME_BEFORE | INVOICING_ENTITY | ANOMALY_TOTAL_IMPACT_ABSOLUTE | ANOMALY_TOTAL_IMPACT_PERCENTAGE

Required: Yes

Filter

Use Expression to filter in various Cost Explorer APIs.

Not all Expression types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
 - There are three types of simple dimension values: CostCategories, Tags, and Dimensions.
 - Specify the CostCategories field to define a filter that acts on Cost Categories.
 - Specify the Tags field to define a filter that acts on Cost Allocation Tags.
 - Specify the Dimensions field to define a filter that acts on the [DimensionValues](#).

- For each filter type, you can set the dimension name and values for the filters that you plan to use.
 - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the Region is a full name (for example, `REGION==US East (N. Virginia)`).
 - The corresponding Expression for this example is as follows: `{ "Dimensions": { "Key": "REGION", "Values": ["us-east-1", "us-west-1"] } }`
 - As shown in the previous example, lists of dimension values are combined with OR when applying the filter.
- You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
 - For example, you can filter for linked account names that start with "a".
 - The corresponding Expression for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": ["STARTS_WITH"], "Values": ["a"] } }`
- Compound Expression types with logical operations.
 - You can use multiple Expression types and the logical operators AND/OR/NOT to create a list of one or more Expression objects. By doing this, you can filter by more advanced options.
 - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
 - The corresponding Expression for this example is as follows: `{ "And": [{"Or": [{"Dimensions": { "Key": "REGION", "Values": ["us-east-1", "us-west-1"] } }], {"Tags": { "Key": "TagName", "Values": ["Value1"] } }] }, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] } } }] }`

 **Note**

Because each Expression can have only one operator, the service returns an error if more than one is specified. The following example shows an Expression object that creates an error: `{ "And": [...], "Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] } }`

The following is an example of the corresponding error message: "Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"

 **Note**

For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to `LINKED_ACCOUNT`, `REGION`, or `RIGHTSIZING_TYPE`.

For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to `LINKED_ACCOUNT`.

Type: [Expression](#) object

Required: No

MaxResults

This field is only used when `SortBy` is provided in the request. The maximum number of objects that are returned for this request. If `MaxResults` isn't specified with `SortBy`, the request returns 1000 results as the default value for this parameter.

For `GetDimensionValues`, `MaxResults` has an upper limit of 1000.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextPageToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SearchString

The value that you want to search the filter values for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SortBy

The value that you want to sort the data by.

The key represents cost and usage metrics. The following values are supported:

- BlendedCost
- UnblendedCost
- AmortizedCost
- NetAmortizedCost
- NetUnblendedCost
- UsageQuantity
- NormalizedUsageAmount

The supported values for the `SortOrder` key are `ASCENDING` or `DESCENDING`.

When you specify a `SortBy` parameter, the context must be `COST_AND_USAGE`. Further, when using `SortBy`, `NextPageToken` and `SearchString` aren't supported.

Type: Array of [SortDefinition](#) objects

Required: No

TimePeriod

The start date and end date for retrieving the dimension values. The start date is inclusive, but the end date is exclusive. For example, if `start` is `2017-01-01` and `end` is `2017-05-01`, then the cost and usage data is retrieved from `2017-01-01` up to and including `2017-04-30` but not including `2017-05-01`.

Type: [DateInterval](#) object

Required: Yes

Response Syntax

```
{
  "DimensionValues": [
    {
      "Attributes": {
        "string" : "string"
      },
      "Value": "string"
    }
  ],
  "NextPageToken": "string",
  "ReturnSize": number,
  "TotalSize": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[DimensionValues](#)

The filters that you used to filter your request. Some dimensions are available only for a specific context.

If you set the context to `COST_AND_USAGE`, you can use the following dimensions for searching:

- `AZ` - The Availability Zone. An example is `us-east-1a`.
- `DATABASE_ENGINE` - The Amazon Relational Database Service database. Examples are Aurora or MySQL.
- `INSTANCE_TYPE` - The type of Amazon EC2 instance. An example is `m4.xlarge`.
- `LEGAL_ENTITY_NAME` - The name of the organization that sells you Amazon services, such as Amazon Web Services.
- `LINKED_ACCOUNT` - The description in the attribute map that includes the full name of the member account. The value field contains the Amazon ID of the member account.

- **OPERATING_SYSTEM** - The operating system. Examples are Windows or Linux.
- **OPERATION** - The action performed. Examples include RunInstance and CreateBucket.
- **PLATFORM** - The Amazon EC2 operating system. Examples are Windows or Linux.
- **PURCHASE_TYPE** - The reservation type of the purchase to which this usage is related. Examples include On-Demand Instances and Standard Reserved Instances.
- **SERVICE** - The Amazon service such as Amazon DynamoDB.
- **USAGE_TYPE** - The type of usage. An example is DataTransfer-In-Bytes. The response for the GetDimensionValues operation includes a unit attribute. Examples include GB and Hrs.
- **USAGE_TYPE_GROUP** - The grouping of common usage types. An example is Amazon EC2: CloudWatch – Alarms. The response for this operation includes a unit attribute.
- **RECORD_TYPE** - The different types of charges such as RI fees, usage costs, tax refunds, and credits.
- **RESOURCE_ID** - The unique identifier of the resource. ResourceId is an opt-in feature only available for last 14 days for EC2-Compute Service. You can opt-in by enabling Hourly and Resource Level Data in Amazon Cost Management Console preferences.

If you set the context to RESERVATIONS, you can use the following dimensions for searching:

- **AZ** - The Availability Zone. An example is us-east-1a.
- **CACHE_ENGINE** - The Amazon ElastiCache operating system. Examples are Windows or Linux.
- **DEPLOYMENT_OPTION** - The scope of Amazon Relational Database Service deployments. Valid values are SingleAZ and MultiAZ.
- **INSTANCE_TYPE** - The type of Amazon EC2 instance. An example is m4.xlarge.
- **LINKED_ACCOUNT** - The description in the attribute map that includes the full name of the member account. The value field contains the Amazon ID of the member account.
- **PLATFORM** - The Amazon EC2 operating system. Examples are Windows or Linux.
- **REGION** - The Amazon Web Services Region.
- **SCOPE (Utilization only)** - The scope of a Reserved Instance (RI). Values are regional or a single Availability Zone.
- **TAG (Coverage only)** - The tags that are associated with a Reserved Instance (RI).
- **TENANCY** - The tenancy of a resource. Examples are shared or dedicated.

If you set the context to SAVINGS_PLANS, you can use the following dimensions for searching:

- **SAVINGS_PLANS_TYPE** - Type of Savings Plans (EC2 Instance or Compute)

- PAYMENT_OPTION - Payment option for the given Savings Plans (for example, All Upfront)
- REGION - The Amazon Region.
- INSTANCE_TYPE_FAMILY - The family of instances (For example, m5)
- LINKED_ACCOUNT - The description in the attribute map that includes the full name of the member account. The value field contains the Amazon ID of the member account.
- SAVINGS_PLAN_ARN - The unique identifier for your Savings Plan

Type: Array of [DimensionValuesWithAttributes](#) objects

NextPageToken

The token for the next set of retrievable results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

ReturnSize

The number of results that Amazon returned at one time.

Type: Integer

TotalSize

The total number of search results.

Type: Integer

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

BillExpirationException

The requested report expired. Update the date interval and try again.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

RequestChangedException

Your request parameters changed between pages. Try again with the old parameters or without a pagination token.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

Examples

Example

The following is a sample request and response of the `GetDimensionValues` operation that enables you to search for all the member accounts in an organization in Amazon Organizations that have "Elastic" in their name.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetDimensionValues
{
  "TimePeriod": {
    "Start": "2017-01-01",
    "End": "2017-05-18"
  },
  "SearchString": "Elastic",
  "Dimension": "Service"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
//Attributes are optional metadata that are returned depending on the dimension that
you select.
{
  "DimensionValues": [
    {
      "Attributes": {},
      "Value": "Amazon ElastiCache"
    },
    {
      "Attributes": {},
      "Value": "EC2 - Other"
    },
    {
      "Attributes": {},

```

```
    "Value": "Amazon Elastic Compute Cloud - Compute"
  },
  {
    "Attributes": {},
    "Value": "Amazon Elasticsearch Service"
  }
],
"ReturnSize": 4,
"TotalSize": 4
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetReservationCoverage

Service: Amazon Cost Explorer

Retrieves the reservation coverage for your account, which you can use to see how much of your Amazon Elastic Compute Cloud, Amazon ElastiCache, Amazon Relational Database Service, or Amazon Redshift usage is covered by a reservation. An organization's management account can see the coverage of the associated member accounts. This supports dimensions, cost categories, and nested expressions. For any time period, you can filter data about reservation usage by the following dimensions:

- AZ
- CACHE_ENGINE
- DATABASE_ENGINE
- DEPLOYMENT_OPTION
- INSTANCE_TYPE
- LINKED_ACCOUNT
- OPERATING_SYSTEM
- PLATFORM
- REGION
- SERVICE
- TAG
- TENANCY

To determine valid values for a dimension, use the `GetDimensionValues` operation.

Request Syntax

```
{
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  }
}
```

```
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "Granularity": "string",
  "GroupBy": [
    {
      "Key": "string",
      "Type": "string"
    }
  ],
  "MaxResults": number,
  "Metrics": [ "string" ],
  "NextPageToken": "string",
  "SortBy": {
    "Key": "string",
    "SortOrder": "string"
  },
  "TimePeriod": {
    "End": "string",
    "Start": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

Filter

Filters utilization data by dimensions. You can filter by the following dimensions:

- AZ
- CACHE_ENGINE
- DATABASE_ENGINE
- DEPLOYMENT_OPTION
- INSTANCE_TYPE
- LINKED_ACCOUNT
- OPERATING_SYSTEM
- PLATFORM
- REGION
- SERVICE
- TAG
- TENANCY

GetReservationCoverage uses the same [Expression](#) object as the other operations, but only AND is supported among each dimension. You can nest only one level deep. If there are multiple values for a dimension, they are OR'd together.

If you don't provide a SERVICE filter, Cost Explorer defaults to EC2.

Cost category is also supported.

Type: [Expression](#) object

Required: No

Granularity

The granularity of the Amazon cost data for the reservation. Valid values are MONTHLY and DAILY.

If GroupBy is set, Granularity can't be set. If Granularity isn't set, the response object doesn't include Granularity, either MONTHLY or DAILY.

The GetReservationCoverage operation supports only DAILY and MONTHLY granularities.

Type: String

Valid Values: DAILY | MONTHLY | HOURLY

Required: No

GroupBy

You can group the data by the following attributes:

- AZ
- CACHE_ENGINE
- DATABASE_ENGINE
- DEPLOYMENT_OPTION
- INSTANCE_TYPE
- INVOICING_ENTITY
- LINKED_ACCOUNT
- OPERATING_SYSTEM
- PLATFORM
- REGION
- TENANCY

Type: Array of [GroupDefinition](#) objects

Required: No

MaxResults

The maximum number of objects that you returned for this request. If more objects are available, in the response, Amazon provides a `NextPageToken` value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

Metrics

The measurement that you want your reservation coverage reported in.

Valid values are `Hour`, `Unit`, and `Cost`. You can use multiple values in a request.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NextPageToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SortBy

The value by which you want to sort the data.

The following values are supported for Key:

- OnDemandCost
- CoverageHoursPercentage
- OnDemandHours
- ReservedHours
- TotalRunningHours
- CoverageNormalizedUnitsPercentage
- OnDemandNormalizedUnits
- ReservedNormalizedUnits
- TotalRunningNormalizedUnits
- Time

Supported values for SortOrder are ASCENDING or DESCENDING.

Type: [SortDefinition](#) object

Required: No

TimePeriod

The start and end dates of the period that you want to retrieve data about reservation coverage for. You can retrieve data for a maximum of 13 months: the last 12 months and the current month. The start date is inclusive, but the end date is exclusive. For example, if start is 2017-01-01 and end is 2017-05-01, then the cost and usage data is retrieved from 2017-01-01 up to and including 2017-04-30 but not including 2017-05-01.

Type: [DateInterval](#) object

Required: Yes

Response Syntax

```
{
  "CoveragesByTime": [
    {
      "Groups": [
        {
          "Attributes": {
            "string" : "string"
          },
          "Coverage": {
            "CoverageCost": {
              "OnDemandCost": "string"
            },
            "CoverageHours": {
              "CoverageHoursPercentage": "string",
              "OnDemandHours": "string",
              "ReservedHours": "string",
              "TotalRunningHours": "string"
            },
            "CoverageNormalizedUnits": {
              "CoverageNormalizedUnitsPercentage": "string",
              "OnDemandNormalizedUnits": "string",
              "ReservedNormalizedUnits": "string",
              "TotalRunningNormalizedUnits": "string"
            }
          }
        }
      ]
    },
    "TimePeriod": {
```

```
    "End": "string",
    "Start": "string"
  },
  "Total": {
    "CoverageCost": {
      "OnDemandCost": "string"
    },
    "CoverageHours": {
      "CoverageHoursPercentage": "string",
      "OnDemandHours": "string",
      "ReservedHours": "string",
      "TotalRunningHours": "string"
    },
    "CoverageNormalizedUnits": {
      "CoverageNormalizedUnitsPercentage": "string",
      "OnDemandNormalizedUnits": "string",
      "ReservedNormalizedUnits": "string",
      "TotalRunningNormalizedUnits": "string"
    }
  }
},
"NextPageToken": "string",
"Total": {
  "CoverageCost": {
    "OnDemandCost": "string"
  },
  "CoverageHours": {
    "CoverageHoursPercentage": "string",
    "OnDemandHours": "string",
    "ReservedHours": "string",
    "TotalRunningHours": "string"
  },
  "CoverageNormalizedUnits": {
    "CoverageNormalizedUnitsPercentage": "string",
    "OnDemandNormalizedUnits": "string",
    "ReservedNormalizedUnits": "string",
    "TotalRunningNormalizedUnits": "string"
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CoveragesByTime

The amount of time that your reservations covered.

Type: Array of [CoverageByTime](#) objects

NextPageToken

The token for the next set of retrievable results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Total

The total amount of instance usage that a reservation covered.

Type: [Coverage](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

Example

The following example request for the `GetReservationCoverage` operation retrieves reservation coverage for all `t2.nano` instance types from 2017-07-01 to 2017-10-01.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetReservationCoverage
{
  "TimePeriod": {
    "Start": "2017-07-01",
    "End": "2017-10-01"
  },
  "Filter": {
    "And": [
      {"Dimensions": {
        "Key": "INSTANCE_TYPE",
        "Values": [
          "t2.nano"
        ]
      }},
      {"Dimensions": {
        "Key": "REGION",
        "Values": [
          "us-east-1"
        ]
      }}
    ]
  }
}
```

```
    ]
  }}
]
},
"GroupBy": [
  {
    "Type": "Dimension",
    "Key": "REGION"
  }
]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "CoveragesByTime": [ {
    "Groups": [ {
      "Attributes": {
        "region": "us-east-1"
      },
      "Coverage": {
        "CoverageHours": {
          "CoverageHoursPercentage": "40%",
          "OnDemandHours": "40",
          "ReservedHours": "40",
          "TotalRunningHours": "80"
        }
        "CoverageNormalizedUnits": {
          "CoverageNormalizedUnitsPercentage": "10",
          "OnDemandNormalizedUnits": "10",
          "ReservedNormalizedUnits": "10",
          "TotalRunningNormalizedUnits": "20"
        }
      }
    }
  ]
},
  "TimePeriod": {
    "End": "2017-07-01",
    "Start": "2017-10-01"
  }
}
```

```
    },
    "Total": {
      "CoverageHours": {
        "CoverageHoursPercentage": "40%",
        "OnDemandHours": "40",
        "ReservedHours": "40",
        "TotalRunningHours": "80"
      }
      "CoverageNormalizedUnits": {
        "CoverageNormalizedUnitsPercentage": "10",
        "OnDemandNormalizedUnits": "10",
        "ReservedNormalizedUnits": "10",
        "TotalRunningNormalizedUnits": "20"
      }
    }
  }],
  "Total": {
    "CoverageHours": {
      "CoverageHoursPercentage": "40%",
      "OnDemandHours": "40",
      "ReservedHours": "40",
      "TotalRunningHours": "80"
    }
  }
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)

- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetReservationPurchaseRecommendation

Service: Amazon Cost Explorer

Gets recommendations for reservation purchases. These recommendations might help you to reduce your costs. Reservations provide a discounted hourly rate (up to 75%) compared to On-Demand pricing.

Amazon generates your recommendations by identifying your On-Demand usage during a specific time period and collecting your usage into categories that are eligible for a reservation. After Amazon has these categories, it simulates every combination of reservations in each category of usage to identify the best number of each type of Reserved Instance (RI) to purchase to maximize your estimated savings.

For example, Amazon automatically aggregates your Amazon EC2 Linux, shared tenancy, and c4 family usage in the US West (Oregon) Region and recommends that you buy size-flexible regional reservations to apply to the c4 family usage. Amazon recommends the smallest size instance in an instance family. This makes it easier to purchase a size-flexible Reserved Instance (RI). Amazon also shows the equal number of normalized units. This way, you can purchase any instance size that you want. For this example, your RI recommendation is for c4.1large because that is the smallest size instance in the c4 instance family.

Request Syntax

```
{
  "AccountId": "string",
  "AccountScope": "string",
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
```

```
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "LookbackPeriodInDays": "string",
  "NextPageToken": "string",
  "PageSize": number,
  "PaymentOption": "string",
  "Service": "string",
  "ServiceSpecification": {
    "EC2Specification": {
      "OfferingClass": "string"
    }
  },
  "TermInYears": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The account ID that's associated with the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AccountScope

The account scope that you want your recommendations for. Amazon Web Services calculates recommendations including the management account and member accounts if the value is

set to PAYER. If the value is LINKED, recommendations are calculated for individual member accounts only.

Type: String

Valid Values: PAYER | LINKED

Required: No

Filter

Use Expression to filter in various Cost Explorer APIs.

Not all Expression types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
 - There are three types of simple dimension values: CostCategories, Tags, and Dimensions.
 - Specify the CostCategories field to define a filter that acts on Cost Categories.
 - Specify the Tags field to define a filter that acts on Cost Allocation Tags.
 - Specify the Dimensions field to define a filter that acts on the [DimensionValues](#).
 - For each filter type, you can set the dimension name and values for the filters that you plan to use.
 - For example, you can filter for REGION==us-east-1 OR REGION==us-west-1. For GetRightsizingRecommendation, the Region is a full name (for example, REGION==US East (N. Virginia)).
 - The corresponding Expression for this example is as follows: { "Dimensions": { "Key": "REGION", "Values": ["us-east-1", "us-west-1"] } }
 - As shown in the previous example, lists of dimension values are combined with OR when applying the filter.
 - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
 - For example, you can filter for linked account names that start with "a".

- The corresponding Expression for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": ["STARTS_WITH"], "Values": ["a"] } }`
- Compound Expression types with logical operations.
 - You can use multiple Expression types and the logical operators AND/OR/NOT to create a list of one or more Expression objects. By doing this, you can filter by more advanced options.
 - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
 - The corresponding Expression for this example is as follows: `{ "And": [{ "Or": [{ "Dimensions": { "Key": "REGION", "Values": ["us-east-1", "us-west-1"] } }, { "Tags": { "Key": "TagName", "Values": ["Value1"] } }] }, { "Not": { "Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] } } }] }`

Note

Because each Expression can have only one operator, the service returns an error if more than one is specified. The following example shows an Expression object that creates an error: `{ "And": [...], "Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] } }`

The following is an example of the corresponding error message: "Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"

Note

For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to LINKED_ACCOUNT, REGION, or RIGHTSIZING_TYPE.

For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to LINKED_ACCOUNT.

Type: [Expression](#) object

Required: No

[LookbackPeriodInDays](#)

The number of previous days that you want Amazon to consider when it calculates your recommendations.

Type: String

Valid Values: SEVEN_DAYS | THIRTY_DAYS | SIXTY_DAYS

Required: No

[NextPageToken](#)

The pagination token that indicates the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

[PageSize](#)

The number of recommendations that you want returned in a single response object.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 6000.

Required: No

[PaymentOption](#)

The reservation purchase option that you want recommendations for.

Type: String

Valid Values: NO_UPFRONT | PARTIAL_UPFRONT | ALL_UPFRONT | LIGHT_UTILIZATION
| MEDIUM_UTILIZATION | HEAVY_UTILIZATION

Required: No

Service

The specific service that you want recommendations for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

ServiceSpecification

The hardware specifications for the service instances that you want recommendations for, such as standard or convertible Amazon EC2 instances.

Type: [ServiceSpecification](#) object

Required: No

TermInYears

The reservation term that you want recommendations for.

Type: String

Valid Values: ONE_YEAR | THREE_YEARS

Required: No

Response Syntax

```
{
  "Metadata": {
    "AdditionalMetadata": "string",
    "GenerationTimestamp": "string",
    "RecommendationId": "string"
  },
  "NextPageToken": "string",
  "Recommendations": [
    {
      "AccountScope": "string",
      "LookbackPeriodInDays": "string",
      "PaymentOption": "string",
```

```
"RecommendationDetails": [  
  {  
    "AccountId": "string",  
    "AverageNormalizedUnitsUsedPerHour": "string",  
    "AverageNumberOfCapacityUnitsUsedPerHour": "string",  
    "AverageNumberOfInstancesUsedPerHour": "string",  
    "AverageUtilization": "string",  
    "CurrencyCode": "string",  
    "EstimatedBreakEvenInMonths": "string",  
    "EstimatedMonthlyOnDemandCost": "string",  
    "EstimatedMonthlySavingsAmount": "string",  
    "EstimatedMonthlySavingsPercentage": "string",  
    "EstimatedReservationCostForLookbackPeriod": "string",  
    "InstanceDetails": {  
      "EC2InstanceDetails": {  
        "AvailabilityZone": "string",  
        "CurrentGeneration": boolean,  
        "Family": "string",  
        "InstanceType": "string",  
        "Platform": "string",  
        "Region": "string",  
        "SizeFlexEligible": boolean,  
        "Tenancy": "string"  
      },  
      "ElastiCacheInstanceDetails": {  
        "CurrentGeneration": boolean,  
        "Family": "string",  
        "NodeType": "string",  
        "ProductDescription": "string",  
        "Region": "string",  
        "SizeFlexEligible": boolean  
      },  
      "ESInstanceDetails": {  
        "CurrentGeneration": boolean,  
        "InstanceClass": "string",  
        "InstanceSize": "string",  
        "Region": "string",  
        "SizeFlexEligible": boolean  
      },  
      "MemoryDBInstanceDetails": {  
        "CurrentGeneration": boolean,  
        "Family": "string",  
        "NodeType": "string",  
        "Region": "string",
```

```

        "SizeFlexEligible": boolean
    },
    "RDSInstanceDetails": {
        "CurrentGeneration": boolean,
        "DatabaseEdition": "string",
        "DatabaseEngine": "string",
        "DeploymentModel": "string",
        "DeploymentOption": "string",
        "Family": "string",
        "InstanceType": "string",
        "LicenseModel": "string",
        "Region": "string",
        "SizeFlexEligible": boolean
    },
    "RedshiftInstanceDetails": {
        "CurrentGeneration": boolean,
        "Family": "string",
        "NodeType": "string",
        "Region": "string",
        "SizeFlexEligible": boolean
    }
},
"MaximumNormalizedUnitsUsedPerHour": "string",
"MaximumNumberOfCapacityUnitsUsedPerHour": "string",
"MaximumNumberOfInstancesUsedPerHour": "string",
"MinimumNormalizedUnitsUsedPerHour": "string",
"MinimumNumberOfCapacityUnitsUsedPerHour": "string",
"MinimumNumberOfInstancesUsedPerHour": "string",
"RecommendedNormalizedUnitsToPurchase": "string",
"RecommendedNumberOfCapacityUnitsToPurchase": "string",
"RecommendedNumberOfInstancesToPurchase": "string",
"RecurringStandardMonthlyCost": "string",
"ReservedCapacityDetails": {
    "DynamoDBCapacityDetails": {
        "CapacityUnits": "string",
        "Region": "string"
    }
},
"UpfrontCost": "string"
}
],
"RecommendationSummary": {
    "CurrencyCode": "string",
    "TotalEstimatedMonthlySavingsAmount": "string",

```

```
    "TotalEstimatedMonthlySavingsPercentage": "string"
  },
  "ServiceSpecification": {
    "EC2Specification": {
      "OfferingClass": "string"
    }
  },
  "TermInYears": "string"
}
]
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Metadata

Information about this specific recommendation call, such as the time stamp for when Cost Explorer generated this recommendation.

Type: [ReservationPurchaseRecommendationMetadata](#) object

NextPageToken

The pagination token for the next set of retrievable results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Recommendations

Recommendations for reservations to purchase.

Type: Array of [ReservationPurchaseRecommendation](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetReservationUtilization

Service: Amazon Cost Explorer

Retrieves the reservation utilization for your account. Management account in an organization have access to member accounts. You can filter data by dimensions in a time period. You can use `GetDimensionValues` to determine the possible dimension values. Currently, you can group only by `SUBSCRIPTION_ID`.

Request Syntax

```
{
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "Granularity": "string",
  "GroupBy": [
    {
      "Key": "string",
      "Type": "string"
    }
  ],
}
```

```
"MaxResults": number,
"NextPageToken": "string",
"SortBy": {
  "Key": "string",
  "SortOrder": "string"
},
"TimePeriod": {
  "End": "string",
  "Start": "string"
}
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

Filter

Filters utilization data by dimensions. You can filter by the following dimensions:

- AZ
- CACHE_ENGINE
- DEPLOYMENT_OPTION
- INSTANCE_TYPE
- LINKED_ACCOUNT
- OPERATING_SYSTEM
- PLATFORM
- REGION
- SERVICE

Note

If not specified, the SERVICE filter defaults to Amazon Elastic Compute Cloud - Compute. Supported values for SERVICE are Amazon Elastic Compute Cloud - Compute, Amazon Relational Database Service, Amazon ElastiCache, Amazon Redshift, and Amazon Elasticsearch Service. The value for the SERVICE filter should not exceed "1".

- SCOPE
- TENANCY

GetReservationUtilization uses the same [Expression](#) object as the other operations, but only AND is supported among each dimension, and nesting is supported up to only one level deep. If there are multiple values for a dimension, they are OR'd together.

Type: [Expression](#) object

Required: No

[Granularity](#)

If GroupBy is set, Granularity can't be set. If Granularity isn't set, the response object doesn't include Granularity, either MONTHLY or DAILY. If both GroupBy and Granularity aren't set, GetReservationUtilization defaults to DAILY.

The GetReservationUtilization operation supports only DAILY and MONTHLY granularities.

Type: String

Valid Values: DAILY | MONTHLY | HOURLY

Required: No

[GroupBy](#)

Groups only by SUBSCRIPTION_ID. Metadata is included.

Type: Array of [GroupDefinition](#) objects

Required: No

[MaxResults](#)

The maximum number of objects that you returned for this request. If more objects are available, in the response, Amazon provides a NextPageToken value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextPageToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SortBy

The value that you want to sort the data by.

The following values are supported for Key:

- UtilizationPercentage
- UtilizationPercentageInUnits
- PurchasedHours
- PurchasedUnits
- TotalActualHours
- TotalActualUnits
- UnusedHours
- UnusedUnits
- OnDemandCostOfRIHoursUsed
- NetRISavings
- TotalPotentialRISavings
- AmortizedUpfrontFee
- AmortizedRecurringFee
- TotalAmortizedFee
- RICostForUnusedHours
- RealizedSavings
- UnrealizedSavings

The supported values for SortOrder are ASCENDING and DESCENDING.

Type: [SortDefinition](#) object

Required: No

[TimePeriod](#)

Sets the start and end dates for retrieving Reserved Instance (RI) utilization. The start date is inclusive, but the end date is exclusive. For example, if start is 2017-01-01 and end is 2017-05-01, then the cost and usage data is retrieved from 2017-01-01 up to and including 2017-04-30 but not including 2017-05-01.

Type: [DateInterval](#) object

Required: Yes

Response Syntax

```
{
  "NextPageToken": "string",
  "Total": {
    "AmortizedRecurringFee": "string",
    "AmortizedUpfrontFee": "string",
    "NetRISavings": "string",
    "OnDemandCostOfRIHoursUsed": "string",
    "PurchasedHours": "string",
    "PurchasedUnits": "string",
    "RealizedSavings": "string",
    "RIBCostForUnusedHours": "string",
    "TotalActualHours": "string",
    "TotalActualUnits": "string",
    "TotalAmortizedFee": "string",
    "TotalPotentialRISavings": "string",
    "UnrealizedSavings": "string",
    "UnusedHours": "string",
    "UnusedUnits": "string",
    "UtilizationPercentage": "string",
    "UtilizationPercentageInUnits": "string"
  },
  "UtilizationsByTime": [
    {
      "Groups": [
        {
          "Attributes": {
```

```

        "string" : "string"
    },
    "Key": "string",
    "Utilization": {
        "AmortizedRecurringFee": "string",
        "AmortizedUpfrontFee": "string",
        "NetRISavings": "string",
        "OnDemandCostOfRIHoursUsed": "string",
        "PurchasedHours": "string",
        "PurchasedUnits": "string",
        "RealizedSavings": "string",
        "RIBCostForUnusedHours": "string",
        "TotalActualHours": "string",
        "TotalActualUnits": "string",
        "TotalAmortizedFee": "string",
        "TotalPotentialRISavings": "string",
        "UnrealizedSavings": "string",
        "UnusedHours": "string",
        "UnusedUnits": "string",
        "UtilizationPercentage": "string",
        "UtilizationPercentageInUnits": "string"
    },
    "Value": "string"
}
],
"TimePeriod": {
    "End": "string",
    "Start": "string"
},
"Total": {
    "AmortizedRecurringFee": "string",
    "AmortizedUpfrontFee": "string",
    "NetRISavings": "string",
    "OnDemandCostOfRIHoursUsed": "string",
    "PurchasedHours": "string",
    "PurchasedUnits": "string",
    "RealizedSavings": "string",
    "RIBCostForUnusedHours": "string",
    "TotalActualHours": "string",
    "TotalActualUnits": "string",
    "TotalAmortizedFee": "string",
    "TotalPotentialRISavings": "string",
    "UnrealizedSavings": "string",
    "UnusedHours": "string",

```

```
        "UnusedUnits": "string",
        "UtilizationPercentage": "string",
        "UtilizationPercentageInUnits": "string"
    }
}
]
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextPageToken

The token for the next set of retrievable results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Total

The total amount of time that you used your Reserved Instances (RIs).

Type: [ReservationAggregates](#) object

UtilizationsByTime

The amount of time that you used your Reserved Instances (RIs).

Type: Array of [UtilizationByTime](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

Example

The following is a sample request and response of the `GetReservationUtilization` operation that enables you to retrieve your RI utilization for all `t2.nano` instance types from 2017-01-01 to 2017-05-01.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetReservationUtilization
{
  "TimePeriod": {
    "Start": "2017-07-01",
    "End": "2017-10-01"
  },
  "Filter": {
    "Dimensions": {
      "Key": "INSTANCE_TYPE",
      "Values": [
```

```
        "t2.nano"
      ]
    }
  },
  "GroupBy": [
    {
      "Type": "Dimension",
      "Key": "SUBSCRIPTION_ID"
    }
  ]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "UtilizationsByTime": [{
    "Groups": [{
      "Attributes": {
        "AccountId": "0123456789",
        "AccountName": null,
        "AvailabilityZone": "",
        "CancellationDateTime": "2019-09-28T15:22:31.000Z",
        "EndDateTime": "2019-09-28T15:22:31.000Z",
        "InstanceType": "t2.nano",
        "LeaseId": null,
        "NumberOfInstances": "1",
        "OfferingType": "convertible",
        "Platform": "Linux/UNIX",
        "Region": "us-east-1",
        "Scope": "Region",
        "StartDateTime": "2016-09-28T15:22:32.000Z",
        "SubscriptionId": "359809062",
        "SubscriptionStatus": "Active",
        "SubscriptionType": "All Upfront",
        "Tenancy": "Shared"
      },
      "Key": "SUBSCRIPTION_ID",
      "Utilization": {
```

```
    "PurchasedHours": 2208,
    "TotalActualHours": 2208,
    "UnusedHours": 0,
    "UtilizationPercentage": 100
  },
  "Value": "359809062"
},
{
  "Attributes": {
    "": "0123456789",
    "AccountName": null,
    "AvailabilityZone": "us-east-1d",
    "CancellationDateTime": "2017-09-28T15:22:31.000Z",
    "EndDateTime": "2017-09-28T15:22:31.000Z",
    "InstanceType": "t2.nano",
    "LeaseId": null,
    "NumberOfInstances": "1",
    "OfferingType": "Standard",
    "Platform": "Linux/UNIX",
    "Region": "us-east-1",
    "Scope": "Availability Zone",
    "StartDateTime": "2016-09-28T15:22:32.000Z",
    "SubscriptionId": "359809070",
    "SubscriptionStatus": "Active",
    "SubscriptionType": "All Upfront",
    "Tenancy": "Shared"
  },
  "Key": "SUBSCRIPTION_ID",
  "Utilization": {
    "PurchasedHours": 2151,
    "TotalActualHours": 2151,
    "UnusedHours": 0,
    "UtilizationPercentage": 100
  },
  "Value": "359809070"
},
{
  "Attributes": {
    "AccountId": "0123456789",
    "AccountName": null,
    "AvailabilityZone": "us-west-2a",
    "CancellationDateTime": "2017-09-20T04:06:02.000Z",
    "EndDateTime": "2017-09-20T04:06:02.000Z",
    "InstanceType": "t2.nano",
```

```
    "LeaseId": null,
    "NumberOfInstances": "1",
    "OfferingType": "Standard",
    "Platform": "Linux/UNIX",
    "Region": "us-west-2",
    "Scope": "Availability Zone",
    "StartDateTime": "2016-09-20T04:06:03.000Z",
    "SubscriptionId": "353571154",
    "SubscriptionStatus": "Active",
    "SubscriptionType": "Partial Upfront",
    "Tenancy": "Shared"
  },
  "Key": "SUBSCRIPTION_ID",
  "Utilization": {
    "PurchasedHours": 1948,
    "TotalActualHours": 0,
    "UnusedHours": 1948,
    "UtilizationPercentage": 0
  },
  "Value": "353571154"
}
],
"TimePeriod": {
  "End": "2017-10-01",
  "Start": "2017-07-01"
},
"Total": {
  "PurchasedHours": 6307,
  "TotalActualHours": 4359,
  "UnusedHours": 1948,
  "UtilizationPercentage": 69.11368320913270968764864436340574
}
}]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)

- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetRightsizingRecommendation

Service: Amazon Cost Explorer

Creates recommendations that help you save cost by identifying idle and underutilized Amazon EC2 instances.

Recommendations are generated to either downsize or terminate instances, along with providing savings detail and metrics. For more information about calculation and function, see [Optimizing Your Cost with Rightsizing Recommendations](#) in the *Amazon Billing and Cost Management User Guide*.

Request Syntax

```
{
  "Configuration": {
    "BenefitsConsidered": boolean,
    "RecommendationTarget": "string"
  },
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
}
```

```
"NextPageToken": "string",  
"PageSize": number,  
"Service": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

Configuration

You can use Configuration to customize recommendations across two attributes. You can choose to view recommendations for instances within the same instance families or across different instance families. You can also choose to view your estimated savings that are associated with recommendations with consideration of existing Savings Plans or RI benefits, or neither.

Type: [RightsizingRecommendationConfiguration](#) object

Required: No

Filter

Use Expression to filter in various Cost Explorer APIs.

Not all Expression types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
 - There are three types of simple dimension values: CostCategories, Tags, and Dimensions.
 - Specify the CostCategories field to define a filter that acts on Cost Categories.
 - Specify the Tags field to define a filter that acts on Cost Allocation Tags.
 - Specify the Dimensions field to define a filter that acts on the [DimensionValues](#).
 - For each filter type, you can set the dimension name and values for the filters that you plan to use.

- For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the Region is a full name (for example, `REGION==US East (N. Virginia)`).
- The corresponding Expression for this example is as follows: `{ "Dimensions": { "Key": "REGION", "Values": ["us-east-1", "us-west-1"] } }`
- As shown in the previous example, lists of dimension values are combined with OR when applying the filter.
- You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
 - For example, you can filter for linked account names that start with "a".
 - The corresponding Expression for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": ["STARTS_WITH"], "Values": ["a"] } }`
- Compound Expression types with logical operations.
 - You can use multiple Expression types and the logical operators AND/OR/NOT to create a list of one or more Expression objects. By doing this, you can filter by more advanced options.
 - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
 - The corresponding Expression for this example is as follows: `{ "And": [{"Or": [{"Dimensions": { "Key": "REGION", "Values": ["us-east-1", "us-west-1"] } }, {"Tags": { "Key": "TagName", "Values": ["Value1"] } }] }, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] } } }] }`

Note

Because each Expression can have only one operator, the service returns an error if more than one is specified. The following example shows an Expression object that creates an error: `{ "And": [...], "Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] } }`

The following is an example of the corresponding error message: "Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"

Note

For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to `LINKED_ACCOUNT`, `REGION`, or `RIGHTSIZING_TYPE`.

For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to `LINKED_ACCOUNT`.

Type: [Expression](#) object

Required: No

[NextPageToken](#)

The pagination token that indicates the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

[PageSize](#)

The number of recommendations that you want returned in a single response object.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 6000.

Required: No

[Service](#)

The specific service that you want recommendations for. The only valid value for `GetRightsizingRecommendation` is "AmazonEC2".

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Response Syntax

```
{
  "Configuration": {
    "BenefitsConsidered": boolean,
    "RecommendationTarget": "string"
  },
  "Metadata": {
    "AdditionalMetadata": "string",
    "GenerationTimestamp": "string",
    "LookbackPeriodInDays": "string",
    "RecommendationId": "string"
  },
  "NextPageToken": "string",
  "RightsizingRecommendations": [
    {
      "AccountId": "string",
      "CurrentInstance": {
        "CurrencyCode": "string",
        "InstanceName": "string",
        "MonthlyCost": "string",
        "OnDemandHoursInLookbackPeriod": "string",
        "ReservationCoveredHoursInLookbackPeriod": "string",
        "ResourceDetails": {
          "EC2ResourceDetails": {
            "HourlyOnDemandRate": "string",
            "InstanceType": "string",
            "Memory": "string",
            "NetworkPerformance": "string",
            "Platform": "string",
            "Region": "string",
            "Sku": "string",
            "Storage": "string",
            "Vcpu": "string"
          }
        }
      }
    }
  ]
}
```

```

    },
    "ResourceId": "string",
    "ResourceUtilization": {
      "EC2ResourceUtilization": {
        "DiskResourceUtilization": {
          "DiskReadBytesPerSecond": "string",
          "DiskReadOpsPerSecond": "string",
          "DiskWriteBytesPerSecond": "string",
          "DiskWriteOpsPerSecond": "string"
        },
        "EBSResourceUtilization": {
          "EbsReadBytesPerSecond": "string",
          "EbsReadOpsPerSecond": "string",
          "EbsWriteBytesPerSecond": "string",
          "EbsWriteOpsPerSecond": "string"
        },
        "MaxCpuUtilizationPercentage": "string",
        "MaxMemoryUtilizationPercentage": "string",
        "MaxStorageUtilizationPercentage": "string",
        "NetworkResourceUtilization": {
          "NetworkInBytesPerSecond": "string",
          "NetworkOutBytesPerSecond": "string",
          "NetworkPacketsInPerSecond": "string",
          "NetworkPacketsOutPerSecond": "string"
        }
      }
    },
    "SavingsPlansCoveredHoursInLookbackPeriod": "string",
    "Tags": [
      {
        "Key": "string",
        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
      }
    ],
    "TotalRunningHoursInLookbackPeriod": "string"
  },
  "FindingReasonCodes": [ "string" ],
  "ModifyRecommendationDetail": {
    "TargetInstances": [
      {
        "CurrencyCode": "string",
        "DefaultTargetInstance": boolean,
        "EstimatedMonthlyCost": "string",

```

```

    "EstimatedMonthlySavings": "string",
    "ExpectedResourceUtilization": {
      "EC2ResourceUtilization": {
        "DiskResourceUtilization": {
          "DiskReadBytesPerSecond": "string",
          "DiskReadOpsPerSecond": "string",
          "DiskWriteBytesPerSecond": "string",
          "DiskWriteOpsPerSecond": "string"
        },
        "EBSResourceUtilization": {
          "EbsReadBytesPerSecond": "string",
          "EbsReadOpsPerSecond": "string",
          "EbsWriteBytesPerSecond": "string",
          "EbsWriteOpsPerSecond": "string"
        },
        "MaxCpuUtilizationPercentage": "string",
        "MaxMemoryUtilizationPercentage": "string",
        "MaxStorageUtilizationPercentage": "string",
        "NetworkResourceUtilization": {
          "NetworkInBytesPerSecond": "string",
          "NetworkOutBytesPerSecond": "string",
          "NetworkPacketsInPerSecond": "string",
          "NetworkPacketsOutPerSecond": "string"
        }
      }
    },
    "PlatformDifferences": [ "string" ],
    "ResourceDetails": {
      "EC2ResourceDetails": {
        "HourlyOnDemandRate": "string",
        "InstanceType": "string",
        "Memory": "string",
        "NetworkPerformance": "string",
        "Platform": "string",
        "Region": "string",
        "Sku": "string",
        "Storage": "string",
        "Vcpu": "string"
      }
    }
  ],
  "RightsizingType": "string",

```

```
    "TerminateRecommendationDetail": {
      "CurrencyCode": "string",
      "EstimatedMonthlySavings": "string"
    }
  ],
  "Summary": {
    "EstimatedTotalMonthlySavingsAmount": "string",
    "SavingsCurrencyCode": "string",
    "SavingsPercentage": "string",
    "TotalRecommendationCount": "string"
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Configuration

You can use Configuration to customize recommendations across two attributes. You can choose to view recommendations for instances within the same instance families or across different instance families. You can also choose to view your estimated savings that are associated with recommendations with consideration of existing Savings Plans or RI benefits, or neither.

Type: [RightsizingRecommendationConfiguration](#) object

Metadata

Information regarding this specific recommendation set.

Type: [RightsizingRecommendationMetadata](#) object

NextPageToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

RightsizingRecommendations

Recommendations to rightsize resources.

Type: Array of [RightsizingRecommendation](#) objects

Summary

Summary of this recommendation set.

Type: [RightsizingRecommendationSummary](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)

- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetSavingsPlanPurchaseRecommendationDetails

Service: Amazon Cost Explorer

Retrieves the details for a Savings Plan recommendation. These details include the hourly data-points that construct the cost, coverage, and utilization charts.

Request Syntax

```
{
  "RecommendationDetailId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

RecommendationDetailId

The ID that is associated with the Savings Plan recommendation.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

Required: Yes

Response Syntax

```
{
  "RecommendationDetailData": {
    "AccountId": "string",
    "AccountScope": "string",
    "CurrencyCode": "string",
    "CurrentAverageCoverage": "string",
    "CurrentAverageHourlyOnDemandSpend": "string",
    "CurrentMaximumHourlyOnDemandSpend": "string",
    "CurrentMinimumHourlyOnDemandSpend": "string",
    "EstimatedAverageCoverage": "string",
```

```

    "EstimatedAverageUtilization": "string",
    "EstimatedMonthlySavingsAmount": "string",
    "EstimatedOnDemandCost": "string",
    "EstimatedOnDemandCostWithCurrentCommitment": "string",
    "EstimatedROI": "string",
    "EstimatedSavingsAmount": "string",
    "EstimatedSavingsPercentage": "string",
    "EstimatedSPCost": "string",
    "ExistingHourlyCommitment": "string",
    "GenerationTimestamp": "string",
    "HourlyCommitmentToPurchase": "string",
    "InstanceFamily": "string",
    "LatestUsageTimestamp": "string",
    "LookbackPeriodInDays": "string",
    "MetricsOverLookbackPeriod": [
      {
        "CurrentCoverage": "string",
        "EstimatedCoverage": "string",
        "EstimatedNewCommitmentUtilization": "string",
        "EstimatedOnDemandCost": "string",
        "StartTime": "string"
      }
    ],
    "OfferingId": "string",
    "PaymentOption": "string",
    "Region": "string",
    "SavingsPlansType": "string",
    "TermInYears": "string",
    "UpfrontCost": "string"
  },
  "RecommendationDetailId": "string"
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

RecommendationDetailData

Contains detailed information about a specific Savings Plan recommendation.

Type: RecommendationDetailData object

RecommendationDetailId

The ID that is associated with the Savings Plan recommendation.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)

- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetSavingsPlansCoverage

Service: Amazon Cost Explorer

Retrieves the Savings Plans covered for your account. This enables you to see how much of your cost is covered by a Savings Plan. An organization's management account can see the coverage of the associated member accounts. This supports dimensions, cost categories, and nested expressions. For any time period, you can filter data for Savings Plans usage with the following dimensions:

- LINKED_ACCOUNT
- REGION
- SERVICE
- INSTANCE_FAMILY

To determine valid values for a dimension, use the `GetDimensionValues` operation.

Request Syntax

```
{
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
```

```
    "Values": [ "string" ]
  }
},
"Granularity": "string",
"GroupBy": [
  {
    "Key": "string",
    "Type": "string"
  }
],
"MaxResults": number,
"Metrics": [ "string" ],
"NextToken": "string",
"SortBy": {
  "Key": "string",
  "SortOrder": "string"
},
"TimePeriod": {
  "End": "string",
  "Start": "string"
}
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

Filter

Filters Savings Plans coverage data by dimensions. You can filter data for Savings Plans usage with the following dimensions:

- LINKED_ACCOUNT
- REGION
- SERVICE
- INSTANCE_FAMILY

GetSavingsPlansCoverage uses the same [Expression](#) object as the other operations, but only AND is supported among each dimension. If there are multiple values for a dimension, they are OR'd together.

Cost category is also supported.

Type: [Expression](#) object

Required: No

[Granularity](#)

The granularity of the Amazon Web Services cost data for your Savings Plans. Granularity can't be set if GroupBy is set.

The GetSavingsPlansCoverage operation supports only DAILY and MONTHLY granularities.

Type: String

Valid Values: DAILY | MONTHLY | HOURLY

Required: No

[GroupBy](#)

You can group the data using the attributes INSTANCE_FAMILY, REGION, or SERVICE.

Type: Array of [GroupDefinition](#) objects

Required: No

[MaxResults](#)

The number of items to be returned in a response. The default is 20, with a minimum value of 1.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

[Metrics](#)

The measurement that you want your Savings Plans coverage reported in. The only valid value is SpendCoveredBySavingsPlans.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NextToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SortBy

The value that you want to sort the data by.

The following values are supported for Key:

- `SpendCoveredBySavingsPlan`
- `OnDemandCost`
- `CoveragePercentage`
- `TotalCost`
- `InstanceFamily`
- `Region`
- `Service`

The supported values for `SortOrder` are `ASCENDING` and `DESCENDING`.

Type: [SortDefinition](#) object

Required: No

TimePeriod

The time period that you want the usage and costs for. The `Start` date must be within 13 months. The `End` date must be after the `Start` date, and before the current date. Future dates can't be used as an `End` date.

Type: [DateInterval](#) object

Required: Yes

Response Syntax

```
{
  "NextToken": "string",
  "SavingsPlansCoverages": [
    {
      "Attributes": {
        "string": "string"
      },
      "Coverage": {
        "CoveragePercentage": "string",
        "OnDemandCost": "string",
        "SpendCoveredBySavingsPlans": "string",
        "TotalCost": "string"
      },
      "TimePeriod": {
        "End": "string",
        "Start": "string"
      }
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[NextToken](#)

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

SavingsPlansCoverages

The amount of spend that your Savings Plans covered.

Type: Array of [SavingsPlansCoverage](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)

- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetSavingsPlansPurchaseRecommendation

Service: Amazon Cost Explorer

Retrieves the Savings Plans recommendations for your account. First use `StartSavingsPlansPurchaseRecommendationGeneration` to generate a new set of recommendations, and then use `GetSavingsPlansPurchaseRecommendation` to retrieve them.

Request Syntax

```
{
  "AccountScope": "string",
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "LookbackPeriodInDays": "string",
  "NextPageToken": "string",
  "PageSize": number,
  "PaymentOption": "string",
  "SavingsPlansType": "string",
  "TermInYears": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[AccountScope](#)

The account scope that you want your recommendations for. Amazon Web Services calculates recommendations including the management account and member accounts if the value is set to PAYER. If the value is LINKED, recommendations are calculated for individual member accounts only.

Type: String

Valid Values: PAYER | LINKED

Required: No

[Filter](#)

You can filter your recommendations by Account ID with the LINKED_ACCOUNT dimension. To filter your recommendations by Account ID, specify Key as LINKED_ACCOUNT and Value as the comma-separated Account ID(s) that you want to see Savings Plans purchase recommendations for.

For GetSavingsPlansPurchaseRecommendation, the Filter doesn't include CostCategories or Tags. It only includes Dimensions. With Dimensions, Key must be LINKED_ACCOUNT and Value can be a single Account ID or multiple comma-separated Account IDs that you want to see Savings Plans Purchase Recommendations for. AND and OR operators are not supported.

Type: [Expression](#) object

Required: No

[LookbackPeriodInDays](#)

The lookback period that's used to generate the recommendation.

Type: String

Valid Values: SEVEN_DAYS | THIRTY_DAYS | SIXTY_DAYS

Required: Yes

NextPageToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

PageSize

The number of recommendations that you want returned in a single response object.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 6000.

Required: No

PaymentOption

The payment option that's used to generate these recommendations.

Type: String

Valid Values: NO_UPFRONT | PARTIAL_UPFRONT | ALL_UPFRONT | LIGHT_UTILIZATION
| MEDIUM_UTILIZATION | HEAVY_UTILIZATION

Required: Yes

SavingsPlansType

The Savings Plans recommendation type that's requested.

Type: String

Valid Values: COMPUTE_SP | EC2_INSTANCE_SP | SAGEMAKER_SP | DATABASE_SP

Required: Yes

TermInYears

The savings plan recommendation term that's used to generate these recommendations.

Type: String

Valid Values: ONE_YEAR | THREE_YEARS

Required: Yes

Response Syntax

```
{
  "Metadata": {
    "AdditionalMetadata": "string",
    "GenerationTimestamp": "string",
    "RecommendationId": "string"
  },
  "NextPageToken": "string",
  "SavingsPlansPurchaseRecommendation": {
    "AccountScope": "string",
    "LookbackPeriodInDays": "string",
    "PaymentOption": "string",
    "SavingsPlansPurchaseRecommendationDetails": [
      {
        "AccountId": "string",
        "CurrencyCode": "string",
        "CurrentAverageHourlyOnDemandSpend": "string",
        "CurrentMaximumHourlyOnDemandSpend": "string",
        "CurrentMinimumHourlyOnDemandSpend": "string",
        "EstimatedAverageUtilization": "string",
        "EstimatedMonthlySavingsAmount": "string",
        "EstimatedOnDemandCost": "string",
        "EstimatedOnDemandCostWithCurrentCommitment": "string",
        "EstimatedROI": "string",
        "EstimatedSavingsAmount": "string",
        "EstimatedSavingsPercentage": "string",
        "EstimatedSPCost": "string",
        "HourlyCommitmentToPurchase": "string",
        "RecommendationDetailId": "string",
        "SavingsPlansDetails": {
          "InstanceFamily": "string",
          "OfferingId": "string",
          "Region": "string"
        },
        "UpfrontCost": "string"
      }
    ]
  }
}
```

```
    ],
    "SavingsPlansPurchaseRecommendationSummary": {
      "CurrencyCode": "string",
      "CurrentOnDemandSpend": "string",
      "DailyCommitmentToPurchase": "string",
      "EstimatedMonthlySavingsAmount": "string",
      "EstimatedOnDemandCostWithCurrentCommitment": "string",
      "EstimatedROI": "string",
      "EstimatedSavingsAmount": "string",
      "EstimatedSavingsPercentage": "string",
      "EstimatedTotalCost": "string",
      "HourlyCommitmentToPurchase": "string",
      "TotalRecommendationCount": "string"
    },
    "SavingsPlansType": "string",
    "TermInYears": "string"
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Metadata

Information that regards this specific recommendation set.

Type: [SavingsPlansPurchaseRecommendationMetadata](#) object

NextPageToken

The token for the next set of retrievable results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

SavingsPlansPurchaseRecommendation

Contains your request parameters, Savings Plan Recommendations Summary, and Details.

Type: [SavingsPlansPurchaseRecommendation](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetSavingsPlansUtilization

Service: Amazon Cost Explorer

Retrieves the Savings Plans utilization for your account across date ranges with daily or monthly granularity. Management account in an organization have access to member accounts. You can use `GetDimensionValues` in `SAVINGS_PLANS` to determine the possible dimension values.

Note

You can't group by any dimension values for `GetSavingsPlansUtilization`.

Request Syntax

```
{
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "Granularity": "string",
  "SortBy": {
    "Key": "string",
```

```
    "SortOrder": "string"
  },
  "TimePeriod": {
    "End": "string",
    "Start": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

Filter

Filters Savings Plans utilization coverage data for active Savings Plans dimensions. You can filter data with the following dimensions:

- LINKED_ACCOUNT
- SAVINGS_PLAN_ARN
- SAVINGS_PLANS_TYPE
- REGION
- PAYMENT_OPTION
- INSTANCE_TYPE_FAMILY

GetSavingsPlansUtilization uses the same [Expression](#) object as the other operations, but only AND is supported among each dimension.

Type: [Expression](#) object

Required: No

Granularity

The granularity of the Amazon Web Services utilization data for your Savings Plans.

The GetSavingsPlansUtilization operation supports only DAILY and MONTHLY granularities.

Type: String

Valid Values: DAILY | MONTHLY | HOURLY

Required: No

SortBy

The value that you want to sort the data by.

The following values are supported for Key:

- UtilizationPercentage
- TotalCommitment
- UsedCommitment
- UnusedCommitment
- NetSavings

The supported values for SortOrder are ASCENDING and DESCENDING.

Type: [SortDefinition](#) object

Required: No

TimePeriod

The time period that you want the usage and costs for. The Start date must be within 13 months. The End date must be after the Start date, and before the current date. Future dates can't be used as an End date.

Type: [DateInterval](#) object

Required: Yes

Response Syntax

```
{
  "SavingsPlansUtilizationsByTime": [
    {
      "AmortizedCommitment": {
        "AmortizedRecurringCommitment": "string",
        "AmortizedUpfrontCommitment": "string",
        "TotalAmortizedCommitment": "string"
      },
      "Savings": {
        "NetSavings": "string",
```

```

        "OnDemandCostEquivalent": "string"
    },
    "TimePeriod": {
        "End": "string",
        "Start": "string"
    },
    "Utilization": {
        "TotalCommitment": "string",
        "UnusedCommitment": "string",
        "UsedCommitment": "string",
        "UtilizationPercentage": "string"
    }
}
],
"Total": {
    "AmortizedCommitment": {
        "AmortizedRecurringCommitment": "string",
        "AmortizedUpfrontCommitment": "string",
        "TotalAmortizedCommitment": "string"
    },
    "Savings": {
        "NetSavings": "string",
        "OnDemandCostEquivalent": "string"
    },
    "Utilization": {
        "TotalCommitment": "string",
        "UnusedCommitment": "string",
        "UsedCommitment": "string",
        "UtilizationPercentage": "string"
    }
}
}
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

SavingsPlansUtilizationsByTime

The amount of cost/commitment that you used your Savings Plans. You can use it to specify date ranges.

Type: Array of [SavingsPlansUtilizationByTime](#) objects

Total

The total amount of cost/commitment that you used your Savings Plans, regardless of date ranges.

Type: [SavingsPlansUtilizationAggregates](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)

- [Amazon SDK for Ruby V3](#)

GetSavingsPlansUtilizationDetails

Service: Amazon Cost Explorer

Retrieves attribute data along with aggregate utilization and savings data for a given time period. This doesn't support granular or grouped data (daily/monthly) in response. You can't retrieve data by dates in a single response similar to `GetSavingsPlanUtilization`, but you have the option to make multiple calls to `GetSavingsPlanUtilizationDetails` by providing individual dates. You can use `GetDimensionValues` in `SAVINGS_PLANS` to determine the possible dimension values.

Note

`GetSavingsPlanUtilizationDetails` internally groups data by `SavingsPlansArn`.

Request Syntax

```
{
  "DataType": [ "string" ],
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  }
}
```

```
    }  
  },  
  "MaxResults": number,  
  "NextToken": "string",  
  "SortBy": {  
    "Key": "string",  
    "SortOrder": "string"  
  },  
  "TimePeriod": {  
    "End": "string",  
    "Start": "string"  
  }  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

Data Type

The data type.

Type: Array of strings

Valid Values: ATTRIBUTES | UTILIZATION | AMORTIZED_COMMITMENT | SAVINGS

Required: No

Filter

Filters Savings Plans utilization coverage data for active Savings Plans dimensions. You can filter data with the following dimensions:

- LINKED_ACCOUNT
- SAVINGS_PLAN_ARN
- REGION
- PAYMENT_OPTION
- INSTANCE_TYPE_FAMILY

GetSavingsPlansUtilizationDetails uses the same [Expression](#) object as the other operations, but only AND is supported among each dimension.

Type: [Expression](#) object

Required: No

[MaxResults](#)

The number of items to be returned in a response. The default is 20, with a minimum value of 1.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

[NextToken](#)

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

[SortBy](#)

The value that you want to sort the data by.

The following values are supported for Key:

- UtilizationPercentage
- TotalCommitment
- UsedCommitment
- UnusedCommitment
- NetSavings
- AmortizedRecurringCommitment
- AmortizedUpfrontCommitment

The supported values for SortOrder are ASCENDING and DESCENDING.

Type: [SortDefinition](#) object

Required: No

[TimePeriod](#)

The time period that you want the usage and costs for. The `Start` date must be within 13 months. The `End` date must be after the `Start` date, and before the current date. Future dates can't be used as an `End` date.

Type: [DateInterval](#) object

Required: Yes

Response Syntax

```
{
  "NextToken": "string",
  "SavingsPlansUtilizationDetails": [
    {
      "AmortizedCommitment": {
        "AmortizedRecurringCommitment": "string",
        "AmortizedUpfrontCommitment": "string",
        "TotalAmortizedCommitment": "string"
      },
      "Attributes": {
        "string": "string"
      },
      "Savings": {
        "NetSavings": "string",
        "OnDemandCostEquivalent": "string"
      },
      "SavingsPlanArn": "string",
      "Utilization": {
        "TotalCommitment": "string",
        "UnusedCommitment": "string",
        "UsedCommitment": "string",
        "UtilizationPercentage": "string"
      }
    }
  ],
  "TimePeriod": {
    "End": "string",
```

```
    "Start": "string"
  },
  "Total": {
    "AmortizedCommitment": {
      "AmortizedRecurringCommitment": "string",
      "AmortizedUpfrontCommitment": "string",
      "TotalAmortizedCommitment": "string"
    },
    "Savings": {
      "NetSavings": "string",
      "OnDemandCostEquivalent": "string"
    },
    "Utilization": {
      "TotalCommitment": "string",
      "UnusedCommitment": "string",
      "UsedCommitment": "string",
      "UtilizationPercentage": "string"
    }
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

SavingsPlansUtilizationDetails

Retrieves a single daily or monthly Savings Plans utilization rate and details for your account.

Type: Array of [SavingsPlansUtilizationDetail](#) objects

TimePeriod

The time period of the request.

Type: [DateInterval](#) object

Total

The total Savings Plans utilization, regardless of time period.

Type: [SavingsPlansUtilizationAggregates](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)

- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetTags

Service: Amazon Cost Explorer

Queries for available tag keys and tag values for a specified period. You can search the tag values for an arbitrary string.

Request Syntax

```
{
  "BillingViewArn": "string",
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "MaxResults": number,
  "NextPageToken": "string",
  "SearchString": "string",
  "SortBy": [
    {
      "Key": "string",
      "SortOrder": "string"
    }
  ],
}
```

```
"TagKey": "string",
"TimePeriod": {
  "End": "string",
  "Start": "string"
}
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[BillingViewArn](#)

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to Amazon Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/!:_+=.-@]{1,43}$`

Required: No

[Filter](#)

Use Expression to filter in various Cost Explorer APIs.

Not all Expression types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
 - There are three types of simple dimension values: CostCategories, Tags, and Dimensions.
 - Specify the CostCategories field to define a filter that acts on Cost Categories.

- Specify the Tags field to define a filter that acts on Cost Allocation Tags.
- Specify the Dimensions field to define a filter that acts on the [DimensionValues](#).
- For each filter type, you can set the dimension name and values for the filters that you plan to use.
 - For example, you can filter for REGION==us-east-1 OR REGION==us-west-1. For GetRightsizingRecommendation, the Region is a full name (for example, REGION==US East (N. Virginia)).
 - The corresponding Expression for this example is as follows: { "Dimensions": { "Key": "REGION", "Values": ["us-east-1", "us-west-1"] } }
 - As shown in the previous example, lists of dimension values are combined with OR when applying the filter.
- You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
 - For example, you can filter for linked account names that start with "a".
 - The corresponding Expression for this example is as follows: { "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": ["STARTS_WITH"], "Values": ["a"] } }
- Compound Expression types with logical operations.
 - You can use multiple Expression types and the logical operators AND/OR/NOT to create a list of one or more Expression objects. By doing this, you can filter by more advanced options.
 - For example, you can filter by ((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer).
 - The corresponding Expression for this example is as follows: { "And": [{"Or": [{"Dimensions": { "Key": "REGION", "Values": ["us-east-1", "us-west-1"] } }, {"Tags": { "Key": "TagName", "Values": ["Value1"] } }] }, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] } } }] }

 **Note**

Because each Expression can have only one operator, the service returns an error if more than one is specified. The following example shows an Expression

```
object that creates an error: { "And": [ ... ], "Dimensions": { "Key":  
"USAGE_TYPE", "Values": [ "DataTransfer" ] } }
```

The following is an example of the corresponding error message: "Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"

Note

For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to LINKED_ACCOUNT, REGION, or RIGHTSIZING_TYPE.

For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to LINKED_ACCOUNT.

Type: [Expression](#) object

Required: No

MaxResults

This field is only used when `SortBy` is provided in the request. The maximum number of objects that are returned for this request. If `MaxResults` isn't specified with `SortBy`, the request returns 1000 results as the default value for this parameter.

For `GetTags`, `MaxResults` has an upper quota of 1000.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextPageToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SearchString

The value that you want to search for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SortBy

The value that you want to sort the data by.

The key represents cost and usage metrics. The following values are supported:

- BlendedCost
- UnblendedCost
- AmortizedCost
- NetAmortizedCost
- NetUnblendedCost
- UsageQuantity
- NormalizedUsageAmount

The supported values for `SortOrder` are `ASCENDING` and `DESCENDING`.

When you use `SortBy`, `NextPageToken` and `SearchString` aren't supported.

Type: Array of [SortDefinition](#) objects

Required: No

TagKey

The key of the tag that you want to return values for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TimePeriod

The start and end dates for retrieving the dimension values. The start date is inclusive, but the end date is exclusive. For example, if `start` is `2017-01-01` and `end` is `2017-05-01`, then the cost and usage data is retrieved from `2017-01-01` up to and including `2017-04-30` but not including `2017-05-01`.

Type: [DateInterval](#) object

Required: Yes

Response Syntax

```
{
  "NextPageToken": "string",
  "ReturnSize": number,
  "Tags": [ "string" ],
  "TotalSize": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextPageToken

The token for the next set of retrievable results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

ReturnSize

The number of query results that Amazon returns at a time.

Type: Integer

Tags

The tags that match your request.

Type: Array of strings

TotalSize

The total number of query results.

Type: Integer

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

BillExpirationException

The requested report expired. Update the date interval and try again.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

RequestChangedException

Your request parameters changed between pages. Try again with the old parameters or without a pagination token.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

Examples

Example

The following example shows how to retrieve the list of tag keys using the GetTags operation.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetTags
{
  "TimePeriod": {
    "Start": "2017-01-01",
    "End": "2017-05-18"
```

```
  },
  "TagKey": "Project",
  "SearchString": "secretProject"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "ReturnSize": 2,
  "Tags": [
    "secretProject1",
    "secretProject2"
  ],
  "TotalSize": 2
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetUsageForecast

Service: Amazon Cost Explorer

Retrieves a forecast for how much Amazon Web Services predicts that you will use over the forecast time period that you select, based on your past usage.

Request Syntax

```
{
  "BillingViewArn": "string",
  "Filter": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "Granularity": "string",
  "Metric": "string",
  "PredictionIntervalLevel": number,
  "TimePeriod": {
    "End": "string",
    "Start": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to Amazon Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/!:_+.=.-@]{1,43}$`

Required: No

Filter

The filters that you want to use to filter your forecast. The GetUsageForecast API supports filtering by the following dimensions:

- AZ
- INSTANCE_TYPE
- LINKED_ACCOUNT
- LINKED_ACCOUNT_NAME
- OPERATION
- PURCHASE_TYPE
- REGION
- SERVICE
- USAGE_TYPE
- USAGE_TYPE_GROUP
- RECORD_TYPE
- OPERATING_SYSTEM

- TENANCY
- SCOPE
- PLATFORM
- SUBSCRIPTION_ID
- LEGAL_ENTITY_NAME
- DEPLOYMENT_OPTION
- DATABASE_ENGINE
- INSTANCE_TYPE_FAMILY
- BILLING_ENTITY
- RESERVATION_ID
- SAVINGS_PLAN_ARN

Type: [Expression](#) object

Required: No

Granularity

How granular you want the forecast to be. You can get 3 months of DAILY forecasts or 18 months of MONTHLY forecasts.

The `GetUsageForecast` operation supports only DAILY and MONTHLY granularities.

Type: String

Valid Values: DAILY | MONTHLY | HOURLY

Required: Yes

Metric

Which metric Cost Explorer uses to create your forecast.

Valid values for a `GetUsageForecast` call are the following:

- USAGE_QUANTITY
- NORMALIZED_USAGE_AMOUNT

Type: String

Valid Values: BLENDED_COST | UNBLENDED_COST | AMORTIZED_COST | NET_UNBLENDED_COST | NET_AMORTIZED_COST | USAGE_QUANTITY | NORMALIZED_USAGE_AMOUNT

Required: Yes

PredictionIntervalLevel

Amazon Cost Explorer always returns the mean forecast as a single point. You can request a prediction interval around the mean by specifying a confidence level. The higher the confidence level, the more confident Cost Explorer is about the actual value falling in the prediction interval. Higher confidence levels result in wider prediction intervals.

Type: Integer

Valid Range: Minimum value of 51. Maximum value of 99.

Required: No

TimePeriod

The start and end dates of the period that you want to retrieve usage forecast for. The start date is included in the period, but the end date isn't included in the period. For example, if start is 2017-01-01 and end is 2017-05-01, then the cost and usage data is retrieved from 2017-01-01 up to and including 2017-04-30 but not including 2017-05-01. The start date must be equal to or later than the current date to avoid a validation error.

Type: [DateInterval](#) object

Required: Yes

Response Syntax

```
{
  "ForecastResultsByTime": [
    {
      "MeanValue": "string",
      "PredictionIntervalLowerBound": "string",
      "PredictionIntervalUpperBound": "string",
      "TimePeriod": {
        "End": "string",
        "Start": "string"
      }
    }
  ]
}
```

```
    }
  }
],
"Total": {
  "Amount": "string",
  "Unit": "string"
}
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ForecastResultsByTime

The forecasts for your query, in order. For DAILY forecasts, this is a list of days. For MONTHLY forecasts, this is a list of months.

Type: Array of [ForecastResult](#) objects

Total

How much you're forecasted to use over the forecast period.

Type: [MetricValue](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

UnresolvableUsageUnitException

Cost Explorer was unable to identify the usage unit. Provide UsageType/UsageTypeGroup filter selections that contain matching units, for example: hours.

HTTP Status Code: 400

Examples

Example

The following example shows how to retrieve a forecast using the GetUsageForecast operation.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetUsageForecast
{
  "TimePeriod": {
    "Start": "2018-10-25",
    "End": "2018-10-27"
  },
  "Granularity": "DAILY",
```

```
"Filter": {
  "Dimensions": {
    "Key": "SERVICE",
    "Values": [
      "Amazon Simple Storage Service"
    ]
  }
},
"Metric": "USAGE_QUANTITY",
"PredictionIntervalLevel": 85
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "ForecastResultsByTime": [
    {
      "MeanValue": "37.0786663399",
      "PredictionIntervalLowerBound": "34.9970026341",
      "PredictionIntervalUpperBound": "39.1603300457",
      "TimePeriod": {
        "End": "2019-10-26",
        "Start": "2019-10-25"
      }
    },
    {
      "MeanValue": "37.0786663399",
      "PredictionIntervalLowerBound": "34.9970026341",
      "PredictionIntervalUpperBound": "39.1603300457",
      "TimePeriod": {
        "End": "2019-10-27",
        "Start": "2019-10-26"
      }
    }
  ],
  "Total": {
    "Amount": "74.1573326798",
    "Unit": "Hrs"
  }
}
```

```
}  
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListCommitmentPurchaseAnalyses

Service: Amazon Cost Explorer

Lists the commitment purchase analyses for your account.

Request Syntax

```
{
  "AnalysisIds": [ "string" ],
  "AnalysisStatus": "string",
  "NextPageToken": "string",
  "PageSize": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AnalysisIds

The analysis IDs associated with the commitment purchase analyses.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 600 items.

Length Constraints: Fixed length of 36.

Pattern: $^[\backslash S \backslash s]{8}-[\backslash S \backslash s]{4}-[\backslash S \backslash s]{4}-[\backslash S \backslash s]{4}-[\backslash S \backslash s]{12}\$$

Required: No

AnalysisStatus

The status of the analysis.

Type: String

Valid Values: SUCCEEDED | PROCESSING | FAILED

Required: No

NextPageToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

PageSize

The number of analyses that you want returned in a single response object.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 600.

Required: No

Response Syntax

```
{
  "AnalysisSummaryList": [
    {
      "AnalysisCompletionTime": "string",
      "AnalysisId": "string",
      "AnalysisStartedTime": "string",
      "AnalysisStatus": "string",
      "CommitmentPurchaseAnalysisConfiguration": {
        "SavingsPlansPurchaseAnalysisConfiguration": {
          "AccountId": "string",
          "AccountScope": "string",
          "AnalysisType": "string",
          "LookBackTimePeriod": {
            "End": "string",
            "Start": "string"
          },
          "SavingsPlansToAdd": [
            {
              "InstanceFamily": "string",
```

```
        "OfferingId": "string",
        "PaymentOption": "string",
        "Region": "string",
        "SavingsPlansCommitment": number,
        "SavingsPlansType": "string",
        "TermInYears": "string"
    }
],
    "SavingsPlansToExclude": [ "string" ]
}
},
    "ErrorCode": "string",
    "EstimatedCompletionTime": "string"
}
],
    "NextPageToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AnalysisSummaryList

The list of analyses.

Type: Array of [AnalysisSummary](#) objects

NextPageToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListCostAllocationTagBackfillHistory

Service: Amazon Cost Explorer

Retrieves a list of your historical cost allocation tag backfill requests.

Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

MaxResults

The maximum number of objects that are returned for this request.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

NextToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
```

```
"BackfillRequests": [  
  {  
    "BackfillFrom": "string",  
    "BackfillStatus": "string",  
    "CompletedAt": "string",  
    "LastUpdatedAt": "string",  
    "RequestedAt": "string"  
  }  
],  
"NextToken": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

BackfillRequests

The list of historical cost allocation tag backfill requests.

Type: Array of [CostAllocationTagBackfillRequest](#) objects

Array Members: Minimum number of 0 items. Maximum number of 1000 items.

NextToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: [\backslash S \backslash s]*

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

The following are sample requests and responses of the `ListCostAllocationTagBackfillHistory` operations.

Example 1: List the latest cost allocation tag backfill request

This example illustrates one usage of `ListCostAllocationTagBackfillHistory`.

Sample Request

```
{
  "MaxResults": 1
}
```

Sample Response

```
{
  "BackfillRequests": [
    {
      "BackfillFrom": "2024-02-01T00:00:00Z",
      "BackfillStatus": "PROCESSING",
      "RequestedAt": "2024-03-01T09:16:23Z",
      "LastUpdatedAt": "2024-03-01T09:16:23Z"
    }
  ],
  "NextToken": null
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListCostAllocationTags

Service: Amazon Cost Explorer

Get a list of cost allocation tags. All inputs in the API are optional and serve as filters. By default, all cost allocation tags are returned.

Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string",  
  "Status": "string",  
  "TagKeys": [ "string" ],  
  "Type": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

MaxResults

The maximum number of objects that are returned for this request. By default, the request returns 100 results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

NextToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Status

The status of cost allocation tag keys that are returned for this request.

Type: String

Valid Values: Active | Inactive

Required: No

TagKeys

The list of cost allocation tag keys that are returned for this request.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [`\S\s`]*

Required: No

Type

The type of `CostAllocationTag` object that are returned for this request. The `AWSGenerated` type tags are tags that Amazon defines and applies to support Amazon resources for cost allocation purposes. The `UserDefined` type tags are tags that you define, create, and apply to resources.

Type: String

Valid Values: `AWSGenerated` | `UserDefined`

Required: No

Response Syntax

```
{
  "CostAllocationTags": [
    {
      "LastUpdatedDate": "string",
```

```
    "LastUsedDate": "string",
    "Status": "string",
    "TagKey": "string",
    "Type": "string"
  }
],
"NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostAllocationTags

A list of cost allocation tags that includes the detailed metadata for each one.

Type: Array of [CostAllocationTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

NextToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

The following are sample requests and responses of the `ListCostAllocationTags` operations.

Example 1: List all user defined active tags

This example illustrates one usage of `ListCostAllocationTags`.

Sample Request

```
{
  "Type": "UserDefined",
  "Status": "Active"
}
```

Sample Response

```
{
  "CostAllocationTags": [
    {
      "TagKey": "tagA",
      "Type": "UserDefined",
      "Status": "Active"
    }
  ],
  "NextToken": null
}
```

Example 2: List all tags by tag keys

This example illustrates one usage of `ListCostAllocationTags`.

Sample Request

```
{
```

```
"TagKeys": ["tagA", "tagB"]
}
```

Sample Response

```
{
  "CostAllocationTags": [
    {
      "TagKey": "tagA",
      "Type": "UserDefined",
      "Status": "Active"
    },
    {
      "TagKey": "tagB",
      "Type": "UserDefined",
      "Status": "Inactive"
    }
  ],
  "NextToken": null
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListCostCategoryDefinitions

Service: Amazon Cost Explorer

Returns the name, Amazon Resource Name (ARN), NumberOfRules and effective dates of all cost categories defined in the account. You have the option to use EffectiveOn and SupportedResourceTypes to return a list of cost categories that were active on a specific date. If there is no EffectiveOn specified, you'll see cost categories that are effective on the current date. If cost category is still effective, EffectiveEnd is omitted in the response. ListCostCategoryDefinitions supports pagination. The request can have a MaxResults range up to 100.

Request Syntax

```
{
  "EffectiveOn": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SupportedResourceTypes": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

EffectiveOn

The date when the cost category was effective.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: $^{\backslash}d\{4\}-\backslash}d\backslash}d-\backslash}d\backslash}dT\backslash}d\backslash}d:\backslash}d\backslash}d:\backslash}d\backslash}d(([\+-]|\backslash}d\backslash}d:\backslash}d\backslash}d)|Z)$$

Required: No

MaxResults

The number of entries a paginated response contains.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SupportedResourceTypes

Filter cost category definitions that are supported by given resource types based on the latest version. If the filter is present, the result only includes Cost Categories that supports input resource type. If the filter isn't provided, no filtering is applied. The valid values are `billing:rispgroupsharing` and `billing:billingview`.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Pattern: `^[-a-zA-Z0-9/_]+: [-a-zA-Z0-9/_]+`

Required: No

Response Syntax

```
{
  "CostCategoryReferences": [
    {
      "CostCategoryArn": "string",
      "DefaultValue": "string",
      "EffectiveEnd": "string",
    }
  ]
}
```

```
"EffectiveStart": "string",
"Name": "string",
"NumberOfRules": number,
"ProcessingStatus": [
  {
    "Component": "string",
    "Status": "string"
  }
],
"SupportedResourceTypes": [ "string" ],
"Values": [ "string" ]
}
],
"NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategoryReferences

A reference to a cost category that contains enough information to identify the Cost Category.

Type: Array of [CostCategoryReference](#) objects

NextToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListCostCategoryResourceAssociations

Service: Amazon Cost Explorer

Returns resource associations of all cost categories defined in the account. You have the option to use `CostCategoryArn` to get the association for a specific cost category. `ListCostCategoryResourceAssociations` supports pagination. The request can have a `MaxResults` range up to 100.

Request Syntax

```
{
  "CostCategoryArn": "string",
  "MaxResults": number,
  "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

MaxResults

The number of entries a paginated response contains.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "CostCategoryResourceAssociations": [
    {
      "CostCategoryArn": "string",
      "CostCategoryName": "string",
      "ResourceArn": "string"
    }
  ],
  "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategoryResourceAssociations

A reference to a cost category association that contains information on an associated resource.

Type: Array of [CostCategoryResourceAssociation](#) objects

NextToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

Examples

The following is a sample response of the `ListCostCategoryResourceAssociations` operation that you can use to retrieve all associated cost categories and corresponding associated resources.

Example

This example illustrates one usage of `ListCostCategoryResourceAssociations`.

Sample Response

```
{
  "CostCategoryResourceAssociations": [
    {
      "CostCategoryArn": "arn:aws:ce::111122223333:costcategory/f595cb52-91ec-4575-
b99f-15829f405ba3",
      "CostCategoryName": "MyCostCategory",
      "ResourceArn": "arn:aws:billing::111122223333:rispgroupsharing/111122223333"
    }
  ]
}
```

```
]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListSavingsPlansPurchaseRecommendationGeneration

Service: Amazon Cost Explorer

Retrieves a list of your historical recommendation generations within the past 30 days.

Request Syntax

```
{
  "GenerationStatus": "string",
  "NextPageToken": "string",
  "PageSize": number,
  "RecommendationIds": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

GenerationStatus

The status of the recommendation generation.

Type: String

Valid Values: SUCCEEDED | PROCESSING | FAILED

Required: No

NextPageToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

PageSize

The number of recommendations that you want returned in a single response object.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 6000.

Required: No

RecommendationIds

The IDs for each specific recommendation.

Type: Array of strings

Length Constraints: Fixed length of 36.

Pattern: `^[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

Required: No

Response Syntax

```
{
  "GenerationSummaryList": [
    {
      "EstimatedCompletionTime": "string",
      "GenerationCompletionTime": "string",
      "GenerationStartTime": "string",
      "GenerationStatus": "string",
      "RecommendationId": "string"
    }
  ],
  "NextPageToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GenerationSummaryList

The list of historical recommendation generations.

Type: Array of [GenerationSummary](#) objects

[NextPageToken](#)

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)

- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListTagsForResource

Service: Amazon Cost Explorer

Returns a list of resource tags associated with the resource specified by the Amazon Resource Name (ARN).

Request Syntax

```
{
  "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of the resource. For a list of supported resources, see [ResourceTag](#).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
  "ResourceTags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ResourceTags

A list of tag key value pairs that are associated with the resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ProvideAnomalyFeedback

Service: Amazon Cost Explorer

Modifies the feedback property of a given cost anomaly.

Request Syntax

```
{
  "AnomalyId": "string",
  "Feedback": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AnomalyId

A cost anomaly ID.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Feedback

Describes whether the cost anomaly was a planned activity or you considered it an anomaly.

Type: String

Valid Values: YES | NO | PLANNED_ACTIVITY

Required: Yes

Response Syntax

```
{
```

```
"AnomalyId": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AnomalyId

The ID of the modified cost anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [*\S\s*]*

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

StartCommitmentPurchaseAnalysis

Service: Amazon Cost Explorer

Specifies the parameters of a planned commitment purchase and starts the generation of the analysis. This enables you to estimate the cost, coverage, and utilization impact of your planned commitment purchases.

Request Syntax

```
{
  "CommitmentPurchaseAnalysisConfiguration": {
    "SavingsPlansPurchaseAnalysisConfiguration": {
      "AccountId": "string",
      "AccountScope": "string",
      "AnalysisType": "string",
      "LookBackTimePeriod": {
        "End": "string",
        "Start": "string"
      },
    },
    "SavingsPlansToAdd": [
      {
        "InstanceFamily": "string",
        "OfferingId": "string",
        "PaymentOption": "string",
        "Region": "string",
        "SavingsPlansCommitment": number,
        "SavingsPlansType": "string",
        "TermInYears": "string"
      }
    ],
    "SavingsPlansToExclude": [ "string" ]
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

CommitmentPurchaseAnalysisConfiguration

The configuration for the commitment purchase analysis.

Type: [CommitmentPurchaseAnalysisConfiguration](#) object

Required: Yes

Response Syntax

```
{
  "AnalysisId": "string",
  "AnalysisStartedTime": "string",
  "EstimatedCompletionTime": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AnalysisId

The analysis ID that's associated with the commitment purchase analysis.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^\[S\s]{8}-\[S\s]{4}-\[S\s]{4}-\[S\s]{4}-\[S\s]{12}$`

AnalysisStartedTime

The start time of the analysis.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+ -]\d\d:\d\d)|Z)$`

EstimatedCompletionTime

The estimated time for when the analysis will complete.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(\[[+-]\d\d:\d\d)|Z)$`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

GenerationExistsException

A request to generate a recommendation or analysis is already in progress.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit on the number of resources you can create, or exceeded the size of an individual resource.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

StartCostAllocationTagBackfill

Service: Amazon Cost Explorer

Request a cost allocation tag backfill. This will backfill the activation status (either active or inactive) for all tag keys from `para:BackfillFrom` up to the time this request is made.

You can request a backfill once every 24 hours.

Request Syntax

```
{
  "BackfillFrom": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

BackfillFrom

The date you want the backfill to start from. The date can only be a first day of the month (a billing start date). Dates can't precede the previous twelve months, or in the future.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+ -]\d\d:\d\d)|Z)$`

Required: Yes

Response Syntax

```
{
  "BackfillRequest": {
    "BackfillFrom": "string",
    "BackfillStatus": "string",
    "CompletedAt": "string",
    "LastUpdatedAt": "string",
  }
}
```

```
    "RequestedAt": "string"  
  }  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

BackfillRequest

An object containing detailed metadata of your new backfill request.

Type: [CostAllocationTagBackfillRequest](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

BackfillLimitExceededException

A request to backfill is already in progress. Once the previous request is complete, you can create another request.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

The following are sample requests and responses of the `StartCostAllocationTagBackfill` operations.

Example 1: Successfully request a cost allocation tag backfill

This example illustrates one usage of `StartCostAllocationTagBackfill`.

Sample Request

```
{
  "BackfillFrom": "2024-02-01T00:00:00Z"
}
```

Sample Response

```
{
  "BackfillRequest": {
    "BackfillFrom": "2024-02-01T00:00:00Z",
    "BackfillStatus": "PROCESSING",
    "RequestedAt": "2024-03-01T09:16:23Z",
    "LastUpdatedAt": "2024-03-01T09:16:23Z"
  }
}
```

Example 2: The backfill is skipped because there is no tag status change since the last backfill

The latest successful backfill request is returned instead.

Sample Request

```
{
  "BackfillFrom": "2024-02-01T00:00:00Z"
}
```

Sample Response

```
{
  "BackfillRequest": {
    "BackfillFrom": "2024-02-01T00:00:00Z",
    "BackfillStatus": "SUCCEEDED",
    "RequestedAt": "2024-03-01T09:16:23Z",
    "LastUpdatedAt": "2024-03-02T06:45:00Z",
    "CompletedAt": "2024-03-02T06:45:00Z"
  }
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

StartSavingsPlansPurchaseRecommendationGeneration

Service: Amazon Cost Explorer

Requests a Savings Plans recommendation generation. This enables you to calculate a fresh set of Savings Plans recommendations that takes your latest usage data and current Savings Plans inventory into account. You can refresh Savings Plans recommendations up to three times daily for a consolidated billing family.

Note

StartSavingsPlansPurchaseRecommendationGeneration has no request syntax because no input parameters are needed to support this operation.

Response Syntax

```
{
  "EstimatedCompletionTime": "string",
  "GenerationStartedTime": "string",
  "RecommendationId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

EstimatedCompletionTime

The estimated time for when the recommendation generation will complete.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+ -]\d\d:\d\d)|Z)$`

GenerationStartedTime

The start time of the recommendation generation.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(\[+-]\d\d:\d\d)|Z)$`

RecommendationId

The ID for this specific recommendation.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[\\S\\s]{8}-[\\S\\s]{4}-[\\S\\s]{4}-[\\S\\s]{4}-[\\S\\s]{12}$`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

GenerationExistsException

A request to generate a recommendation or analysis is already in progress.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit on the number of resources you can create, or exceeded the size of an individual resource.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

TagResource

Service: Amazon Cost Explorer

An API operation for adding one or more tags (key-value pairs) to a resource.

You can use the `TagResource` operation with a resource that already has tags. If you specify a new tag key for the resource, this tag is appended to the list of tags associated with the resource. If you specify a tag key that is already associated with the resource, the new tag value you specify replaces the previous value for that tag.

Although the maximum number of array members is 200, user-tag maximum is 50. The remaining are reserved for Amazon use.

Request Syntax

```
{
  "ResourceArn": "string",
  "ResourceTags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of the resource. For a list of supported resources, see [ResourceTag](#).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

[ResourceTags](#)

A list of tag key-value pairs to be added to the resource.

Each tag consists of a key and a value, and each key must be unique for the resource. The following restrictions apply to resource tags:

- Although the maximum number of array members is 200, you can assign a maximum of 50 user-tags to one resource. The remaining are reserved for Amazon use
- The maximum length of a key is 128 characters
- The maximum length of a value is 256 characters
- Keys and values can only contain alphanumeric characters, spaces, and any of the following:
_ . : / = + @ -
- Keys and values are case sensitive
- Keys and values are trimmed for any leading or trailing whitespaces
- Don't use `aws :` as a prefix for your keys. This prefix is reserved for Amazon use

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

TooManyTagsException

Can occur if you specify a number of tags for a resource greater than the maximum 50 user tags per resource.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UntagResource

Service: Amazon Cost Explorer

Removes one or more tags from a resource. Specify only tag keys in your request. Don't specify the value.

Request Syntax

```
{
  "ResourceArn": "string",
  "ResourceTagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of the resource. For a list of supported resources, see [ResourceTag](#).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

ResourceTagKeys

A list of tag keys associated with tags that need to be removed from the resource. If you specify a tag key that doesn't exist, it's ignored. Although the maximum number of array members is 200, user-tag maximum is 50. The remaining are reserved for Amazon use.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^([\p{L}\p{Z}\p{N}_ . : / = + \ - @] *)$`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)

- [Amazon SDK for Ruby V3](#)

UpdateAnomalyMonitor

Service: Amazon Cost Explorer

Updates an existing cost anomaly monitor. The changes made are applied going forward, and doesn't change anomalies detected in the past.

Request Syntax

```
{
  "MonitorArn": "string",
  "MonitorName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

MonitorArn

Cost anomaly monitor Amazon Resource Names (ARNs).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

MonitorName

The new name for the cost anomaly monitor.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{  
  "MonitorArn": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[MonitorArn](#)

A cost anomaly monitor ARN.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownMonitorException

The cost anomaly monitor does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateAnomalySubscription

Service: Amazon Cost Explorer

Updates an existing cost anomaly subscription. Specify the fields that you want to update. Omitted fields are unchanged.

Note

The JSON below describes the generic construct for each type. See [Request Parameters](#) for possible values as they apply to AnomalySubscription.

Request Syntax

```
{
  "Frequency": "string",
  "MonitorArnList": [ "string" ],
  "Subscribers": [
    {
      "Address": "string",
      "Status": "string",
      "Type": "string"
    }
  ],
  "SubscriptionArn": "string",
  "SubscriptionName": "string",
  "Threshold": number,
  "ThresholdExpression": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
```

```
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[Frequency](#)

The update to the frequency value that subscribers receive notifications.

Type: String

Valid Values: DAILY | IMMEDIATE | WEEKLY

Required: No

[MonitorArnList](#)

A list of cost anomaly monitor ARNs.

Type: Array of strings

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

[Subscribers](#)

The update to the subscriber list.

Type: Array of [Subscriber](#) objects

Required: No

SubscriptionArn

A cost anomaly subscription Amazon Resource Name (ARN).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

SubscriptionName

The new name of the subscription.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Threshold

(deprecated)

The update to the threshold value for receiving notifications.

This field has been deprecated. To update a threshold, use `ThresholdExpression`. Continued use of `Threshold` will be treated as shorthand syntax for a `ThresholdExpression`.

You can specify either `Threshold` or `ThresholdExpression`, but not both.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

ThresholdExpression

The update to the [Expression](#) object used to specify the anomalies that you want to generate alerts for. This supports dimensions and nested expressions. The supported dimensions are `ANOMALY_TOTAL_IMPACT_ABSOLUTE` and `ANOMALY_TOTAL_IMPACT_PERCENTAGE`, corresponding to an anomaly's `TotalImpact` and `TotalImpactPercentage`, respectively (see

[Impact](#) for more details). The supported nested expression types are AND and OR. The match option `GREATER_THAN_OR_EQUAL` is required. Values must be numbers between 0 and 10,000,000,000 in string format.

You can specify either `Threshold` or `ThresholdExpression`, but not both.

The following are examples of valid `ThresholdExpressions`:

- Absolute threshold:

```
{ "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_ABSOLUTE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }
```
- Percentage threshold:

```
{ "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_PERCENTAGE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }
```
- AND two thresholds together:

```
{ "And": [ { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_ABSOLUTE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }, { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_PERCENTAGE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } } ] }
```
- OR two thresholds together:

```
{ "Or": [ { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_ABSOLUTE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }, { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_PERCENTAGE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } } ] }
```

Type: [Expression](#) object

Required: No

Response Syntax

```
{  
  "SubscriptionArn": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

SubscriptionArn

A cost anomaly subscription ARN.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownMonitorException

The cost anomaly monitor does not exist for the account.

HTTP Status Code: 400

UnknownSubscriptionException

The cost anomaly subscription does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)

- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateCostAllocationTagsStatus

Service: Amazon Cost Explorer

Updates status for cost allocation tags in bulk, with maximum batch size of 20. If the tag status that's updated is the same as the existing tag status, the request doesn't fail. Instead, it doesn't have any effect on the tag status (for example, activating the active tag).

Request Syntax

```
{
  "CostAllocationTagsStatus": [
    {
      "Status": "string",
      "TagKey": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[CostAllocationTagsStatus](#)

The list of `CostAllocationTagStatusEntry` objects that are used to update cost allocation tags status for this request.

Type: Array of [CostAllocationTagStatusEntry](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: Yes

Response Syntax

```
{
  "Errors": [
    {
      "Code": "string",
      "Message": "string",
    }
  ]
}
```

```
    "TagKey": "string"  
  }  
]  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Errors

A list of `UpdateCostAllocationTagsStatusError` objects with error details about each cost allocation tag that can't be updated. If there's no failure, an empty array returns.

Type: Array of [UpdateCostAllocationTagsStatusError](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

The following are sample requests and responses of the `UpdateCostAllocationTagsStatus` operations.

Example 1: Successfully updated all tag status

This example illustrates one usage of `UpdateCostAllocationTagsStatus`.

Sample Request

```
{
```

```
    "CostAllocationTagsStatus": [  
      {  
        "TagKey": "tagA",  
        "Status": "Active"  
      },  
      {  
        "TagKey": "tagB",  
        "Status": "Inactive"  
      }  
    ]  
  }  
}
```

Sample Response

```
{  
  "Errors": []  
}
```

Example 2: Failed to update one of the tag statuses

This example illustrates one usage of UpdateCostAllocationTagsStatus.

Sample Request

```
{  
  "CostAllocationTagsStatus": [  
    {  
      "TagKey": "tagC",  
      "Status": "Active"  
    },  
    {  
      "TagKey": "tagD",  
      "Status": "Inactive"  
    }  
  ]  
}
```

Sample Response

```
{  
  "Errors": [  
    {
```

```
        "TagKey": "tagC",
        "Code": "TagKeysNotFoundException",
        "Message": "Failed to update Cost Allocation Tag: tagC"
    }
]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateCostCategoryDefinition

Service: Amazon Cost Explorer

Updates an existing cost category. Changes made to the cost category rules will be used to categorize the current month's expenses and future expenses. This won't change categorization for the previous months.

Request Syntax

```
{
  "CostCategoryArn": "string",
  "DefaultValue": "string",
  "EffectiveStart": "string",
  "Rules": [
    {
      "InheritedValue": {
        "DimensionKey": "string",
        "DimensionName": "string"
      },
      "Rule": {
        "And": [
          "Expression"
        ],
        "CostCategories": {
          "Key": "string",
          "MatchOptions": [ "string" ],
          "Values": [ "string" ]
        },
        "Dimensions": {
          "Key": "string",
          "MatchOptions": [ "string" ],
          "Values": [ "string" ]
        },
        "Not": "Expression",
        "Or": [
          "Expression"
        ],
        "Tags": {
          "Key": "string",
          "MatchOptions": [ "string" ],
          "Values": [ "string" ]
        }
      }
    }
  ],
}
```

```
    "Type": "string",
    "Value": "string"
  }
],
"RuleVersion": "string",
"SplitChargeRules": [
  {
    "Method": "string",
    "Parameters": [
      {
        "Type": "string",
        "Values": [ "string" ]
      }
    ],
    "Source": "string",
    "Targets": [ "string" ]
  }
]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

DefaultValue

The default value for the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)$`

Required: No

EffectiveStart

The cost category's effective start date. It can only be a billing start date (first day of the month). If the date isn't provided, it's the first day of the current month. Dates can't be before the previous twelve months, or in the future.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([\+-]\d\d:\d\d)|Z)$`

Required: No

Rules

The `Expression` object used to categorize costs. For more information, see [CostCategoryRule](#).

Type: Array of [CostCategoryRule](#) objects

Array Members: Minimum number of 1 item. Maximum number of 500 items.

Required: Yes

RuleVersion

The rule schema version in this particular cost category.

Type: String

Valid Values: `CostCategoryExpression.v1`

Required: Yes

SplitChargeRules

The split charge rules used to allocate your charges between your cost category values.

Type: Array of [CostCategorySplitChargeRule](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

Response Syntax

```
{
  "CostCategoryArn": "string",
  "EffectiveStart": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

EffectiveStart

The cost category's effective start date. It can only be a billing start date (first day of the month).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+ -]\d\d:\d\d) | Z)$`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit on the number of resources you can create, or exceeded the size of an individual resource.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

Amazon Billing and Cost Management Dashboards

The following actions are supported by Amazon Billing and Cost Management Dashboards:

- [CreateDashboard](#)
- [DeleteDashboard](#)
- [GetDashboard](#)

- [GetResourcePolicy](#)
- [ListDashboards](#)
- [ListTagsForResource](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateDashboard](#)

CreateDashboard

Service: Amazon Billing and Cost Management Dashboards

Creates a new dashboard that can contain multiple widgets displaying cost and usage data. You can add custom widgets or use predefined widgets, arranging them in your preferred layout.

Request Syntax

```
{
  "description": "string",
  "name": "string",
  "resourceTags": [
    {
      "key": "string",
      "value": "string"
    }
  ],
  "widgets": [
    {
      "configs": [
        {
          "displayConfig": { ... },
          "queryParameters": { ... }
        }
      ],
      "description": "string",
      "height": number,
      "horizontalOffset": number,
      "title": "string",
      "width": number
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

description

A description of the dashboard's purpose or contents.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: (?!. * {2})[a-zA-Z0-9.,!?:;@#%&\-_/\\]*

Required: No

name

The name of the dashboard. The name must be unique within your account.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 50.

Pattern: (?!. * {2})[a-zA-Z][a-zA-Z0-9 _-]{0,48}[a-zA-Z0-9_-]

Required: Yes

resourceTags

The tags to apply to the dashboard resource for organization and management.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

widgets

An array of widget configurations that define the visualizations to be displayed in the dashboard. Each dashboard can contain up to 20 widgets.

Type: Array of [Widget](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: Yes

Response Syntax

```
{
  "arn": "string"
}
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The ARN of the newly created dashboard.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(*|[-a-z0-9]+)`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient permissions to perform this action. Verify your IAM permissions and any resource policies.

HTTP Status Code: 400

InternalServerError

An internal error occurred while processing the request. Retry your request. If the problem persists, contact Amazon Support.

HTTP Status Code: 500

ServiceQuotaExceededException

The request would exceed service quotas. For example, attempting to create more than 20 widgets in a dashboard or exceeding the maximum number of dashboards per account.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteDashboard

Service: Amazon Billing and Cost Management Dashboards

Deletes a specified dashboard. This action cannot be undone.

Request Syntax

```
{
  "arn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

arn

The ARN of the dashboard to be deleted.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards:[0-9]{12}:dashboard/(*|[-a-z0-9]+)`

Required: Yes

Response Syntax

```
{
  "arn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The ARN of the dashboard that was deleted.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards:[0-9]{12}:dashboard/(*|[-a-z0-9]+)`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient permissions to perform this action. Verify your IAM permissions and any resource policies.

HTTP Status Code: 400

InternalServerErrorException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact Amazon Support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetDashboard

Service: Amazon Billing and Cost Management Dashboards

Retrieves the configuration and metadata of a specified dashboard, including its widgets and layout settings.

Request Syntax

```
{
  "arn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

arn

The ARN of the dashboard to retrieve. This is required to uniquely identify the dashboard.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards:[0-9]{12}:dashboard/(*|[-a-z0-9]+)`

Required: Yes

Response Syntax

```
{
  "arn": "string",
  "createdAt": number,
  "description": "string",
  "name": "string",
  "type": "string",
  "updatedAt": number,
  "widgets": [
```

```
{
  "configs": [
    {
      "displayConfig": { ... },
      "queryParameters": { ... }
    }
  ],
  "description": "string",
  "height": number,
  "horizontalOffset": number,
  "title": "string",
  "width": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The ARN of the retrieved dashboard.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards:[0-9]{12}:dashboard/(*|[-a-z0-9]+)`

createdAt

The timestamp when the dashboard was created.

Type: Timestamp

description

The description of the retrieved dashboard.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: (?!. * {2})[a-zA-Z0-9.,!?:@#%&\-_\^\\]*

name

The name of the retrieved dashboard.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 50.

Pattern: (?!. * {2})[a-zA-Z][a-zA-Z0-9 _-]{0,48}[a-zA-Z0-9_-]

type

Indicates the dashboard type.

Type: String

Valid Values: CUSTOM

updatedAt

The timestamp when the dashboard was last modified.

Type: Timestamp

widgets

An array of widget configurations that make up the dashboard.

Type: Array of [Widget](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient permissions to perform this action. Verify your IAM permissions and any resource policies.

HTTP Status Code: 400

InternalServerErrorException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact Amazon Support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource (dashboard, policy, or widget) was not found. Verify the ARN and try again.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)

- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetResourcePolicy

Service: Amazon Billing and Cost Management Dashboards

Retrieves the resource-based policy attached to a dashboard, showing sharing configurations and permissions.

Request Syntax

```
{
  "resourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

resourceArn

The ARN of the dashboard whose resource-based policy you want to retrieve.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(*|[-a-z0-9]+)`

Required: Yes

Response Syntax

```
{
  "policyDocument": "string",
  "resourceArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

policyDocument

The JSON policy document that represents the dashboard's resource-based policy.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

resourceArn

The ARN of the dashboard for which the resource-based policy was retrieved.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(*|[-a-z0-9]+)`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient permissions to perform this action. Verify your IAM permissions and any resource policies.

HTTP Status Code: 400

InternalServerError

An internal error occurred while processing the request. Retry your request. If the problem persists, contact Amazon Support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource (dashboard, policy, or widget) was not found. Verify the ARN and try again.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListDashboards

Service: Amazon Billing and Cost Management Dashboards

Returns a list of all dashboards in your account.

Request Syntax

```
{
  "maxResults": number,
  "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

maxResults

The maximum number of results to return in a single call. The default value is 20.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

nextToken

The token for the next page of results. Use the value returned in the previous response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
```

```
"dashboards": [  
  {  
    "arn": "string",  
    "createdAt": number,  
    "description": "string",  
    "name": "string",  
    "type": "string",  
    "updatedAt": number  
  }  
],  
"nextToken": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

dashboards

An array of dashboard references, containing basic information about each dashboard.

Type: Array of [DashboardReference](#) objects

nextToken

The token to use to retrieve the next page of results. Not returned if there are no more results to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient permissions to perform this action. Verify your IAM permissions and any resource policies.

HTTP Status Code: 400

InternalServerErrorException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact Amazon Support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListTagsForResource

Service: Amazon Billing and Cost Management Dashboards

Returns a list of all tags associated with a specified dashboard resource.

Request Syntax

```
{
  "resourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

resourceArn

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(*|[-a-z0-9]+)`

Required: Yes

Response Syntax

```
{
  "resourceTags": [
    {
      "key": "string",
      "value": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

resourceTags

The list of tags associated with the specified dashboard resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact Amazon Support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource (dashboard, policy, or widget) was not found. Verify the ARN and try again.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

TagResource

Service: Amazon Billing and Cost Management Dashboards

Adds or updates tags for a specified dashboard resource.

Request Syntax

```
{
  "resourceArn": "string",
  "resourceTags": [
    {
      "key": "string",
      "value": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

resourceArn

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(*|[-a-z0-9]+)`

Required: Yes

resourceTags

The tags to add to the dashboard resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact Amazon Support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource (dashboard, policy, or widget) was not found. Verify the ARN and try again.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UntagResource

Service: Amazon Billing and Cost Management Dashboards

Removes specified tags from a dashboard resource.

Request Syntax

```
{
  "resourceArn": "string",
  "resourceTagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

resourceArn

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(*|[-a-z0-9]+)`

Required: Yes

resourceTagKeys

The keys of the tags to remove from the dashboard resource.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\S\s]*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact Amazon Support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource (dashboard, policy, or widget) was not found. Verify the ARN and try again.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateDashboard

Service: Amazon Billing and Cost Management Dashboards

Updates an existing dashboard's properties, including its name, description, and widget configurations.

Request Syntax

```
{
  "arn": "string",
  "description": "string",
  "name": "string",
  "widgets": [
    {
      "configs": [
        {
          "displayConfig": { ... },
          "queryParameters": { ... }
        }
      ],
      "description": "string",
      "height": number,
      "horizontalOffset": number,
      "title": "string",
      "width": number
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

arn

The ARN of the dashboard to update.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(*|[-a-z0-9]+)`

Required: Yes

description

The new description for the dashboard. If not specified, the existing description is retained.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!.* {2})[a-zA-Z0-9.,!?:;@#$$%&\-_/\]*`

Required: No

name

The new name for the dashboard. If not specified, the existing name is retained.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 50.

Pattern: `(?!.* {2})[a-zA-Z][a-zA-Z0-9 _-]{0,48}[a-zA-Z0-9_-]`

Required: No

widgets

The updated array of widget configurations for the dashboard. Replaces all existing widgets.

Type: Array of [Widget](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

Response Syntax

```
{
  "arn": "string"
}
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The ARN of the updated dashboard.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(*|[-a-z0-9]+)`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient permissions to perform this action. Verify your IAM permissions and any resource policies.

HTTP Status Code: 400

InternalServerError

An internal error occurred while processing the request. Retry your request. If the problem persists, contact Amazon Support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource (dashboard, policy, or widget) was not found. Verify the ARN and try again.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

Amazon Data Exports

The following actions are supported by Amazon Data Exports:

- [CreateExport](#)
- [DeleteExport](#)
- [GetExecution](#)

- [GetExport](#)
- [GetTable](#)
- [ListExecutions](#)
- [ListExports](#)
- [ListTables](#)
- [ListTagsForResource](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateExport](#)

CreateExport

Service: Amazon Data Exports

Creates a data export and specifies the data query, the delivery preference, and any optional resource tags.

A DataQuery consists of both a QueryStatement and TableConfigurations.

The QueryStatement is an SQL statement. Data Exports only supports a limited subset of the SQL syntax. For more information on the SQL syntax that is supported, see [Data query](#). To view the available tables and columns, see the [Data Exports table dictionary](#).

The TableConfigurations is a collection of specified TableProperties for the table being queried in the QueryStatement. TableProperties are additional configurations you can provide to change the data and schema of a table. Each table can have different TableProperties. However, tables are not required to have any TableProperties. Each table property has a default value that it assumes if not specified. For more information on table configurations, see [Data query](#). To view the table properties available for each table, see the [Data Exports table dictionary](#) or use the ListTables API to get a response of all tables and their available properties.

Request Syntax

```
{
  "Export": {
    "DataQuery": {
      "QueryStatement": "string",
      "TableConfigurations": {
        "string" : {
          "string" : "string"
        }
      }
    },
    "Description": "string",
    "DestinationConfigurations": {
      "S3Destination": {
        "S3Bucket": "string",
        "S3OutputConfigurations": {
          "Compression": "string",
          "Format": "string",
          "OutputType": "string",
          "Overwrite": "string"
        }
      }
    }
  }
}
```

```
    },
    "S3Prefix": "string",
    "S3Region": "string"
  }
},
"ExportArn": "string",
"Name": "string",
"RefreshCadence": {
  "Frequency": "string"
}
},
"ResourceTags": [
  {
    "Key": "string",
    "Value": "string"
  }
]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

Export

The details of the export, including data query, name, description, and destination configuration.

Type: [Export](#) object

Required: Yes

ResourceTags

An optional list of tags to associate with the specified export. Each tag consists of a key and a value, and each key must be unique for the resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Syntax

```
{  
  "ExportArn": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[ExportArn](#)

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/_:~+]`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ServiceQuotaExceededException

You've reached the limit on the number of resources you can create, or exceeded the size of an individual resource.

QuotaCode

The quota code that was exceeded.

ResourceId

The identifier of the resource that exceeded quota.

ResourceType

The type of the resource that exceeded quota.

ServiceCode

The service code that exceeded quota. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the CreateExport operation.

This example illustrates one usage of CreateExport.

Sample Request

```
{
  "Export": {
    "Name": "ExampleExportName",
    "Description": "Example Description",
    "DataQuery": {
      "QueryStatement": "SELECT identity_line_item_id, identity_time_interval,
line_item_product_code,line_item_unblended_cost FROM COST_AND_USAGE_REPORT",
      "TableConfigurations": {
        "COST_AND_USAGE_REPORT": {
          "TIME_GRANULARITY": "DAILY",
          "INCLUDE_RESOURCES": "FALSE",
          "INCLUDE_MANUAL_DISCOUNT_COMPATIBILITY": "FALSE",
          "INCLUDE_SPLIT_COST_ALLOCATION_DATA": "FALSE"
        }
      }
    },
    "DestinationConfigurations": {
      "S3Destination": {
        "S3Bucket": "ExampleS3Bucket",
        "S3Prefix": "ExampleS3Prefix",
        "S3Region": "us-east-1",
        "S3OutputConfigurations": {
          "Overwrite": "OVERWRITE_REPORT",
          "Format": "TEXT_OR_CSV",
          "Compression": "GZIP",
          "OutputType": "CUSTOM"
        }
      }
    },
    "RefreshCadence": {
      "Frequency": "SYNCHRONOUS"
    }
  },
  "ResourceTags": [
    {
      "Key": "YourTagKey",
      "Value": "YourTagValue"
    }
  ]
}
```

The following is a sample response of the CreateExport operation.

This example illustrates one usage of CreateExport.

Sample Response

```
{
  "ExportArn": "arn:aws:bcm-data-exports:::export/Example-b9ac8e7c-6a49-468f-
a43e-9ce6b5b051d1"
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteExport

Service: Amazon Data Exports

Deletes an existing data export.

Request Syntax

```
{
  "ExportArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
  "ExportArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the `DeleteExport` operation.

This example illustrates one usage of `DeleteExport`.

Sample Request

```
{
  "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927"
}
```

The following is a sample response of the `DeleteExport` operation.

This example illustrates one usage of `DeleteExport`.

Sample Response

```
{
  "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927"
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetExecution

Service: Amazon Data Exports

Exports data based on the source data update.

Request Syntax

```
{
  "ExecutionId": "string",
  "ExportArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ExecutionId

The ID for this specific execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

ExportArn

The Amazon Resource Name (ARN) of the Export object that generated this specific execution.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
  "ExecutionId": "string",
  "ExecutionStatus": {
    "CompletedAt": "string",
    "CreatedAt": "string",
    "LastUpdatedAt": "string",
    "StatusCode": "string",
    "StatusReason": "string"
  },
  "Export": {
    "DataQuery": {
      "QueryStatement": "string",
      "TableConfigurations": {
        "string" : {
          "string" : "string"
        }
      }
    },
    "Description": "string",
    "DestinationConfigurations": {
      "S3Destination": {
        "S3Bucket": "string",
        "S3OutputConfigurations": {
          "Compression": "string",
          "Format": "string",
          "OutputType": "string",
          "Overwrite": "string"
        },
        "S3Prefix": "string",
        "S3Region": "string"
      }
    },
    "ExportArn": "string",
    "Name": "string",
    "RefreshCadence": {
      "Frequency": "string"
    }
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ExecutionId

The ID for this specific execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

ExecutionStatus

The status of this specific execution.

Type: [ExecutionStatus](#) object

Export

The export data for this specific execution. This export data is a snapshot from when the execution was generated. The data could be different from the current export data if the export was updated since the execution was generated.

Type: [Export](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the `GetExecution` operation.

This example illustrates one usage of `GetExecution`.

Sample Request

```
{
```

```
"ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-  
b38a12c3a927",  
"ExecutionId": "8ae3fbeb-fbeb-4048-bb39-f7c6c7e80c21"  
}
```

The following is a sample response of the `GetExecution` operation.

This example illustrates one usage of `GetExecution`.

Sample Response

```
{  
  "ExecutionId": "f0cfeaf0-c552-47e7-82bc-0107fbfc7a8b",  
  "ExecutionStatus": {  
    "CreatedAt": "2023-11-14T18:14:12.813Z",  
    "LastUpdatedAt": "2023-11-14T18:18:14.252556820Z",  
    "StatusCode": "DELIVERY_SUCCESS"  
  },  
  "Export": {  
    "Name": "ExampleExportName",  
    "Description": "Example Description",  
    "DataQuery": {  
      "QueryStatement": "SELECT identity_line_item_id, identity_time_interval,  
line_item_product_code,line_item_unblended_cost FROM COST_AND_USAGE_REPORT",  
      "TableConfigurations": {  
        "COST_AND_USAGE_REPORT": {  
          "TIME_GRANULARITY": "DAILY",  
          "INCLUDE_RESOURCES": "FALSE",  
          "INCLUDE_MANUAL_DISCOUNT_COMPATIBILITY": "FALSE",  
          "INCLUDE_SPLIT_COST_ALLOCATION_DATA": "FALSE"  
        }  
      }  
    },  
    "DestinationConfigurations": {  
      "S3Destination": {  
        "S3Bucket": "ExampleS3Bucket",  
        "S3Prefix": "ExampleS3Prefix",  
        "S3Region": "us-east-1",  
        "S3OutputConfigurations": {  
          "Overwrite": "OVERWRITE_REPORT",  
          "Format": "TEXT_OR_CSV",  
          "Compression": "GZIP",  
          "OutputType": "CUSTOM"  
        }  
      }  
    }  
  }  
}
```

```
    }
  },
  "RefreshCadence": {
    "Frequency": "SYNCHRONOUS"
  }
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetExport

Service: Amazon Data Exports

Views the definition of an existing data export.

Request Syntax

```
{
  "ExportArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[ExportArn](#)

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/_:~+]`

Required: Yes

Response Syntax

```
{
  "Export": {
    "DataQuery": {
      "QueryStatement": "string",
      "TableConfigurations": {
        "string" : {
          "string" : "string"
        }
      }
    }
  },
}
```

```
"Description": "string",
"DestinationConfigurations": {
  "S3Destination": {
    "S3Bucket": "string",
    "S3OutputConfigurations": {
      "Compression": "string",
      "Format": "string",
      "OutputType": "string",
      "Overwrite": "string"
    },
    "S3Prefix": "string",
    "S3Region": "string"
  }
},
"ExportArn": "string",
"Name": "string",
"RefreshCadence": {
  "Frequency": "string"
}
},
"ExportStatus": {
  "CreatedAt": "string",
  "LastRefreshedAt": "string",
  "LastUpdatedAt": "string",
  "StatusCode": "string",
  "StatusReason": "string"
}
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[Export](#)

The data for this specific export.

Type: [Export](#) object

[ExportStatus](#)

The status of this specific export.

Type: [ExportStatus](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the `GetExport` operation.

This example illustrates one usage of `GetExport`.

Sample Request

```
{
  "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927"
}
```

The following is a sample response of the `GetExport` operation.

This example illustrates one usage of `GetExport`.

Sample Response

```
{
  "Export": {
    "Name": "ExampleExportName",
    "Description": "Example Description",
    "DataQuery": {
      "QueryStatement": "SELECT identity_line_item_id, identity_time_interval,
line_item_product_code,line_item_unblended_cost FROM COST_AND_USAGE_REPORT",
      "TableConfigurations": {
        "COST_AND_USAGE_REPORT": {
          "TIME_GRANULARITY": "DAILY",
          "INCLUDE_RESOURCES": "FALSE",
          "INCLUDE_MANUAL_DISCOUNT_COMPATIBILITY": "FALSE",
          "INCLUDE_SPLIT_COST_ALLOCATION_DATA": "FALSE"
        }
      }
    },
    "DestinationConfigurations": {
```

```
    "S3Destination": {
      "S3Bucket": "ExampleS3Bucket",
      "S3Prefix": "ExampleS3Prefix",
      "S3Region": "us-east-1",
      "S3OutputConfigurations": {
        "Overwrite": "OVERWRITE_REPORT",
        "Format": "TEXT_OR_CSV",
        "Compression": "GZIP",
        "OutputType": "CUSTOM"
      }
    },
    "RefreshCadence": {
      "Frequency": "SYNCHRONOUS"
    },
    "ExportStatus": {
      "CreatedAt": "2023-11-14T18:02:02.371Z",
      "LastRefreshedAt": "2023-11-14T18:18:12.592Z",
      "LastUpdatedAt": "2023-11-14T18:02:02.371Z",
      "StatusCode": "HEALTHY"
    }
  }
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetTable

Service: Amazon Data Exports

Returns the metadata for the specified table and table properties. This includes the list of columns in the table schema, their data types, and column descriptions.

Request Syntax

```
{
  "TableName": "string",
  "TableProperties": {
    "string" : "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

TableProperties

TableProperties are additional configurations you can provide to change the data and schema of a table. Each table can have different TableProperties. Tables are not required to have any TableProperties. Each table property has a default value that it assumes if not specified.

Type: String to string map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Value Length Constraints: Minimum length of 0. Maximum length of 1024.

Value Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "Description": "string",
  "Schema": [
    {
      "Description": "string",
      "Name": "string",
      "Type": "string"
    }
  ],
  "TableName": "string",
  "TableProperties": {
    "string" : "string"
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Description

The table description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Schema

The schema of the table.

Type: Array of [Column](#) objects

TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

TableProperties

TableProperties are additional configurations you can provide to change the data and schema of a table. Each table can have different TableProperties. Tables are not required to have any TableProperties. Each table property has a default value that it assumes if not specified.

Type: String to string map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Value Length Constraints: Minimum length of 0. Maximum length of 1024.

Value Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the GetTable operation.

This example illustrates one usage of GetTable.

Sample Request

```
{
  "TableName": "COST_AND_USAGE_REPORT",
  "TableProperties": {
  }
}
```

The following is a sample response of the GetTable operation.

This example illustrates one usage of GetTable.

Sample Response

```
{
  "Description": "Cost and Usage Report",
```

```

"Schema": [
  {
    "Description": "This field is generated for each line item and is unique
in a given partition. This does not guarantee that the field will be unique across
an entire delivery (that is, all partitions in an update) of the AWS CUR. The line
item ID isn't consistent between different Cost and Usage Reports and can't be used to
identify the same line item across different reports.",
    "Name": "identity_line_item_id",
    "Type": "String"
  },
  {
    "Description": "The time interval that this line item applies to, in the
following format: YYYY-MM-DDTHH:mm:ssZ/YYYY-MM-DDTHH:mm:ssZ. The time interval is in
UTC and can be either daily or hourly, depending on the granularity of the report.",
    "Name": "identity_time_interval",
    "Type": "String"
  },
  {
    "Description": "The ID associated with a specific line item. Until the
report is final, the InvoiceId is blank.",
    "Name": "bill_invoice_id",
    "Type": "String"
  }
],
"TableName": "COST_AND_USAGE_REPORT",
"TableProperties": {
  "INCLUDE_MANUAL_DISCOUNT_COMPATIBILITY": "FALSE",
  "INCLUDE_RESOURCES": "FALSE",
  "INCLUDE_SPLIT_COST_ALLOCATION_DATA": "FALSE",
  "TIME_GRANULARITY": "HOURLY"
}
}

```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListExecutions

Service: Amazon Data Exports

Lists the historical executions for the export.

Request Syntax

```
{  
  "ExportArn": "string",  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

MaxResults

The maximum number of objects that are returned for the request.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "Executions": [
    {
      "ExecutionId": "string",
      "ExecutionStatus": {
        "CompletedAt": "string",
        "CreatedAt": "string",
        "LastUpdatedAt": "string",
        "StatusCode": "string",
        "StatusReason": "string"
      }
    }
  ],
  "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Executions

The list of executions.

Type: Array of [ExecutionReference](#) objects

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the `ListExecutions` operation.

This example illustrates one usage of `ListExecutions`.

Sample Request

```
{
  "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927",
  "MaxResults": 100,
  "NextToken": ""
}
```

The following is a sample response of the `ListExecutions` operation.

This example illustrates one usage of `ListExecutions`.

Sample Response

```
{
  "Executions": [
    {
      "ExecutionId": "f0cfeaf0-c552-47e7-82bc-0107fbfc7a8b",
      "ExecutionStatus": {
        "CreatedAt": "2023-11-14T18:14:12.813Z",
        "LastUpdatedAt": "2023-11-14T18:18:14.252556820Z",
        "StatusCode": "DELIVERY_SUCCESS"
      }
    },
    {
      "ExecutionId": "2c173333-4b14-4740-98a1-d52304eced2d",
```

```
    "ExecutionStatus": {
      "CreatedAt": "2023-11-14T09:20:47.137Z",
      "LastUpdatedAt": "2023-11-14T09:53:48.285265457Z",
      "StatusCode": "DELIVERY_SUCCESS"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListExports

Service: Amazon Data Exports

Lists all data export definitions.

Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

MaxResults

The maximum number of objects that are returned for the request.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "Exports": [
```

```
{
  "ExportArn": "string",
  "ExportName": "string",
  "ExportStatus": {
    "CreatedAt": "string",
    "LastRefreshedAt": "string",
    "LastUpdatedAt": "string",
    "StatusCode": "string",
    "StatusReason": "string"
  }
},
"NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Exports

The details of the exports, including name and export status.

Type: Array of [ExportReference](#) objects

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the ListExports operation.

This example illustrates one usage of ListExports.

Sample Request

```
{
  "MaxResults": 100,
  "NextToken": ""
}
```

The following is a sample response of the ListExports operation.

This example illustrates one usage of ListExports.

Sample Response

```
{
  "Exports": [
    {
      "ExportArn": "arn:aws:bcm-data-exports::export:Example/837fcfce-f85b-4600-
b333-b38a12c3a927",
      "ExportName": "ExampleExportName1",
      "ExportStatus": {
        "CreatedAt": "2023-11-14T18:02:02.371Z",
        "LastRefreshedAt": "2023-11-14T18:18:12.592Z",
        "LastUpdatedAt": "2023-11-14T18:02:02.371Z",
        "StatusCode": "HEALTHY"
      }
    },
    {
      "ExportArn": "arn:aws:bcm-data-exports::export:Example/837fcfce-f85b-4600-
b333-b38a12c3a927",
      "ExportName": "ExampleExportName2",
      "ExportStatus": {
        "CreatedAt": "2023-11-14T18:03:02.038Z",
        "LastRefreshedAt": "2023-11-14T18:18:12.629Z",
        "LastUpdatedAt": "2023-11-14T18:03:02.038Z",
        "StatusCode": "UNHEALTHY"
      }
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)

- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListTables

Service: Amazon Data Exports

Lists all available tables in data exports.

Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

MaxResults

The maximum number of objects that are returned for the request.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
```

```
"NextToken": "string",
"Tables": [
  {
    "Description": "string",
    "TableName": "string",
    "TableProperties": [
      {
        "DefaultValue": "string",
        "Description": "string",
        "Name": "string",
        "ValidValues": [ "string" ]
      }
    ]
  }
]
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Tables

The list of tables.

Type: Array of [Table](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the ListTables operation.

This example illustrates one usage of ListTables.

Sample Request

```
{
  "MaxResults": 100,
  "NextToken": ""
}
```

The following is a sample response of the ListTables operation.

This example illustrates one usage of ListTables.

Sample Response

```
{
  "Tables": [
    {
      "Description": "A view over CUR for CostAndUsageDashboard",
      "TableName": "COST_AND_USAGE_DASHBOARD",
      "TableProperties": [
        {}
      ]
    },
    {
      "Description": "Cost and Usage Report",
      "TableName": "COST_AND_USAGE_REPORT",
      "TableProperties": [
        {
          "DefaultValue": "HOURLY",
          "Description": "The granularity of the line-items in the table.",
          "Name": "TIME_GRANULARITY",
          "ValidValues": [
            "DAILY",
            "MONTHLY",
            "HOURLY"
          ]
        },
        {
          "DefaultValue": "FALSE",
          "Description": "Whether to simulate manual discounts for automated discount data.",
          "Name": "INCLUDE_MANUAL_DISCOUNT_COMPATIBILITY",
          "ValidValues": [
            "TRUE",
            "FALSE"
          ]
        },
        {
          "DefaultValue": "FALSE",
          "Description": "Whether to include fission columns.",
          "Name": "INCLUDE_SPLIT_COST_ALLOCATION_DATA",
          "ValidValues": [
```

```
        "TRUE",
        "FALSE"
    ]
},
{
    "DefaultValue": "FALSE",
    "Description": "Whether to include resource IDs on line items.",
    "Name": "INCLUDE_RESOURCES",
    "ValidValues": [
        "TRUE",
        "FALSE"
    ]
}
]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListTagsForResource

Service: Amazon Data Exports

List tags associated with an existing data export.

Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string",  
  "ResourceArn": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

MaxResults

The maximum number of objects that are returned for the request.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

ResourceArn

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
  "NextToken": "string",
  "ResourceTags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

ResourceTags

An optional list of tags to associate with the specified export. Each tag consists of a key and a value, and each key must be unique for the resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the `ListTagsForResource` operation.

This example illustrates one usage of `ListTagsForResource`.

Sample Request

```
{
  "ResourceArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927"
}
```

The following is a sample response of the `ListTagsForResource` operation.

This example illustrates one usage of `ListTagsForResource`.

Sample Response

```
{
  "ResourceTags": [
    {
      "Key": "YourTagKey",
      "Value": "YourTagValue"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)

- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

TagResource

Service: Amazon Data Exports

Adds tags for an existing data export definition.

Request Syntax

```
{
  "ResourceArn": "string",
  "ResourceTags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ResourceArn

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

ResourceTags

The tags to associate with the resource. Each tag consists of a key and a value, and each key must be unique for the resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the TagResource operation.

This example illustrates one usage of TagResource.

Sample Request

```
{
  "ResourceArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927",
  "ResourceTags": [
    {
      "Key": "YourTagKey",
      "Value": "YourTagValue"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)

- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UntagResource

Service: Amazon Data Exports

Deletes tags associated with an existing data export definition.

Request Syntax

```
{
  "ResourceArn": "string",
  "ResourceTagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ResourceArn

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/_:~+]`

Required: Yes

ResourceTagKeys

The tag keys that are associated with the resource ARN.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the `UntagResource` operation.

This example illustrates one usage of `UntagResource`.

Sample Request

```
{
  "ResourceArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927",
  "ResourceTagKeys": [
    "YourTagKey"
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)

- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateExport

Service: Amazon Data Exports

Updates an existing data export by overwriting all export parameters. All export parameters must be provided in the UpdateExport request.

Request Syntax

```
{
  "Export": {
    "DataQuery": {
      "QueryStatement": "string",
      "TableConfigurations": {
        "string": {
          "string": "string"
        }
      }
    },
    "Description": "string",
    "DestinationConfigurations": {
      "S3Destination": {
        "S3Bucket": "string",
        "S3OutputConfigurations": {
          "Compression": "string",
          "Format": "string",
          "OutputType": "string",
          "Overwrite": "string"
        },
        "S3Prefix": "string",
        "S3Region": "string"
      },
      "ExportArn": "string",
      "Name": "string",
      "RefreshCadence": {
        "Frequency": "string"
      }
    },
    "ExportArn": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[Export](#)

The name and query details for the export.

Type: [Export](#) object

Required: Yes

[ExportArn](#)

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/_:~+]`

Required: Yes

Response Syntax

```
{
  "ExportArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[ExportArn](#)

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the `UpdateExport` operation.

This example illustrates one usage of `UpdateExport`.

Sample Request

```
{
  "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927",
  "Export": {
    "Name": "ExampleExportName",
    "Description": "Example Description",
    "DataQuery": {
      "QueryStatement": "SELECT identity_line_item_id, identity_time_interval,
line_item_product_code,line_item_unblended_cost FROM COST_AND_USAGE_REPORT",
      "TableConfigurations": {
        "COST_AND_USAGE_REPORT": {
          "TIME_GRANULARITY": "DAILY",
          "INCLUDE_RESOURCES": "FALSE",
          "INCLUDE_MANUAL_DISCOUNT_COMPATIBILITY": "FALSE",
          "INCLUDE_SPLIT_COST_ALLOCATION_DATA": "FALSE"
        }
      }
    },
    "DestinationConfigurations": {
      "S3Destination": {
        "S3Bucket": "ExampleS3Bucket",
        "S3Prefix": "ExampleS3Prefix",
        "S3Region": "us-east-1",
        "S3OutputConfigurations": {
          "Overwrite": "OVERWRITE_REPORT",
```

```
        "Format": "TEXT_OR_CSV",
        "Compression": "GZIP",
        "OutputType": "CUSTOM"
    }
},
"RefreshCadence": {
    "Frequency": "SYNCHRONOUS"
}
}
```

The following is a sample response of the UpdateExport operation.

This example illustrates one usage of UpdateExport.

Sample Response

```
{
  "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927"
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

Amazon Pricing Calculator

The following actions are supported by Amazon Pricing Calculator:

- [BatchCreateBillScenarioCommitmentModification](#)
- [BatchCreateBillScenarioUsageModification](#)
- [BatchCreateWorkloadEstimateUsage](#)
- [BatchDeleteBillScenarioCommitmentModification](#)
- [BatchDeleteBillScenarioUsageModification](#)
- [BatchDeleteWorkloadEstimateUsage](#)
- [BatchUpdateBillScenarioCommitmentModification](#)
- [BatchUpdateBillScenarioUsageModification](#)
- [BatchUpdateWorkloadEstimateUsage](#)
- [CreateBillEstimate](#)
- [CreateBillScenario](#)
- [CreateWorkloadEstimate](#)
- [DeleteBillEstimate](#)
- [DeleteBillScenario](#)
- [DeleteWorkloadEstimate](#)
- [GetBillEstimate](#)
- [GetBillScenario](#)
- [GetPreferences](#)
- [GetWorkloadEstimate](#)
- [ListBillEstimateCommitments](#)
- [ListBillEstimateInputCommitmentModifications](#)
- [ListBillEstimateInputUsageModifications](#)
- [ListBillEstimateLineItems](#)
- [ListBillEstimates](#)
- [ListBillScenarioCommitmentModifications](#)
- [ListBillScenarios](#)
- [ListBillScenarioUsageModifications](#)

- [ListTagsForResource](#)
- [ListWorkloadEstimates](#)
- [ListWorkloadEstimateUsage](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateBillEstimate](#)
- [UpdateBillScenario](#)
- [UpdatePreferences](#)
- [UpdateWorkloadEstimate](#)

BatchCreateBillScenarioCommitmentModification

Service: Amazon Pricing Calculator

Create Compute Savings Plans, EC2 Instance Savings Plans, or EC2 Reserved Instances commitments that you want to model in a Bill Scenario.

Note

The `BatchCreateBillScenarioCommitmentModification` operation doesn't have its own IAM permission. To authorize this operation for Amazon principals, include the permission `bcm-pricing-calculator:CreateBillScenarioCommitmentModification` in your policies.

Request Syntax

```
{
  "billScenarioId": "string",
  "clientToken": "string",
  "commitmentModifications": [
    {
      "commitmentAction": { ... },
      "group": "string",
      "key": "string",
      "usageAccountId": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to create the modeled commitment.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

clientToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0021-\u007E]+`

Required: No

commitmentModifications

List of commitments that you want to model in the Bill Scenario.

Type: Array of [BatchCreateBillScenarioCommitmentModificationEntry](#) objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

Response Syntax

```
{
  "errors": [
    {
      "errorCode": "string",
      "errorMessage": "string",
      "key": "string"
    }
  ],
  "items": [
    {
      "commitmentAction": { ... },
      "group": "string",
      "id": "string",
      "key": "string",

```

```
    "usageAccountId": "string"  
  }  
]  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of errors reason and the commitment item keys that cannot be created in the Bill Scenario.

Type: Array of [BatchCreateBillScenarioCommitmentModificationError](#) objects

items

Returns the list of successful commitment line items that were created for the Bill Scenario.

Type: Array of [BatchCreateBillScenarioCommitmentModificationItem](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

BatchCreateBillScenarioUsageModification

Service: Amazon Pricing Calculator

Create Amazon service usage that you want to model in a Bill Scenario.

Note

The BatchCreateBillScenarioUsageModification operation doesn't have its own IAM permission. To authorize this operation for Amazon principals, include the permission `bcm-pricing-calculator:CreateBillScenarioUsageModification` in your policies.

Request Syntax

```
{
  "billScenarioId": "string",
  "clientToken": "string",
  "usageModifications": [
    {
      "amounts": [
        {
          "amount": number,
          "startHour": number
        }
      ],
      "availabilityZone": "string",
      "group": "string",
      "historicalUsage": {
        "billInterval": {
          "end": number,
          "start": number
        },
        "filterExpression": {
          "and": [
            "Expression"
          ],
          "costCategories": {
            "key": "string",
            "matchOptions": [ "string" ],
            "values": [ "string" ]
          }
        }
      }
    }
  ]
}
```

```

    "dimensions": {
      "key": "string",
      "matchOptions": [ "string" ],
      "values": [ "string" ]
    },
    "not": "Expression",
    "or": [
      "Expression"
    ],
    "tags": {
      "key": "string",
      "matchOptions": [ "string" ],
      "values": [ "string" ]
    }
  },
  "location": "string",
  "operation": "string",
  "serviceCode": "string",
  "usageAccountId": "string",
  "usageType": "string"
},
"key": "string",
"operation": "string",
"serviceCode": "string",
"usageAccountId": "string",
"usageType": "string"
}
]
}

```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to create the modeled usage.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

clientToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0021-\u007E]+`

Required: No

usageModifications

List of usage that you want to model in the Bill Scenario.

Type: Array of [BatchCreateBillScenarioUsageModificationEntry](#) objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

Response Syntax

```
{
  "errors": [
    {
      "errorCode": "string",
      "errorMessage": "string",
      "key": "string"
    }
  ],
  "items": [
    {
      "availabilityZone": "string",
      "group": "string",
      "historicalUsage": {
        "billInterval": {
          "end": number,
          "start": number
        }
      }
    }
  ],
}
```

```

    "filterExpression": {
      "and": [
        "Expression"
      ],
      "costCategories": {
        "key": "string",
        "matchOptions": [ "string" ],
        "values": [ "string" ]
      },
      "dimensions": {
        "key": "string",
        "matchOptions": [ "string" ],
        "values": [ "string" ]
      },
      "not": "Expression",
      "or": [
        "Expression"
      ],
      "tags": {
        "key": "string",
        "matchOptions": [ "string" ],
        "values": [ "string" ]
      }
    },
    "location": "string",
    "operation": "string",
    "serviceCode": "string",
    "usageAccountId": "string",
    "usageType": "string"
  },
  "id": "string",
  "key": "string",
  "location": "string",
  "operation": "string",
  "quantities": [
    {
      "amount": number,
      "startHour": number,
      "unit": "string"
    }
  ],
  "serviceCode": "string",
  "usageAccountId": "string",
  "usageType": "string"

```

```
    }  
  ]  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of errors reason and the usage item keys that cannot be created in the Bill Scenario.

Type: Array of [BatchCreateBillScenarioUsageModificationError](#) objects

items

Returns the list of successful usage line items that were created for the Bill Scenario.

Type: Array of [BatchCreateBillScenarioUsageModificationItem](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)

- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

BatchCreateWorkloadEstimateUsage

Service: Amazon Pricing Calculator

Create Amazon service usage that you want to model in a Workload Estimate.

Note

The BatchCreateWorkloadEstimateUsage operation doesn't have its own IAM permission. To authorize this operation for Amazon principals, include the permission `bcm-pricing-calculator:CreateWorkloadEstimateUsage` in your policies.

Request Syntax

```
{
  "clientToken": "string",
  "usage": [
    {
      "amount": number,
      "group": "string",
      "historicalUsage": {
        "billInterval": {
          "end": number,
          "start": number
        },
        "filterExpression": {
          "and": [
            "Expression"
          ],
          "costCategories": {
            "key": "string",
            "matchOptions": [ "string" ],
            "values": [ "string" ]
          },
          "dimensions": {
            "key": "string",
            "matchOptions": [ "string" ],
            "values": [ "string" ]
          },
          "not": "Expression",
          "or": [
            "Expression"
          ]
        }
      }
    }
  ]
}
```

```
    ],  
    "tags": {  
      "key": "string",  
      "matchOptions": [ "string" ],  
      "values": [ "string" ]  
    }  
  },  
  "location": "string",  
  "operation": "string",  
  "serviceCode": "string",  
  "usageAccountId": "string",  
  "usageType": "string"  
},  
"key": "string",  
"operation": "string",  
"serviceCode": "string",  
"usageAccountId": "string",  
"usageType": "string"  
}  
],  
"workloadEstimateId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

clientToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0021-\u007E]+`

Required: No

usage

List of usage that you want to model in the Workload estimate.

Type: Array of [BatchCreateWorkloadEstimateUsageEntry](#) objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

[workloadEstimateId](#)

The ID of the Workload estimate for which you want to create the modeled usage.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
  "errors": [
    {
      "errorCode": "string",
      "errorMessage": "string",
      "key": "string"
    }
  ],
  "items": [
    {
      "cost": number,
      "currency": "string",
      "group": "string",
      "historicalUsage": {
        "billInterval": {
          "end": number,
          "start": number
        },
        "filterExpression": {
          "and": [
            "Expression"
          ],
          "costCategories": {
            "key": "string",
```

```

        "matchOptions": [ "string" ],
        "values": [ "string" ]
    },
    "dimensions": {
        "key": "string",
        "matchOptions": [ "string" ],
        "values": [ "string" ]
    },
    "not": "Expression",
    "or": [
        "Expression"
    ],
    "tags": {
        "key": "string",
        "matchOptions": [ "string" ],
        "values": [ "string" ]
    }
},
"location": "string",
"operation": "string",
"serviceCode": "string",
"usageAccountId": "string",
"usageType": "string"
},
"id": "string",
"key": "string",
"location": "string",
"operation": "string",
"quantity": {
    "amount": number,
    "unit": "string"
},
"serviceCode": "string",
"status": "string",
"usageAccountId": "string",
"usageType": "string"
}
]
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of errors reason and the usage item keys that cannot be created in the Workload estimate.

Type: Array of [BatchCreateWorkloadEstimateUsageError](#) objects

items

Returns the list of successful usage line items that were created for the Workload estimate.

Type: Array of [BatchCreateWorkloadEstimateUsageItem](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)

- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

BatchDeleteBillScenarioCommitmentModification

Service: Amazon Pricing Calculator

Delete commitment that you have created in a Bill Scenario. You can only delete a commitment that you had added and cannot model deletion (or removal) of a existing commitment. If you want model deletion of an existing commitment, see the negate [BillScenarioCommitmentModificationAction](#) of [BatchCreateBillScenarioCommitmentModification](#) operation.

Note

The `BatchDeleteBillScenarioCommitmentModification` operation doesn't have its own IAM permission. To authorize this operation for Amazon principals, include the permission `bcm-pricing-calculator:DeleteBillScenarioCommitmentModification` in your policies.

Request Syntax

```
{
  "billScenarioId": "string",
  "ids": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to delete the modeled commitment.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

ids

List of commitments that you want to delete from the Bill Scenario.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
  "errors": [
    {
      "errorCode": "string",
      "errorMessage": "string",
      "id": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of errors reason and the commitment item keys that cannot be deleted from the Bill Scenario.

Type: Array of [BatchDeleteBillScenarioCommitmentModificationError](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

BatchDeleteBillScenarioUsageModification

Service: Amazon Pricing Calculator

Delete usage that you have created in a Bill Scenario. You can only delete usage that you had added and cannot model deletion (or removal) of an existing usage. If you want model removal of an existing usage, see [BatchUpdateBillScenarioUsageModification](#).

Note

The BatchDeleteBillScenarioUsageModification operation doesn't have its own IAM permission. To authorize this operation for Amazon principals, include the permission `bcm-pricing-calculator:DeleteBillScenarioUsageModification` in your policies.

Request Syntax

```
{
  "billScenarioId": "string",
  "ids": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to delete the modeled usage.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

ids

List of usage that you want to delete from the Bill Scenario.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
  "errors": [
    {
      "errorCode": "string",
      "errorMessage": "string",
      "id": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of errors reason and the usage item keys that cannot be deleted from the Bill Scenario.

Type: Array of [BatchDeleteBillScenarioUsageModificationError](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

BatchDeleteWorkloadEstimateUsage

Service: Amazon Pricing Calculator

Delete usage that you have created in a Workload estimate. You can only delete usage that you had added and cannot model deletion (or removal) of a existing usage. If you want model removal of an existing usage, see [BatchUpdateWorkloadEstimateUsage](#).

Note

The BatchDeleteWorkloadEstimateUsage operation doesn't have its own IAM permission. To authorize this operation for Amazon principals, include the permission `bcm-pricing-calculator:DeleteWorkloadEstimateUsage` in your policies.

Request Syntax

```
{
  "ids": [ "string" ],
  "workloadEstimateId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ids

List of usage that you want to delete from the Workload estimate.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

workloadEstimateId

The ID of the Workload estimate for which you want to delete the modeled usage.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
  "errors": [
    {
      "errorCode": "string",
      "errorMessage": "string",
      "id": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of errors reason and the usage item keys that cannot be deleted from the Workload estimate.

Type: Array of [BatchDeleteWorkloadEstimateUsageError](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

BatchUpdateBillScenarioCommitmentModification

Service: Amazon Pricing Calculator

Update a newly added or existing commitment. You can update the commitment group based on a commitment ID and a Bill scenario ID.

Note

The `BatchUpdateBillScenarioCommitmentModification` operation doesn't have its own IAM permission. To authorize this operation for Amazon principals, include the permission `bcm-pricing-calculator:UpdateBillScenarioCommitmentModification` in your policies.

Request Syntax

```
{
  "billScenarioId": "string",
  "commitmentModifications": [
    {
      "group": "string",
      "id": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to modify the commitment group of a modeled commitment.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: Yes

commitmentModifications

List of commitments that you want to update in a Bill Scenario.

Type: Array of [BatchUpdateBillScenarioCommitmentModificationEntry](#) objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

Response Syntax

```
{
  "errors": [
    {
      "errorCode": "string",
      "errorMessage": "string",
      "id": "string"
    }
  ],
  "items": [
    {
      "commitmentAction": { ... },
      "group": "string",
      "id": "string",
      "usageAccountId": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of error reasons and commitment line item IDs that could not be updated for the Bill Scenario.

Type: Array of [BatchUpdateBillScenarioCommitmentModificationError](#) objects

items

Returns the list of successful commitment line items that were updated for a Bill Scenario.

Type: Array of [BillScenarioCommitmentModificationItem](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

BatchUpdateBillScenarioUsageModification

Service: Amazon Pricing Calculator

Update a newly added or existing usage lines. You can update the usage amounts, usage hour, and usage group based on a usage ID and a Bill scenario ID.

Note

The BatchUpdateBillScenarioUsageModification operation doesn't have its own IAM permission. To authorize this operation for Amazon principals, include the permission `bcm-pricing-calculator:UpdateBillScenarioUsageModification` in your policies.

Request Syntax

```
{
  "billScenarioId": "string",
  "usageModifications": [
    {
      "amounts": [
        {
          "amount": number,
          "startHour": number
        }
      ],
      "group": "string",
      "id": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to modify the usage lines.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

usageModifications

List of usage lines that you want to update in a Bill Scenario identified by the usage ID.

Type: Array of [BatchUpdateBillScenarioUsageModificationEntry](#) objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

Response Syntax

```
{
  "errors": [
    {
      "errorCode": "string",
      "errorMessage": "string",
      "id": "string"
    }
  ],
  "items": [
    {
      "availabilityZone": "string",
      "group": "string",
      "historicalUsage": {
        "billInterval": {
          "end": number,
          "start": number
        },
        "filterExpression": {
          "and": [
            "Expression"
          ],
          "costCategories": {
            "key": "string",
            "matchOptions": [ "string" ],

```

```

        "values": [ "string" ]
    },
    "dimensions": {
        "key": "string",
        "matchOptions": [ "string" ],
        "values": [ "string" ]
    },
    "not": "Expression",
    "or": [
        "Expression"
    ],
    "tags": {
        "key": "string",
        "matchOptions": [ "string" ],
        "values": [ "string" ]
    }
},
"location": "string",
"operation": "string",
"serviceCode": "string",
"usageAccountId": "string",
"usageType": "string"
},
"location": "string",
"operation": "string",
"quantities": [
    {
        "amount": number,
        "startHour": number,
        "unit": "string"
    }
],
"serviceCode": "string",
"usageAccountId": "string",
"usageType": "string"
}
]
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of error reasons and usage line item IDs that could not be updated for the Bill Scenario.

Type: Array of [BatchUpdateBillScenarioUsageModificationError](#) objects

items

Returns the list of successful usage line items that were updated for a Bill Scenario.

Type: Array of [BillScenarioUsageModificationItem](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)

- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

BatchUpdateWorkloadEstimateUsage

Service: Amazon Pricing Calculator

Update a newly added or existing usage lines. You can update the usage amounts and usage group based on a usage ID and a Workload estimate ID.

Note

The BatchUpdateWorkloadEstimateUsage operation doesn't have its own IAM permission. To authorize this operation for Amazon principals, include the permission `bcm-pricing-calculator:UpdateWorkloadEstimateUsage` in your policies.

Request Syntax

```
{
  "usage": [
    {
      "amount": number,
      "group": "string",
      "id": "string"
    }
  ],
  "workloadEstimateId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

usage

List of usage line amounts and usage group that you want to update in a Workload estimate identified by the usage ID.

Type: Array of [BatchUpdateWorkloadEstimateUsageEntry](#) objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

workloadEstimateId

The ID of the Workload estimate for which you want to modify the usage lines.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: Yes

Response Syntax

```
{
  "errors": [
    {
      "errorCode": "string",
      "errorMessage": "string",
      "id": "string"
    }
  ],
  "items": [
    {
      "cost": number,
      "currency": "string",
      "group": "string",
      "historicalUsage": {
        "billInterval": {
          "end": number,
          "start": number
        },
        "filterExpression": {
          "and": [
            "Expression"
          ],
          "costCategories": {
            "key": "string",
            "matchOptions": [ "string" ],
            "values": [ "string" ]
          },
          "dimensions": {
            "key": "string",
```

```

        "matchOptions": [ "string" ],
        "values": [ "string" ]
    },
    "not": "Expression",
    "or": [
        "Expression"
    ],
    "tags": {
        "key": "string",
        "matchOptions": [ "string" ],
        "values": [ "string" ]
    }
},
"location": "string",
"operation": "string",
"serviceCode": "string",
"usageAccountId": "string",
"usageType": "string"
},
"__id": "string",
"location": "string",
"operation": "string",
"quantity": {
    "amount": number,
    "unit": "string"
},
"serviceCode": "string",
"status": "string",
"usageAccountId": "string",
"usageType": "string"
}
]
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of error reasons and usage line item IDs that could not be updated for the Workload estimate.

Type: Array of [BatchUpdateWorkloadEstimateUsageError](#) objects

[items](#)

Returns the list of successful usage line items that were updated for a Workload estimate.

Type: Array of [WorkloadEstimateUsageItem](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

CreateBillEstimate

Service: Amazon Pricing Calculator

Create a Bill estimate from a Bill scenario. In the Bill scenario you can model usage addition, usage changes, and usage removal. You can also model commitment addition and commitment removal. After all changes in a Bill scenario is made satisfactorily, you can call this API with a Bill scenario ID to generate the Bill estimate. Bill estimate calculates the pre-tax cost for your consolidated billing family, incorporating all modeled usage and commitments alongside existing usage and commitments from your most recent completed anniversary bill, with any applicable discounts applied.

Request Syntax

```
{
  "billScenarioId": "string",
  "clientToken": "string",
  "name": "string",
  "tags": {
    "string" : "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to create a Bill estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: Yes

clientToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0021-\u007E]+`

Required: No

name

The name of the Bill estimate that will be created. Names must be unique for an account.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

Required: Yes

tags

An optional list of tags to associate with the specified BillEstimate. You can use resource tags to control access to your BillEstimate using IAM policies. Each tag consists of a key and a value, and each key must be unique for the resource. The following restrictions apply to resource tags:

- Although the maximum number of array members is 200, you can assign a maximum of 50 user-tags to one resource. The remaining are reserved for Amazon.
- The maximum length of a key is 128 characters.
- The maximum length of a value is 256 characters.
- Keys and values can only contain alphanumeric characters, spaces, and any of the following: `_ . : / = + @ - .`
- Keys and values are case sensitive.
- Keys and values are trimmed for any leading or trailing whitespaces.
- Don't use `aws :` as a prefix for your keys. This prefix is reserved for Amazon.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[\w\s:+=@/-]+`

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Value Pattern: `[\w\s:+=@/-]*`

Required: No

Response Syntax

```
{
  "billInterval": {
    "end": number,
    "start": number
  },
  "costCategoryGroupSharingPreferenceArn": "string",
  "costCategoryGroupSharingPreferenceEffectiveDate": number,
  "costSummary": {
    "serviceCostDifferences": {
      "string" : {
        "estimatedCost": {
          "amount": number,
          "currency": "string"
        },
        "historicalCost": {
          "amount": number,
          "currency": "string"
        }
      }
    },
    "totalCostDifference": {
      "estimatedCost": {
        "amount": number,
        "currency": "string"
      },
      "historicalCost": {
        "amount": number,
        "currency": "string"
      }
    }
  },
  "createdAt": number,
  "expiresAt": number,
```

```
"failureMessage": "string",
"groupSharingPreference": "string",
"id": "string",
"name": "string",
"status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billInterval

The bill month start and end timestamp that was used to create the Bill estimate. This is set to the last complete anniversary bill month start and end timestamp.

Type: [BillInterval](#) object

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce:::[0-9]{12}:costcategory/[a-f0-9-]{36}`

costCategoryGroupSharingPreferenceEffectiveDate

Timestamp of the effective date of the cost category used in the group sharing settings.

Type: Timestamp

costSummary

Returns summary-level cost information once a Bill estimate is successfully generated. This summary includes: 1) the total cost difference, showing the pre-tax cost change for the consolidated billing family between the completed anniversary bill and the estimated bill, and 2) total cost differences per service, detailing the pre-tax cost of each service, comparing the completed anniversary bill to the estimated bill on a per-service basis.

Type: [BillEstimateCostSummary](#) object

createdAt

The timestamp of when the Bill estimate create process was started (not when it successfully completed or failed).

Type: Timestamp

expiresAt

The timestamp of when the Bill estimate will expire. A Bill estimate becomes inaccessible after expiration.

Type: Timestamp

failureMessage

This attribute provides the reason if a Bill estimate result generation fails.

Type: String

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: OPEN | PRIORITIZED | RESTRICTED

id

The unique identifier of your newly created Bill estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The name of your newly created Bill estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: [a-zA-Z0-9-]+

status

The status of your newly created Bill estimate. Bill estimate creation can take anywhere between 8 to 12 hours. The status will allow you to identify when the Bill estimate is complete or has failed.

Type: String

Valid Values: IN_PROGRESS | COMPLETE | FAILED

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

CreateBillScenario

Service: Amazon Pricing Calculator

Creates a new bill scenario to model potential changes to Amazon usage and costs.

Request Syntax

```
{
  "clientToken": "string",
  "costCategoryGroupSharingPreferenceArn": "string",
  "groupSharingPreference": "string",
  "name": "string",
  "tags": {
    "string" : "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

clientToken

A unique, case-sensitive identifier to ensure idempotency of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0021-\u007E]+`

Required: No

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce::[0-9]{12}:costcategory/[a-f0-9-]{36}`

Required: No

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: OPEN | PRIORITIZED | RESTRICTED

Required: No

name

A descriptive name for the bill scenario.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: [a-zA-Z0-9-]+

Required: Yes

tags

The tags to apply to the bill scenario.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: [\w\s:+=@/-]+

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Value Pattern: [\w\s:+=@/-]*

Required: No

Response Syntax

```
{
```

```
"billInterval": {
  "end": number,
  "start": number
},
"costCategoryGroupSharingPreferenceArn": "string",
"createdAt": number,
"expiresAt": number,
"failureMessage": "string",
"groupSharingPreference": "string",
"id": "string",
"name": "string",
"status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billInterval

The time period covered by the bill scenario.

Type: [BillInterval](#) object

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce:::[0-9]{12}:costcategory/[a-f0-9-]{36}`

createdAt

The timestamp when the bill scenario was created.

Type: Timestamp

expiresAt

The timestamp when the bill scenario will expire.

Type: Timestamp

failureMessage

An error message if the bill scenario creation failed.

Type: String

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: OPEN | PRIORITIZED | RESTRICTED

id

The unique identifier for the created bill scenario.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

name

The name of the created bill scenario.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: [a-zA-Z0-9-]+

status

The current status of the bill scenario.

Type: String

Valid Values: READY | LOCKED | FAILED | STALE

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

CreateWorkloadEstimate

Service: Amazon Pricing Calculator

Creates a new workload estimate to model costs for a specific workload.

Request Syntax

```
{
  "clientToken": "string",
  "name": "string",
  "rateType": "string",
  "tags": {
    "string" : "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

clientToken

A unique, case-sensitive identifier to ensure idempotency of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0021-\u007E]+`

Required: No

name

A descriptive name for the workload estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

Required: Yes

rateType

The type of pricing rates to use for the estimate.

Type: String

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS

Required: No

tags

The tags to apply to the workload estimate.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[\w\s:+=@/-]+`

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Value Pattern: `[\w\s:+=@/-]*`

Required: No

Response Syntax

```
{
  "costCurrency": "string",
  "createdAt": number,
  "expiresAt": number,
  "failureMessage": "string",
  "id": "string",
  "name": "string",
  "rateTimestamp": number,
  "rateType": "string",
  "status": "string",
  "totalCost": number
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

costCurrency

The currency of the estimated cost.

Type: String

Valid Values: USD

createdAt

The timestamp when the workload estimate was created.

Type: Timestamp

expiresAt

The timestamp when the workload estimate will expire.

Type: Timestamp

failureMessage

An error message if the workload estimate creation failed.

Type: String

id

The unique identifier for the created workload estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The name of the created workload estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: [a-zA-Z0-9-]+

rateTimestamp

The timestamp of the pricing rates used for the estimate.

Type: Timestamp

rateType

The type of pricing rates used for the estimate.

Type: String

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS |
AFTER_DISCOUNTS_AND_COMMITMENTS

status

The current status of the workload estimate.

Type: String

Valid Values: UPDATING | VALID | INVALID | ACTION_NEEDED

totalCost

The total estimated cost for the workload.

Type: Double

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)

- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteBillEstimate

Service: Amazon Pricing Calculator

Deletes an existing bill estimate.

Request Syntax

```
{  
  "identifier": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

identifier

The unique identifier of the bill estimate to delete.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteBillScenario

Service: Amazon Pricing Calculator

Deletes an existing bill scenario.

Request Syntax

```
{
  "identifier": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

identifier

The unique identifier of the bill scenario to delete.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteWorkloadEstimate

Service: Amazon Pricing Calculator

Deletes an existing workload estimate.

Request Syntax

```
{  
  "identifier": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

identifier

The unique identifier of the workload estimate to delete.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetBillEstimate

Service: Amazon Pricing Calculator

Retrieves details of a specific bill estimate.

Request Syntax

```
{
  "identifier": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

identifier

The unique identifier of the bill estimate to retrieve.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
  "billInterval": {
    "end": number,
    "start": number
  },
  "costCategoryGroupSharingPreferenceArn": "string",
  "costCategoryGroupSharingPreferenceEffectiveDate": number,
  "costSummary": {
    "serviceCostDifferences": {
      "string": {
        "estimatedCost": {
```

```
        "amount": number,
        "currency": "string"
    },
    "historicalCost": {
        "amount": number,
        "currency": "string"
    }
},
"totalCostDifference": {
    "estimatedCost": {
        "amount": number,
        "currency": "string"
    },
    "historicalCost": {
        "amount": number,
        "currency": "string"
    }
},
"createdAt": number,
"expiresAt": number,
"failureMessage": "string",
"groupSharingPreference": "string",
"id": "string",
"name": "string",
"status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billInterval

The time period covered by the bill estimate.

Type: [BillInterval](#) object

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce:::[0-9]{12}:costcategory/[a-f0-9-]{36}`

costCategoryGroupSharingPreferenceEffectiveDate

Timestamp of the effective date of the cost category used in the group sharing settings.

Type: Timestamp

costSummary

A summary of the estimated costs.

Type: [BillEstimateCostSummary](#) object

createdAt

The timestamp when the bill estimate was created.

Type: Timestamp

expiresAt

The timestamp when the bill estimate will expire.

Type: Timestamp

failureMessage

An error message if the bill estimate retrieval failed.

Type: String

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: OPEN | PRIORITIZED | RESTRICTED

id

The unique identifier of the retrieved bill estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The name of the retrieved bill estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

status

The current status of the bill estimate.

Type: String

Valid Values: IN_PROGRESS | COMPLETE | FAILED

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetBillScenario

Service: Amazon Pricing Calculator

Retrieves details of a specific bill scenario.

Request Syntax

```
{
  "identifier": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

identifier

The unique identifier of the bill scenario to retrieve.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
  "billInterval": {
    "end": number,
    "start": number
  },
  "costCategoryGroupSharingPreferenceArn": "string",
  "createdAt": number,
  "expiresAt": number,
  "failureMessage": "string",
  "groupSharingPreference": "string",
  "id": "string",
```

```
"name": "string",  
"status": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billInterval

The time period covered by the bill scenario.

Type: [BillInterval](#) object

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce:::[0-9]{12}:costcategory/[a-f0-9-]{36}`

createdAt

The timestamp when the bill scenario was created.

Type: Timestamp

expiresAt

The timestamp when the bill scenario will expire.

Type: Timestamp

failureMessage

An error message if the bill scenario retrieval failed.

Type: String

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: OPEN | PRIORITIZED | RESTRICTED

id

The unique identifier of the retrieved bill scenario.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

name

The name of the retrieved bill scenario.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: [a-zA-Z0-9-]+

status

The current status of the bill scenario.

Type: String

Valid Values: READY | LOCKED | FAILED | STALE

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetPreferences

Service: Amazon Pricing Calculator

Retrieves the current preferences for Amazon Pricing Calculator.

Response Syntax

```
{
  "managementAccountRateTypeSelections": [ "string" ],
  "memberAccountRateTypeSelections": [ "string" ],
  "standaloneAccountRateTypeSelections": [ "string" ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

managementAccountRateTypeSelections

The preferred rate types for the management account.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS |
AFTER_DISCOUNTS_AND_COMMITMENTS

memberAccountRateTypeSelections

The preferred rate types for member accounts.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS |
AFTER_DISCOUNTS_AND_COMMITMENTS

standaloneAccountRateTypeSelections

The preferred rate types for a standalone account.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS |
AFTER_DISCOUNTS_AND_COMMITMENTS

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetWorkloadEstimate

Service: Amazon Pricing Calculator

Retrieves details of a specific workload estimate.

Request Syntax

```
{  
  "identifier": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

identifier

The unique identifier of the workload estimate to retrieve.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: Yes

Response Syntax

```
{  
  "costCurrency": "string",  
  "createdAt": number,  
  "expiresAt": number,  
  "failureMessage": "string",  
  "id": "string",  
  "name": "string",  
  "rateTimestamp": number,  
  "rateType": "string",  
  "status": "string",  
  "totalCost": number
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

costCurrency

The currency of the estimated cost.

Type: String

Valid Values: USD

createdAt

The timestamp when the workload estimate was created.

Type: Timestamp

expiresAt

The timestamp when the workload estimate will expire.

Type: Timestamp

failureMessage

An error message if the workload estimate retrieval failed.

Type: String

id

The unique identifier of the retrieved workload estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The name of the retrieved workload estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: [a-zA-Z0-9-]+

rateTimestamp

The timestamp of the pricing rates used for the estimate.

Type: Timestamp

rateType

The type of pricing rates used for the estimate.

Type: String

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS |
AFTER_DISCOUNTS_AND_COMMITMENTS

status

The current status of the workload estimate.

Type: String

Valid Values: UPDATING | VALID | INVALID | ACTION_NEEDED

totalCost

The total estimated cost for the workload.

Type: Double

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListBillEstimateCommitments

Service: Amazon Pricing Calculator

Lists the commitments associated with a bill estimate.

Request Syntax

```
{  
  "billEstimateId": "string",  
  "maxResults": number,  
  "nextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

billEstimateId

The unique identifier of the bill estimate to list commitments for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "items": [
    {
      "id": "string",
      "monthlyPayment": {
        "amount": number,
        "currency": "string"
      },
      "offeringId": "string",
      "paymentOption": "string",
      "purchaseAgreementType": "string",
      "region": "string",
      "termLength": "string",
      "upfrontPayment": {
        "amount": number,
        "currency": "string"
      },
      "usageAccountId": "string"
    }
  ],
  "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of commitments associated with the bill estimate.

Type: Array of [BillEstimateCommitmentSummary](#) objects

[nextToken](#)

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)

- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListBillEstimateInputCommitmentModifications

Service: Amazon Pricing Calculator

Lists the input commitment modifications associated with a bill estimate.

Request Syntax

```
{  
  "billEstimateId": "string",  
  "maxResults": number,  
  "nextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

billEstimateId

The unique identifier of the bill estimate to list input commitment modifications for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "items": [
    {
      "commitmentAction": { ... },
      "group": "string",
      "id": "string",
      "usageAccountId": "string"
    }
  ],
  "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of input commitment modifications associated with the bill estimate.

Type: Array of [BillEstimateInputCommitmentModificationSummary](#) objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListBillEstimateInputUsageModifications

Service: Amazon Pricing Calculator

Lists the input usage modifications associated with a bill estimate.

Request Syntax

```
{
  "billEstimateId": "string",
  "filters": [
    {
      "matchOption": "string",
      "name": "string",
      "values": [ "string" ]
    }
  ],
  "maxResults": number,
  "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

billEstimateId

The unique identifier of the bill estimate to list input usage modifications for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

filters

Filters to apply to the list of input usage modifications.

Type: Array of [ListUsageFilter](#) objects

Required: No

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "items": [
    {
      "availabilityZone": "string",
      "group": "string",
      "historicalUsage": {
        "billInterval": {
          "end": number,
          "start": number
        },
        "filterExpression": {
          "and": [
            "Expression"
          ],
          "costCategories": {
            "key": "string",
            "matchOptions": [ "string" ],
            "values": [ "string" ]
          }
        }
      }
    }
  ]
}
```

```

    "dimensions": {
      "key": "string",
      "matchOptions": [ "string" ],
      "values": [ "string" ]
    },
    "not": "Expression",
    "or": [
      "Expression"
    ],
    "tags": {
      "key": "string",
      "matchOptions": [ "string" ],
      "values": [ "string" ]
    }
  },
  "location": "string",
  "operation": "string",
  "serviceCode": "string",
  "usageAccountId": "string",
  "usageType": "string"
},
"location": "string",
"operation": "string",
"quantities": [
  {
    "amount": number,
    "startHour": number,
    "unit": "string"
  }
],
"serviceCode": "string",
"usageAccountId": "string",
"usageType": "string"
}
],
"nextToken": "string"
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of input usage modifications associated with the bill estimate.

Type: Array of [BillEstimateInputUsageModificationSummary](#) objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListBillEstimateLineItems

Service: Amazon Pricing Calculator

Lists the line items associated with a bill estimate.

Request Syntax

```
{
  "billEstimateId": "string",
  "filters": [
    {
      "matchOption": "string",
      "name": "string",
      "values": [ "string" ]
    }
  ],
  "maxResults": number,
  "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

billEstimateId

The unique identifier of the bill estimate to list line items for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

filters

Filters to apply to the list of line items.

Type: Array of [ListBillEstimateLineItemsFilter](#) objects

Required: No

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "items": [
    {
      "availabilityZone": "string",
      "estimatedCost": {
        "amount": number,
        "currency": "string"
      },
      "estimatedUsageQuantity": {
        "amount": number,
        "unit": "string"
      },
      "historicalCost": {
        "amount": number,
        "currency": "string"
      },
      "historicalUsageQuantity": {
```

```
    "amount": number,
    "unit": "string"
  },
  "id": "string",
  "lineItemId": "string",
  "lineItemType": "string",
  "location": "string",
  "operation": "string",
  "payerAccountId": "string",
  "savingsPlanArns": [ "string" ],
  "serviceCode": "string",
  "usageAccountId": "string",
  "usageType": "string"
}
],
"nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of line items associated with the bill estimate.

Type: Array of [BillEstimateLineItemSummary](#) objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListBillEstimates

Service: Amazon Pricing Calculator

Lists all bill estimates for the account.

Request Syntax

```
{
  "createdAtFilter": {
    "afterTimestamp": number,
    "beforeTimestamp": number
  },
  "expiresAtFilter": {
    "afterTimestamp": number,
    "beforeTimestamp": number
  },
  "filters": [
    {
      "matchOption": "string",
      "name": "string",
      "values": [ "string" ]
    }
  ],
  "maxResults": number,
  "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[createdAtFilter](#)

Filter bill estimates based on the creation date.

Type: [FilterTimestamp](#) object

Required: No

[expiresAtFilter](#)

Filter bill estimates based on the expiration date.

Type: [FilterTimestamp](#) object

Required: No

[filters](#)

Filters to apply to the list of bill estimates.

Type: Array of [ListBillEstimatesFilter](#) objects

Required: No

[maxResults](#)

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

[nextToken](#)

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "items": [
    {
      "billInterval": {
        "end": number,
        "start": number
      },
      "createdAt": number,
```

```
    "expiresAt": number,
    "id": "string",
    "name": "string",
    "status": "string"
  }
],
"nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of bill estimates for the account.

Type: Array of [BillEstimateSummary](#) objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListBillScenarioCommitmentModifications

Service: Amazon Pricing Calculator

Lists the commitment modifications associated with a bill scenario.

Request Syntax

```
{  
  "billScenarioId": "string",  
  "maxResults": number,  
  "nextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

billScenarioId

The unique identifier of the bill scenario to list commitment modifications for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "items": [
    {
      "commitmentAction": { ... },
      "group": "string",
      "id": "string",
      "usageAccountId": "string"
    }
  ],
  "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of commitment modifications associated with the bill scenario.

Type: Array of [BillScenarioCommitmentModificationItem](#) objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListBillScenarios

Service: Amazon Pricing Calculator

Lists all bill scenarios for the account.

Request Syntax

```
{
  "createdAtFilter": {
    "afterTimestamp": number,
    "beforeTimestamp": number
  },
  "expiresAtFilter": {
    "afterTimestamp": number,
    "beforeTimestamp": number
  },
  "filters": [
    {
      "matchOption": "string",
      "name": "string",
      "values": [ "string" ]
    }
  ],
  "maxResults": number,
  "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[createdAtFilter](#)

Filter bill scenarios based on the creation date.

Type: [FilterTimestamp](#) object

Required: No

[expiresAtFilter](#)

Filter bill scenarios based on the expiration date.

Type: [FilterTimestamp](#) object

Required: No

[filters](#)

Filters to apply to the list of bill scenarios.

Type: Array of [ListBillScenariosFilter](#) objects

Required: No

[maxResults](#)

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

[nextToken](#)

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "items": [
    {
      "billInterval": {
        "end": number,
        "start": number
      },
      "costCategoryGroupSharingPreferenceArn": "string",

```

```
    "createdAt": number,
    "expiresAt": number,
    "failureMessage": "string",
    "groupSharingPreference": "string",
    "id": "string",
    "name": "string",
    "status": "string"
  }
],
"nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of bill scenarios for the account.

Type: Array of [BillScenarioSummary](#) objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListBillScenarioUsageModifications

Service: Amazon Pricing Calculator

Lists the usage modifications associated with a bill scenario.

Request Syntax

```
{
  "billScenarioId": "string",
  "filters": [
    {
      "matchOption": "string",
      "name": "string",
      "values": [ "string" ]
    }
  ],
  "maxResults": number,
  "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

billScenarioId

The unique identifier of the bill scenario to list usage modifications for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: Yes

filters

Filters to apply to the list of usage modifications.

Type: Array of [ListUsageFilter](#) objects

Required: No

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "items": [
    {
      "availabilityZone": "string",
      "group": "string",
      "historicalUsage": {
        "billInterval": {
          "end": number,
          "start": number
        },
        "filterExpression": {
          "and": [
            "Expression"
          ],
          "costCategories": {
            "key": "string",
            "matchOptions": [ "string" ],
            "values": [ "string" ]
          }
        }
      }
    }
  ]
}
```

```

    "dimensions": {
      "key": "string",
      "matchOptions": [ "string" ],
      "values": [ "string" ]
    },
    "not": "Expression",
    "or": [
      "Expression"
    ],
    "tags": {
      "key": "string",
      "matchOptions": [ "string" ],
      "values": [ "string" ]
    }
  },
  "location": "string",
  "operation": "string",
  "serviceCode": "string",
  "usageAccountId": "string",
  "usageType": "string"
},
"nextToken": "string",
"location": "string",
"operation": "string",
"quantities": [
  {
    "amount": number,
    "startHour": number,
    "unit": "string"
  }
],
"serviceCode": "string",
"usageAccountId": "string",
"usageType": "string"
}
],
"nextToken": "string"
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of usage modifications associated with the bill scenario.

Type: Array of [BillScenarioUsageModificationItem](#) objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListTagsForResource

Service: Amazon Pricing Calculator

Lists all tags associated with a specified resource.

Request Syntax

```
{  
  "arn": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) of the resource to list tags for.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-pricing-calculator:[-a-z0-9]*:[0-9]{12}:[-a-z0-9/:_]+`

Required: Yes

Response Syntax

```
{  
  "tags": {  
    "string" : "string"  
  }  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

tags

The list of tags associated with the specified resource.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[\w\s:+=@/-]+`

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Value Pattern: `[\w\s:+=@/-]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListWorkloadEstimates

Service: Amazon Pricing Calculator

Lists all workload estimates for the account.

Request Syntax

```
{
  "createdAtFilter": {
    "afterTimestamp": number,
    "beforeTimestamp": number
  },
  "expiresAtFilter": {
    "afterTimestamp": number,
    "beforeTimestamp": number
  },
  "filters": [
    {
      "matchOption": "string",
      "name": "string",
      "values": [ "string" ]
    }
  ],
  "maxResults": number,
  "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[createdAtFilter](#)

Filter workload estimates based on the creation date.

Type: [FilterTimestamp](#) object

Required: No

[expiresAtFilter](#)

Filter workload estimates based on the expiration date.

Type: [FilterTimestamp](#) object

Required: No

[filters](#)

Filters to apply to the list of workload estimates.

Type: Array of [ListWorkloadEstimatesFilter](#) objects

Required: No

[maxResults](#)

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

[nextToken](#)

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "items": [
    {
      "costCurrency": "string",
      "createdAt": number,
      "expiresAt": number,
      "failureMessage": "string",
    }
  ]
}
```

```
    "id": "string",
    "name": "string",
    "rateTimestamp": number,
    "rateType": "string",
    "status": "string",
    "totalCost": number
  }
],
"nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of workload estimates for the account.

Type: Array of [WorkloadEstimateSummary](#) objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListWorkloadEstimateUsage

Service: Amazon Pricing Calculator

Lists the usage associated with a workload estimate.

Request Syntax

```
{
  "filters": [
    {
      "matchOption": "string",
      "name": "string",
      "values": [ "string" ]
    }
  ],
  "maxResults": number,
  "nextToken": "string",
  "workloadEstimateId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

filters

Filters to apply to the list of usage items.

Type: Array of [ListUsageFilter](#) objects

Required: No

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 300.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

workloadEstimateId

The unique identifier of the workload estimate to list usage for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
  "items": [
    {
      "cost": number,
      "currency": "string",
      "group": "string",
      "historicalUsage": {
        "billInterval": {
          "end": number,
          "start": number
        },
        "filterExpression": {
          "and": [
            "Expression"
          ],
          "costCategories": {
            "key": "string",
            "matchOptions": [ "string" ],

```

```

        "values": [ "string" ]
    },
    "dimensions": {
        "key": "string",
        "matchOptions": [ "string" ],
        "values": [ "string" ]
    },
    "not": "Expression",
    "or": [
        "Expression"
    ],
    "tags": {
        "key": "string",
        "matchOptions": [ "string" ],
        "values": [ "string" ]
    }
},
"location": "string",
"operation": "string",
"serviceCode": "string",
"usageAccountId": "string",
"usageType": "string"
},
"__id": "string",
"location": "string",
"operation": "string",
"quantity": {
    "amount": number,
    "unit": "string"
},
"serviceCode": "string",
"status": "string",
"usageAccountId": "string",
"usageType": "string"
}
],
"nextToken": "string"
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of usage items associated with the workload estimate.

Type: Array of [WorkloadEstimateUsageItem](#) objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

TagResource

Service: Amazon Pricing Calculator

Adds one or more tags to a specified resource.

Request Syntax

```
{
  "arn": "string",
  "tags": {
    "string" : "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) of the resource to add tags to.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-pricing-calculator:[-a-z0-9]*:[0-9]{12}:[-a-z0-9/:_]+`

Required: Yes

tags

The tags to add to the resource.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[\w\s :+=@/-]+`

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Value Pattern: `[\w\s :+=@/-]*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UntagResource

Service: Amazon Pricing Calculator

Removes one or more tags from a specified resource.

Request Syntax

```
{  
  "arn": "string",  
  "tagKeys": [ "string" ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) of the resource to remove tags from.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-pricing-calculator:[-a-z0-9]*:[0-9]{12}:[-a-z0-9/:_]+`

Required: Yes

tagKeys

The keys of the tags to remove from the resource.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w\s:+=@/-]+`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)

- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateBillEstimate

Service: Amazon Pricing Calculator

Updates an existing bill estimate.

Request Syntax

```
{
  "expiresAt": number,
  "identifier": "string",
  "name": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

expiresAt

The new expiration date for the bill estimate.

Type: Timestamp

Required: No

identifier

The unique identifier of the bill estimate to update.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

name

The new name for the bill estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: [a-zA-Z0-9-]+

Required: No

Response Syntax

```
{
  "billInterval": {
    "end": number,
    "start": number
  },
  "costCategoryGroupSharingPreferenceArn": "string",
  "costCategoryGroupSharingPreferenceEffectiveDate": number,
  "costSummary": {
    "serviceCostDifferences": {
      "string" : {
        "estimatedCost": {
          "amount": number,
          "currency": "string"
        },
        "historicalCost": {
          "amount": number,
          "currency": "string"
        }
      }
    },
    "totalCostDifference": {
      "estimatedCost": {
        "amount": number,
        "currency": "string"
      },
      "historicalCost": {
        "amount": number,
        "currency": "string"
      }
    }
  },
  "createdAt": number,
  "expiresAt": number,
```

```
"failureMessage": "string",
"groupSharingPreference": "string",
"id": "string",
"name": "string",
"status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billInterval

The time period covered by the updated bill estimate.

Type: [BillInterval](#) object

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: arn:aws[-a-z0-9]*:ce:::[0-9]{12}:costcategory/[a-f0-9-]{36}

costCategoryGroupSharingPreferenceEffectiveDate

Timestamp of the effective date of the cost category used in the group sharing settings.

Type: Timestamp

costSummary

A summary of the updated estimated costs.

Type: [BillEstimateCostSummary](#) object

createdAt

The timestamp when the bill estimate was originally created.

Type: Timestamp

expiresAt

The updated expiration timestamp for the bill estimate.

Type: Timestamp

failureMessage

An error message if the bill estimate update failed.

Type: String

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: OPEN | PRIORITIZED | RESTRICTED

id

The unique identifier of the updated bill estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The updated name of the bill estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

status

The current status of the updated bill estimate.

Type: String

Valid Values: IN_PROGRESS | COMPLETE | FAILED

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)

- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateBillScenario

Service: Amazon Pricing Calculator

Updates an existing bill scenario.

Request Syntax

```
{
  "costCategoryGroupSharingPreferenceArn": "string",
  "expiresAt": number,
  "groupSharingPreference": "string",
  "identifier": "string",
  "name": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[costCategoryGroupSharingPreferenceArn](#)

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: arn:aws[-a-z0-9]*:ce::[0-9]{12}:costcategory/[a-f0-9-]{36}

Required: No

[expiresAt](#)

The new expiration date for the bill scenario.

Type: Timestamp

Required: No

[groupSharingPreference](#)

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: OPEN | PRIORITIZED | RESTRICTED

Required: No

identifier

The unique identifier of the bill scenario to update.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

name

The new name for the bill scenario.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

Required: No

Response Syntax

```
{
  "billInterval": {
    "end": number,
    "start": number
  },
  "costCategoryGroupSharingPreferenceArn": "string",
  "createdAt": number,
  "expiresAt": number,
  "failureMessage": "string",
  "groupSharingPreference": "string",
  "id": "string",
  "name": "string",
```

```
"status": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[billInterval](#)

The time period covered by the updated bill scenario.

Type: [BillInterval](#) object

[costCategoryGroupSharingPreferenceArn](#)

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce::[0-9]{12}:costcategory/[a-f0-9-]{36}`

[createdAt](#)

The timestamp when the bill scenario was originally created.

Type: Timestamp

[expiresAt](#)

The updated expiration timestamp for the bill scenario.

Type: Timestamp

[failureMessage](#)

An error message if the bill scenario update failed.

Type: String

[groupSharingPreference](#)

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: OPEN | PRIORITIZED | RESTRICTED

id

The unique identifier of the updated bill scenario.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

name

The updated name of the bill scenario.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: [a-zA-Z0-9-]+

status

The current status of the updated bill scenario.

Type: String

Valid Values: READY | LOCKED | FAILED | STALE

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdatePreferences

Service: Amazon Pricing Calculator

Updates the preferences for Amazon Pricing Calculator.

Request Syntax

```
{  
  "managementAccountRateTypeSelections": [ "string" ],  
  "memberAccountRateTypeSelections": [ "string" ],  
  "standaloneAccountRateTypeSelections": [ "string" ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

managementAccountRateTypeSelections

The updated preferred rate types for the management account.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS |
AFTER_DISCOUNTS_AND_COMMITMENTS

Required: No

memberAccountRateTypeSelections

The updated preferred rate types for member accounts.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS |
AFTER_DISCOUNTS_AND_COMMITMENTS

Required: No

standaloneAccountRateTypeSelections

The updated preferred rate types for a standalone account.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS |
AFTER_DISCOUNTS_AND_COMMITMENTS

Required: No

Response Syntax

```
{
  "managementAccountRateTypeSelections": [ "string" ],
  "memberAccountRateTypeSelections": [ "string" ],
  "standaloneAccountRateTypeSelections": [ "string" ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

managementAccountRateTypeSelections

The updated preferred rate types for the management account.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS |
AFTER_DISCOUNTS_AND_COMMITMENTS

memberAccountRateTypeSelections

The updated preferred rate types for member accounts.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS |
AFTER_DISCOUNTS_AND_COMMITMENTS

standaloneAccountRateTypeSelections

The updated preferred rate types for a standalone account.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS |
AFTER_DISCOUNTS_AND_COMMITMENTS

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerErrorException

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateWorkloadEstimate

Service: Amazon Pricing Calculator

Updates an existing workload estimate.

Request Syntax

```
{  
  "expiresAt": number,  
  "identifier": "string",  
  "name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

expiresAt

The new expiration date for the workload estimate.

Type: Timestamp

Required: No

identifier

The unique identifier of the workload estimate to update.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

name

The new name for the workload estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: [a-zA-Z0-9-]+

Required: No

Response Syntax

```
{
  "costCurrency": "string",
  "createdAt": number,
  "expiresAt": number,
  "failureMessage": "string",
  "id": "string",
  "name": "string",
  "rateTimestamp": number,
  "rateType": "string",
  "status": "string",
  "totalCost": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

costCurrency

The currency of the updated estimated cost.

Type: String

Valid Values: USD

createdAt

The timestamp when the workload estimate was originally created.

Type: Timestamp

expiresAt

The updated expiration timestamp for the workload estimate.

Type: Timestamp

failureMessage

An error message if the workload estimate update failed.

Type: String

id

The unique identifier of the updated workload estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

name

The updated name of the workload estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: [a-zA-Z0-9-]+

rateTimestamp

The timestamp of the pricing rates used for the updated estimate.

Type: Timestamp

rateType

The type of pricing rates used for the updated estimate.

Type: String

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS |
AFTER_DISCOUNTS_AND_COMMITMENTS

status

The current status of the updated workload estimate.

Type: String

Valid Values: UPDATING | VALID | INVALID | ACTION_NEEDED

totalCost

The updated total estimated cost for the workload.

Type: Double

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerError

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact Amazon support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact Amazon support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an Amazon service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

Amazon Billing and Cost Management Recommended Actions

The following actions are supported by Amazon Billing and Cost Management Recommended Actions:

- [ListRecommendedActions](#)

ListRecommendedActions

Service: Amazon Billing and Cost Management Recommended Actions

Returns a list of recommended actions that match the filter criteria.

Request Syntax

```
{
  "filter": {
    "actions": [
      {
        "key": "string",
        "matchOption": "string",
        "values": [ "string" ]
      }
    ]
  },
  "maxResults": number,
  "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

filter

The criteria that you want all returned recommended actions to match.

Type: [RequestFilter](#) object

Required: No

maxResults

The maximum number of results to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

The pagination token that indicates the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "nextToken": "string",
  "recommendedActions": [
    {
      "accountId": "string",
      "context": {
        "string": "string"
      },
      "feature": "string",
      "id": "string",
      "lastUpdatedTimeStamp": "string",
      "nextSteps": [ "string" ],
      "severity": "string",
      "type": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

nextToken

The pagination token that indicates the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

recommendedActions

The list of recommended actions that satisfy the filter criteria.

Type: Array of [RecommendedAction](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerErrorException

An unexpected error occurred during the processing of your request.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

fieldList

Lists each problematic field and why it failed validation.

reason

Provides a single, overarching explanation for the validation failure.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

Amazon Billing

The following actions are supported by Amazon Billing:

- [AssociateSourceViews](#)
- [CreateBillingView](#)
- [DeleteBillingView](#)
- [DisassociateSourceViews](#)
- [GetBillingView](#)
- [GetResourcePolicy](#)
- [ListBillingViews](#)
- [ListSourceViewsForBillingView](#)
- [ListTagsForResource](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateBillingView](#)

AssociateSourceViews

Service: Amazon Billing

Associates one or more source billing views with an existing billing view. This allows creating aggregate billing views that combine data from multiple sources.

Request Syntax

```
{
  "arn": "string",
  "sourceViews": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) of the billing view to associate source views with.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

sourceViews

A list of ARNs of the source billing views to associate.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

Response Syntax

```
{  
  "arn": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The ARN of the billing view that the source views were associated with.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

BillingViewHealthStatusException

Exception thrown when a billing view's health status prevents an operation from being performed. This may occur if the billing view is in a state other than HEALTHY.

HTTP Status Code: 400

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

resourceId

The identifier for the service resource associated with the request.

resourceType

The type of resource associated with the request.

HTTP Status Code: 400

InternalServerErrorException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit of resources you can create, or exceeded the size of an individual resource.

quotaCode

The container for the quotaCode.

resourceId

The ID of the resource.

resourceType

The type of Amazon resource.

serviceCode

The container for the serviceCode.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon service.

reason

The input fails to satisfy the constraints specified by an Amazon service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

CreateBillingView

Service: Amazon Billing

Creates a billing view with the specified billing view attributes.

Request Syntax

```
{
  "clientToken": "string",
  "dataFilterExpression": {
    "costCategories": {
      "key": "string",
      "values": [ "string" ]
    },
    "dimensions": {
      "key": "string",
      "values": [ "string" ]
    },
    "tags": {
      "key": "string",
      "values": [ "string" ]
    },
    "timeRange": {
      "beginDateInclusive": number,
      "endDateInclusive": number
    }
  },
  "description": "string",
  "name": "string",
  "resourceTags": [
    {
      "key": "string",
      "value": "string"
    }
  ],
  "sourceViews": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

clientToken

A unique, case-sensitive identifier you specify to ensure idempotency of the request. Idempotency ensures that an API request completes no more than one time. If the original request completes successfully, any subsequent retries complete successfully without performing any further actions with an idempotent request.

Type: String

Pattern: [a-zA-Z0-9-]+

Required: No

dataFilterExpression

See [Expression](#). Billing view only supports LINKED_ACCOUNT, Tags, and CostCategories.

Type: [Expression](#) object

Required: No

description

The description of the billing view.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: ([a-zA-Z0-9_\+=\. \-@]+)?

Required: No

name

The name of the billing view.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: [a-zA-Z0-9_\+=\. \-@]+

Required: Yes

resourceTags

A list of key value map specifying tags associated to the billing view being created.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

sourceViews

A list of billing views used as the data source for the custom billing view.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

Response Syntax

```
{
  "arn": "string",
  "createdAt": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_+=\.\-@]{0,75}[a-zA-Z0-9]

createdAt

The time when the billing view was created.

Type: Timestamp

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

BillingViewHealthStatusException

Exception thrown when a billing view's health status prevents an operation from being performed. This may occur if the billing view is in a state other than HEALTHY.

HTTP Status Code: 400

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

resourceId

The identifier for the service resource associated with the request.

resourceType

The type of resource associated with the request.

HTTP Status Code: 400

InternalServerErrorException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit of resources you can create, or exceeded the size of an individual resource.

quotaCode

The container for the `quotaCode`.

resourceId

The ID of the resource.

resourceType

The type of Amazon resource.

serviceCode

The container for the `serviceCode`.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon service.

reason

The input fails to satisfy the constraints specified by an Amazon service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteBillingView

Service: Amazon Billing

Deletes the specified billing view.

Request Syntax

```
{
  "arn": "string",
  "force": boolean
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/!:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

force

If set to true, forces deletion of the billing view even if it has derived resources (e.g. other billing views or budgets). Use with caution as this may break dependent resources.

Type: Boolean

Required: No

Response Syntax

```
{
  "arn": "string"
}
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

resourceId

The identifier for the service resource associated with the request.

resourceType

The type of resource associated with the request.

HTTP Status Code: 400

InternalServerError

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon service.

reason

The input fails to satisfy the constraints specified by an Amazon service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DisassociateSourceViews

Service: Amazon Billing

Removes the association between one or more source billing views and an existing billing view. This allows modifying the composition of aggregate billing views.

Request Syntax

```
{
  "arn": "string",
  "sourceViews": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) of the billing view to disassociate source views from.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

sourceViews

A list of ARNs of the source billing views to disassociate.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

Response Syntax

```
{
  "arn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The ARN of the billing view that the source views were disassociated from.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

BillingViewHealthStatusException

Exception thrown when a billing view's health status prevents an operation from being performed. This may occur if the billing view is in a state other than HEALTHY.

HTTP Status Code: 400

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

resourceId

The identifier for the service resource associated with the request.

resourceType

The type of resource associated with the request.

HTTP Status Code: 400

InternalServerErrorException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon service.

reason

The input fails to satisfy the constraints specified by an Amazon service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetBillingView

Service: Amazon Billing

Returns the metadata associated to the specified billing view ARN.

Request Syntax

```
{
  "arn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/!:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

Response Syntax

```
{
  "billingView": {
    "arn": "string",
    "billingViewType": "string",
    "createdAt": number,
    "dataFilterExpression": {
      "costCategories": {
        "key": "string",
        "values": [ "string" ]
      }
    }
  },
}
```

```
    "dimensions": {
      "key": "string",
      "values": [ "string" ]
    },
    "tags": {
      "key": "string",
      "values": [ "string" ]
    },
    "timeRange": {
      "beginDateInclusive": number,
      "endDateInclusive": number
    }
  },
  "derivedViewCount": number,
  "description": "string",
  "healthStatus": {
    "statusCode": "string",
    "statusReasons": [ "string" ]
  },
  "name": "string",
  "ownerAccountId": "string",
  "sourceAccountId": "string",
  "sourceViewCount": number,
  "updatedAt": number,
  "viewDefinitionLastUpdatedAt": number
}
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billingView

The billing view element associated with the specified ARN.

Type: [BillingViewElement](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerErrorException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon service.

reason

The input fails to satisfy the constraints specified by an Amazon service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetResourcePolicy

Service: Amazon Billing

Returns the resource-based policy document attached to the resource in JSON format.

Request Syntax

```
{
  "resourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

resourceArn

The Amazon Resource Name (ARN) of the billing view resource to which the policy is attached to.

Type: String

Pattern: arn:aws[a-z-]*:(billing)::[0-9]{12}:[a-zA-Z0-9/:_\+=\.@-]{0,70}[a-zA-Z0-9]

Required: Yes

Response Syntax

```
{
  "policy": "string",
  "resourceArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

policy

The resource-based policy document attached to the resource in JSON format.

Type: String

resourceArn

The Amazon Resource Name (ARN) of the billing view resource to which the policy is attached to.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:[a-zA-Z0-9/_:\+=\.\@-]{0,70}[a-zA-Z0-9]`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon service.

reason

The input fails to satisfy the constraints specified by an Amazon service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListBillingViews

Service: Amazon Billing

Lists the billing views available for a given time period.

Every Amazon Web Services account has a unique PRIMARY billing view that represents the billing data available by default. Accounts that use Amazon Billing Conductor also have BILLING_GROUP billing views representing pro forma costs associated with each created billing group.

Request Syntax

```
{
  "activeTimeRange": {
    "activeAfterInclusive": number,
    "activeBeforeInclusive": number
  },
  "arns": [ "string" ],
  "billingViewTypes": [ "string" ],
  "maxResults": number,
  "names": [
    {
      "searchOption": "string",
      "searchValue": "string"
    }
  ],
  "nextToken": "string",
  "ownerAccountId": "string",
  "sourceAccountId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

activeTimeRange

The time range for the billing views listed. PRIMARY billing view is always listed. BILLING_GROUP billing views are listed for time ranges when the associated billing group resource in Amazon Billing Conductor is active. The time range must be within one calendar month.

Type: [ActiveTimeRange](#) object

Required: No

[arns](#)

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/!:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: No

[billingViewTypes](#)

The type of billing view.

Type: Array of strings

Valid Values: PRIMARY | BILLING_GROUP | CUSTOM | BILLING_TRANSFER | BILLING_TRANSFER_SHOWBACK

Required: No

[maxResults](#)

The maximum number of billing views to retrieve. Default is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

[names](#)

Filters the list of billing views by name. You can specify search criteria to match billing view names based on the search option provided.

Type: Array of [StringSearch](#) objects

Array Members: Fixed number of 1 item.

Required: No

nextToken

The pagination token that is used on subsequent calls to list billing views.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2047.

Required: No

ownerAccountId

The list of owners of the billing view.

Type: String

Pattern: [0-9]{12}

Required: No

sourceAccountId

Filters the results to include only billing views that use the specified account as a source.

Type: String

Pattern: [0-9]{12}

Required: No

Response Syntax

```
{
  "billingViews": [
    {
      "arn": "string",
      "billingViewType": "string",
      "description": "string",
      "healthStatus": {
        "statusCode": "string",
        "statusReasons": [ "string" ]
      },
    },
  ],
}
```

```
    "name": "string",
    "ownerAccountId": "string",
    "sourceAccountId": "string"
  }
],
"nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billingViews

A list of `BillingViewListElement` retrieved.

Type: Array of [BillingViewListElement](#) objects

nextToken

The pagination token to use on subsequent calls to list billing views.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2047.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerErrorException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon service.

reason

The input fails to satisfy the constraints specified by an Amazon service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListSourceViewsForBillingView

Service: Amazon Billing

Lists the source views (managed Amazon billing views) associated with the billing view.

Request Syntax

```
{
  "arn": "string",
  "maxResults": number,
  "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/!:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

maxResults

The number of entries a paginated response contains.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

nextToken

The pagination token that is used on subsequent calls to list billing views.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2047.

Required: No

Response Syntax

```
{
  "nextToken": "string",
  "sourceViews": [ "string" ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

nextToken

The pagination token that is used on subsequent calls to list billing views.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2047.

sourceViews

A list of billing views used as the data source for the custom billing view.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerErrorException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon service.

reason

The input fails to satisfy the constraints specified by an Amazon service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)

- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListTagsForResource

Service: Amazon Billing

Lists tags associated with the billing view resource.

Request Syntax

```
{  
  "resourceArn": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

resourceArn

The Amazon Resource Name (ARN) of the resource.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:[a-zA-Z0-9/:_\+=\.@-]{0,70}[a-zA-Z0-9]`

Required: Yes

Response Syntax

```
{  
  "resourceTags": [  
    {  
      "key": "string",  
      "value": "string"  
    }  
  ]  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

resourceTags

A list of tag key value pairs that are associated with the resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon service.

reason

The input fails to satisfy the constraints specified by an Amazon service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

TagResource

Service: Amazon Billing

An API operation for adding one or more tags (key-value pairs) to a resource.

Request Syntax

```
{
  "resourceArn": "string",
  "resourceTags": [
    {
      "key": "string",
      "value": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

resourceArn

The Amazon Resource Name (ARN) of the resource.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:[a-zA-Z0-9/_:\+=\.\@-]{0,70}[a-zA-Z0-9]`

Required: Yes

resourceTags

A list of tag key value pairs that are associated with the resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon service.

reason

The input fails to satisfy the constraints specified by an Amazon service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UntagResource

Service: Amazon Billing

Removes one or more tags from a resource. Specify only tag keys in your request. Don't specify the value.

Request Syntax

```
{
  "resourceArn": "string",
  "resourceTagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

resourceArn

The Amazon Resource Name (ARN) of the resource.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:[a-zA-Z0-9/_:\+=\.\@-]{0,70}`
`[a-zA-Z0-9]`

Required: Yes

resourceTagKeys

A list of tag key value pairs that are associated with the resource.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon service.

reason

The input fails to satisfy the constraints specified by an Amazon service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateBillingView

Service: Amazon Billing

An API to update the attributes of the billing view.

Request Syntax

```
{
  "arn": "string",
  "dataFilterExpression": {
    "costCategories": {
      "key": "string",
      "values": [ "string" ]
    },
    "dimensions": {
      "key": "string",
      "values": [ "string" ]
    },
    "tags": {
      "key": "string",
      "values": [ "string" ]
    },
    "timeRange": {
      "beginDateInclusive": number,
      "endDateInclusive": number
    }
  },
  "description": "string",
  "name": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

dataFilterExpression

See [Expression](#). Billing view only supports LINKED_ACCOUNT, Tags, and CostCategories.

Type: [Expression](#) object

Required: No

description

The description of the billing view.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `([a-zA-Z0-9_\+=\.\-@]+)?`

Required: No

name

The name of the billing view.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_\+=\.\-@]+`

Required: No

Response Syntax

```
{
  "arn": string,
  "updatedAt": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

updatedAt

The time when the billing view was last updated.

Type: Timestamp

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

BillingViewHealthStatusException

Exception thrown when a billing view's health status prevents an operation from being performed. This may occur if the billing view is in a state other than HEALTHY.

HTTP Status Code: 400

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

resourceId

The identifier for the service resource associated with the request.

resourceType

The type of resource associated with the request.

HTTP Status Code: 400

InternalServerErrorException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit of resources you can create, or exceeded the size of an individual resource.

quotaCode

The container for the `quotaCode`.

resourceId

The ID of the resource.

resourceType

The type of Amazon resource.

serviceCode

The container for the `serviceCode`.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon service.

reason

The input fails to satisfy the constraints specified by an Amazon service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

Amazon Budgets

The following actions are supported by Amazon Budgets:

- [CreateBudget](#)
- [CreateBudgetAction](#)
- [CreateNotification](#)
- [CreateSubscriber](#)
- [DeleteBudget](#)
- [DeleteBudgetAction](#)
- [DeleteNotification](#)
- [DeleteSubscriber](#)
- [DescribeBudget](#)
- [DescribeBudgetAction](#)
- [DescribeBudgetActionHistories](#)
- [DescribeBudgetActionsForAccount](#)
- [DescribeBudgetActionsForBudget](#)
- [DescribeBudgetNotificationsForAccount](#)
- [DescribeBudgetPerformanceHistory](#)
- [DescribeBudgets](#)
- [DescribeNotificationsForBudget](#)
- [DescribeSubscribersForNotification](#)
- [ExecuteBudgetAction](#)
- [ListTagsForResource](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateBudget](#)
- [UpdateBudgetAction](#)
- [UpdateNotification](#)
- [UpdateSubscriber](#)

CreateBudget

Service: Amazon Budgets

Creates a budget and, if included, notifications and subscribers.

Important

Only one of `BudgetLimit` or `PlannedBudgetLimits` can be present in the syntax at one time. Use the syntax that matches your use case. The Request Syntax section shows the `BudgetLimit` syntax. For `PlannedBudgetLimits`, see the [Examples](#) section.

Similarly, only one set of filter and metric selections can be present in the syntax at one time. Either `FilterExpression` and `Metrics` or `CostFilters` and `CostTypes`, not both or a different combination. We recommend using `FilterExpression` and `Metrics` as they provide more flexible and powerful filtering capabilities. The Request Syntax section shows the `FilterExpression/Metrics` syntax.

Request Syntax

```
{
  "AccountId": "string",
  "Budget": {
    "AutoAdjustData": {
      "AutoAdjustType": "string",
      "HistoricalOptions": {
        "BudgetAdjustmentPeriod": number,
        "LookBackAvailablePeriods": number
      },
      "LastAutoAdjustTime": number
    },
    "BillingViewArn": "string",
    "BudgetLimit": {
      "Amount": "string",
      "Unit": "string"
    },
    "BudgetName": "string",
    "BudgetType": "string",
    "CalculatedSpend": {
      "ActualSpend": {
        "Amount": "string",
        "Unit": "string"
      }
    }
  }
}
```

```
    },
    "ForecastedSpend": {
      "Amount": "string",
      "Unit": "string"
    }
  },
  "CostFilters": {
    "string" : [ "string" ]
  },
  "CostTypes": {
    "IncludeCredit": boolean,
    "IncludeDiscount": boolean,
    "IncludeOtherSubscription": boolean,
    "IncludeRecurring": boolean,
    "IncludeRefund": boolean,
    "IncludeSubscription": boolean,
    "IncludeSupport": boolean,
    "IncludeTax": boolean,
    "IncludeUpfront": boolean,
    "UseAmortized": boolean,
    "UseBlended": boolean
  },
  "FilterExpression": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  }
}
```

```
    }
  },
  "HealthStatus": {
    "LastUpdatedTime": number,
    "Status": "string",
    "StatusReason": "string"
  },
  "LastUpdatedTime": number,
  "Metrics": [ "string" ],
  "PlannedBudgetLimits": {
    "string" : {
      "Amount": "string",
      "Unit": "string"
    }
  },
  "TimePeriod": {
    "End": number,
    "Start": number
  },
  "TimeUnit": "string"
},
"NotificationsWithSubscribers": [
  {
    "Notification": {
      "ComparisonOperator": "string",
      "NotificationState": "string",
      "NotificationType": "string",
      "Threshold": number,
      "ThresholdType": "string"
    },
    "Subscribers": [
      {
        "Address": "string",
        "SubscriptionType": "string"
      }
    ]
  }
]
},
"ResourceTags": [
  {
    "Key": "string",
    "Value": "string"
  }
]
```

```
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The accountId that is associated with the budget.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

Budget

The budget object that you want to create.

Type: [Budget](#) object

Required: Yes

NotificationsWithSubscribers

A notification that you want to associate with a budget. A budget can have up to five notifications, and each notification can have one SNS subscriber and up to 10 email subscribers. If you include notifications and subscribers in your `CreateBudget` call, Amazon creates the notifications and subscribers for you.

Type: Array of [NotificationWithSubscribers](#) objects

Array Members: Maximum number of 10 items.

Required: No

ResourceTags

An optional list of tags to associate with the specified budget. Each tag consists of a key and a value, and each key must be unique for the resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

Message

The error message the exception carries.

HTTP Status Code: 400

CreationLimitExceededException

You've exceeded the notification or subscriber limit.

Message

The error message the exception carries.

HTTP Status Code: 400

DuplicateRecordException

The budget name already exists. Budget names must be unique within an account.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached a Service Quota limit on this resource.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is the `PlannedBudgetLimits` syntax

```
{
  "AccountId": "string",
  "Budget": {
    "PlannedBudgetLimits": {
      "string": {
        "Amount": "string",
        "Unit": "string"
      }
    },
    "BudgetName": "string",
    "BudgetType": "string",
    "CalculatedSpend": {
      "ActualSpend": {
        "Amount": "string",
        "Unit": "string"
      },
      "ForecastedSpend": {
        "Amount": "string",
        "Unit": "string"
      }
    },
    "FilterExpression": {
      "And": [
        "Expression"
      ],
      "Dimensions": {
```

```

        "Key": "string",
        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
        "Expression"
    ],
    "Tags": {
        "Key": "string",
        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
    }
},
"Metrics": [ "string" ],
"LastUpdatedTime": number,
"TimePeriod": {
    "End": number,
    "Start": number
},
"TimeUnit": "string"
},
"NotificationsWithSubscribers": [
    {
        "Notification": {
            "ComparisonOperator": "string",
            "NotificationState": "string",
            "NotificationType": "string",
            "Threshold": number,
            "ThresholdType": "string"
        },
        "Subscribers": [
            {
                "Address": "string",
                "SubscriptionType": "string"
            }
        ]
    }
]
}

```

Example

The following is a sample request of the `CreateBudget` operation using `BudgetLimit`

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateBudget
```

```
{
  "AccountId": "111122223333",
  "Budget": {
    "BudgetLimit": {
      "Amount": "100",
      "Unit": "USD"
    },
    "BudgetName": "Example Budget",
    "BudgetType": "COST",
    "FilterExpression": {
      "Dimensions": {
        "Key": "AZ",
        "Values": ["us-east-1"]
      }
    },
    "Metrics": ["UNBLENDED_COST"],
    "TimePeriod": {
      "Start": 1712019600,
      "End": 1714611600
    },
    "TimeUnit": "MONTHLY"
  },
  "NotificationsWithSubscribers": [
    {
      "Notification": {
        "ComparisonOperator": "GREATER_THAN",
        "NotificationType": "ACTUAL",
        "Threshold": 80,
        "ThresholdType": "PERCENTAGE"
      }
    }
  ]
}
```

```
    "Subscribers": [
      {
        "Address": "budget-alerts@example.com",
        "SubscriptionType": "EMAIL"
      }
    ],
  },
  {
    "Notification": {
      "ComparisonOperator": "GREATER_THAN",
      "NotificationType": "FORECASTED",
      "Threshold": 90,
      "ThresholdType": "PERCENTAGE"
    },
    "Subscribers": [
      {
        "Address": "budget-forecasts@example.com",
        "SubscriptionType": "EMAIL"
      }
    ]
  }
]
```

Example

The following is a sample request of the `CreateBudget` operation using `PlannedBudgetLimits` and using `FilterExpression` to include multiple dimensions (Service and Region) on net unblended costs

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateBudget
```

```
{
  "AccountId": "111122223333",
  "Budget": {
    "PlannedBudgetLimits": {
      "1712019600": {
        "Amount": "100",
        "Unit": "USD"
      },
      "1714611600": {
        "Amount": "200",
        "Unit": "USD"
      },
      "1717203600": {
        "Amount": "300",
        "Unit": "USD"
      }
    },
    "BudgetName": "Example Planned Budget",
    "BudgetType": "COST",
    "FilterExpression": {
      "Dimensions": {
        "Key": "SERVICE",
        "Values": ["Amazon Simple Storage Service", "Amazon FSx"]
      },
      "And": [{
        "Dimensions": {
          "Key": "REGION",
          "Values": ["us-east-1", "us-west-2"]
        }
      }]
    },
    "Metrics": ["NET_UNBLENDED_COST"],
    "TimePeriod": {
      "Start": 1712019600,
      "End": 1717203600
    },
    "TimeUnit": "MONTHLY"
  },
  "NotificationsWithSubscribers": [
    {
      "Notification": {
        "ComparisonOperator": "GREATER_THAN",
        "NotificationType": "ACTUAL",
```

```
        "Threshold": 50,
        "ThresholdType": "PERCENTAGE"
    },
    "Subscribers": [
        {
            "Address": "planned-budget-alerts-1@example.com",
            "SubscriptionType": "EMAIL"
        }
    ]
}
]
```

Example

The following is a sample request of the `CreateBudget` operation using `BudgetLimit` and filtering for a specific tag.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateBudget

{
  "AccountId": "111122223333",
  "Budget": {
    "BudgetLimit": {
      "Amount": "100",
      "Unit": "USD"
    },
    "BudgetName": "Example Tag Budget",
    "BudgetType": "COST",
    "FilterExpression": {
      "Tags": {
```

```
        "Key": "user:Key",
        "Values": ["value1", "value2"]
    }
},
"Metrics": ["NET_UNBLENDED_COST"],
"TimePeriod": {
    "Start": 1712019600,
    "End": 1717203600
},
"TimeUnit": "MONTHLY"
},
"NotificationsWithSubscribers": [
    {
        "Notification": {
            "ComparisonOperator": "GREATER_THAN",
            "NotificationType": "ACTUAL",
            "Threshold": 80,
            "ThresholdType": "PERCENTAGE"
        },
        "Subscribers": [
            {
                "Address": "example@example.com",
                "SubscriptionType": "EMAIL"
            }
        ]
    }
]
}
```

Example

The following is a sample request of the `CreateBudget` operation using `ResourceTags` and filtering for a specific tag.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
```

```
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateBudget
```

```
{
  "AccountId": "111122223333",
  "Budget": {
    "BudgetLimit": {
      "Amount": "1000",
      "Unit": "USD"
    },
    "BudgetName": "Tag-Based Budget Example",
    "BudgetType": "COST",
    "FilterExpression": {
      "Tags": {
        "Key": "CostCenter",
        "Values": ["IT-1234", "Marketing-5678"]
      }
    },
    "Metrics": ["NET_UNBLENDED_COST"],
    "TimePeriod": {
      "Start": 1712019600,
      "End": 1714611600
    },
    "TimeUnit": "MONTHLY"
  },
  "NotificationsWithSubscribers": [
    {
      "Notification": {
        "ComparisonOperator": "GREATER_THAN",
        "NotificationType": "ACTUAL",
        "Threshold": 80,
        "ThresholdType": "PERCENTAGE"
      },
      "Subscribers": [
        {
          "Address": "tag-budget-alerts@example.com",
          "SubscriptionType": "EMAIL"
        }
      ]
    }
  ],
  "ResourceTags": [
```

```
{
  "Key": "Project",
  "Value": "CloudMigration"
},
{
  "Key": "Owner",
  "Value": "FinanceTeam"
}
]
}
```

Example

The following is a sample request of the `CreateBudget` operation using `FilterExpression` to exclude specific services.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateBudget

{
  "AccountId": "111122223333",
  "Budget": {
    "BudgetLimit": {
      "Amount": "1000",
      "Unit": "USD"
    },
    "BudgetName": "Example Exclusion Budget",
    "BudgetType": "COST",
    "FilterExpression": {
      "Not": {
        "Dimensions": {
          "Key": "SERVICE",
```

```
        "Values": ["AWS Shield", "AWS Support (Enterprise)"]
      }
    },
    "Metrics": ["NET_UNBLENDED_COST"],
    "TimePeriod": {
      "Start": 1712019600,
      "End": 1714611600
    },
    "TimeUnit": "MONTHLY"
  },
  "NotificationsWithSubscribers": [
    {
      "Notification": {
        "ComparisonOperator": "GREATER_THAN",
        "NotificationType": "ACTUAL",
        "Threshold": 70,
        "ThresholdType": "PERCENTAGE"
      },
      "Subscribers": [
        {
          "Address": "exclusion-alerts@example.com",
          "SubscriptionType": "EMAIL"
        }
      ]
    },
    {
      "Notification": {
        "ComparisonOperator": "GREATER_THAN",
        "NotificationType": "FORECASTED",
        "Threshold": 100,
        "ThresholdType": "PERCENTAGE"
      },
      "Subscribers": [
        {
          "Address": "exclusion-forecasts@example.com",
          "SubscriptionType": "EMAIL"
        }
      ]
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

CreateBudgetAction

Service: Amazon Budgets

Creates a budget action.

Request Syntax

```
{
  "AccountId": "string",
  "ActionThreshold": {
    "ActionThresholdType": "string",
    "ActionThresholdValue": number
  },
  "ActionType": "string",
  "ApprovalModel": "string",
  "BudgetName": "string",
  "Definition": {
    "IamActionDefinition": {
      "Groups": [ "string" ],
      "PolicyArn": "string",
      "Roles": [ "string" ],
      "Users": [ "string" ]
    },
    "ScpActionDefinition": {
      "PolicyId": "string",
      "TargetIds": [ "string" ]
    },
    "SsmActionDefinition": {
      "ActionSubType": "string",
      "InstanceIds": [ "string" ],
      "Region": "string"
    }
  },
  "ExecutionRoleArn": "string",
  "NotificationType": "string",
  "ResourceTags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "Subscribers": [
    {
```

```
    "Address": "string",  
    "SubscriptionType": "string"  
  }  
]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: Yes

ActionThreshold

The trigger threshold of the action.

Type: [ActionThreshold](#) object

Required: Yes

ActionType

The type of action. This defines the type of tasks that can be carried out by this action. This field also determines the format for definition.

Type: String

Valid Values: APPLY_IAM_POLICY | APPLY_SCP_POLICY | RUN_SSM_DOCUMENTS

Required: Yes

ApprovalModel

This specifies if the action needs manual or automatic approval.

Type: String

Valid Values: AUTOMATIC | MANUAL

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\"]*/action/|(?i).*<script>.*</script>.*)[^\:\\"]+$`

Required: Yes

Definition

Specifies all of the type-specific parameters.

Type: [Definition](#) object

Required: Yes

ExecutionRoleArn

The role passed for action execution and reversion. Roles and actions must be in the same account.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 618.

Pattern: `^arn:aws(-eusc|-cn|-us-gov|-iso|-iso-[a-z]{1})?:iam::\d{12}:role(\u002F[\u0021-\u007F]+\u002F|[\u002F])[\w+=,.\@-]+$`

Required: Yes

NotificationType

The type of a notification. It must be ACTUAL or FORECASTED.

Type: String

Valid Values: ACTUAL | FORECASTED

Required: Yes

ResourceTags

An optional list of tags to associate with the specified budget action. Each tag consists of a key and a value, and each key must be unique for the resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Subscribers

A list of subscribers.

Type: Array of [Subscriber](#) objects

Array Members: Minimum number of 1 item. Maximum number of 11 items.

Required: Yes

Response Syntax

```
{
  "AccountId": "string",
  "ActionId": "string",
  "BudgetName": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\\]+$`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

CreationLimitExceededException

You've exceeded the notification or subscriber limit.

Message

The error message the exception carries.

HTTP Status Code: 400

DuplicateRecordException

The budget name already exists. Budget names must be unique within an account.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached a Service Quota limit on this resource.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

CreateNotification

Service: Amazon Budgets

Creates a notification. You must create the budget before you create the associated notification.

Request Syntax

```
{
  "AccountId": "string",
  "BudgetName": "string",
  "Notification": {
    "ComparisonOperator": "string",
    "NotificationState": "string",
    "NotificationType": "string",
    "Threshold": number,
    "ThresholdType": "string"
  },
  "Subscribers": [
    {
      "Address": "string",
      "SubscriptionType": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The accountId that is associated with the budget that you want to create a notification for.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget that you want Amazon to notify you about. Budget names must be unique within an account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\]*/action/|(?i).*<script>.*</script>.*)[^\:\\\]+$`

Required: Yes

Notification

The notification that you want to create.

Type: [Notification](#) object

Required: Yes

Subscribers

A list of subscribers that you want to associate with the notification. Each notification can have one SNS subscriber and up to 10 email subscribers.

Type: Array of [Subscriber](#) objects

Array Members: Minimum number of 1 item. Maximum number of 11 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

CreationLimitExceededException

You've exceeded the notification or subscriber limit.

Message

The error message the exception carries.

HTTP Status Code: 400

DuplicateRecordException

The budget name already exists. Budget names must be unique within an account.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the CreateNotification operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateNotification
{
  "AccountId": "111122223333",
  "BudgetName": "Example Budget",
  "Notification": {
    "ComparisonOperator": "GREATER_THAN",
    "NotificationType": "ACTUAL",
    "Threshold": 80,
    "ThresholdType": "PERCENTAGE"
```

```
  },
  "Subscribers": [
    {
      "Address": "example@example.com",
      "SubscriptionType": "EMAIL"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

CreateSubscriber

Service: Amazon Budgets

Creates a subscriber. You must create the associated budget and notification before you create the subscriber.

Request Syntax

```
{
  "AccountId": "string",
  "BudgetName": "string",
  "Notification": {
    "ComparisonOperator": "string",
    "NotificationState": "string",
    "NotificationType": "string",
    "Threshold": number,
    "ThresholdType": "string"
  },
  "Subscriber": {
    "Address": "string",
    "SubscriptionType": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The accountId that is associated with the budget that you want to create a subscriber for.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: Yes

BudgetName

The name of the budget that you want to subscribe to. Budget names must be unique within an account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\/*\/action/|(?i).*<script>.*</script>.*)[^\:\/*\/*]+`

Required: Yes

Notification

The notification that you want to create a subscriber for.

Type: [Notification](#) object

Required: Yes

Subscriber

The subscriber that you want to associate with a budget notification.

Type: [Subscriber](#) object

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

CreationLimitExceededException

You've exceeded the notification or subscriber limit.

Message

The error message the exception carries.

HTTP Status Code: 400

DuplicateRecordException

The budget name already exists. Budget names must be unique within an account.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the CreateSubscriber operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateSubscriber
{
  "AccountId": "111122223333",
  "BudgetName": "Example Budget",
  "Notification": {
    "ComparisonOperator": "GREATER_THAN",
    "NotificationType": "ACTUAL",
    "Threshold": 80,
    "ThresholdType": "PERCENTAGE"
  },
  "Subscribers": [
    {
      "Address": "example@example.com",
```

```
        "SubscriptionType": "EMAIL"  
    }  
]  
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteBudget

Service: Amazon Budgets

Deletes a budget. You can delete your budget at any time.

Important

Deleting a budget also deletes the notifications and subscribers that are associated with that budget.

Request Syntax

```
{
  "AccountId": "string",
  "BudgetName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The accountId that is associated with the budget that you want to delete.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget that you want to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\/*\/action/|(?i).*<script>.*</script>.*)[^\:\/*]+$`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the DeleteBudget operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DeleteBudget
{
  "AccountId": "111122223333",
  "BudgetName": "Example Budget"
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)

- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteBudgetAction

Service: Amazon Budgets

Deletes a budget action.

Request Syntax

```
{  
  "AccountId": "string",  
  "ActionId": "string",  
  "BudgetName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\\\]*/action/|(?i).*<script>.*</script>.*)[^\:\\\\]+$`

Required: Yes

Response Syntax

```
{
  "AccountId": "string",
  "Action": {
    "ActionId": "string",
    "ActionThreshold": {
      "ActionThresholdType": "string",
      "ActionThresholdValue": number
    },
    "ActionType": "string",
    "ApprovalModel": "string",
    "BudgetName": "string",
    "Definition": {
      "IamActionDefinition": {
        "Groups": [ "string" ],
        "PolicyArn": "string",
        "Roles": [ "string" ],
        "Users": [ "string" ]
      },
      "ScpActionDefinition": {
        "PolicyId": "string",
        "TargetIds": [ "string" ]
      },
      "SsmActionDefinition": {
        "ActionSubType": "string",
        "InstanceIds": [ "string" ],
        "Region": "string"
      }
    }
  },
}
```

```
    "ExecutionRoleArn": "string",
    "NotificationType": "string",
    "Status": "string",
    "Subscribers": [
      {
        "Address": "string",
        "SubscriptionType": "string"
      }
    ],
    "BudgetName": "string"
  }
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Action

A budget action resource.

Type: [Action](#) object

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\"]*/action/|(?i).*<script>.*</script>.*)[^\:\\"]+$`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ResourceLockedException

The request was received and recognized by the server, but the server rejected that particular method for the requested resource.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteNotification

Service: Amazon Budgets

Deletes a notification.

Important

Deleting a notification also deletes the subscribers that are associated with the notification.

Request Syntax

```
{
  "AccountId": "string",
  "BudgetName": "string",
  "Notification": {
    "ComparisonOperator": "string",
    "NotificationState": "string",
    "NotificationType": "string",
    "Threshold": number,
    "ThresholdType": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The accountId that is associated with the budget whose notification you want to delete.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget whose notification you want to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\]\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\]\]+$`

Required: Yes

Notification

The notification that you want to delete.

Type: [Notification](#) object

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the DeleteNotification operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
```

```
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DeleteNotification
{
  "AccountId": "111122223333",
  "BudgetName": "Example Budget",
  "Notification": {
    "ComparisonOperator": "GREATER_THAN",
    "NotificationType": "ACTUAL",
    "Threshold": 80,
    "ThresholdType": "PERCENTAGE"
  }
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteSubscriber

Service: Amazon Budgets

Deletes a subscriber.

Important

Deleting the last subscriber to a notification also deletes the notification.

Request Syntax

```
{
  "AccountId": "string",
  "BudgetName": "string",
  "Notification": {
    "ComparisonOperator": "string",
    "NotificationState": "string",
    "NotificationType": "string",
    "Threshold": number,
    "ThresholdType": "string"
  },
  "Subscriber": {
    "Address": "string",
    "SubscriptionType": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The accountId that is associated with the budget whose subscriber you want to delete.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget whose subscriber you want to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\]\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\]\]+$`

Required: Yes

Notification

The notification whose subscriber you want to delete.

Type: [Notification](#) object

Required: Yes

Subscriber

The subscriber that you want to delete.

Type: [Subscriber](#) object

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `DeleteSubscriber` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DeleteSubscriber
{
  "AccountId": "111122223333",
  "BudgetName": "Example Budget",
  "Notification": {
    "ComparisonOperator": "GREATER_THAN",
    "NotificationType": "ACTUAL",
    "Threshold": 80,
    "ThresholdType": "PERCENTAGE"
  },
  "Subscribers": [
    {
      "Address": "example@example.com",
      "SubscriptionType": "EMAIL"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)

- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DescribeBudget

Service: Amazon Budgets

Describes a budget.

Important

The Request Syntax section shows the BudgetLimit syntax. For PlannedBudgetLimits, see the [Examples](#) section.

Request Syntax

```
{
  "AccountId": "string",
  "BudgetName": "string",
  "ShowFilterExpression": boolean
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The accountId that is associated with the budget that you want a description of.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget that you want a description of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\]\\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\]\\]+$`

Required: Yes

ShowFilterExpression

Specifies whether the response includes the filter expression associated with the budget. By showing the filter expression, you can see detailed filtering logic applied to the budget, such as Amazon services or tags that are being tracked.

Type: Boolean

Required: No

Response Syntax

```
{
  "Budget": {
    "AutoAdjustData": {
      "AutoAdjustType": "string",
      "HistoricalOptions": {
        "BudgetAdjustmentPeriod": number,
        "LookBackAvailablePeriods": number
      },
      "LastAutoAdjustTime": number
    },
    "BillingViewArn": "string",
    "BudgetLimit": {
      "Amount": "string",
      "Unit": "string"
    },
    "BudgetName": "string",
    "BudgetType": "string",
    "CalculatedSpend": {
      "ActualSpend": {
        "Amount": "string",
        "Unit": "string"
      },
      "ForecastedSpend": {
        "Amount": "string",
        "Unit": "string"
      }
    }
  },
}
```

```
"CostFilters": {
  "string" : [ "string" ]
},
"CostTypes": {
  "IncludeCredit": boolean,
  "IncludeDiscount": boolean,
  "IncludeOtherSubscription": boolean,
  "IncludeRecurring": boolean,
  "IncludeRefund": boolean,
  "IncludeSubscription": boolean,
  "IncludeSupport": boolean,
  "IncludeTax": boolean,
  "IncludeUpfront": boolean,
  "UseAmortized": boolean,
  "UseBlended": boolean
},
"FilterExpression": {
  "And": [
    "Expression"
  ],
  "CostCategories": {
    "Key": "string",
    "MatchOptions": [ "string" ],
    "Values": [ "string" ]
  },
  "Dimensions": {
    "Key": "string",
    "MatchOptions": [ "string" ],
    "Values": [ "string" ]
  },
  "Not": "Expression",
  "Or": [
    "Expression"
  ],
  "Tags": {
    "Key": "string",
    "MatchOptions": [ "string" ],
    "Values": [ "string" ]
  }
},
"HealthStatus": {
  "LastUpdatedTime": number,
  "Status": "string",
  "StatusReason": "string"
```

```
    },
    "LastUpdatedTime": number,
    "Metrics": [ "string" ],
    "PlannedBudgetLimits": {
      "string" : {
        "Amount": "string",
        "Unit": "string"
      }
    },
    },
    "TimePeriod": {
      "End": number,
      "Start": number
    },
    },
    "TimeUnit": "string"
  }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Budget

The description of the budget.

Type: [Budget](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is the `PlannedBudgetLimits` syntax.

```
{
  "Budget": {
```

```
"BudgetLimit": {
  "Amount": "string",
  "Unit": "string"
},
"PlannedBudgetLimits": {
  "string": {
    "Amount": "string",
    "Unit": "string"
  }
},
"BudgetName": "string",
"BudgetType": "string",
"CalculatedSpend": {
  "ActualSpend": {
    "Amount": "string",
    "Unit": "string"
  },
  "ForecastedSpend": {
    "Amount": "string",
    "Unit": "string"
  }
},
"FilterExpression": {
  "And": [
    "Expression"
  ],
  "Dimensions": {
    "Key": "string",
    "Values": ["string"]
  },
  "Not": "Expression",
  "Or": [
    "Expression"
  ],
  "Tags": {
    "Key": "string",
    "Values": ["string"]
  }
},
"Metrics": ["string"],
"LastUpdatedTime": number,
"TimePeriod": {
  "End": number,
  "Start": number
}
```

```
    },
    "TimeUnit": "string"
  }
}
```

Example

The following is a sample request and response of the DescribeBudget operation using BudgetLimit

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DescribeBudget
```

```
{
  "AccountId": "111122223333",
  "BudgetName": "Example Budget"
}
```

Sample Response

```
{
  "Budget": {
    "BudgetLimit": {
      "Amount": "100",
      "Unit": "USD"
    },
    "BudgetName": "Example Budget",
    "BudgetType": "COST",
    "CalculatedSpend": {
      "ActualSpend": {
        "Amount": "50",
        "Unit": "USD"
      }
    }
  }
}
```

```
    },
    "ForecastedSpend": {
      "Amount": "100",
      "Unit": "USD"
    }
  },
  "FilterExpression": {
    "Dimensions": {
      "Key": "AZ",
      "Values": ["us-east-1"]
    }
  },
  "Metrics": ["UNBLENDDED_COST"],
  "TimePeriod": {
    "Start": 1477353600,
    "End": 1477958399
  },
  "TimeUnit": "MONTHLY"
}
}
```

Example

The following is a sample response of the DescribeBudget operation, using PlannedBudgetLimits.

Sample Response

```
{
  "Budget": {
    "PlannedBudgetLimits":{
      "1583020800": {
        "Amount": "100",
        "Unit": "USD"
      },
      "1564617600": {
        "Amount": "200",
        "Unit": "USD"
      },
      "1569888000": {
        "Amount": "300",
        "Unit": "USD"
      },
    },
  },
}
```

```
    "1556668800": {
      "Amount": "400",
      "Unit": "USD"
    },
    "1575158400": {
      "Amount": "500",
      "Unit": "USD"
    },
    "1580515200": {
      "Amount": "200",
      "Unit": "USD"
    }
  },
  "BudgetName": "Example Budget",
  "BudgetType": "COST",
  "CalculatedSpend": {
    "ActualSpend": {
      "Amount": "50",
      "Unit": "USD"
    },
    "ForecastedSpend": {
      "Amount": "100",
      "Unit": "USD"
    }
  },
  "FilterExpression": {
    "Dimensions": {
      "Key": "AZ",
      "Values": ["us-east-1"]
    }
  },
  "Metrics": ["UNBLENDDED_COST"],
  "TimePeriod": {
    "Start": 1477353600,
    "End": 1477958399
  },
  "TimeUnit": "MONTHLY"
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DescribeBudgetAction

Service: Amazon Budgets

Describes a budget action detail.

Request Syntax

```
{  
  "AccountId": "string",  
  "ActionId": "string",  
  "BudgetName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\\\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\\\\]+$`

Required: Yes

Response Syntax

```
{
  "AccountId": "string",
  "Action": {
    "ActionId": "string",
    "ActionThreshold": {
      "ActionThresholdType": "string",
      "ActionThresholdValue": number
    },
    "ActionType": "string",
    "ApprovalModel": "string",
    "BudgetName": "string",
    "Definition": {
      "IamActionDefinition": {
        "Groups": [ "string" ],
        "PolicyArn": "string",
        "Roles": [ "string" ],
        "Users": [ "string" ]
      },
      "ScpActionDefinition": {
        "PolicyId": "string",
        "TargetIds": [ "string" ]
      },
      "SsmActionDefinition": {
        "ActionSubType": "string",
        "InstanceIds": [ "string" ],
        "Region": "string"
      }
    }
  },
}
```

```

    "ExecutionRoleArn": "string",
    "NotificationType": "string",
    "Status": "string",
    "Subscribers": [
      {
        "Address": "string",
        "SubscriptionType": "string"
      }
    ],
    "BudgetName": "string"
  }

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Action

A budget action resource.

Type: [Action](#) object

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: ^(?![^:\\"]*/action/|(?!i).*<script>.*</script>.*)[^:\\"]+\$

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DescribeBudgetActionHistories

Service: Amazon Budgets

Describes a budget action history detail.

Request Syntax

```
{
  "AccountId": "string",
  "ActionId": "string",
  "BudgetName": "string",
  "MaxResults": number,
  "NextToken": "string",
  "TimePeriod": {
    "End": number,
    "Start": number
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\]*/action/|(?i).*<script>.*</script>.*)[^\:\\\]+$`

Required: Yes

MaxResults

An integer that represents how many entries a paginated response contains. The maximum is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Required: No

TimePeriod

The period of time that's covered by a budget. The period has a start date and an end date. The start date must come before the end date. There are no restrictions on the end date.

Type: [TimePeriod](#) object

Required: No

Response Syntax

```
{
  "ActionHistories": [
    {
      "ActionHistoryDetails": {
        "Action": {
          "ActionId": "string",
          "ActionThreshold": {
            "ActionThresholdType": "string",
            "ActionThresholdValue": number
          },
          "ActionType": "string",
          "ApprovalModel": "string",
          "BudgetName": "string",
          "Definition": {
            "IamActionDefinition": {
              "Groups": [ "string" ],
              "PolicyArn": "string",
              "Roles": [ "string" ],
              "Users": [ "string" ]
            },
            "ScpActionDefinition": {
              "PolicyId": "string",
              "TargetIds": [ "string" ]
            },
            "SsmActionDefinition": {
              "ActionSubType": "string",
              "InstanceIds": [ "string" ],
              "Region": "string"
            }
          },
          "ExecutionRoleArn": "string",
          "NotificationType": "string",
          "Status": "string",
          "Subscribers": [
            {
              "Address": "string",
              "SubscriptionType": "string"
            }
          ]
        }
      }
    }
  ]
}
```

```
        }
      ]
    },
    "Message": "string"
  },
  "EventType": "string",
  "Status": "string",
  "Timestamp": number
}
],
"NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ActionHistories

The historical record of the budget action resource.

Type: Array of [ActionHistory](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DescribeBudgetActionsForAccount

Service: Amazon Budgets

Describes all of the budget actions for an account.

Request Syntax

```
{
  "AccountId": "string",
  "MaxResults": number,
  "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

MaxResults

An integer that represents how many entries a paginated response contains. The maximum is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Required: No

Response Syntax

```
{
  "Actions": [
    {
      "ActionId": "string",
      "ActionThreshold": {
        "ActionThresholdType": "string",
        "ActionThresholdValue": number
      },
      "ActionType": "string",
      "ApprovalModel": "string",
      "BudgetName": "string",
      "Definition": {
        "IamActionDefinition": {
          "Groups": [ "string" ],
          "PolicyArn": "string",
          "Roles": [ "string" ],
          "Users": [ "string" ]
        },
        "ScpActionDefinition": {
          "PolicyId": "string",
          "TargetIds": [ "string" ]
        },
        "SsmActionDefinition": {
          "ActionSubType": "string",
          "InstanceIds": [ "string" ],
          "Region": "string"
        }
      },
      "ExecutionRoleArn": "string",
      "NotificationType": "string",
      "Status": "string",
      "Subscribers": [
        {
```

```
        "Address": "string",
        "SubscriptionType": "string"
    }
]
},
"NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Actions

A list of the budget action resources information.

Type: Array of [Action](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DescribeBudgetActionsForBudget

Service: Amazon Budgets

Describes all of the budget actions for a budget.

Request Syntax

```
{  
  "AccountId": "string",  
  "BudgetName": "string",  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\"/*action/|(?i).*<script>.*</script>.*])[^\:\\"/*action/|(?i).*<script>.*</script>.*][^\:\\"/*action/|(?i).*<script>.*</script>.*]+$`

Required: Yes

MaxResults

An integer that represents how many entries a paginated response contains. The maximum is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Required: No

Response Syntax

```
{
  "Actions": [
    {
      "ActionId": "string",
      "ActionThreshold": {
        "ActionThresholdType": "string",
        "ActionThresholdValue": number
      },
      "ActionType": "string",
      "ApprovalModel": "string",
      "BudgetName": "string",
      "Definition": {
        "IamActionDefinition": {
          "Groups": [ "string " ],
          "PolicyArn": "string",
          "Roles": [ "string " ],
          "Users": [ "string " ]
        }
      }
    }
  ]
}
```

```
    },
    "ScpActionDefinition": {
      "PolicyId": "string",
      "TargetIds": [ "string" ]
    },
    "SsmActionDefinition": {
      "ActionSubType": "string",
      "InstanceIds": [ "string" ],
      "Region": "string"
    }
  },
  "ExecutionRoleArn": "string",
  "NotificationType": "string",
  "Status": "string",
  "Subscribers": [
    {
      "Address": "string",
      "SubscriptionType": "string"
    }
  ]
},
"NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Actions

A list of the budget action resources information.

Type: Array of [Action](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DescribeBudgetNotificationsForAccount

Service: Amazon Budgets

Lists the budget names and notifications that are associated with an account.

Request Syntax

```
{  
  "AccountId": "string",  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: Yes

MaxResults

An integer that represents how many budgets a paginated response contains. The default is 50.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Required: No

Response Syntax

```
{
  "BudgetNotificationsForAccount": [
    {
      "BudgetName": "string",
      "Notifications": [
        {
          "ComparisonOperator": "string",
          "NotificationState": "string",
          "NotificationType": "string",
          "Threshold": number,
          "ThresholdType": "string"
        }
      ]
    }
  ],
  "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

BudgetNotificationsForAccount

A list of budget names and associated notifications for an account.

Type: Array of [BudgetNotificationsForAccount](#) objects

Array Members: Maximum number of 1000 items.

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

ExpiredNextTokenException

The pagination token expired.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)

- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DescribeBudgetPerformanceHistory

Service: Amazon Budgets

Describes the history for DAILY, MONTHLY, and QUARTERLY budgets. Budget history isn't available for ANNUAL budgets.

Request Syntax

```
{
  "AccountId": "string",
  "BudgetName": "string",
  "MaxResults": number,
  "NextToken": "string",
  "TimePeriod": {
    "End": number,
    "Start": number
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\]\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\]\]+$`

Required: Yes

MaxResults

An integer that represents how many entries a paginated response contains. The maximum is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Required: No

TimePeriod

Retrieves how often the budget went into an ALARM state for the specified time period.

Type: [TimePeriod](#) object

Required: No

Response Syntax

```
{
  "BudgetPerformanceHistory": {
    "BillingViewArn": "string",
    "BudgetedAndActualAmountsList": [
      {
        "ActualAmount": {
          "Amount": "string",
```

```

        "Unit": "string"
    },
    "BudgetedAmount": {
        "Amount": "string",
        "Unit": "string"
    },
    "TimePeriod": {
        "End": number,
        "Start": number
    }
}
],
"BudgetName": "string",
"BudgetType": "string",
"CostFilters": {
    "string" : [ "string" ]
},
"CostTypes": {
    "IncludeCredit": boolean,
    "IncludeDiscount": boolean,
    "IncludeOtherSubscription": boolean,
    "IncludeRecurring": boolean,
    "IncludeRefund": boolean,
    "IncludeSubscription": boolean,
    "IncludeSupport": boolean,
    "IncludeTax": boolean,
    "IncludeUpfront": boolean,
    "UseAmortized": boolean,
    "UseBlended": boolean
},
"FilterExpression": {
    "And": [
        "Expression"
    ],
    "CostCategories": {
        "Key": "string",
        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
    },
    "Dimensions": {
        "Key": "string",
        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
    }
},

```

```
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "Metrics": [ "string" ],
  "TimeUnit": "string"
},
"NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

BudgetPerformanceHistory

The history of how often the budget has gone into an ALARM state.

For DAILY budgets, the history saves the state of the budget for the last 60 days. For MONTHLY budgets, the history saves the state of the budget for the current month plus the last 12 months. For QUARTERLY budgets, the history saves the state of the budget for the last four quarters.

Type: [BudgetPerformanceHistory](#) object

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

Message

The error message the exception carries.

HTTP Status Code: 400

ExpiredNextTokenException

The pagination token expired.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `DescribeBudgetPerformanceHistory` operation.

Sample Request

```
GET HTTP/1.1
```

```
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DescribeBudgetPerformanceHistory
{
  "AccountId": "111122223333",
  "Budget": "ExampleBudget"
}
```

Sample Response

```
{
  "BudgetPerformanceHistory": {
    "BudgetedAndActualAmountsList": [
      {
        "ActualAmount": {
          "Amount": "50",
          "Unit": "USD"
        },
        "BudgetedAmount": {
          "Amount": "100",
          "Unit": "USD"
        },
        "TimePeriod": {
          "End": 1477958399,
          "Start": 1477353600
        }
      }
    ],
    "BudgetName": "ExampleBudget",
    "BudgetType": "COST",
    "CostFilters": {
      "AZ" : [ "us-east-1" ]
    },
    "CostTypes": {
      "IncludeCredit": true,
      "IncludeDiscount": true,

```

```
    "IncludeOtherSubscription": true,  
    "IncludeRecurring": true,  
    "IncludeRefund": true,  
    "IncludeSubscription": true,  
    "IncludeSupport": true,  
    "IncludeTax": true,  
    "IncludeUpfront": true,  
    "UseBlended": false  
  },  
  "TimeUnit": "MONTHLY"  
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DescribeBudgets

Service: Amazon Budgets

Lists the budgets that are associated with an account.

Important

The Request Syntax section shows the BudgetLimit syntax. For PlannedBudgetLimits, see the [Examples](#) section.

Request Syntax

```
{  
  "AccountId": "string",  
  "MaxResults": number,  
  "NextToken": "string",  
  "ShowFilterExpression": boolean  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The accountId that is associated with the budgets that you want to describe.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: Yes

MaxResults

An integer that represents how many budgets a paginated response contains. The default is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

NextToken

The pagination token that you include in your request to indicate the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Required: No

ShowFilterExpression

Specifies whether the response includes the filter expression associated with the budgets. By showing the filter expression, you can see detailed filtering logic applied to the budgets, such as Amazon services or tags that are being tracked.

Type: Boolean

Required: No

Response Syntax

```
{
  "Budgets": [
    {
      "AutoAdjustData": {
        "AutoAdjustType": "string",
        "HistoricalOptions": {
          "BudgetAdjustmentPeriod": number,
          "LookBackAvailablePeriods": number
        },
        "LastAutoAdjustTime": number
      },
      "BillingViewArn": "string",
      "BudgetLimit": {
        "Amount": "string",
```

```
    "Unit": "string"
  },
  "BudgetName": "string",
  "BudgetType": "string",
  "CalculatedSpend": {
    "ActualSpend": {
      "Amount": "string",
      "Unit": "string"
    },
    "ForecastedSpend": {
      "Amount": "string",
      "Unit": "string"
    }
  },
  "CostFilters": {
    "string" : [ "string" ]
  },
  "CostTypes": {
    "IncludeCredit": boolean,
    "IncludeDiscount": boolean,
    "IncludeOtherSubscription": boolean,
    "IncludeRecurring": boolean,
    "IncludeRefund": boolean,
    "IncludeSubscription": boolean,
    "IncludeSupport": boolean,
    "IncludeTax": boolean,
    "IncludeUpfront": boolean,
    "UseAmortized": boolean,
    "UseBlended": boolean
  },
  "FilterExpression": {
    "And": [
      "Expression"
    ],
    "CostCategories": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
}
```

```

    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "HealthStatus": {
    "LastUpdatedTime": number,
    "Status": "string",
    "StatusReason": "string"
  },
  "LastUpdatedTime": number,
  "Metrics": [ "string" ],
  "PlannedBudgetLimits": {
    "string" : {
      "Amount": "string",
      "Unit": "string"
    }
  },
  "TimePeriod": {
    "End": number,
    "Start": number
  },
  "TimeUnit": "string"
}
],
"NextToken": "string"
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[Budgets](#)

A list of budgets.

Type: Array of [Budget](#) objects

NextToken

The pagination token in the service response that indicates the next set of results that you can retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

ExpiredNextTokenException

The pagination token expired.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is the `PlannedBudgetLimits` syntax.

```
{
  "Budgets": [
    {
      "BudgetLimit": {
        "Amount": "string",
```

```
    "Unit": "string"
  },
  "PlannedBudgetLimits": {
    "string": {
      "Amount": "string",
      "Unit": "string"
    }
  },
  "BudgetName": "string",
  "BudgetType": "string",
  "CalculatedSpend": {
    "ActualSpend": {
      "Amount": "string",
      "Unit": "string"
    },
    "ForecastedSpend": {
      "Amount": "string",
      "Unit": "string"
    }
  },
  "FilterExpression": {
    "And": [
      "Expression"
    ],
    "Dimensions": {
      "Key": "string",
      "Values": ["string"]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "Values": ["string"]
    }
  },
  "Metrics": ["string"],
  "LastUpdatedTime": number,
  "TimePeriod": {
    "End": number,
    "Start": number
  },
  "TimeUnit": "string"
```

```
    }
  ],
  "NextToken": "string"
}
```

Example

This example illustrates one usage of DescribeBudgets.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DescribeBudgets

{
  "AccountId": "111122223333",
  "MaxResults": 20
}
```

Sample Response

```
{
  "Budgets": [
    {
      "BudgetLimit": {
        "Amount": "100",
        "Unit": "USD"
      },
      "BudgetName": "Example Limit Fixed Budget",
      "BudgetType": "COST",
      "CalculatedSpend": {
        "ActualSpend": {
          "Amount": "50",
          "Unit": "USD"
        }
      }
    }
  ]
}
```

```
    },
    "ForecastedSpend": {
      "Amount": "100",
      "Unit": "USD"
    }
  },
  "FilterExpression": {
    "Dimensions": {
      "Key": "AZ",
      "Values": ["us-east-1"]
    }
  },
  "Metrics": ["UNBLENDED_COST"],
  "TimePeriod": {
    "Start": 1477353600,
    "End": 1477958399
  },
  "TimeUnit": "MONTHLY"
},
{
  "BudgetLimit": {
    "Amount": "100",
    "Unit": "USD"
  },
  "PlannedBudgetLimits": {
    "1583020800": {
      "Amount": "100",
      "Unit": "USD"
    },
    "1564617600": {
      "Amount": "200",
      "Unit": "USD"
    },
    "1569888000": {
      "Amount": "300",
      "Unit": "USD"
    },
    "1556668800": {
      "Amount": "400",
      "Unit": "USD"
    },
    "1575158400": {
      "Amount": "500",
      "Unit": "USD"
    }
  }
}
```

```
    },
    "1580515200": {
      "Amount": "200",
      "Unit": "USD"
    }
  },
  "BudgetName": "Example Planned Limits Budget",
  "BudgetType": "COST",
  "CalculatedSpend": {
    "ActualSpend": {
      "Amount": "50",
      "Unit": "USD"
    },
    "ForecastedSpend": {
      "Amount": "100",
      "Unit": "USD"
    }
  },
  "FilterExpression": {
    "Dimensions": {
      "Key": "AZ",
      "Values": ["us-east-1"]
    }
  },
  "Metrics": ["UNBLENDED_COST"],
  "TimePeriod": {
    "Start": 1477353600,
    "End": 1477958399
  },
  "TimeUnit": "MONTHLY"
}
],
"NextToken": "exampleTokenString"
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)

- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

MaxResults

An optional integer that represents how many entries a paginated response contains.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

The pagination token that you include in your request to indicate the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Required: No

Response Syntax

```
{
  "NextToken": "string",
  "Notifications": [
    {
      "ComparisonOperator": "string",
      "NotificationState": "string",
      "NotificationType": "string",
      "Threshold": number,
      "ThresholdType": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The pagination token in the service response that indicates the next set of results that you can retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Notifications

A list of notifications that are associated with a budget.

Type: Array of [Notification](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

ExpiredNextTokenException

The pagination token expired.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request and response of the `DescribeNotificationsForBudget` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DescribeNotificationsForBudget
{
  "AccountId": "111122223333",
  "BudgetName": "Example Budget",
  "MaxResults": 5
}
```

Sample Response

```
{
  "NextToken": "exampleTokenString",
  "Notifications": [
    {
      "ComparisonOperator": "GREATER_THAN",
      "NotificationType": "ACTUAL",
      "Threshold": 80,
      "ThresholdType": "PERCENTAGE"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)

- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DescribeSubscribersForNotification

Service: Amazon Budgets

Lists the subscribers that are associated with a notification.

Request Syntax

```
{
  "AccountId": "string",
  "BudgetName": "string",
  "MaxResults": number,
  "NextToken": "string",
  "Notification": {
    "ComparisonOperator": "string",
    "NotificationState": "string",
    "NotificationType": "string",
    "Threshold": number,
    "ThresholdType": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The accountId that is associated with the budget whose subscribers you want descriptions of.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget whose subscribers you want descriptions of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\w]*\/action\/|(?i).*<script>.*</script>.*)[^\w]+`

Required: Yes

MaxResults

An optional integer that represents how many entries a paginated response contains.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

The pagination token that you include in your request to indicate the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Required: No

Notification

The notification whose subscribers you want to list.

Type: [Notification](#) object

Required: Yes

Response Syntax

```
{
  "NextToken": "string",
  "Subscribers": [
    {
```

```
    "Address": "string",  
    "SubscriptionType": "string"  
  }  
]  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The pagination token in the service response that indicates the next set of results that you can retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Subscribers

A list of subscribers that are associated with a notification.

Type: Array of [Subscriber](#) objects

Array Members: Minimum number of 1 item. Maximum number of 11 items.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

ExpiredNextTokenException

The pagination token expired.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request and response of the `DescribeSubscribersForNotification` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DescribeSubscribersForNotification
{
  "AccountId": "111122223333",
  "BudgetName": "Example Budget",
  "MaxResults": 5,
  "Notification": {
    "ComparisonOperator": "GREATER_THAN",
    "NotificationType": "ACTUAL",
    "Threshold": 80,
    "ThresholdType": "PERCENTAGE"
  }
}
```

Sample Response

```
{
  "NextToken": "string",
  "Subscribers": [
    {
      "Address": "example@example.com",
      "SubscriptionType": "EMAIL"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ExecuteBudgetAction

Service: Amazon Budgets

Executes a budget action.

Request Syntax

```
{
  "AccountId": "string",
  "ActionId": "string",
  "BudgetName": "string",
  "ExecutionType": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\\\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\\\\]+$`

Required: Yes

ExecutionType

The type of execution.

Type: String

Valid Values: APPROVE_BUDGET_ACTION | RETRY_BUDGET_ACTION | REVERSE_BUDGET_ACTION | RESET_BUDGET_ACTION

Required: Yes

Response Syntax

```
{
  "AccountId": "string",
  "ActionId": "string",
  "BudgetName": "string",
  "ExecutionType": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\\\]+$`

ExecutionType

The type of execution.

Type: String

Valid Values: APPROVE_BUDGET_ACTION | RETRY_BUDGET_ACTION | REVERSE_BUDGET_ACTION | RESET_BUDGET_ACTION

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ResourceLockedException

The request was received and recognized by the server, but the server rejected that particular method for the requested resource.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListTagsForResource

Service: Amazon Budgets

Lists tags associated with a budget or budget action resource.

Request Syntax

```
{  
  "ResourceARN": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ResourceARN

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

Response Syntax

```
{  
  "ResourceTags": [  
    {  
      "Key": "string",  
      "Value": "string"  
    }  
  ]  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ResourceTags

The tags associated with the resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `ListTagsForResource` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.ListTagsForResource
{
  "ResourceARN": "arn:aws:budgets::111122223333:budget/taggedBudgetName"
}
```

Example

The following is a sample response of the `ListTagsForResource` operation.

Sample Response

```
{
  "ResourceTags": [
    {
      "Key": "tagKey1",
      "Value": "value1"
    },
    {
      "Key": "tagKey2",
      "Value": "value1"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

TagResource

Service: Amazon Budgets

Creates tags for a budget or budget action resource.

Request Syntax

```
{
  "ResourceARN": "string",
  "ResourceTags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ResourceARN

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

ResourceTags

The tags associated with the resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached a Service Quota limit on this resource.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the TagResource operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.TagResource
{
  "ResourceARN": "arn:aws:budgets::111122223333:budget/taggedBudgetName",
  "ResourceTags": [
    {
```

```
        "Key": "tagKey1",
        "Value": "value1"
    },
    {
        "Key": "tagKey2",
        "Value": "value1"
    }
]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UntagResource

Service: Amazon Budgets

Deletes tags associated with a budget or budget action resource.

Request Syntax

```
{  
  "ResourceARN": "string",  
  "ResourceTagKeys": [ "string" ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[ResourceARN](#)

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

[ResourceTagKeys](#)

The key that's associated with the tag.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `UntagResource` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UntagResource
{
  "ResourceARN": "arn:aws:budgets::111122223333:budget/taggedBudgetName",
  "ResourceTagKeys": [ "tagKey1" ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateBudget

Service: Amazon Budgets

Updates a budget. You can change every part of a budget except for the `budgetName` and the `calculatedSpend`. When you modify a budget, the `calculatedSpend` drops to zero until Amazon has new usage data to use for forecasting.

Important

Only one of `BudgetLimit` or `PlannedBudgetLimits` can be present in the syntax at one time. Use the syntax that matches your case. The Request Syntax section shows the `BudgetLimit` syntax. For `PlannedBudgetLimits`, see the [Examples](#) section. Similarly, only one set of filter and metric selections can be present in the syntax at one time. Either `FilterExpression` and `Metrics` or `CostFilters` and `CostTypes`, not both or a different combination. We recommend using `FilterExpression` and `Metrics` as they provide more flexible and powerful filtering capabilities. The Request Syntax section shows the `FilterExpression/Metrics` syntax.

Request Syntax

```
{
  "AccountId": "string",
  "NewBudget": {
    "AutoAdjustData": {
      "AutoAdjustType": "string",
      "HistoricalOptions": {
        "BudgetAdjustmentPeriod": number,
        "LookBackAvailablePeriods": number
      },
      "LastAutoAdjustTime": number
    },
    "BillingViewArn": "string",
    "BudgetLimit": {
      "Amount": "string",
      "Unit": "string"
    },
    "BudgetName": "string",
    "BudgetType": "string",
    "CalculatedSpend": {
```

```
"ActualSpend": {
  "Amount": "string",
  "Unit": "string"
},
"ForecastedSpend": {
  "Amount": "string",
  "Unit": "string"
}
},
"CostFilters": {
  "string" : [ "string" ]
},
"CostTypes": {
  "IncludeCredit": boolean,
  "IncludeDiscount": boolean,
  "IncludeOtherSubscription": boolean,
  "IncludeRecurring": boolean,
  "IncludeRefund": boolean,
  "IncludeSubscription": boolean,
  "IncludeSupport": boolean,
  "IncludeTax": boolean,
  "IncludeUpfront": boolean,
  "UseAmortized": boolean,
  "UseBlended": boolean
},
"FilterExpression": {
  "And": [
    "Expression"
  ],
  "CostCategories": {
    "Key": "string",
    "MatchOptions": [ "string" ],
    "Values": [ "string" ]
  },
  "Dimensions": {
    "Key": "string",
    "MatchOptions": [ "string" ],
    "Values": [ "string" ]
  },
  "Not": "Expression",
  "Or": [
    "Expression"
  ],
  "Tags": {
```

```
        "Key": "string",
        "MatchOptions": [ "string" ],
        "Values": [ "string" ]
    }
},
"HealthStatus": {
    "LastUpdateTime": number,
    "Status": "string",
    "StatusReason": "string"
},
"LastUpdatedTime": number,
"Metrics": [ "string" ],
"PlannedBudgetLimits": {
    "string" : {
        "Amount": "string",
        "Unit": "string"
    }
},
"TimePeriod": {
    "End": number,
    "Start": number
},
"TimeUnit": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The accountId that is associated with the budget that you want to update.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

NewBudget

The budget that you want to update your budget to.

Type: [Budget](#) object

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached a Service Quota limit on this resource.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is the `PlannedBudgetLimits` syntax.

```
{
  "AccountId": "string",
```

```
"NewBudget": {
  "PlannedBudgetLimits": {
    "string": {
      "Amount": "string",
      "Unit": "string"
    }
  },
  "BudgetName": "string",
  "BudgetType": "string",
  "CalculatedSpend": {
    "ActualSpend": {
      "Amount": "string",
      "Unit": "string"
    },
    "ForecastedSpend": {
      "Amount": "string",
      "Unit": "string"
    }
  },
  "FilterExpression": {
    "And": [
      "Expression"
    ],
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ],
    "Tags": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    }
  },
  "Metrics": [ "string" ],
  "LastUpdatedTime": number,
  "TimePeriod": {
    "End": number,
    "Start": number
  },
}
```

```
    "TimeUnit": "string"
  }
}
```

Example

The following is a sample request of the UpdateBudget operation using BudgetLimit.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UpdateBudget

{
  "AccountId": "111122223333",
  "NewBudget": {
    "BudgetLimit": {
      "Amount": "100",
      "Unit": "USD"
    },
    "BudgetName": "Example Budget",
    "BudgetType": "COST",
    "FilterExpression": {
      "Dimensions": {
        "Key": "AZ",
        "Values": ["us-east-1"]
      }
    },
    "Metrics": ["UNBLENDED_COST"],
    "TimePeriod": {
      "Start": 1477353600,
      "End": 1477958399
    },
    "TimeUnit": "MONTHLY",
    "NotificationsWithSubscribers": [
```

```

    {
      "Notification": {
        "ComparisonOperator": "GREATER_THAN",
        "NotificationType": "ACTUAL",
        "Threshold": 80,
        "ThresholdType": "PERCENTAGE"
      },
      "Subscribers": [
        {
          "Address": "budget-alerts@example.com",
          "SubscriptionType": "EMAIL"
        }
      ]
    },
    {
      "Notification": {
        "ComparisonOperator": "GREATER_THAN",
        "NotificationType": "FORECASTED",
        "Threshold": 90,
        "ThresholdType": "PERCENTAGE"
      },
      "Subscribers": [
        {
          "Address": "budget-forecasts@example.com",
          "SubscriptionType": "EMAIL"
        }
      ]
    }
  ]
}

```

Example

The following is an example of transitioning from `CostFilters/CostTypes` to `FilterExpression/Metrics`.

```

POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>

```

```
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UpdateBudget

{
  "AccountId": "111122223333",
  "NewBudget": {
    "BudgetLimit": {
      "Amount": "100",
      "Unit": "USD"
    },
    "BudgetName": "Example Budget",
    "BudgetType": "COST",
    // Replacing these fields:
    /*
    "CostFilters": {
      "Service": ["Amazon Simple Storage Service"],
      "Region": ["us-east-1"]
    },
    "CostTypes": {
      "IncludeCredit": true,
      "IncludeDiscount": true,
      "UseBlended": false
    },
    */
    // With these new fields:
    "FilterExpression": {
      "Dimensions": {
        "Key": "SERVICE",
        "Values": ["Amazon Simple Storage Service"]
      },
      "And": [{
        "Dimensions": {
          "Key": "REGION",
          "Values": ["us-east-1"]
        }
      }]
    },
    "Metrics": ["UNBLENDED_COST"],
    "TimePeriod": {
      "Start": 1477353600,
      "End": 1477958399
    }
  }
}
```

```

    },
    "TimeUnit": "MONTHLY",
    "NotificationsWithSubscribers": [
      {
        "Notification": {
          "ComparisonOperator": "GREATER_THAN",
          "NotificationType": "ACTUAL",
          "Threshold": 85,
          "ThresholdType": "PERCENTAGE"
        },
        "Subscribers": [
          {
            "Address": "migration-alerts@example.com",
            "SubscriptionType": "EMAIL"
          }
        ]
      }
    ]
  }
}

```

Example

The following is an example of updating a budget to use exclusion capabilities.

```

POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UpdateBudget

{
  "AccountId": "111122223333",
  "NewBudget": {
    "BudgetLimit": {
      "Amount": "1000",
      "Unit": "USD"
    },

```

```
"BudgetName": "Example Budget",
"BudgetType": "COST",
"FilterExpression": {
  "Not": {
    "Dimensions": {
      "Key": "SERVICE",
      "Values": ["AWS Shield", "AWS Support (Enterprise)"]
    }
  }
},
"Metrics": ["NET_UNBLENDED_COST"],
"TimePeriod": {
  "Start": 1477353600,
  "End": 1477958399
},
"TimeUnit": "MONTHLY",
"NotificationsWithSubscribers": [
  {
    "Notification": {
      "ComparisonOperator": "GREATER_THAN",
      "NotificationType": "ACTUAL",
      "Threshold": 70,
      "ThresholdType": "PERCENTAGE"
    },
    "Subscribers": [
      {
        "Address": "exclusion-alerts@example.com",
        "SubscriptionType": "EMAIL"
      }
    ]
  },
  {
    "Notification": {
      "ComparisonOperator": "GREATER_THAN",
      "NotificationType": "FORECASTED",
      "Threshold": 100,
      "ThresholdType": "PERCENTAGE"
    },
    "Subscribers": [
      {
        "Address": "exclusion-forecasts@example.com",
        "SubscriptionType": "EMAIL"
      }
    ]
  }
]
```

```

    }
  ]
}
}

```

Example

The following is a sample request of the UpdateBudget operation using PlannedBudgetLimits.

Sample Request

```

POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UpdateBudget

```

```

{
  "AccountId": "111122223333",
  "NewBudget": {
    "PlannedBudgetLimits":{
      "1712019600": {
        "Amount": "100",
        "Unit": "USD"
      },
      "1714611600": {
        "Amount": "200",
        "Unit": "USD"
      },
      "1717203600": {
        "Amount": "300",
        "Unit": "USD"
      }
    },
    "BudgetName": "Example Budget",
    "BudgetType": "COST",
    "FilterExpression": {
      "Dimensions": {

```

```
    "Key": "AZ",
    "Values": ["us-east-1"]
  },
  "And": [{
    "Dimensions": {
      "Key": "SERVICE",
      "Values": ["Amazon Simple Storage Service", "Amazon FSx"]
    }
  }]
},
"Metrics": ["NET_UNBLENDED_COST"],
"TimePeriod": {
  "Start": 1712019600,
  "End": 1717203600
},
"TimeUnit": "MONTHLY",
"NotificationsWithSubscribers": [
  {
    "Notification": {
      "ComparisonOperator": "GREATER_THAN",
      "NotificationType": "ACTUAL",
      "Threshold": 50,
      "ThresholdType": "PERCENTAGE"
    },
    "Subscribers": [
      {
        "Address": "planned-budget-alerts-1@example.com",
        "SubscriptionType": "EMAIL"
      }
    ]
  },
  {
    "Notification": {
      "ComparisonOperator": "GREATER_THAN",
      "NotificationType": "ACTUAL",
      "Threshold": 75,
      "ThresholdType": "PERCENTAGE"
    },
    "Subscribers": [
      {
        "Address": "planned-budget-alerts-2@example.com",
        "SubscriptionType": "EMAIL"
      }
    ]
  }
]
```

```
    },
    {
      "Notification": {
        "ComparisonOperator": "GREATER_THAN",
        "NotificationType": "ACTUAL",
        "Threshold": 90,
        "ThresholdType": "PERCENTAGE"
      },
      "Subscribers": [
        {
          "Address": "planned-budget-alerts-3@example.com",
          "SubscriptionType": "EMAIL"
        }
      ]
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateBudgetAction

Service: Amazon Budgets

Updates a budget action.

Request Syntax

```
{
  "AccountId": "string",
  "ActionId": "string",
  "ActionThreshold": {
    "ActionThresholdType": "string",
    "ActionThresholdValue": number
  },
  "ApprovalModel": "string",
  "BudgetName": "string",
  "Definition": {
    "IamActionDefinition": {
      "Groups": [ "string" ],
      "PolicyArn": "string",
      "Roles": [ "string" ],
      "Users": [ "string" ]
    },
    "ScpActionDefinition": {
      "PolicyId": "string",
      "TargetIds": [ "string" ]
    },
    "SsmActionDefinition": {
      "ActionSubType": "string",
      "InstanceIds": [ "string" ],
      "Region": "string"
    }
  },
  "ExecutionRoleArn": "string",
  "NotificationType": "string",
  "Subscribers": [
    {
      "Address": "string",
      "SubscriptionType": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

Required: Yes

ActionThreshold

The trigger threshold of the action.

Type: [ActionThreshold](#) object

Required: No

ApprovalModel

This specifies if the action needs manual or automatic approval.

Type: String

Valid Values: AUTOMATIC | MANUAL

Required: No

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\"/*action/|(?i).*<script>.*</script>.*])[^\:\\"/*action/|(?i).*<script>.*</script>.*][^\:\\"/*action/|(?i).*<script>.*</script>.*]+$`

Required: Yes

Definition

Specifies all of the type-specific parameters.

Type: [Definition](#) object

Required: No

ExecutionRoleArn

The role passed for action execution and reversion. Roles and actions must be in the same account.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 618.

Pattern: `^arn:aws(-eusc|-cn|-us-gov|-iso|-iso-[a-z]{1})?:iam::\d{12}:role(\u002F[\u0021-\u007F]+\u002F[\u002F])[\w+=,.\@-]+$`

Required: No

NotificationType

The type of a notification. It must be ACTUAL or FORECASTED.

Type: String

Valid Values: ACTUAL | FORECASTED

Required: No

Subscribers

A list of subscribers.

Type: Array of [Subscriber](#) objects

Array Members: Minimum number of 1 item. Maximum number of 11 items.

Required: No

Response Syntax

```
{
  "AccountId": "string",
  "BudgetName": "string",
  "NewAction": {
    "ActionId": "string",
    "ActionThreshold": {
      "ActionThresholdType": "string",
      "ActionThresholdValue": number
    },
    "ActionType": "string",
    "ApprovalModel": "string",
    "BudgetName": "string",
    "Definition": {
      "IamActionDefinition": {
        "Groups": [ "string" ],
        "PolicyArn": "string",
        "Roles": [ "string" ],
        "Users": [ "string" ]
      },
      "ScpActionDefinition": {
        "PolicyId": "string",
        "TargetIds": [ "string" ]
      },
      "SsmActionDefinition": {
        "ActionSubType": "string",
        "InstanceIds": [ "string" ],
        "Region": "string"
      }
    },
    "ExecutionRoleArn": "string",
    "NotificationType": "string",
    "Status": "string",
    "Subscribers": [
      {
        "Address": "string",
```

```

        "SubscriptionType": "string"
    }
]
},
"OldAction": {
    "ActionId": "string",
    "ActionThreshold": {
        "ActionThresholdType": "string",
        "ActionThresholdValue": number
    },
    "ActionType": "string",
    "ApprovalModel": "string",
    "BudgetName": "string",
    "Definition": {
        "IamActionDefinition": {
            "Groups": [ "string" ],
            "PolicyArn": "string",
            "Roles": [ "string" ],
            "Users": [ "string" ]
        },
        "ScpActionDefinition": {
            "PolicyId": "string",
            "TargetIds": [ "string" ]
        },
        "SsmActionDefinition": {
            "ActionSubType": "string",
            "InstanceIds": [ "string" ],
            "Region": "string"
        }
    },
    "ExecutionRoleArn": "string",
    "NotificationType": "string",
    "Status": "string",
    "Subscribers": [
        {
            "Address": "string",
            "SubscriptionType": "string"
        }
    ]
}
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\\\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\\\\]+$`

NewAction

The updated action resource information.

Type: [Action](#) object

OldAction

The previous action resource information.

Type: [Action](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ResourceLockedException

The request was received and recognized by the server, but the server rejected that particular method for the requested resource.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateNotification

Service: Amazon Budgets

Updates a notification.

Request Syntax

```
{
  "AccountId": "string",
  "BudgetName": "string",
  "NewNotification": {
    "ComparisonOperator": "string",
    "NotificationState": "string",
    "NotificationType": "string",
    "Threshold": number,
    "ThresholdType": "string"
  },
  "OldNotification": {
    "ComparisonOperator": "string",
    "NotificationState": "string",
    "NotificationType": "string",
    "Threshold": number,
    "ThresholdType": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The accountId that is associated with the budget whose notification you want to update.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: Yes

BudgetName

The name of the budget whose notification you want to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\]\\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\\\]+$`

Required: Yes

NewNotification

The updated notification to be associated with a budget.

Type: [Notification](#) object

Required: Yes

OldNotification

The previous notification that is associated with a budget.

Type: [Notification](#) object

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

DuplicateRecordException

The budget name already exists. Budget names must be unique within an account.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the UpdateNotification operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UpdateNotification
{
  "AccountId": "111122223333",
  "BudgetName": "Example Budget",
  "NewNotification": {
    "ComparisonOperator": "GREATER_THAN",
    "NotificationType": "ACTUAL",
    "Threshold": 80,
    "ThresholdType": "PERCENTAGE"
  },
  "OldNotification": {
    "ComparisonOperator": "GREATER_THAN",
    "NotificationType": "ACTUAL",
    "Threshold": 80,
    "ThresholdType": "PERCENTAGE"
  }
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateSubscriber

Service: Amazon Budgets

Updates a subscriber.

Request Syntax

```
{
  "AccountId": "string",
  "BudgetName": "string",
  "NewSubscriber": {
    "Address": "string",
    "SubscriptionType": "string"
  },
  "Notification": {
    "ComparisonOperator": "string",
    "NotificationState": "string",
    "NotificationType": "string",
    "Threshold": number,
    "ThresholdType": "string"
  },
  "OldSubscriber": {
    "Address": "string",
    "SubscriptionType": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountId

The accountId that is associated with the budget whose subscriber you want to update.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget whose subscriber you want to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\]\\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\\\]+$`

Required: Yes

NewSubscriber

The updated subscriber that is associated with a budget notification.

Type: [Subscriber](#) object

Required: Yes

Notification

The notification whose subscriber you want to update.

Type: [Notification](#) object

Required: Yes

OldSubscriber

The previous subscriber that is associated with a budget notification.

Type: [Subscriber](#) object

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

DuplicateRecordException

The budget name already exists. Budget names must be unique within an account.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the UpdateSubscriber operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UpdateSubscriber
{
  "AccountId": "111122223333",
  "BudgetName": "Example Budget",
  "Notification": {
    "ComparisonOperator": "GREATER_THAN",
    "NotificationType": "ACTUAL",
    "Threshold": 80,
    "ThresholdType": "PERCENTAGE"
  },
  "OldSubscriber": {
    "Address": "example@example.com",
    "SubscriptionType": "EMAIL"
  },
}
```

```
"NewSubscriber": {  
  "Address": "example2@example.com",  
  "SubscriptionType": "EMAIL"  
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

Amazon Cost Optimization Hub

The following actions are supported by Amazon Cost Optimization Hub:

- [GetPreferences](#)
- [GetRecommendation](#)
- [ListEfficiencyMetrics](#)
- [ListEnrollmentStatuses](#)
- [ListRecommendations](#)
- [ListRecommendationSummaries](#)
- [UpdateEnrollmentStatus](#)
- [UpdatePreferences](#)

GetPreferences

Service: Amazon Cost Optimization Hub

Returns a set of preferences for an account in order to add account-specific preferences into the service. These preferences impact how the savings associated with recommendations are presented —estimated savings after discounts or estimated savings before discounts, for example.

Response Syntax

```
{
  "memberAccountDiscountVisibility": "string",
  "preferredCommitment": {
    "paymentOption": "string",
    "term": "string"
  },
  "savingsEstimationMode": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

memberAccountDiscountVisibility

Retrieves the status of the "member account discount visibility" preference.

Type: String

Valid Values: All | None

preferredCommitment

Retrieves the current preferences for how Reserved Instances and Savings Plans cost-saving opportunities are prioritized in terms of payment option and term length.

Type: [PreferredCommitment](#) object

savingsEstimationMode

Retrieves the status of the "savings estimation mode" preference.

Type: String

Valid Values: BeforeDiscounts | AfterDiscounts

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetRecommendation

Service: Amazon Cost Optimization Hub

Returns both the current and recommended resource configuration and the estimated cost impact for a recommendation.

The `recommendationId` is only valid for up to a maximum of 24 hours as recommendations are refreshed daily. To retrieve the `recommendationId`, use the `ListRecommendations` API.

Request Syntax

```
{
  "recommendationId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

recommendationId

The ID for the recommendation.

Type: String

Required: Yes

Response Syntax

```
{
  "accountId": "string",
  "actionType": "string",
  "costCalculationLookbackPeriodInDays": number,
  "currencyCode": "string",
  "currentResourceDetails": { ... },
  "currentResourceType": "string",
  "estimatedMonthlyCost": number,
  "estimatedMonthlySavings": number,
  "estimatedSavingsOverCostCalculationLookbackPeriod": number,
}
```

```
"estimatedSavingsPercentage": number,
"implementationEffort": "string",
"lastRefreshTimestamp": number,
"recommendationId": "string",
"recommendationLookbackPeriodInDays": number,
"recommendedResourceDetails": { ... },
"recommendedResourceType": "string",
"region": "string",
"resourceArn": "string",
"resourceId": "string",
"restartNeeded": boolean,
"rollbackPossible": boolean,
"source": "string",
"tags": [
  {
    "key": "string",
    "value": "string"
  }
]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

accountId

The account to which the recommendation applies.

Type: String

actionType

The type of action you can take by adopting the recommendation.

Type: String

Valid Values: Rightsize | Stop | Upgrade | PurchaseSavingsPlans |
PurchaseReservedInstances | MigrateToGraviton | Delete | ScaleIn

costCalculationLookbackPeriodInDays

The lookback period used to calculate cost impact for a recommendation.

Type: Integer

currencyCode

The currency code used for the recommendation.

Type: String

currentResourceDetails

The details for the resource.

Type: [ResourceDetails](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

currentResourceType

The type of resource.

Type: String

Valid Values: Ec2Instance | LambdaFunction | EbsVolume | EcsService | Ec2AutoScalingGroup | Ec2InstanceSavingsPlans | ComputeSavingsPlans | SageMakerSavingsPlans | Ec2ReservedInstances | RdsReservedInstances | OpenSearchReservedInstances | RedshiftReservedInstances | ElastiCacheReservedInstances | RdsDbInstanceStorage | RdsDbInstance | AuroraDbClusterStorage | DynamoDbReservedCapacity | MemoryDbReservedInstances

estimatedMonthlyCost

The estimated monthly cost of the current resource. For Reserved Instances and Savings Plans, it refers to the cost for eligible usage.

Type: Double

estimatedMonthlySavings

The estimated monthly savings amount for the recommendation.

Type: Double

estimatedSavingsOverCostCalculationLookbackPeriod

The estimated savings amount over the lookback period used to calculate cost impact for a recommendation.

Type: Double

[estimatedSavingsPercentage](#)

The estimated savings percentage relative to the total cost over the cost calculation lookback period.

Type: Double

[implementationEffort](#)

The effort required to implement the recommendation.

Type: String

Valid Values: VeryLow | Low | Medium | High | VeryHigh

[lastRefreshTimestamp](#)

The time when the recommendation was last generated.

Type: Timestamp

[recommendationId](#)

The ID for the recommendation.

Type: String

[recommendationLookbackPeriodInDays](#)

The lookback period that's used to generate the recommendation.

Type: Integer

[recommendedResourceDetails](#)

The details about the recommended resource.

Type: [ResourceDetails](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

[recommendedResourceType](#)

The resource type of the recommendation.

Type: String

Valid Values: Ec2Instance | LambdaFunction | EbsVolume | EcsService | Ec2AutoScalingGroup | Ec2InstanceSavingsPlans | ComputeSavingsPlans | SageMakerSavingsPlans | Ec2ReservedInstances | RdsReservedInstances | OpenSearchReservedInstances | RedshiftReservedInstances | ElastiCacheReservedInstances | RdsDbInstanceStorage | RdsDbInstance | AuroraDbClusterStorage | DynamoDbReservedCapacity | MemoryDbReservedInstances

region

The Amazon Region of the resource.

Type: String

resourceArn

The Amazon Resource Name (ARN) of the resource.

Type: String

resourceId

The unique identifier for the resource. This is the same as the Amazon Resource Name (ARN), if available.

Type: String

restartNeeded

Whether or not implementing the recommendation requires a restart.

Type: Boolean

rollbackPossible

Whether or not implementing the recommendation can be rolled back.

Type: Boolean

source

The source of the recommendation.

Type: String

Valid Values: ComputeOptimizer | CostExplorer

tags

A list of tags associated with the resource for which the recommendation exists.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

resourceId

The identifier of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListEfficiencyMetrics

Service: Amazon Cost Optimization Hub

Returns cost efficiency metrics aggregated over time and optionally grouped by a specified dimension. The metrics provide insights into your cost optimization progress by tracking estimated savings, spending, and measures how effectively you're optimizing your Cloud resources.

The operation supports both daily and monthly time granularities and allows grouping results by account ID, Amazon Region. Results are returned as time-series data, enabling you to analyze trends in your cost optimization performance over the specified time period.

Request Syntax

```
{
  "granularity": "string",
  "groupBy": "string",
  "maxResults": number,
  "nextToken": "string",
  "orderBy": {
    "dimension": "string",
    "order": "string"
  },
  "timePeriod": {
    "end": "string",
    "start": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

granularity

The time granularity for the cost efficiency metrics. Specify `Daily` for metrics aggregated by day, or `Monthly` for metrics aggregated by month.

Type: String

Valid Values: `Daily` | `Monthly`

Required: Yes

groupBy

The dimension by which to group the cost efficiency metrics. Valid values include account ID, Amazon Region. When no grouping is specified, metrics are aggregated across all resources in the specified time period.

Type: String

Required: No

maxResults

The maximum number of groups to return in the response. Valid values range from 0 to 1000. Use in conjunction with `nextToken` to paginate through results when the total number of groups exceeds this limit.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

nextToken

The token to retrieve the next page of results. This value is returned in the response when the number of groups exceeds the specified `maxResults` value.

Type: String

Required: No

orderBy

The ordering specification for the results. Defines which dimension to sort by and whether to sort in ascending or descending order.

Type: [OrderBy](#) object

Required: No

timePeriod

The time period for which to retrieve the cost efficiency metrics. The start date is inclusive and the end date is exclusive. Dates can be specified in either YYYY-MM-DD format or YYYY-MM format depending on the desired granularity.

Type: [TimePeriod](#) object

Required: Yes

Response Syntax

```
{
  "efficiencyMetricsByGroup": [
    {
      "group": "string",
      "message": "string",
      "metricsByTime": [
        {
          "savings": number,
          "score": number,
          "spend": number,
          "timestamp": "string"
        }
      ]
    }
  ],
  "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[efficiencyMetricsByGroup](#)

A list of cost efficiency metrics grouped by the specified dimension. Each group contains time-series data points with cost efficiency, potential savings, and optimzable spend for the specified time period.

Type: Array of [EfficiencyMetricsByGroup](#) objects

[nextToken](#)

The token to retrieve the next page of results. When this value is present in the response, additional groups are available. Pass this token in the `nextToken` parameter of a subsequent request to retrieve the next page.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)

- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListEnrollmentStatuses

Service: Amazon Cost Optimization Hub

Retrieves the enrollment status for an account. It can also return the list of accounts that are enrolled under the organization.

Request Syntax

```
{  
  "accountId": "string",  
  "includeOrganizationInfo": boolean,  
  "maxResults": number,  
  "nextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

accountId

The account ID of a member account in the organization.

Type: String

Pattern: [0-9]{12}

Required: No

includeOrganizationInfo

Indicates whether to return the enrollment status for the organization.

Type: Boolean

Required: No

maxResults

The maximum number of objects that are returned for the request.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

nextToken

The token to retrieve the next set of results.

Type: String

Required: No

Response Syntax

```
{
  "includeMemberAccounts": boolean,
  "items": [
    {
      "accountId": "string",
      "createdTimestamp": number,
      "lastUpdatedTimestamp": number,
      "status": "string"
    }
  ],
  "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

includeMemberAccounts

The enrollment status of all member accounts in the organization if the account is the management account or delegated administrator.

Type: Boolean

items

The enrollment status of a specific account ID, including creation and last updated timestamps.

Type: Array of [AccountEnrollmentStatus](#) objects

nextToken

The token to retrieve the next set of results.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListRecommendations

Service: Amazon Cost Optimization Hub

Returns a list of recommendations.

Request Syntax

```
{
  "filter": {
    "accountIds": [ "string" ],
    "actionTypes": [ "string" ],
    "implementationEfforts": [ "string" ],
    "recommendationIds": [ "string" ],
    "regions": [ "string" ],
    "resourceArns": [ "string" ],
    "resourceIds": [ "string" ],
    "resourceTypes": [ "string" ],
    "restartNeeded": boolean,
    "rollbackPossible": boolean,
    "tags": [
      {
        "key": "string",
        "value": "string"
      }
    ]
  },
  "includeAllRecommendations": boolean,
  "maxResults": number,
  "nextToken": "string",
  "orderBy": {
    "dimension": "string",
    "order": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

filter

The constraints that you want all returned recommendations to match.

Type: [Filter](#) object

Required: No

includeAllRecommendations

List of all recommendations for a resource, or a single recommendation if de-duped by `resourceId`.

Type: Boolean

Required: No

maxResults

The maximum number of recommendations that are returned for the request.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 1000.

Required: No

nextToken

The token to retrieve the next set of results.

Type: String

Required: No

orderBy

The ordering of recommendations by a dimension.

Type: [OrderBy](#) object

Required: No

Response Syntax

```
{
```

```
"items": [
  {
    "accountId": "string",
    "actionType": "string",
    "currencyCode": "string",
    "currentResourceSummary": "string",
    "currentResourceType": "string",
    "estimatedMonthlyCost": number,
    "estimatedMonthlySavings": number,
    "estimatedSavingsPercentage": number,
    "implementationEffort": "string",
    "lastRefreshTimestamp": number,
    "recommendationId": "string",
    "recommendationLookbackPeriodInDays": number,
    "recommendedResourceSummary": "string",
    "recommendedResourceType": "string",
    "region": "string",
    "resourceArn": "string",
    "resourceId": "string",
    "restartNeeded": boolean,
    "rollbackPossible": boolean,
    "source": "string",
    "tags": [
      {
        "key": "string",
        "value": "string"
      }
    ]
  }
],
"nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

List of all savings recommendations.

Type: Array of [Recommendation](#) objects

nextToken

The token to retrieve the next set of results.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListRecommendationSummaries

Service: Amazon Cost Optimization Hub

Returns a concise representation of savings estimates for resources. Also returns de-duped savings across different types of recommendations.

Note

The following filters are not supported for this API: `recommendationIds`, `resourceArns`, and `resourceIds`.

Request Syntax

```
{
  "filter": {
    "accountIds": [ "string" ],
    "actionTypes": [ "string" ],
    "implementationEfforts": [ "string" ],
    "recommendationIds": [ "string" ],
    "regions": [ "string" ],
    "resourceArns": [ "string" ],
    "resourceIds": [ "string" ],
    "resourceTypes": [ "string" ],
    "restartNeeded": boolean,
    "rollbackPossible": boolean,
    "tags": [
      {
        "key": "string",
        "value": "string"
      }
    ]
  },
  "groupBy": "string",
  "maxResults": number,
  "metrics": [ "string" ],
  "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[filter](#)

Describes a filter that returns a more specific list of recommendations. Filters recommendations by different dimensions.

Type: [Filter](#) object

Required: No

[groupBy](#)

The grouping of recommendations by a dimension.

Type: String

Required: Yes

[maxResults](#)

The maximum number of recommendations to be returned for the request.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 1000.

Required: No

[metrics](#)

Additional metrics to be returned for the request. The only valid value is savingsPercentage.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Valid Values: SavingsPercentage

Required: No

nextToken

The token to retrieve the next set of results.

Type: String

Required: No

Response Syntax

```
{
  "currencyCode": "string",
  "estimatedTotalDedupedSavings": number,
  "groupBy": "string",
  "items": [
    {
      "estimatedMonthlySavings": number,
      "group": "string",
      "recommendationCount": number
    }
  ],
  "metrics": {
    "savingsPercentage": "string"
  },
  "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

currencyCode

The currency code used for the recommendation.

Type: String

estimatedTotalDedupedSavings

The total overall savings for the aggregated view.

Type: Double

groupBy

The dimension used to group the recommendations by.

Type: String

items

A list of all savings recommendations.

Type: Array of [RecommendationSummary](#) objects

metrics

The results or descriptions for the additional metrics, based on whether the metrics were or were not requested.

Type: [SummaryMetricsResult](#) object

nextToken

The token to retrieve the next set of results.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateEnrollmentStatus

Service: Amazon Cost Optimization Hub

Updates the enrollment (opt in and opt out) status of an account to the Cost Optimization Hub service.

If the account is a management account of an organization, this action can also be used to enroll member accounts of the organization.

You must have the appropriate permissions to opt in to Cost Optimization Hub and to view its recommendations. When you opt in, Cost Optimization Hub automatically creates a service-linked role in your account to access its data.

Request Syntax

```
{  
  "includeMemberAccounts": boolean,  
  "status": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

includeMemberAccounts

Indicates whether to enroll member accounts of the organization if the account is the management account or delegated administrator.

Type: Boolean

Required: No

status

Sets the account status.

Type: String

Valid Values: Active | Inactive

Required: Yes

Response Syntax

```
{
  "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

status

The enrollment status of the account.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdatePreferences

Service: Amazon Cost Optimization Hub

Updates a set of preferences for an account in order to add account-specific preferences into the service. These preferences impact how the savings associated with recommendations are presented.

Request Syntax

```
{
  "memberAccountDiscountVisibility": "string",
  "preferredCommitment": {
    "paymentOption": "string",
    "term": "string"
  },
  "savingsEstimationMode": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[memberAccountDiscountVisibility](#)

Sets the "member account discount visibility" preference.

Type: String

Valid Values: All | None

Required: No

[preferredCommitment](#)

Sets the preferences for how Reserved Instances and Savings Plans cost-saving opportunities are prioritized in terms of payment option and term length.

Type: [PreferredCommitment](#) object

Required: No

savingsEstimationMode

Sets the "savings estimation mode" preference.

Type: String

Valid Values: BeforeDiscounts | AfterDiscounts

Required: No

Response Syntax

```
{
  "memberAccountDiscountVisibility": "string",
  "preferredCommitment": {
    "paymentOption": "string",
    "term": "string"
  },
  "savingsEstimationMode": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

memberAccountDiscountVisibility

Shows the status of the "member account discount visibility" preference.

Type: String

Valid Values: All | None

preferredCommitment

Shows the updated preferences for how Reserved Instances and Savings Plans cost-saving opportunities are prioritized in terms of payment option and term length.

Type: [PreferredCommitment](#) object

savingsEstimationMode

Shows the status of the "savings estimation mode" preference.

Type: String

Valid Values: BeforeDiscounts | AfterDiscounts

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerError

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

Amazon Cost and Usage Report

The following actions are supported by Amazon Cost and Usage Report:

- [DeleteReportDefinition](#)
- [DescribeReportDefinitions](#)
- [ListTagsForResource](#)
- [ModifyReportDefinition](#)
- [PutReportDefinition](#)
- [TagResource](#)
- [UntagResource](#)

DeleteReportDefinition

Service: Amazon Cost and Usage Report

Deletes the specified report. Any tags associated with the report are also deleted.

Request Syntax

```
{  
  "ReportName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ReportName

The name of the report that you want to delete. The name must be unique, is case sensitive, and can't include spaces.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[0-9A-Za-z!\-_*\ ' ()]+`

Required: Yes

Response Syntax

```
{  
  "ResponseMessage": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ResponseMessage

Whether the deletion was successful or not.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

Examples

The following is a sample request of the DeleteReportDefinition operation.

This example illustrates one usage of DeleteReportDefinition.

Sample Request

```
POST / HTTP/1.1
Host: api.cur.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
```

```
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSOrigamiServiceGateway.DeleteReportDefinition
{
    "ReportName": "ExampleReport"
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DescribeReportDefinitions

Service: Amazon Cost and Usage Report

Lists the Amazon Cost and Usage Report available to this account.

Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

MaxResults

The maximum number of results that Amazon returns for the operation.

Type: Integer

Valid Range: Fixed value of 5.

Required: No

NextToken

A generic string.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[A-Za-z0-9_\. \- =]*`

Required: No

Response Syntax

```
{
```

```
"NextToken": "string",
"ReportDefinitions": [
  {
    "AdditionalArtifacts": [ "string" ],
    "AdditionalSchemaElements": [ "string" ],
    "BillingViewArn": "string",
    "Compression": "string",
    "Format": "string",
    "RefreshClosedReports": boolean,
    "ReportName": "string",
    "ReportStatus": {
      "lastDelivery": "string",
      "lastStatus": "string"
    },
    "ReportVersioning": "string",
    "S3Bucket": "string",
    "S3Prefix": "string",
    "S3Region": "string",
    "TimeUnit": "string"
  }
]
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

A generic string.

Type: String

Length Constraints: Maximum length of 256.

Pattern: [A-Za-z0-9_\. \- =]*

ReportDefinitions

An Amazon Cost and Usage Report list owned by the account.

Type: Array of [ReportDefinition](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

Examples

The following is a sample request and response of the `DescribeReportDefinitions` operation.

This example illustrates one usage of `DescribeReportDefinitions`.

Sample Request

```
POST / HTTP/1.1
Host: api.cur.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSOrigamiServiceGateway.DescribeReportDefinitions
{
    "MaxResults": 5
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
```

```
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "ReportDefinitions": [
    {
      "AdditionalArtifacts": ["QUICKSIGHT"],
      "AdditionalSchemaElements": ["RESOURCES"],
      "Compression": "GZIP",
      "Format": "textORcsv",
      "ReportName": "ExampleReport",
      "S3Bucket": "example-s3-bucket",
      "S3Prefix": "exampleprefix",
      "S3Region": "us-east-1",
      "TimeUnit": "HOURLY"
    },
    {
      "AdditionalArtifacts": ["QUICKSIGHT"],
      "AdditionalSchemaElements": ["RESOURCES"],
      "Compression": "GZIP",
      "Format": "textORcsv",
      "ReportName": "ExampleReport2",
      "S3Bucket": "example-s3-bucket",
      "S3Prefix": "exampleprefix",
      "S3Region": "us-east-1",
      "TimeUnit": "HOURLY",
      "ReportStatus": {
        "lastDelivery": "20191102T054923Z",
        "lastStatus": "SUCCESS"
      }
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListTagsForResource

Service: Amazon Cost and Usage Report

Lists the tags associated with the specified report definition.

Request Syntax

```
{
  "ReportName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ReportName

The report name of the report definition that tags are to be returned for.

Type: String

Length Constraints: Maximum length of 256.

Pattern: [0-9A-Za-z!\-_.*\']+

Required: Yes

Response Syntax

```
{
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Tags

The tags assigned to the report definition resource.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

ResourceNotFoundException

The specified report (`ReportName`) in the request doesn't exist.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

Examples

The following is a sample request of the `ListTagsForResource` operation.

This example illustrates one usage of `ListTagsForResource`.

Sample Request

```
POST / HTTP/1.1
Host: api.cur.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSOrigamiServiceGateway.ListTagsForResource
{
  "ReportName": "ExampleReport",
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)

- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ModifyReportDefinition

Service: Amazon Cost and Usage Report

Allows you to programmatically update your report preferences.

Request Syntax

```
{
  "ReportDefinition": {
    "AdditionalArtifacts": [ "string" ],
    "AdditionalSchemaElements": [ "string" ],
    "BillingViewArn": "string",
    "Compression": "string",
    "Format": "string",
    "RefreshClosedReports": boolean,
    "ReportName": "string",
    "ReportStatus": {
      "lastDelivery": "string",
      "lastStatus": "string"
    },
    "ReportVersioning": "string",
    "S3Bucket": "string",
    "S3Prefix": "string",
    "S3Region": "string",
    "TimeUnit": "string"
  },
  "ReportName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ReportDefinition

The definition of Amazon Cost and Usage Report. You can specify the report name, time unit, report format, compression format, S3 bucket, additional artifacts, and schema elements in the definition.

Type: [ReportDefinition](#) object

Required: Yes

ReportName

The name of the report that you want to create. The name must be unique, is case sensitive, and can't include spaces.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[0-9A-Za-z!\-_\.*\ ' ()]+`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

PutReportDefinition

Service: Amazon Cost and Usage Report

Creates a new report using the description that you provide.

Request Syntax

```
{
  "ReportDefinition": {
    "AdditionalArtifacts": [ "string" ],
    "AdditionalSchemaElements": [ "string" ],
    "BillingViewArn": "string",
    "Compression": "string",
    "Format": "string",
    "RefreshClosedReports": boolean,
    "ReportName": "string",
    "ReportStatus": {
      "lastDelivery": "string",
      "lastStatus": "string"
    },
    "ReportVersioning": "string",
    "S3Bucket": "string",
    "S3Prefix": "string",
    "S3Region": "string",
    "TimeUnit": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ReportDefinition

Represents the output of the PutReportDefinition operation. The content consists of the detailed metadata and data file information.

Type: [ReportDefinition](#) object

Required: Yes

Tags

The tags to be assigned to the report definition resource.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

DuplicateReportNameException

A report with the specified name already exists in the account. Specify a different report name.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

ReportLimitReachedException

This account already has five reports defined. To define a new report, you must delete an existing report.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

ResourceNotFoundException

The specified report (`ReportName`) in the request doesn't exist.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

Examples

The following is a sample request of the `PutReportDefinition` operation.

This example illustrates one usage of `PutReportDefinition`.

Sample Request

```
POST / HTTP/1.1
Host: api.cur.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
```

```
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSOrigamiServiceGateway.PutReportDefinition
{
  "ReportDefinition": {
    "ReportName": "ExampleReport",
    "TimeUnit": "DAILY",
    "Format": "textORcsv",
    "Compression": "ZIP",
    "AdditionalSchemaElements": [
      "RESOURCES"
    ],
    "S3Bucket": "example-s3-bucket",
    "S3Prefix": "exampleprefix",
    "S3Region": "us-east-1",
    "AdditionalArtifacts": [
      "REDSHIFT",
      "QUICKSIGHT"
    ],
    "Tags": [
      {
        "Key": "key-1",
        "Value": "value-1"
      }
    ]
  }
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)

- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

TagResource

Service: Amazon Cost and Usage Report

Associates a set of tags with a report definition.

Request Syntax

```
{
  "ReportName": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ReportName

The report name of the report definition that tags are to be associated with.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[0-9A-Za-z!\-_.*\']+`

Required: Yes

Tags

The tags to be assigned to the report definition resource.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

ResourceNotFoundException

The specified report (ReportName) in the request doesn't exist.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

Examples

The following is a sample request of the TagResource operation.

This example illustrates one usage of TagResource.

Sample Request

```
POST / HTTP/1.1
Host: api.cur.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSOrigamiServiceGateway.TagResource
{
  "ReportName": "ExampleReport",
  "Tags": [
    {
      "Key": "key-1",
      "Value": "value-1"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UntagResource

Service: Amazon Cost and Usage Report

Disassociates a set of tags from a report definition.

Request Syntax

```
{
  "ReportName": "string",
  "TagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ReportName

The report name of the report definition that tags are to be disassociated from.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[0-9A-Za-z!\-_.*\']+`

Required: Yes

TagKeys

The tags to be disassociated from the report definition resource.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

ResourceNotFoundException

The specified report (`ReportName`) in the request doesn't exist.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon service.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

Examples

The following is a sample request of the `UntagResource` operation.

This example illustrates one usage of `UntagResource`.

Sample Request

```
POST / HTTP/1.1
```

```
Host: api.cur.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSOrigamiServiceGateway.UntagResource
{
  "ReportName": "ExampleReport",
  "TagKeys": ["tag-1", "tag-2"]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

Amazon Web Services China Region Free Tier

The following actions are supported by Amazon Web Services China Region Free Tier:

- [GetAccountActivity](#)
- [GetAccountPlanState](#)

- [GetFreeTierUsage](#)
- [ListAccountActivities](#)
- [UpgradeAccountPlan](#)

GetAccountActivity

Service: Amazon Web Services China Region Free Tier

Returns a specific activity record that is available to the customer.

Request Syntax

```
{
  "activityId": "string",
  "languageCode": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

activityId

A unique identifier that identifies the activity.

Type: String

Length Constraints: Fixed length of 32.

Pattern: [a-zA-Z0-9]+

Required: Yes

languageCode

The language code used to return translated title and description fields.

Type: String

Valid Values: en-US | en-GB | id-ID | de-DE | es-ES | fr-FR | ja-JP | it-IT
| pt-PT | ko-KR | zh-CN | zh-TW | tr-TR

Required: No

Response Syntax

```
{
```

```
"activityId": "string",
"completedAt": "string",
"description": "string",
"estimatedTimeToCompleteInMinutes": number,
"expiresAt": "string",
"instructionsUrl": "string",
"reward": { ... },
"startedAt": "string",
"status": "string",
"title": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

activityId

A unique identifier that identifies the activity.

Type: String

Length Constraints: Fixed length of 32.

Pattern: [a-zA-Z0-9]+

completedAt

The timestamp when the activity is completed. This field appears only for activities in the COMPLETED state.

Type: Timestamp

description

Provides detailed information about the activity and its expected outcomes.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\\S\\s]*

estimatedTimeToCompleteInMinutes

The estimated time to complete the activity. This is the duration in minutes.

Type: Integer

expiresAt

The time by which the activity must be completed to receive a reward.

Type: Timestamp

instructionsUrl

The URL resource that provides guidance on activity requirements and completion.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\\S\\s]*

reward

A reward granted upon activity completion.

Type: [ActivityReward](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

startedAt

The timestamp when the activity started. This field appears only for activities in the IN_PROGRESS or COMPLETED states.

Type: Timestamp

status

The current activity status.

Type: String

Valid Values: NOT_STARTED | IN_PROGRESS | COMPLETED | EXPIRING

title

A short activity title.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

An unexpected error occurred during the processing of your request.

HTTP Status Code: 500

ResourceNotFoundException

This exception is thrown when the requested resource cannot be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)

- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetAccountPlanState

Service: Amazon Web Services China Region Free Tier

This returns all of the information related to the state of the account plan related to Free Tier.

Response Syntax

```
{
  "accountId": "string",
  "accountPlanExpirationDate": "string",
  "accountPlanRemainingCredits": {
    "amount": number,
    "unit": "string"
  },
  "accountPlanStatus": "string",
  "accountPlanType": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

accountId

A unique identifier that identifies the account.

Type: String

Pattern: [0-9]{12}

accountPlanExpirationDate

The timestamp for when the current account plan expires.

Type: Timestamp

accountPlanRemainingCredits

The amount of credits remaining for the account.

Type: [MonetaryAmount](#) object

accountPlanStatus

The current status for the account plan.

Type: String

Valid Values: NOT_STARTED | ACTIVE | EXPIRED

accountPlanType

The plan type for the account.

Type: String

Valid Values: FREE | PAID

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

An unexpected error occurred during the processing of your request.

HTTP Status Code: 500

ResourceNotFoundException

This exception is thrown when the requested resource cannot be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetFreeTierUsage

Service: Amazon Web Services China Region Free Tier

Returns a list of all Free Tier usage objects that match your filters.

Request Syntax

```
{
  "filter": {
    "And": [
      "Expression"
    ],
    "Dimensions": {
      "Key": "string",
      "MatchOptions": [ "string" ],
      "Values": [ "string" ]
    },
    "Not": "Expression",
    "Or": [
      "Expression"
    ]
  },
  "maxResults": number,
  "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

filter

An expression that specifies the conditions that you want each FreeTierUsage object to meet.

Type: [Expression](#) object

Required: No

maxResults

The maximum number of results to return in the response. MaxResults means that there can be up to the specified number of values, but there might be fewer results based on your filters.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "freeTierUsages": [
    {
      "actualUsageAmount": number,
      "description": "string",
      "forecastedUsageAmount": number,
      "freeTierType": "string",
      "limit": number,
      "operation": "string",
      "region": "string",
      "service": "string",
      "unit": "string",
      "usageType": "string"
    }
  ],
  "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[freeTierUsages](#)

The list of Free Tier usage objects that meet your filter expression.

Type: Array of [FreeTierUsage](#) objects

[nextToken](#)

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerError

An unexpected error occurred during the processing of your request.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)

- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListAccountActivities

Service: Amazon Web Services China Region Free Tier

Returns a list of activities that are available. This operation supports pagination and filtering by status.

Request Syntax

```
{
  "filterActivityStatuses": [ "string" ],
  "languageCode": "string",
  "maxResults": number,
  "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[filterActivityStatuses](#)

The activity status filter. This field can be used to filter the response by activities status.

Type: Array of strings

Valid Values: NOT_STARTED | IN_PROGRESS | COMPLETED | EXPIRING

Required: No

[languageCode](#)

The language code used to return translated titles.

Type: String

Valid Values: en-US | en-GB | id-ID | de-DE | es-ES | fr-FR | ja-JP | it-IT
| pt-PT | ko-KR | zh-CN | zh-TW | tr-TR

Required: No

maxResults

The maximum number of items to return for this request. To get the next page of items, make another request with the token returned in the output.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

A token from a previous paginated response. If this is specified, the response includes records beginning from this token (inclusive), up to the number specified by `maxResults`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "activities": [
    {
      "activityId": "string",
      "reward": { ... },
      "status": "string",
      "title": "string"
    }
  ],
  "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

activities

A brief information about the activities.

Type: Array of [ActivitySummary](#) objects

nextToken

The token to include in another request to get the next page of items. This value is null when there are no more items to return.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerError

An unexpected error occurred during the processing of your request.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpgradeAccountPlan

Service: Amazon Web Services China Region Free Tier

The account plan type for the Amazon Web Services account.

Request Syntax

```
{
  "accountPlanType": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[accountPlanType](#)

The target account plan type. This makes it explicit about the change and latest value of the `accountPlanType`.

Type: String

Valid Values: FREE | PAID

Required: Yes

Response Syntax

```
{
  "accountId": "string",
  "accountPlanStatus": "string",
  "accountPlanType": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

accountId

A unique identifier that identifies the account.

Type: String

Pattern: [0-9]{12}

accountPlanStatus

This indicates the latest state of the account plan within its lifecycle.

Type: String

Valid Values: NOT_STARTED | ACTIVE | EXPIRED

accountPlanType

The type of plan for the account.

Type: String

Valid Values: FREE | PAID

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerErrorException

An unexpected error occurred during the processing of your request.

HTTP Status Code: 500

ResourceNotFoundException

This exception is thrown when the requested resource cannot be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

Amazon Web Services Invoicing

The following actions are supported by Amazon Web Services Invoicing:

- [BatchGetInvoiceProfile](#)
- [CreateInvoiceUnit](#)
- [CreateProcurementPortalPreference](#)
- [DeleteInvoiceUnit](#)

- [DeleteProcurementPortalPreference](#)
- [GetInvoicePDF](#)
- [GetInvoiceUnit](#)
- [GetProcurementPortalPreference](#)
- [ListInvoiceSummaries](#)
- [ListInvoiceUnits](#)
- [ListProcurementPortalPreferences](#)
- [ListTagsForResource](#)
- [PutProcurementPortalPreference](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateInvoiceUnit](#)
- [UpdateProcurementPortalPreferenceStatus](#)

BatchGetInvoiceProfile

Service: Amazon Web Services Invoicing

This gets the invoice profile associated with a set of accounts. The accounts must be linked accounts under the requester management account organization.

Request Syntax

```
{
  "AccountIds": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AccountIds

Retrieves the corresponding invoice profile data for these account IDs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 1000 items.

Pattern: \d{12}

Required: Yes

Response Syntax

```
{
  "Profiles": [
    {
      "AccountId": "string",
      "Issuer": "string",
      "ReceiverAddress": {
        "AddressLine1": "string",
        "AddressLine2": "string",
        "AddressLine3": "string",

```

```
    "City": "string",
    "CompanyName": "string",
    "CountryCode": "string",
    "DistrictOrCounty": "string",
    "PostalCode": "string",
    "StateOrRegion": "string"
  },
  "ReceiverEmail": "string",
  "ReceiverName": "string",
  "TaxRegistrationNumber": "string"
}
]
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Profiles

A list of invoice profiles corresponding to the requested accounts.

Type: Array of [InvoiceProfile](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerErrorException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)

- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

CreateInvoiceUnit

Service: Amazon Web Services Invoicing

This creates a new invoice unit with the provided definition.

Request Syntax

```
{
  "Description": "string",
  "InvoiceReceiver": "string",
  "Name": "string",
  "ResourceTags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "Rule": {
    "BillSourceAccounts": [ "string" ],
    "LinkedAccounts": [ "string" ]
  },
  "TaxInheritanceDisabled": boolean
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

Description

The invoice unit's description. This can be changed at a later time.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 500.

Pattern: `[\S\s]*`

Required: No

InvoiceReceiver

The Amazon Web Services account ID chosen to be the receiver of an invoice unit. All invoices generated for that invoice unit will be sent to this account ID.

Type: String

Pattern: `\d{12}`

Required: Yes

Name

The unique name of the invoice unit that is shown on the generated invoice. This can't be changed once it is set. To change this name, you must delete the invoice unit recreate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)`

Required: Yes

ResourceTags

The tag structure that contains a tag key and value.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Rule

The `InvoiceUnitRule` object used to create invoice units.

Type: [InvoiceUnitRule](#) object

Required: Yes

TaxInheritanceDisabled

Whether the invoice unit based tax inheritance is/ should be enabled or disabled.

Type: Boolean

Required: No

Response Syntax

```
{  
  "InvoiceUnitArn": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[InvoiceUnitArn](#)

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)

- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

CreateProcurementPortalPreference

Service: Amazon Web Services Invoicing

This feature API is subject to changing at any time. For more information, see the [Amazon Service Terms \(Betas and Previews\)](#).

Creates a procurement portal preference configuration for e-invoice delivery and purchase order retrieval. This preference defines how invoices are delivered to a procurement portal and how purchase orders are retrieved.

Request Syntax

```
{
  "BuyerDomain": "string",
  "BuyerIdentifier": "string",
  "ClientToken": "string",
  "Contacts": [
    {
      "Email": "string",
      "Name": "string"
    }
  ],
  "InvoiceDeliveryEnabled": boolean,
  "InvoiceDeliveryPreference": {
    "ConnectionTestingMethod": "string",
    "InvoiceDeliveryActivationDate": number,
    "InvoiceDeliveryAttachmentTypes": [ "string" ],
    "InvoiceDeliveryDocumentTypes": [ "string" ],
    "Protocol": "string",
    "PurchaseOrderDataSources": [
      {
        "InvoiceDeliveryDocumentType": "string",
        "PurchaseOrderDataSourceType": "string"
      }
    ]
  },
  "ProcurementPortalInstanceEndpoint": "string",
  "ProcurementPortalName": "string",
  "ProcurementPortalSharedSecret": "string",
  "PurchaseOrderRetrievalEnabled": boolean,
  "ResourceTags": [
    {
      "Key": "string",
```

```
    "Value": "string"
  }
],
"Selector": {
  "InvoiceUnitArns": [ "string" ],
  "SellerOfRecords": [ "string" ]
},
"SupplierDomain": "string",
"SupplierIdentifier": "string",
"TestEnvPreference": {
  "BuyerDomain": "string",
  "BuyerIdentifier": "string",
  "ProcurementPortalInstanceEndpoint": "string",
  "ProcurementPortalSharedSecret": "string",
  "SupplierDomain": "string",
  "SupplierIdentifier": "string"
}
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

BuyerDomain

The domain identifier for the buyer in the procurement portal.

Type: String

Valid Values: NetworkID

Required: Yes

BuyerIdentifier

The unique identifier for the buyer in the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: Yes

ClientToken

A unique, case-sensitive identifier that you provide to ensure idempotency of the request.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

Contacts

List of contact information for portal administrators and technical contacts responsible for the e-invoice integration.

Type: Array of [Contact](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

InvoiceDeliveryEnabled

Indicates whether e-invoice delivery is enabled for this procurement portal preference. Set to true to enable e-invoice delivery, false to disable.

Type: Boolean

Required: Yes

InvoiceDeliveryPreference

Specifies the e-invoice delivery configuration including document types, attachment types, and customization settings for the portal.

Type: [InvoiceDeliveryPreference](#) object

Required: No

ProcurementPortalInstanceEndpoint

The endpoint URL where e-invoices will be delivered to the procurement portal. Must be a valid HTTPS URL.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

ProcurementPortalName

The name of the procurement portal.

Type: String

Valid Values: SAP_BUSINESS_NETWORK | COUPA

Required: Yes

ProcurementPortalSharedSecret

The shared secret or authentication credential used to establish secure communication with the procurement portal. This value must be encrypted at rest.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

PurchaseOrderRetrievalEnabled

Indicates whether purchase order retrieval is enabled for this procurement portal preference. Set to true to enable PO retrieval, false to disable.

Type: Boolean

Required: Yes

ResourceTags

The tags to apply to this procurement portal preference resource. Each tag consists of a key and an optional value.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Selector

Specifies criteria for selecting which invoices should be processed using a particular procurement portal preference.

Type: [ProcurementPortalPreferenceSelector](#) object

Required: No

SupplierDomain

The domain identifier for the supplier in the procurement portal.

Type: String

Valid Values: NetworkID

Required: Yes

SupplierIdentifier

The unique identifier for the supplier in the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: Yes

TestEnvPreference

Configuration settings for the test environment of the procurement portal. Includes test credentials and endpoints that are used for validation before production deployment.

Type: [TestEnvPreferenceInput](#) object

Required: No

Response Syntax

```
{  
  "ProcurementPortalPreferenceArn": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[ProcurementPortalPreferenceArn](#)

The Amazon Resource Name (ARN) of the created procurement portal preference.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing:[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be completed due to a conflict with the current state of the resource. This exception occurs when a concurrent modification is detected during an update operation, or when attempting to create a resource that already exists.

resourceId

The identifier of the resource that caused the conflict.

resourceType

The type of resource that caused the conflict.

HTTP Status Code: 400

InternalServerErrorException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current Amazon Web Services account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteInvoiceUnit

Service: Amazon Web Services Invoicing

This deletes an invoice unit with the provided invoice unit ARN.

Request Syntax

```
{  
  "InvoiceUnitArn": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

InvoiceUnitArn

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{  
  "InvoiceUnitArn": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

InvoiceUnitArn

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteProcurementPortalPreference

Service: Amazon Web Services Invoicing

This feature API is subject to changing at any time. For more information, see the [Amazon Service Terms \(Betas and Previews\)](#).

Deletes an existing procurement portal preference. This action cannot be undone. Active e-invoice delivery and PO retrieval configurations will be terminated.

Request Syntax

```
{  
  "ProcurementPortalPreferenceArn": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[ProcurementPortalPreferenceArn](#)

The Amazon Resource Name (ARN) of the procurement portal preference to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing:[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Required: Yes

Response Syntax

```
{  
  "ProcurementPortalPreferenceArn": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the deleted procurement portal preference.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing:[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerErrorException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current Amazon Web Services account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)

- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetInvoicePDF

Service: Amazon Web Services Invoicing

Returns a URL to download the invoice document and supplemental documents associated with an invoice. The URLs are pre-signed and have expiration time. For special cases like Brazil, where Amazon generated invoice identifiers and government provided identifiers do not match, use the Amazon generated invoice identifier when making API requests. To grant IAM permission to use this operation, the caller needs the `invoicing:GetInvoicePDF` policy action.

Request Syntax

```
{  
  "InvoiceId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

InvoiceId

Your unique invoice ID.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: .*

Required: Yes

Response Syntax

```
{  
  "InvoicePDF": {  
    "DocumentUrl": "string",  
    "DocumentUrlExpirationDate": number,  
    "InvoiceId": "string",  
  }  
}
```

```
    "SupplementalDocuments": [  
      {  
        "DocumentUrl": "string",  
        "DocumentUrlExpirationDate": number  
      }  
    ]  
  }  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

InvoicePDF

The invoice document and supplemental documents associated with the invoice.

Type: [InvoicePDF](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetInvoiceUnit

Service: Amazon Web Services Invoicing

This retrieves the invoice unit definition.

Request Syntax

```
{
  "AsOf": number,
  "InvoiceUnitArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AsOf

The state of an invoice unit at a specified time. You can see legacy invoice units that are currently deleted if the AsOf time is set to before it was deleted. If an AsOf is not provided, the default value is the current time.

Type: Timestamp

Required: No

InvoiceUnitArn

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
```

```
"Description": "string",
"InvoiceReceiver": "string",
"InvoiceUnitArn": "string",
"LastModified": number,
"Name": "string",
"Rule": {
  "BillSourceAccounts": [ "string" ],
  "LinkedAccounts": [ "string" ]
},
"TaxInheritanceDisabled": boolean
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Description

The assigned description for an invoice unit.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 500.

Pattern: [\\S\\s]*

InvoiceReceiver

The Amazon Web Services account ID chosen to be the receiver of an invoice unit. All invoices generated for that invoice unit will be sent to this account ID.

Type: String

Pattern: \\d{12}

InvoiceUnitArn

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+

LastModified

The most recent date the invoice unit response was updated.

Type: Timestamp

Name

The unique name of the invoice unit that is shown on the generated invoice.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: (?!)[\p{L}\p{N}\p{Z}-_]*(?!)

Rule

This is used to categorize the invoice unit. Values are Amazon Web Services account IDs. Currently, the only supported rule is LINKED_ACCOUNT.

Type: [InvoiceUnitRule](#) object

TaxInheritanceDisabled

Whether the invoice unit based tax inheritance is/ should be enabled or disabled.

Type: Boolean

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerErrorException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetProcurementPortalPreference

Service: Amazon Web Services Invoicing

This feature API is subject to changing at any time. For more information, see the [Amazon Service Terms \(Betas and Previews\)](#).

Retrieves the details of a specific procurement portal preference configuration.

Request Syntax

```
{
  "ProcurementPortalPreferenceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[ProcurementPortalPreferenceArn](#)

The Amazon Resource Name (ARN) of the procurement portal preference to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing:[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Required: Yes

Response Syntax

```
{
  "ProcurementPortalPreference": {
    "AwsAccountId": "string",
    "BuyerDomain": "string",
    "BuyerIdentifier": "string",
    "Contacts": [
      {
```

```

        "Email": "string",
        "Name": "string"
    }
],
"CreateDate": number,
"InvoiceDeliveryEnabled": boolean,
"InvoiceDeliveryPreference": {
    "ConnectionTestingMethod": "string",
    "InvoiceDeliveryActivationDate": number,
    "InvoiceDeliveryAttachmentTypes": [ "string" ],
    "InvoiceDeliveryDocumentTypes": [ "string" ],
    "Protocol": "string",
    "PurchaseOrderDataSources": [
        {
            "InvoiceDeliveryDocumentType": "string",
            "PurchaseOrderDataSourceType": "string"
        }
    ]
},
"InvoiceDeliveryPreferenceStatus": "string",
"InvoiceDeliveryPreferenceStatusReason": "string",
"LastUpdateDate": number,
"ProcurementPortalInstanceEndpoint": "string",
"ProcurementPortalName": "string",
"ProcurementPortalPreferenceArn": "string",
"ProcurementPortalSharedSecret": "string",
"PurchaseOrderRetrievalEnabled": boolean,
"PurchaseOrderRetrievalEndpoint": "string",
"PurchaseOrderRetrievalPreferenceStatus": "string",
"PurchaseOrderRetrievalPreferenceStatusReason": "string",
"Selector": {
    "InvoiceUnitArns": [ "string" ],
    "SellerOfRecords": [ "string" ]
},
"SupplierDomain": "string",
"SupplierIdentifier": "string",
"TestEnvPreference": {
    "BuyerDomain": "string",
    "BuyerIdentifier": "string",
    "ProcurementPortalInstanceEndpoint": "string",
    "ProcurementPortalSharedSecret": "string",
    "PurchaseOrderRetrievalEndpoint": "string",
    "SupplierDomain": "string",
    "SupplierIdentifier": "string"
}

```

```
    },  
    "Version": number  
  }  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ProcurementPortalPreference

The detailed configuration of the requested procurement portal preference.

Type: ProcurementPortalPreference object

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be completed due to a conflict with the current state of the resource. This exception occurs when a concurrent modification is detected during an update operation, or when attempting to create a resource that already exists.

resourceId

The identifier of the resource that caused the conflict.

resourceType

The type of resource that caused the conflict.

HTTP Status Code: 400

InternalServerErrorException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current Amazon Web Services account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListInvoiceSummaries

Service: Amazon Web Services Invoicing

Retrieves your invoice details programmatically, without line item details.

Request Syntax

```
{
  "Filter": {
    "BillingPeriod": {
      "Month": number,
      "Year": number
    },
    "InvoicingEntity": "string",
    "TimeInterval": {
      "EndDate": number,
      "StartDate": number
    }
  },
  "MaxResults": number,
  "NextToken": "string",
  "Selector": {
    "ResourceType": "string",
    "Value": "string"
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

Filter

Filters you can use to customize your invoice summary.

Type: [InvoiceSummariesFilter](#) object

Required: No

MaxResults

The maximum number of invoice summaries a paginated response can contain.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[\S\s]*`

Required: No

Selector

The option to retrieve details for a specific invoice by providing its unique ID. Alternatively, access information for all invoices linked to the account by providing an account ID.

Type: [InvoiceSummariesSelector](#) object

Required: Yes

Response Syntax

```
{
  "InvoiceSummaries": [
    {
      "AccountId": "string",
      "BaseCurrencyAmount": {
        "AmountBreakdown": {
          "Discounts": {
            "Breakdown": [
              {
                "Amount": "string",
                "Description": "string",
                "Rate": "string"
              }
            ]
          },
          "TotalAmount": "string"
        }
      }
    }
  ]
}
```

```
    },
    "Fees": {
      "Breakdown": [
        {
          "Amount": "string",
          "Description": "string",
          "Rate": "string"
        }
      ],
      "TotalAmount": "string"
    },
    "SubTotalAmount": "string",
    "Taxes": {
      "Breakdown": [
        {
          "Amount": "string",
          "Description": "string",
          "Rate": "string"
        }
      ],
      "TotalAmount": "string"
    }
  },
  "CurrencyCode": "string",
  "CurrencyExchangeDetails": {
    "Rate": "string",
    "SourceCurrencyCode": "string",
    "TargetCurrencyCode": "string"
  },
  "TotalAmount": "string",
  "TotalAmountBeforeTax": "string"
},
"BillingPeriod": {
  "Month": number,
  "Year": number
},
"DueDate": number,
"Entity": {
  "InvoicingEntity": "string"
},
"InvoiceId": "string",
"InvoiceType": "string",
"IssuedDate": number,
"OriginalInvoiceId": "string",
```

```
"PaymentCurrencyAmount": {
  "AmountBreakdown": {
    "Discounts": {
      "Breakdown": [
        {
          "Amount": "string",
          "Description": "string",
          "Rate": "string"
        }
      ],
      "TotalAmount": "string"
    },
    "Fees": {
      "Breakdown": [
        {
          "Amount": "string",
          "Description": "string",
          "Rate": "string"
        }
      ],
      "TotalAmount": "string"
    },
    "SubTotalAmount": "string",
    "Taxes": {
      "Breakdown": [
        {
          "Amount": "string",
          "Description": "string",
          "Rate": "string"
        }
      ],
      "TotalAmount": "string"
    }
  },
  "CurrencyCode": "string",
  "CurrencyExchangeDetails": {
    "Rate": "string",
    "SourceCurrencyCode": "string",
    "TargetCurrencyCode": "string"
  },
  "TotalAmount": "string",
  "TotalAmountBeforeTax": "string"
},
"PurchaseOrderNumber": "string",
```

```
"TaxCurrencyAmount": {
  "AmountBreakdown": {
    "Discounts": {
      "Breakdown": [
        {
          "Amount": "string",
          "Description": "string",
          "Rate": "string"
        }
      ],
      "TotalAmount": "string"
    },
    "Fees": {
      "Breakdown": [
        {
          "Amount": "string",
          "Description": "string",
          "Rate": "string"
        }
      ],
      "TotalAmount": "string"
    },
    "SubTotalAmount": "string",
    "Taxes": {
      "Breakdown": [
        {
          "Amount": "string",
          "Description": "string",
          "Rate": "string"
        }
      ],
      "TotalAmount": "string"
    }
  },
  "CurrencyCode": "string",
  "CurrencyExchangeDetails": {
    "Rate": "string",
    "SourceCurrencyCode": "string",
    "TargetCurrencyCode": "string"
  },
  "TotalAmount": "string",
  "TotalAmountBeforeTax": "string"
}
```

```
  ],  
  "NextToken": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

InvoiceSummaries

List of key (summary level) invoice details without line item details.

Type: Array of [InvoiceSummary](#) objects

NextToken

The token to retrieve the next set of results. Amazon provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)

- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListInvoiceUnits

Service: Amazon Web Services Invoicing

This fetches a list of all invoice unit definitions for a given account, as of the provided AsOf date.

Request Syntax

```
{
  "AsOf": number,
  "Filters": {
    "Accounts": [ "string" ],
    "BillSourceAccounts": [ "string" ],
    "InvoiceReceivers": [ "string" ],
    "Names": [ "string" ]
  },
  "MaxResults": number,
  "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

AsOf

The state of an invoice unit at a specified time. You can see legacy invoice units that are currently deleted if the AsOf time is set to before it was deleted. If an AsOf is not provided, the default value is the current time.

Type: Timestamp

Required: No

Filters

An optional input to the list API. If multiple filters are specified, the returned list will be a configuration that match all of the provided filters. Supported filter types are InvoiceReceivers, Names, and Accounts.

Type: [Filters](#) object

Required: No

MaxResults

The maximum number of invoice units that can be returned.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 500.

Required: No

NextToken

The next token used to indicate where the returned list should start from.

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
  "InvoiceUnits": [
    {
      "Description": "string",
      "InvoiceReceiver": "string",
      "InvoiceUnitArn": "string",
      "LastModified": number,
      "Name": "string",
      "Rule": {
        "BillSourceAccounts": [ "string" ],
        "LinkedAccounts": [ "string" ]
      },
      "TaxInheritanceDisabled": boolean
    }
  ],
  "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

InvoiceUnits

An invoice unit is a set of mutually exclusive accounts that correspond to your business entity.

Type: Array of [InvoiceUnit](#) objects

NextToken

The next token used to indicate where the returned list should start from.

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerErrorException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListProcurementPortalPreferences

Service: Amazon Web Services Invoicing

This feature API is subject to changing at any time. For more information, see the [Amazon Service Terms \(Betas and Previews\)](#).

Retrieves a list of procurement portal preferences associated with the Amazon Web Services account.

Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[MaxResults](#)

The maximum number of results to return in a single call. To retrieve the remaining results, make another call with the returned NextToken value.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

[NextToken](#)

The token for the next set of results. (You received this token from a previous call.)

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

Response Syntax

```
{
  "NextToken": "string",
  "ProcurementPortalPreferences": [
    {
      "AwsAccountId": "string",
      "BuyerDomain": "string",
      "BuyerIdentifier": "string",
      "CreateDate": number,
      "InvoiceDeliveryEnabled": boolean,
      "InvoiceDeliveryPreferenceStatus": "string",
      "InvoiceDeliveryPreferenceStatusReason": "string",
      "LastUpdateDate": number,
      "ProcurementPortalName": "string",
      "ProcurementPortalPreferenceArn": "string",
      "PurchaseOrderRetrievalEnabled": boolean,
      "PurchaseOrderRetrievalPreferenceStatus": "string",
      "PurchaseOrderRetrievalPreferenceStatusReason": "string",
      "Selector": {
        "InvoiceUnitArns": [ "string" ],
        "SellerOfRecords": [ "string" ]
      },
      "SupplierDomain": "string",
      "SupplierIdentifier": "string",
      "Version": number
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The token to use to retrieve the next set of results, or null if there are no more results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

ProcurementPortalPreferences

The list of procurement portal preferences associated with the Amazon Web Services account.

Type: Array of [ProcurementPortalPreferenceSummary](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be completed due to a conflict with the current state of the resource. This exception occurs when a concurrent modification is detected during an update operation, or when attempting to create a resource that already exists.

resourceId

The identifier of the resource that caused the conflict.

resourceType

The type of resource that caused the conflict.

HTTP Status Code: 400

InternalServerError

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current Amazon Web Services account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)

- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListTagsForResource

Service: Amazon Web Services Invoicing

Lists the tags for a resource.

Request Syntax

```
{
  "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of tags to list.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: arn:aws[-a-z0-9]*:(invoicing)::[0-9]{12}:[-a-zA-Z0-9/_:~]+

Required: Yes

Response Syntax

```
{
  "ResourceTags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ResourceTags

Adds a tag to a resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerErrorException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

PutProcurementPortalPreference

Service: Amazon Web Services Invoicing

This feature API is subject to changing at any time. For more information, see the [Amazon Service Terms \(Betas and Previews\)](#).

Updates an existing procurement portal preference configuration. This operation can modify settings for e-invoice delivery and purchase order retrieval.

Request Syntax

```
{
  "Contacts": [
    {
      "Email": "string",
      "Name": "string"
    }
  ],
  "EinvoiceDeliveryEnabled": boolean,
  "EinvoiceDeliveryPreference": {
    "ConnectionTestingMethod": "string",
    "EinvoiceDeliveryActivationDate": number,
    "EinvoiceDeliveryAttachmentTypes": [ "string" ],
    "EinvoiceDeliveryDocumentTypes": [ "string" ],
    "Protocol": "string",
    "PurchaseOrderDataSources": [
      {
        "EinvoiceDeliveryDocumentType": "string",
        "PurchaseOrderDataSourceType": "string"
      }
    ]
  },
  "ProcurementPortalInstanceEndpoint": "string",
  "ProcurementPortalPreferenceArn": "string",
  "ProcurementPortalSharedSecret": "string",
  "PurchaseOrderRetrievalEnabled": boolean,
  "Selector": {
    "InvoiceUnitArns": [ "string" ],
    "SellerOfRecords": [ "string" ]
  },
  "TestEnvPreference": {
    "BuyerDomain": "string",
    "BuyerIdentifier": "string",
```

```
"ProcurementPortalInstanceEndpoint": "string",  
"ProcurementPortalSharedSecret": "string",  
"SupplierDomain": "string",  
"SupplierIdentifier": "string"  
}  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[Contacts](#)

Updated list of contact information for portal administrators and technical contacts.

Type: Array of [Contact](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

[InvoiceDeliveryEnabled](#)

Updated flag indicating whether e-invoice delivery is enabled for this procurement portal preference.

Type: Boolean

Required: Yes

[InvoiceDeliveryPreference](#)

Updated e-invoice delivery configuration including document types, attachment types, and customization settings for the portal.

Type: [InvoiceDeliveryPreference](#) object

Required: No

[ProcurementPortalInstanceEndpoint](#)

The updated endpoint URL where e-invoices will be delivered to the procurement portal. Must be a valid HTTPS URL.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the procurement portal preference to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: arn:aws:invoicing::[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+

Required: Yes

ProcurementPortalSharedSecret

The updated shared secret or authentication credential for the procurement portal. This value must be encrypted at rest.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

PurchaseOrderRetrievalEnabled

Updated flag indicating whether purchase order retrieval is enabled for this procurement portal preference.

Type: Boolean

Required: Yes

Selector

Specifies criteria for selecting which invoices should be processed using a particular procurement portal preference.

Type: [ProcurementPortalPreferenceSelector](#) object

Required: No

[TestEnvPreference](#)

Updated configuration settings for the test environment of the procurement portal.

Type: [TestEnvPreferenceInput](#) object

Required: No

Response Syntax

```
{
  "ProcurementPortalPreferenceArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[ProcurementPortalPreferenceArn](#)

The Amazon Resource Name (ARN) of the updated procurement portal preference.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing:[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be completed due to a conflict with the current state of the resource. This exception occurs when a concurrent modification is detected during an update operation, or when attempting to create a resource that already exists.

resourceId

The identifier of the resource that caused the conflict.

resourceType

The type of resource that caused the conflict.

HTTP Status Code: 400

InternalServerErrorException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current Amazon Web Services account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

TagResource

Service: Amazon Web Services Invoicing

Adds a tag to a resource.

Request Syntax

```
{
  "ResourceArn": "string",
  "ResourceTags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[ResourceArn](#)

The Amazon Resource Name (ARN) of the tags.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:(invoicing)::[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

[ResourceTags](#)

Adds a tag to a resource.

Type: Array of [ResourceTag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current Amazon Web Services account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UntagResource

Service: Amazon Web Services Invoicing

Removes a tag from a resource.

Request Syntax

```
{
  "ResourceArn": "string",
  "ResourceTagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) to untag.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:(invoicing)::[0-9]{12}:[-a-zA-Z0-9/_:~]+`

Required: Yes

ResourceTagKeys

Keys for the tags to be removed.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerErrorException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateInvoiceUnit

Service: Amazon Web Services Invoicing

You can update the invoice unit configuration at any time, and Amazon will use the latest configuration at the end of the month.

Request Syntax

```
{
  "Description": "string",
  "InvoiceUnitArn": "string",
  "Rule": {
    "BillSourceAccounts": [ "string" ],
    "LinkedAccounts": [ "string" ]
  },
  "TaxInheritanceDisabled": boolean
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

Description

The assigned description for an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 500.

Pattern: `[\S\s]*`

Required: No

InvoiceUnitArn

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Rule

The `InvoiceUnitRule` object used to update invoice units.

Type: [InvoiceUnitRule](#) object

Required: No

TaxInheritanceDisabled

Whether the invoice unit based tax inheritance is/ should be enabled or disabled.

Type: Boolean

Required: No

Response Syntax

```
{  
  "InvoiceUnitArn": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

InvoiceUnitArn

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerError

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

UpdateProcurementPortalPreferenceStatus

Service: Amazon Web Services Invoicing

This feature API is subject to changing at any time. For more information, see the [Amazon Service Terms \(Betas and Previews\)](#).

Updates the status of a procurement portal preference, including the activation state of e-invoice delivery and purchase order retrieval features.

Request Syntax

```
{
  "InvoiceDeliveryPreferenceStatus": "string",
  "InvoiceDeliveryPreferenceStatusReason": "string",
  "ProcurementPortalPreferenceArn": "string",
  "PurchaseOrderRetrievalPreferenceStatus": "string",
  "PurchaseOrderRetrievalPreferenceStatusReason": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

InvoiceDeliveryPreferenceStatus

The updated status of the e-invoice delivery preference.

Type: String

Valid Values: PENDING_VERIFICATION | TEST_INITIALIZED | TEST_INITIALIZATION_FAILED | TEST_FAILED | ACTIVE | SUSPENDED

Required: No

InvoiceDeliveryPreferenceStatusReason

The reason for the e-invoice delivery preference status update, providing context for the change.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the procurement portal preference to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing::[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Required: Yes

PurchaseOrderRetrievalPreferenceStatus

The updated status of the purchase order retrieval preference.

Type: String

Valid Values: PENDING_VERIFICATION | TEST_INITIALIZED | TEST_INITIALIZATION_FAILED | TEST_FAILED | ACTIVE | SUSPENDED

Required: No

PurchaseOrderRetrievalPreferenceStatusReason

The reason for the purchase order retrieval preference status update, providing context for the change.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Response Syntax

```
{
```

```
"ProcurementPortalPreferenceArn": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[ProcurementPortalPreferenceArn](#)

The Amazon Resource Name (ARN) of the procurement portal preference with updated status.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing:[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be completed due to a conflict with the current state of the resource. This exception occurs when a concurrent modification is detected during an update operation, or when attempting to create a resource that already exists.

resourceId

The identifier of the resource that caused the conflict.

resourceType

The type of resource that caused the conflict.

HTTP Status Code: 400

InternalServerErrorException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current Amazon Web Services account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an Amazon Web Services service.

fieldList

The input fails to satisfy the constraints specified by an Amazon Web Services service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

Amazon Price List

The following actions are supported by Amazon Price List:

- [DescribeServices](#)
- [GetAttributeValues](#)
- [GetPriceListFileUrl](#)
- [GetProducts](#)
- [ListPriceLists](#)

DescribeServices

Service: Amazon Price List

Returns the metadata for one service or a list of the metadata for all services. Use this without a service code to get the service codes for all services. Use it with a service code, such as AmazonEC2, to get information specific to that service, such as the attribute names available for that service. For example, some of the attribute names available for EC2 are volumeType, maxIopsVolume, operation, locationType, and instanceCapacity10xlarge.

Request Syntax

```
{
  "FormatVersion": "string",
  "MaxResults": number,
  "NextToken": "string",
  "ServiceCode": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

FormatVersion

The format version that you want the response to be in.

Valid values are: aws_v1

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

MaxResults

The maximum number of results per response. This is an upper limit, not a guaranteed count. Responses might return fewer results even when more total results exist.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A NextToken in the response indicates more results might exist. Continue pagination until you receive a response without a NextToken, implying it is complete.

Type: String

Required: No

ServiceCode

The code for the service whose information you want to retrieve, such as AmazonEC2. You can use the ServiceCode to filter the results in a GetProducts call. To retrieve a list of all services, leave this blank.

Type: String

Required: No

Response Syntax

```
{
  "FormatVersion": "string",
  "NextToken": "string",
  "Services": [
    {
      "AttributeNames": [ "string" ],
      "ServiceCode": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FormatVersion

The format version of the response. For example, `aws_v1`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

NextToken

A `NextToken` in the response indicates more results might exist. Continue pagination until you receive a response without a `NextToken`, implying it is complete.

Type: String

Services

The service metadata for the service or services in the response.

Type: Array of [Service](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

ExpiredNextTokenException

The pagination token expired. Try again without a pagination token.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

InvalidParameterException

One or more parameters had an invalid value.

HTTP Status Code: 400

NotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ThrottlingException

You've made too many requests exceeding service quotas.

HTTP Status Code: 400

Examples

The following is a sample request and response of the `GetService` operation.

This example illustrates one usage of `DescribeServices`.

Sample Request

```
POST / HTTP/1.1
Host: api.pricing.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSPriceListService.DescribeServices
{
  "ServiceCode": "AmazonEC2",
  "FormatVersion": "aws_v1",
  "NextToken": null,
  "MaxResults": 1
}
```

Sample Response

```
HTTP/1.1 200 OK
```

```
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "FormatVersion": "aws_v1",
  "NextToken": "abcdefg123",
  "Services": [
    {
      "AttributeNames": [
        "volumeType",
        "maxIopsvolume",
        "instanceCapacity10xlarge",
        "locationType",
        "operation"
      ],
      "ServiceCode": "AmazonEC2"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetAttributeValues

Service: Amazon Price List

Returns a list of attribute values. Attributes are similar to the details in a Price List API offer file. For a list of available attributes, see [Offer File Definitions](#) in the [Amazon Billing and Cost Management User Guide](#).

Request Syntax

```
{
  "AttributeName": "string",
  "MaxResults": number,
  "NextToken": "string",
  "ServiceCode": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[AttributeName](#)

The name of the attribute that you want to retrieve the values for, such as volumeType.

Type: String

Required: Yes

[MaxResults](#)

The maximum number of results per response. This is an upper limit, not a guaranteed count. Responses might return fewer results even when more total results exist.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A NextToken in the response indicates more results might exist. Continue pagination until you receive a response without a NextToken, implying it is complete.

Type: String

Required: No

ServiceCode

The service code for the service whose attributes you want to retrieve. For example, if you want to retrieve an EC2 attribute, use AmazonEC2.

Type: String

Required: Yes

Response Syntax

```
{
  "AttributeValues": [
    {
      "Value": "string"
    }
  ],
  "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AttributeValues

The list of values for an attribute. For example, Throughput Optimized HDD and Provisioned IOPS are two available values for the AmazonEC2 volumeType.

Type: Array of [AttributeValue](#) objects

NextToken

A NextToken in the response indicates more results might exist. Continue pagination until you receive a response without a NextToken, implying it is complete.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

ExpiredNextTokenException

The pagination token expired. Try again without a pagination token.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

InvalidParameterException

One or more parameters had an invalid value.

HTTP Status Code: 400

NotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ThrottlingException

You've made too many requests exceeding service quotas.

HTTP Status Code: 400

Examples

The following is a sample request and response of the `GetAttributeValues` operation.

This example illustrates one usage of `GetAttributeValues`.

Sample Request

```
POST / HTTP/1.1
Host: api.pricing.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSPriceListService.GetAttributeValues
{
  "ServiceCode": "AmazonEC2",
  "AttributeName": "volumeType",
  "NextToken": null,
  "MaxResults": 2
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "AttributeValues": [
    {
      "Value": "Throughput Optimized HDD"
    },
    {
      "Value": "Provisioned IOPS"
    }
  ],
}
```

```
"NextToken":
  "GpgauTGIY7LGezuc15LV0w==:7GzYJ0nw0DBTJ2J66EoTIIynE601uXwQtTRqioJzQadBnDVgHPzI1en4BUQnPCLpzeBk
+Z/9/cTw9G1dnPOHN98+FdmJP7wKU3QQpQ8MQr5K0eBkIsAqvAQYdL0DkL7tHwPtE5iCEByAmg9gcC/
yBU1vA0sf7R3VaNN4M5jMDv3woSWqASSI1BVB6tgW78YL22Khss0ItM/jWW+aP6Jqtq4mldxp/ct6DWA1
+xLFwHU/CbketimPPXyqHF3/UXDw=="
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetPriceListFileUrl

Service: Amazon Price List

This feature is in preview release and is subject to change. Your use of Amazon Price List API is subject to the Beta Service Participation terms of the [Amazon Service Terms](#) (Section 1.10).

This returns the URL that you can retrieve your Price List file from. This URL is based on the `PriceListArn` and `FileFormat` that you retrieve from the [ListPriceLists](#) response.

Request Syntax

```
{
  "FileFormat": "string",
  "PriceListArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

[FileFormat](#)

The format that you want to retrieve your Price List files in. The `FileFormat` can be obtained from the [ListPriceLists](#) response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: Yes

[PriceListArn](#)

The unique identifier that maps to where your Price List files are located. `PriceListArn` can be obtained from the [ListPriceLists](#) response.

Type: String

Length Constraints: Minimum length of 18. Maximum length of 2048.

Pattern: `arn:[A-Za-z0-9][-.A-Za-z0-9]{0,62}:pricing::price-list/[A-Za-z0-9+_/.-]{1,1023}`

Required: Yes

Response Syntax

```
{  
  "Url": "string"  
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Url

The URL to download your Price List file from.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

General authentication failure. The request wasn't signed correctly.

HTTP Status Code: 400

InternalServerErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

InvalidParameterException

One or more parameters had an invalid value.

HTTP Status Code: 400

NotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ResourceNotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ThrottlingException

You've made too many requests exceeding service quotas.

HTTP Status Code: 400

Examples

The following is a sample request and response of the `GetPriceListFileUrl` operation.

This example illustrates one usage of `GetPriceListFileUrl`.

Sample Request

```
POST / HTTP/1.1
Host: api.pricing.<region>.<domain>
x-amz-Date: <Date>Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>Connection: Keep-Alive
X-Amz-Target: AWSPriceListService.GetPriceListFileUrl{
  "PriceListArn": "arn:aws-cn:pricing::price-list/aws-cn/AmazonEC2/
CNY/20230706181446/cn-north-1",
  "FileFormat": "json"
}
```

Sample Response

```
HTTP/1.1 200 OK
```

```
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "Url": "https://pricing.cn-northwest-1.amazonaws.com.cn/offers/v1.0/cn/
AmazonEC2/20230706181446/cn-north-1/index.json"
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetProducts

Service: Amazon Price List

Returns a list of all products that match the filter criteria.

Request Syntax

```
{
  "Filters": [
    {
      "Field": "string",
      "Type": "string",
      "Value": "string"
    }
  ],
  "FormatVersion": "string",
  "MaxResults": number,
  "NextToken": "string",
  "ServiceCode": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

Filters

The list of filters that limit the returned products. only products that match all filters are returned.

Type: Array of [Filter](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

FormatVersion

The format version that you want the response to be in.

Valid values are: aws_v1

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

MaxResults

The maximum number of results per response. This is an upper limit, not a guaranteed count. Responses might return fewer results even when more total results exist.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A NextToken in the response indicates more results might exist. Continue pagination until you receive a response without a NextToken, implying it is complete.

Type: String

Required: No

ServiceCode

The code for the service whose products you want to retrieve.

Type: String

Required: Yes

Response Syntax

```
{
  "FormatVersion": "string",
  "NextToken": "string",
  "PriceList": [ "string" ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FormatVersion

The format version of the response. For example, `aws_v1`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

NextToken

A `NextToken` in the response indicates more results might exist. Continue pagination until you receive a response without a `NextToken`, implying it is complete.

Type: String

PriceList

The list of products that match your filters. The list contains both the product metadata and the price information.

Type: Array of strings

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

ExpiredNextTokenException

The pagination token expired. Try again without a pagination token.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

InvalidParameterException

One or more parameters had an invalid value.

HTTP Status Code: 400

NotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ThrottlingException

You've made too many requests exceeding service quotas.

HTTP Status Code: 400

Examples

The following is a sample request and response of the `GetProducts` operation.

This example illustrates one usage of `GetProducts`.

Sample Request

```
POST / HTTP/1.1
Host: api.pricing.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
  requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSPriceListService.GetProducts
{
  "Filters": [
    {
      "Type": "TERM_MATCH",
      "Field": "ServiceCode",
      "Value": "AmazonEC2"
    },
  ],
}
```

```

    {
      "Type": "TERM_MATCH",
      "Field": "volumeType",
      "Value": "Provisioned IOPS"
    }
  ],
  "FormatVersion": "aws_v1",
  "NextToken": null,
  "MaxResults": 1,
  "ServiceCode": "AmazonEC2"
}

```

Sample Response

```

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "FormatVersion": "aws_v1",
  "NextToken": "57r3UcqRjDujbzWfHF7Ciw==:ywSmZsD3mtpQmQLQ5Xf0sIMkYybSj
+vAT+kGmwMFq+k9DGmIoJkz71unVeamiOPgthdWS02a7YKojC0+zY4dJmuN12QvbNhXs
+AJ2Ufn7xGmJncNI2TsEuAsVCufTAvAQncwamtk6XuZ4YdNnooV62FjkV3ZAN40d9+wAxV7+FImvhUHi/
+f8afgZdGh2zPULH8j1V9uUtj0oHp8+DhPUuHXh+WBIIE/aoKpPSm3c=",
  "PriceList": [
    {
      "product": {
        "productFamily": "Storage",
        "attributes": {
          "storageMedia": "SSD-backed",
          "maxThroughputvolume": "320 MB/sec",
          "volumeType": "Provisioned IOPS",
          "maxIopsvolume": "20000",
          "servicecode": "AmazonEC2",
          "usagetype": "CAN1-EBS:VolumeUsage.piops",
          "locationType": "AWS Region",
          "location": "Canada (Central)",
          "servicename": "Amazon Elastic Compute Cloud",
          "maxVolumeSize": "16 TiB",
          "operation": "",
          "sku": "WQGC34PB2AWS8R4U",
          "serviceCode": "AmazonEC2",
          "terms": {
            "OnDemand": {
              "WQGC34PB2AWS8R4U.JRTCKXETXF": {
                "priceDimensions": {
                  "WQGC34PB2AWS8R4U.JRTCKXETXF.6YS6EN2CT7": {
                    "unit": "GB-Mo",
                    "endRange": "Inf",
                    "description": "$0.138 per GB-month of Provisioned IOPS SSD (io1) provisioned storage - Canada (Central)",
                    "appliesTo": [],
                    "rateCode": "WQGC34PB2AWS8R4U.JRTCKXETXF.6YS6EN2CT7",
                    "beginRange": "0",
                    "pricePerUnit": {
                      "USD": "0.1380000000"
                    }
                  },
                  "sku": "WQGC34PB2AWS8R4U",
                  "effectiveDate": "2017-08-01T00:00:00Z",
                  "offerTermCode": "JRTCKXETXF",
                  "termAttributes": {}
                }
              }
            },
            "version": "20170901182201",
            "publicationDate": "2017-09-01T18:22:01Z"
          }
        }
      }
    }
  ]
}

```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListPriceLists

Service: Amazon Price List

This feature is in preview release and is subject to change. Your use of Amazon Price List API is subject to the Beta Service Participation terms of the [Amazon Service Terms](#) (Section 1.10).

This returns a list of Price List references that the requester is authorized to view, given a ServiceCode, CurrencyCode, and an EffectiveDate. Use without a RegionCode filter to list Price List references from all available Amazon Regions. Use with a RegionCode filter to get the Price List reference that's specific to a specific Amazon Region. You can use the PriceListArn from the response to get your preferred Price List files through the [GetPriceListFileUrl](#) API.

Request Syntax

```
{
  "CurrencyCode": "string",
  "EffectiveDate": number,
  "MaxResults": number,
  "NextToken": "string",
  "RegionCode": "string",
  "ServiceCode": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

CurrencyCode

The three alphabetical character ISO-4217 currency code that the Price List files are denominated in.

Type: String

Pattern: [A-Z]{3}

Required: Yes

EffectiveDate

The date that the Price List file prices are effective from.

Type: Timestamp

Required: Yes

MaxResults

The maximum number of results per response. This is an upper limit, not a guaranteed count. Responses might return fewer results even when more total results exist.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A NextToken in the response indicates more results might exist. Continue pagination until you receive a response without a NextToken, implying it is complete.

Type: String

Required: No

RegionCode

This is used to filter the Price List by Amazon Region. For example, to get the price list only for the US East (N. Virginia) Region, use `us-east-1`. If nothing is specified, you retrieve price lists for all applicable Regions. The available RegionCode list can be retrieved from [GetAttributeValues](#) API.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

ServiceCode

The service code or the Savings Plans service code for the attributes that you want to retrieve. For example, to get the list of applicable Amazon EC2 price lists, use `AmazonEC2`. For a full list of service codes containing On-Demand and Reserved Instance (RI) pricing, use the [DescribeServices](#) API.

To retrieve the Reserved Instance and Compute Savings Plans price lists, use `ComputeSavingsPlans`.

To retrieve Machine Learning Savings Plans price lists, use `MachineLearningSavingsPlans`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Response Syntax

```
{
  "NextToken": "string",
  "PriceLists": [
    {
      "CurrencyCode": "string",
      "FileFormats": [ "string" ],
      "PriceListArn": "string",
      "RegionCode": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

A `NextToken` in the response indicates more results might exist. Continue pagination until you receive a response without a `NextToken`, implying it is complete.

Type: String

PriceLists

The type of price list references that match your request.

Type: Array of [PriceList](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

General authentication failure. The request wasn't signed correctly.

HTTP Status Code: 400

ExpiredNextTokenException

The pagination token expired. Try again without a pagination token.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

InvalidParameterException

One or more parameters had an invalid value.

HTTP Status Code: 400

NotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ResourceNotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ThrottlingException

You've made too many requests exceeding service quotas.

HTTP Status Code: 400

Examples

The following is a sample request and response of the `ListPriceLists` operation.

This example illustrates one usage of `ListPriceLists`.

Sample Request

```
POST / HTTP/1.1
Host: api.pricing.<region>.<domain>
x-amz-Date: <Date>Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
  SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>Connection: Keep-Alive
X-Amz-Target: AWSPriceListService.ListPriceLists{
  "ServiceCode": "AmazonEC2",
  "EffectiveDate": 1682899200,
  "CurrencyCode": "CNY",
  "RegionCode": "cn-north-1",
  "NextToken": null,
  "MaxResults": 10
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>{
  "PriceLists": [
    {
      "PriceListArn": "arn:aws-cn:pricing::price-list/aws-cn/AmazonEC2/
CNY/20230706181446/cn-north-1",
      "RegionCode": "cn-north-1",
      "CurrencyCode": "CNY",
      "FileFormats": [
        "json",
        "csv"
      ]
    }
  ]
}
```

```
    ]
  }
],
"NextToken": "abcdefg123"
}
```

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

Tax Settings

The following actions are supported by Tax Settings:

- [BatchDeleteTaxRegistration](#)
- [BatchGetTaxExemptions](#)
- [BatchPutTaxRegistration](#)
- [DeleteSupplementalTaxRegistration](#)
- [DeleteTaxRegistration](#)
- [GetTaxExemptionTypes](#)
- [GetTaxInheritance](#)
- [GetTaxRegistration](#)

- [GetTaxRegistrationDocument](#)
- [ListSupplementalTaxRegistrations](#)
- [ListTaxExemptions](#)
- [ListTaxRegistrations](#)
- [PutSupplementalTaxRegistration](#)
- [PutTaxExemption](#)
- [PutTaxInheritance](#)
- [PutTaxRegistration](#)

BatchDeleteTaxRegistration

Service: Tax Settings

Deletes tax registration for multiple accounts in batch. This can be used to delete tax registrations for up to five accounts in one batch.

Note

This API operation can't be used to delete your tax registration in Brazil. Use the [Payment preferences](#) page in the Amazon Billing and Cost Management console instead.

Request Syntax

```
POST /BatchDeleteTaxRegistration HTTP/1.1
Content-type: application/json
```

```
{
  "accountIds": [ "string" ]
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

accountIds

List of unique account identifiers.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Fixed length of 12.

Pattern: `\d+`

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "errors": [
    {
      "accountId": "string",
      "code": "string",
      "message": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

The list of errors for the accounts the TRN information could not be deleted for.

Type: Array of [BatchDeleteTaxRegistrationError](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerErrorException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

BatchGetTaxExemptions

Service: Tax Settings

Get the active tax exemptions for a given list of accounts. The IAM action is `tax:GetExemptions`.

Request Syntax

```
POST /BatchGetTaxExemptions HTTP/1.1
Content-type: application/json

{
  "accountIds": [ "string" ]
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

[accountIds](#)

List of unique account identifiers.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Fixed length of 12.

Pattern: `\d+`

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```

{
  "failedAccounts": [ "string" ],
  "taxExemptionDetailsMap": {
    "string" : {
      "heritageObtainedDetails": boolean,
      "heritageObtainedParentEntity": "string",
      "heritageObtainedReason": "string",
      "taxExemptions": [
        {
          "authority": {
            "country": "string",
            "state": "string"
          },
          "effectiveDate": number,
          "expirationDate": number,
          "status": "string",
          "systemEffectiveDate": number,
          "taxExemptionType": {
            "applicableJurisdictions": [
              {
                "country": "string",
                "state": "string"
              }
            ],
            "description": "string",
            "displayName": "string"
          }
        }
      ]
    }
  }
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

failedAccounts

The list of accounts that failed to get tax exemptions.

Type: Array of strings

Length Constraints: Fixed length of 12.

Pattern: \d+

taxExemptionDetailsMap

The tax exemption details map of accountId and tax exemption details.

Type: String to [TaxExemptionDetails](#) object map

Key Length Constraints: Fixed length of 12.

Key Pattern: \d+

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerError

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

BatchPutTaxRegistration

Service: Tax Settings

Adds or updates tax registration for multiple accounts in batch. This can be used to add or update tax registrations for up to five accounts in one batch. You can't set a TRN if there's a pending TRN. You'll need to delete the pending TRN first.

To call this API operation for specific countries, see the following country-specific requirements.

Bangladesh

- You must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.

Brazil

- You must complete the tax registration process in the [Payment preferences](#) page in the Amazon Billing and Cost Management console. After your TRN and billing address are verified, you can call this API operation.
- For Amazon Web Services accounts created through Amazon Organizations, you can call this API operation when you don't have a billing address.

Georgia

- The valid `personType` values are `Physical Person` and `Business`.

Indonesia

- `PutTaxRegistration`: The use of this operation to submit tax information is subject to the [Amazon Web Services service terms](#). By submitting, you're providing consent for Amazon to validate NIK, NPWP, and NITKU data, provided by you with the Directorate General of Taxes of Indonesia in accordance with the Minister of Finance Regulation (PMK) Number 112/PMK.03/2022.
- `BatchPutTaxRegistration`: The use of this operation to submit tax information is subject to the [Amazon Web Services service terms](#). By submitting, you're providing consent for Amazon to validate NIK, NPWP, and NITKU data, provided by you with the Directorate General of

Taxes of Indonesia in accordance with the Minister of Finance Regulation (PMK) Number 112/PMK.03/2022, through our third-party partner PT Achilles Advanced Management (OnlinePajak).

- You must specify the `taxRegistrationNumberType` in the `indonesiaAdditionalInfo` field of the `additionalTaxInformation` object.
- If you specify `decisionNumber`, you must specify the `ppnExceptionDesignationCode` in the `indonesiaAdditionalInfo` field of the `additionalTaxInformation` object. If the `taxRegistrationNumberType` is set to NPWP or NITKU, valid values for `ppnExceptionDesignationCode` are either 01, 02, 03, 07, or 08.

For other `taxRegistrationNumberType` values, `ppnExceptionDesignationCode` must be either 01, 07, or 08.

- If `ppnExceptionDesignationCode` is 07 or 08, you must specify the `decisionNumber` in the `indonesiaAdditionalInfo` field of the `additionalTaxInformation` object.

Kenya

- You must specify the `personType` in the `kenyaAdditionalInfo` field of the `additionalTaxInformation` object.
- If the `personType` is `Physical Person`, you must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.

Malaysia

- The sector valid values are `Business` and `Individual`.
- `RegistrationType` valid values are `NRIC` for individual, and `TIN` and `sales and service tax (SST)` for Business.
- For individual, you can specify the `taxInformationNumber` in `MalaysiaAdditionalInfo` with `NRIC` type, and a valid MyKad or NRIC number.
- For business, you must specify a `businessRegistrationNumber` in `MalaysiaAdditionalInfo` with a `TIN` type and tax identification number.
- For business resellers, you must specify a `businessRegistrationNumber` and `taxInformationNumber` in `MalaysiaAdditionalInfo` with a `sales and service tax (SST)` type and a valid SST number.
- For business resellers with service codes, you must specify `businessRegistrationNumber`, `taxInformationNumber`, and distinct `serviceTaxCodes` in `MalaysiaAdditionalInfo` with

a SST type and valid sales and service tax (SST) number. By using this API operation, Amazon registers your self-declaration that you're an authorized business reseller registered with the Royal Malaysia Customs Department (RMCD), and have a valid SST number.

- Amazon reserves the right to seek additional information and/or take other actions to support your self-declaration as appropriate.
- Amazon is currently registered under the following service tax codes. You must include at least one of the service tax codes in the service tax code strings to declare yourself as an authorized registered business reseller.

Taxable service and service tax codes:

Consultancy - 9907061674

Training or coaching service - 9907071685

IT service - 9907101676

Digital services and electronic medium - 9907121690

Mexico

- You must provide a Constancia de Situación fiscal (CSF) document in the **verificationDetails** field.
- You do not need to provide address and legal name. These will be populated based on your tax registration number.

Nepal

- The sector valid values are Business and Individual.

Saudi Arabia

- For address, you must specify addressLine3.

South Korea

- You must specify the `certifiedEmailId` and `legalName` in the `TaxRegistrationEntry` object. Use Korean characters for `legalName`.
- You must specify the `businessRepresentativeName`, `itemOfBusiness`, and `lineOfBusiness` in the `southKoreaAdditionalInfo` field of the `additionalTaxInformation` object. Use Korean characters for these fields.
- You must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.
- For the address object, use Korean characters for `addressLine1`, `addressLine2`, `city`, `postalCode`, and `stateOrRegion`.

Spain

- You must specify the `registrationType` in the `spainAdditionalInfo` field of the `additionalTaxInformation` object.
- If the `registrationType` is `Local`, you must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.

Turkey

- You must specify the `sector` in the `taxRegistrationEntry` object.
- If your `sector` is `Business`, `Individual`, or `Government`:
 - Specify the `taxOffice`. If your `sector` is `Individual`, don't enter this value.
 - (Optional) Specify the `kepEmailId`. If your `sector` is `Individual`, don't enter this value.
 - **Note:** In the **Tax Settings** page of the Amazon Billing console, `Government` appears as **Public institutions**
- If your `sector` is `Business` and you're subject to KDV tax, you must specify your industry in the `industries` field.
- For address, you must specify `districtOrCounty`.

Ukraine

- The `sector` valid values are `Business` and `Individual`.

Request Syntax

POST /BatchPutTaxRegistration HTTP/1.1

Content-type: application/json

```
{
  "accountIds": [ "string" ],
  "taxRegistrationEntry": {
    "additionalTaxInformation": {
      "canadaAdditionalInfo": {
        "canadaQuebecSalesTaxNumber": "string",
        "canadaRetailSalesTaxNumber": "string",
        "isResellerAccount": boolean,
        "provincialSalesTaxId": "string"
      },
      "egyptAdditionalInfo": {
        "uniqueIdentificationNumber": "string",
        "uniqueIdentificationNumberExpirationDate": "string"
      },
      "estoniaAdditionalInfo": {
        "registryCommercialCode": "string"
      },
      "georgiaAdditionalInfo": {
        "personType": "string"
      },
      "greeceAdditionalInfo": {
        "contractingAuthorityCode": "string"
      },
      "indonesiaAdditionalInfo": {
        "decisionNumber": "string",
        "ppnExceptionDesignationCode": "string",
        "taxRegistrationNumberType": "string"
      },
      "israelAdditionalInfo": {
        "customerType": "string",
        "dealerType": "string"
      },
      "italyAdditionalInfo": {
        "cigNumber": "string",
        "cupNumber": "string",
        "sdiAccountId": "string",
        "taxCode": "string"
      },
    },
  },
}
```

```
"kenyaAdditionalInfo": {
  "personType": "string"
},
"malaysiaAdditionalInfo": {
  "businessRegistrationNumber": "string",
  "serviceTaxCodes": [ "string" ],
  "taxInformationNumber": "string"
},
"polandAdditionalInfo": {
  "individualRegistrationNumber": "string",
  "isGroupVatEnabled": boolean
},
"romaniaAdditionalInfo": {
  "taxRegistrationNumberType": "string"
},
"saudiArabiaAdditionalInfo": {
  "taxRegistrationNumberType": "string"
},
"southKoreaAdditionalInfo": {
  "businessRepresentativeName": "string",
  "itemOfBusiness": "string",
  "lineOfBusiness": "string"
},
"spainAdditionalInfo": {
  "registrationType": "string"
},
"turkeyAdditionalInfo": {
  "industries": "string",
  "kepEmailId": "string",
  "secondaryTaxId": "string",
  "taxOffice": "string"
},
"ukraineAdditionalInfo": {
  "ukraineTrnType": "string"
},
"uzbekistanAdditionalInfo": {
  "taxRegistrationNumberType": "string",
  "vatRegistrationNumber": "string"
},
"vietnamAdditionalInfo": {
  "electronicTransactionCodeNumber": "string",
  "enterpriseIdentificationNumber": "string",
  "paymentVoucherNumber": "string",
  "paymentVoucherNumberDate": "string"
}
```

```

    }
  },
  "certifiedEmailId": "string",
  "legalAddress": {
    "addressLine1": "string",
    "addressLine2": "string",
    "addressLine3": "string",
    "city": "string",
    "countryCode": "string",
    "districtOrCounty": "string",
    "postalCode": "string",
    "stateOrRegion": "string"
  },
  "legalName": "string",
  "registrationId": "string",
  "registrationType": "string",
  "sector": "string",
  "verificationDetails": {
    "dateOfBirth": "string",
    "taxRegistrationDocuments": [
      {
        "file": {
          "fileContent": blob,
          "fileName": "string"
        },
        "s3Location": {
          "bucket": "string",
          "key": "string"
        }
      }
    ]
  }
}

```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

accountIds

List of unique account identifiers.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 550 items.

Length Constraints: Fixed length of 12.

Pattern: \d+

Required: Yes

taxRegistrationEntry

Your TRN information that will be stored to the accounts mentioned in `putEntries`.

Type: [TaxRegistrationEntry](#) object

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "errors": [
    {
      "accountId": "string",
      "code": "string",
      "message": "string"
    }
  ],
  "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

List of errors for the accounts the TRN information could not be added or updated to.

Type: Array of [BatchPutTaxRegistrationError](#) objects

status

The status of your TRN stored in the system after processing. Based on the validation occurring on the TRN, the status can be Verified, Pending or Rejected.

Type: String

Valid Values: Verified | Pending | Deleted | Rejected

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerErrorException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteSupplementalTaxRegistration

Service: Tax Settings

Deletes a supplemental tax registration for a single account.

Request Syntax

```
POST /DeleteSupplementalTaxRegistration HTTP/1.1
Content-type: application/json
```

```
{
  "authorityId": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

authorityId

The unique authority Id for the supplemental TRN information that needs to be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Required: Yes

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerErrorException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

DeleteTaxRegistration

Service: Tax Settings

Deletes tax registration for a single account.

Note

This API operation can't be used to delete your tax registration in Brazil. Use the [Payment preferences](#) page in the Amazon Billing and Cost Management console instead.

Request Syntax

```
POST /DeleteTaxRegistration HTTP/1.1
Content-type: application/json
```

```
{
  "accountId": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

[accountId](#)

Unique account identifier for the TRN information that needs to be deleted. If this isn't passed, the account ID corresponding to the credentials of the API caller will be used for this parameter.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d+

Required: No

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerError

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetTaxExemptionTypes

Service: Tax Settings

Get supported tax exemption types. The IAM action is `tax:GetExemptions`.

Request Syntax

```
POST /GetTaxExemptionTypes HTTP/1.1
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "taxExemptionTypes": [
    {
      "applicableJurisdictions": [
        {
          "country": "string",
          "state": "string"
        }
      ],
      "description": "string",
      "displayName": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

taxExemptionTypes

The supported types of tax exemptions.

Type: Array of [TaxExemptionType](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetTaxInheritance

Service: Tax Settings

The get account tax inheritance status.

Request Syntax

```
POST /GetTaxInheritance HTTP/1.1
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "heritageStatus": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[heritageStatus](#)

The tax inheritance status.

Type: String

Valid Values: OptIn | OptOut

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)

- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetTaxRegistration

Service: Tax Settings

Retrieves tax registration for a single account.

Request Syntax

```
POST /GetTaxRegistration HTTP/1.1
Content-type: application/json
```

```
{
  "accountId": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

accountId

Your unique account identifier.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d+

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
  "taxRegistration": {
    "additionalTaxInformation": {
```

```
"brazilAdditionalInfo": {
  "ccmCode": "string",
  "legalNatureCode": "string"
},
"canadaAdditionalInfo": {
  "canadaQuebecSalesTaxNumber": "string",
  "canadaRetailSalesTaxNumber": "string",
  "isResellerAccount": boolean,
  "provincialSalesTaxId": "string"
},
"egyptAdditionalInfo": {
  "uniqueIdentificationNumber": "string",
  "uniqueIdentificationNumberExpirationDate": "string"
},
"estoniaAdditionalInfo": {
  "registryCommercialCode": "string"
},
"georgiaAdditionalInfo": {
  "personType": "string"
},
"greeceAdditionalInfo": {
  "contractingAuthorityCode": "string"
},
"indiaAdditionalInfo": {
  "pan": "string"
},
"indonesiaAdditionalInfo": {
  "decisionNumber": "string",
  "ppnExceptionDesignationCode": "string",
  "taxRegistrationNumberType": "string"
},
"israelAdditionalInfo": {
  "customerType": "string",
  "dealerType": "string"
},
"italyAdditionalInfo": {
  "cigNumber": "string",
  "cupNumber": "string",
  "sdiAccountId": "string",
  "taxCode": "string"
},
"kenyaAdditionalInfo": {
  "personType": "string"
},
}
```

```
"malaysiaAdditionalInfo": {
  "businessRegistrationNumber": "string",
  "serviceTaxCodes": [ "string" ],
  "taxInformationNumber": "string"
},
"polandAdditionalInfo": {
  "individualRegistrationNumber": "string",
  "isGroupVatEnabled": boolean
},
"romaniaAdditionalInfo": {
  "taxRegistrationNumberType": "string"
},
"saudiArabiaAdditionalInfo": {
  "taxRegistrationNumberType": "string"
},
"southKoreaAdditionalInfo": {
  "businessRepresentativeName": "string",
  "itemOfBusiness": "string",
  "lineOfBusiness": "string"
},
"spainAdditionalInfo": {
  "registrationType": "string"
},
"turkeyAdditionalInfo": {
  "industries": "string",
  "kepEmailId": "string",
  "secondaryTaxId": "string",
  "taxOffice": "string"
},
"ukraineAdditionalInfo": {
  "ukraineTrnType": "string"
},
"uzbekistanAdditionalInfo": {
  "taxRegistrationNumberType": "string",
  "vatRegistrationNumber": "string"
},
"vietnamAdditionalInfo": {
  "electronicTransactionCodeNumber": "string",
  "enterpriseIdentificationNumber": "string",
  "paymentVoucherNumber": "string",
  "paymentVoucherNumberDate": "string"
}
},
"certifiedEmailId": "string",
```

```
"legalAddress": {
  "addressLine1": "string",
  "addressLine2": "string",
  "addressLine3": "string",
  "city": "string",
  "countryCode": "string",
  "districtOrCounty": "string",
  "postalCode": "string",
  "stateOrRegion": "string"
},
"legalName": "string",
"registrationId": "string",
"registrationType": "string",
"sector": "string",
"status": "string",
"taxDocumentMetadatas": [
  {
    "taxDocumentAccessToken": "string",
    "taxDocumentName": "string"
  }
]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

taxRegistration

TRN information of the account mentioned in the request.

Type: [TaxRegistration](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)

- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

GetTaxRegistrationDocument

Service: Tax Settings

Downloads your tax documents to the Amazon S3 bucket that you specify in your request.

Request Syntax

```
POST /GetTaxRegistrationDocument HTTP/1.1
Content-type: application/json
```

```
{
  "destinationS3Location": {
    "bucket": "string",
    "prefix": "string"
  },
  "taxDocumentMetadata": {
    "taxDocumentAccessToken": "string",
    "taxDocumentName": "string"
  }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

destinationS3Location

The Amazon S3 bucket that you specify to download your tax documents to.

Type: [DestinationS3Location](#) object

Required: No

taxDocumentMetadata

The metadata for your tax document.

Type: [TaxDocumentMetadata](#) object

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "destinationFilePath": "string",
  "presignedS3Url": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[destinationFilePath](#)

The file path of the Amazon S3 bucket where you want to download your tax document to.

Type: String

Pattern: `[\s\S]*`

[presignedS3Url](#)

The Amazon S3 presigned URL of the tax registration document.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `https.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerError

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListSupplementalTaxRegistrations

Service: Tax Settings

Retrieves supplemental tax registrations for a single account.

Request Syntax

```
POST /ListSupplementalTaxRegistrations HTTP/1.1
Content-type: application/json

{
  "maxResults": number,
  "nextToken": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

maxResults

The number of taxRegistrations results you want in one response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2000.

Pattern: `[-A-Za-z0-9_+\\=\\/]+`

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "nextToken": "string",
  "taxRegistrations": [
    {
      "address": {
        "addressLine1": "string",
        "addressLine2": "string",
        "addressLine3": "string",
        "city": "string",
        "countryCode": "string",
        "districtOrCounty": "string",
        "postalCode": "string",
        "stateOrRegion": "string"
      },
      "authorityId": "string",
      "legalName": "string",
      "registrationId": "string",
      "registrationType": "string",
      "status": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

nextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2000.

Pattern: [-A-Za-z0-9_+\=\\/]+

taxRegistrations

The list of supplemental tax registrations.

Type: Array of [SupplementalTaxRegistration](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListTaxExemptions

Service: Tax Settings

Retrieves the tax exemption of accounts listed in a consolidated billing family. The IAM action is `tax:GetExemptions`.

Request Syntax

```
POST /ListTaxExemptions HTTP/1.1
Content-type: application/json
```

```
{
  "maxResults": number,
  "nextToken": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

maxResults

The number of results you want in one response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2000.

Pattern: `[-A-Za-z0-9_+\\=\\/>]`

Required: No

Response Syntax

```

HTTP/1.1 200
Content-type: application/json

{
  "nextToken": "string",
  "taxExemptionDetailsMap": {
    "string" : {
      "heritageObtainedDetails": boolean,
      "heritageObtainedParentEntity": "string",
      "heritageObtainedReason": "string",
      "taxExemptions": [
        {
          "authority": {
            "country": "string",
            "state": "string"
          },
          "effectiveDate": number,
          "expirationDate": number,
          "status": "string",
          "systemEffectiveDate": number,
          "taxExemptionType": {
            "applicableJurisdictions": [
              {
                "country": "string",
                "state": "string"
              }
            ],
            "description": "string",
            "displayName": "string"
          }
        }
      ]
    }
  }
}

```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

nextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2000.

Pattern: [-A-Za-z0-9_+\=\\/]+

taxExemptionDetailsMap

The tax exemption details map of accountId and tax exemption details.

Type: String to [TaxExemptionDetails](#) object map

Key Length Constraints: Fixed length of 12.

Key Pattern: \d+

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerError

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

ListTaxRegistrations

Service: Tax Settings

Retrieves the tax registration of accounts listed in a consolidated billing family. This can be used to retrieve up to 100 accounts' tax registrations in one call (default 50).

Request Syntax

```
POST /ListTaxRegistrations HTTP/1.1
Content-type: application/json
```

```
{
  "maxResults": number,
  "nextToken": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

maxResults

Number of accountDetails results you want in one response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2000.

Pattern: [-A-Za-z0-9_+\\=\\/] +

Required: No

Response Syntax

HTTP/1.1 200

Content-type: application/json

```
{
  "accountDetails": [
    {
      "accountId": "string",
      "accountMetaData": {
        "accountName": "string",
        "address": {
          "addressLine1": "string",
          "addressLine2": "string",
          "addressLine3": "string",
          "city": "string",
          "countryCode": "string",
          "districtOrCounty": "string",
          "postalCode": "string",
          "stateOrRegion": "string"
        },
        "addressRoleMap": {
          "string" : {
            "countryCode": "string",
            "stateOrRegion": "string"
          }
        },
        "addressType": "string",
        "seller": "string"
      },
      "taxInheritanceDetails": {
        "inheritanceObtainedReason": "string",
        "parentEntityId": "string"
      },
      "taxRegistration": {
        "additionalTaxInformation": {
          "brazilAdditionalInfo": {
            "ccmCode": "string",
            "legalNatureCode": "string"
          },
          "canadaAdditionalInfo": {
            "canadaQuebecSalesTaxNumber": "string",
            "canadaRetailSalesTaxNumber": "string",

```

```
    "isResellerAccount": boolean,
    "provincialSalesTaxId": "string"
  },
  "egyptAdditionalInfo": {
    "uniqueIdentificationNumber": "string",
    "uniqueIdentificationNumberExpirationDate": "string"
  },
  "estoniaAdditionalInfo": {
    "registryCommercialCode": "string"
  },
  "georgiaAdditionalInfo": {
    "personType": "string"
  },
  "greeceAdditionalInfo": {
    "contractingAuthorityCode": "string"
  },
  "indiaAdditionalInfo": {
    "pan": "string"
  },
  "indonesiaAdditionalInfo": {
    "decisionNumber": "string",
    "ppnExceptionDesignationCode": "string",
    "taxRegistrationNumberType": "string"
  },
  "israelAdditionalInfo": {
    "customerType": "string",
    "dealerType": "string"
  },
  "italyAdditionalInfo": {
    "cigNumber": "string",
    "cupNumber": "string",
    "sdiAccountId": "string",
    "taxCode": "string"
  },
  "kenyaAdditionalInfo": {
    "personType": "string"
  },
  "malaysiaAdditionalInfo": {
    "businessRegistrationNumber": "string",
    "serviceTaxCodes": [ "string ],
    "taxInformationNumber": "string"
  },
  "polandAdditionalInfo": {
    "individualRegistrationNumber": "string",
```

```
    "isGroupVatEnabled": boolean
  },
  "romaniaAdditionalInfo": {
    "taxRegistrationNumberType": "string"
  },
  "saudiArabiaAdditionalInfo": {
    "taxRegistrationNumberType": "string"
  },
  "southKoreaAdditionalInfo": {
    "businessRepresentativeName": "string",
    "itemOfBusiness": "string",
    "lineOfBusiness": "string"
  },
  "spainAdditionalInfo": {
    "registrationType": "string"
  },
  "turkeyAdditionalInfo": {
    "industries": "string",
    "kepEmailId": "string",
    "secondaryTaxId": "string",
    "taxOffice": "string"
  },
  "ukraineAdditionalInfo": {
    "ukraineTrnType": "string"
  },
  "uzbekistanAdditionalInfo": {
    "taxRegistrationNumberType": "string",
    "vatRegistrationNumber": "string"
  },
  "vietnamAdditionalInfo": {
    "electronicTransactionCodeNumber": "string",
    "enterpriseIdentificationNumber": "string",
    "paymentVoucherNumber": "string",
    "paymentVoucherNumberDate": "string"
  }
},
"certifiedEmailId": "string",
"jurisdiction": {
  "countryCode": "string",
  "stateOrRegion": "string"
},
"legalName": "string",
"registrationId": "string",
"registrationType": "string",
```

```
    "sector": "string",
    "status": "string",
    "taxDocumentMetadatas": [
      {
        "taxDocumentAccessToken": "string",
        "taxDocumentName": "string"
      }
    ]
  }
},
"nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

accountDetails

The list of account details. This contains account Ids and TRN Information for each of the linked accounts.

Type: Array of [AccountDetails](#) objects

nextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2000.

Pattern: [-A-Za-z0-9_+\\=\\/] +

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

InternalServerErrorException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)

- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

PutSupplementalTaxRegistration

Service: Tax Settings

Stores supplemental tax registration for a single account.

Request Syntax

```
POST /PutSupplementalTaxRegistration HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "taxRegistrationEntry": {
    "address": {
      "addressLine1": "string",
      "addressLine2": "string",
      "addressLine3": "string",
      "city": "string",
      "countryCode": "string",
      "districtOrCounty": "string",
      "postalCode": "string",
      "stateOrRegion": "string"
    },
    "legalName": "string",
    "registrationId": "string",
    "registrationType": "string"
  }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

taxRegistrationEntry

The supplemental TRN information that will be stored for the caller account ID.

Type: [SupplementalTaxRegistrationEntry](#) object

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "authorityId": "string",
  "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[authorityId](#)

Unique authority ID for the supplemental TRN information that was stored.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

[status](#)

The status of the supplemental TRN stored in the system after processing. Based on the validation occurring on the TRN, the status can be Verified, Pending, Rejected, or Deleted.

Type: String

Valid Values: Verified | Pending | Deleted | Rejected

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerErrorException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)

- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

PutTaxExemption

Service: Tax Settings

Adds the tax exemption for a single account or all accounts listed in a consolidated billing family. The IAM action is `tax:UpdateExemptions`.

Request Syntax

```
POST /PutTaxExemption HTTP/1.1
Content-type: application/json
```

```
{
  "accountIds": [ "string" ],
  "authority": {
    "country": "string",
    "state": "string"
  },
  "exemptionCertificate": {
    "documentFile": blob,
    "documentName": "string"
  },
  "exemptionType": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

accountIds

The list of unique account identifiers.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 550 items.

Length Constraints: Fixed length of 12.

Pattern: `\d+`

Required: Yes

authority

The address domain associate with the tax information.

Type: [Authority](#) object

Required: Yes

exemptionCertificate

The exemption certificate.

Type: [ExemptionCertificate](#) object

Required: Yes

exemptionType

The exemption type. Use the supported tax exemption type description.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "caseId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

caseId

The customer support case ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

AccessDeniedException

The access is denied for the Amazon Web Services Support API.

HTTP Status Code: 401

AttachmentUploadException

Failed to upload the tax exemption document to Amazon Web Services Support case.

HTTP Status Code: 400

CaseCreationLimitExceededException

You've exceeded the Amazon Web Services Support case creation limit for your account.

HTTP Status Code: 413

InternalServerErrorException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

PutTaxInheritance

Service: Tax Settings

The updated tax inheritance status.

Request Syntax

```
POST /PutTaxInheritance HTTP/1.1
Content-type: application/json

{
  "heritageStatus": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

heritageStatus

The tax inheritance status.

Type: String

Valid Values: OptIn | OptOut

Required: No

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerErrorException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

PutTaxRegistration

Service: Tax Settings

Adds or updates tax registration for a single account. You can't set a TRN if there's a pending TRN. You'll need to delete the pending TRN first.

To call this API operation for specific countries, see the following country-specific requirements.

Bangladesh

- You must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.

Brazil

- You must complete the tax registration process in the [Payment preferences](#) page in the Amazon Billing and Cost Management console. After your TRN and billing address are verified, you can call this API operation.
- For Amazon Web Services accounts created through Amazon Organizations, you can call this API operation when you don't have a billing address.

Georgia

- The valid `personType` values are `Physical Person` and `Business`.

Indonesia

- `PutTaxRegistration`: The use of this operation to submit tax information is subject to the [Amazon Web Services service terms](#). By submitting, you're providing consent for Amazon to validate NIK, NPWP, and NITKU data, provided by you with the Directorate General of Taxes of Indonesia in accordance with the Minister of Finance Regulation (PMK) Number 112/PMK.03/2022.
- `BatchPutTaxRegistration`: The use of this operation to submit tax information is subject to the [Amazon Web Services service terms](#). By submitting, you're providing consent for Amazon to validate NIK, NPWP, and NITKU data, provided by you with the Directorate General of Taxes of Indonesia in accordance with the Minister of Finance Regulation (PMK) Number 112/PMK.03/2022, through our third-party partner PT Achilles Advanced Management (OnlinePajak).

- You must specify the `taxRegistrationNumberType` in the `indonesiaAdditionalInfo` field of the `additionalTaxInformation` object.
- If you specify `decisionNumber`, you must specify the `ppnExceptionDesignationCode` in the `indonesiaAdditionalInfo` field of the `additionalTaxInformation` object. If the `taxRegistrationNumberType` is set to `NPWP` or `NITKU`, valid values for `ppnExceptionDesignationCode` are either `01`, `02`, `03`, `07`, or `08`.

For other `taxRegistrationNumberType` values, `ppnExceptionDesignationCode` must be either `01`, `07`, or `08`.

- If `ppnExceptionDesignationCode` is `07` or `08`, you must specify the `decisionNumber` in the `indonesiaAdditionalInfo` field of the `additionalTaxInformation` object.

Kenya

- You must specify the `personType` in the `kenyaAdditionalInfo` field of the `additionalTaxInformation` object.
- If the `personType` is `Physical Person`, you must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.

Malaysia

- The sector valid values are `Business` and `Individual`.
- `RegistrationType` valid values are `NRIC` for individual, and `TIN` and sales and service tax (SST) for Business.
- For individual, you can specify the `taxInformationNumber` in `MalaysiaAdditionalInfo` with `NRIC` type, and a valid MyKad or NRIC number.
- For business, you must specify a `businessRegistrationNumber` in `MalaysiaAdditionalInfo` with a `TIN` type and tax identification number.
- For business resellers, you must specify a `businessRegistrationNumber` and `taxInformationNumber` in `MalaysiaAdditionalInfo` with a sales and service tax (SST) type and a valid SST number.
- For business resellers with service codes, you must specify `businessRegistrationNumber`, `taxInformationNumber`, and distinct `serviceTaxCodes` in `MalaysiaAdditionalInfo` with a `SST` type and valid sales and service tax (SST) number. By using this API operation, Amazon

registers your self-declaration that you're an authorized business reseller registered with the Royal Malaysia Customs Department (RMCD), and have a valid SST number.

- Amazon reserves the right to seek additional information and/or take other actions to support your self-declaration as appropriate.
- Amazon is currently registered under the following service tax codes. You must include at least one of the service tax codes in the service tax code strings to declare yourself as an authorized registered business reseller.

Taxable service and service tax codes:

Consultancy - 9907061674

Training or coaching service - 9907071685

IT service - 9907101676

Digital services and electronic medium - 9907121690

Mexico

- You must provide a Constancia de Situación fiscal (CSF) document in the **verificationDetails** field.
- You do not need to provide address and legal name. These will be populated based on your tax registration number.

Nepal

- The sector valid values are Business and Individual.

Saudi Arabia

- For address, you must specify addressLine3.

South Korea

- You must specify the certifiedEmailId and legalName in the TaxRegistrationEntry object. Use Korean characters for legalName.

- You must specify the `businessRepresentativeName`, `itemOfBusiness`, and `lineOfBusiness` in the `southKoreaAdditionalInfo` field of the `additionalTaxInformation` object. Use Korean characters for these fields.
- You must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.
- For the address object, use Korean characters for `addressLine1`, `addressLine2`, `city`, `postalCode`, and `stateOrRegion`.

Spain

- You must specify the `registrationType` in the `spainAdditionalInfo` field of the `additionalTaxInformation` object.
- If the `registrationType` is `Local`, you must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.

Turkey

- You must specify the `sector` in the `taxRegistrationEntry` object.
- If your `sector` is `Business`, `Individual`, or `Government`:
 - Specify the `taxOffice`. If your `sector` is `Individual`, don't enter this value.
 - (Optional) Specify the `kepEmailId`. If your `sector` is `Individual`, don't enter this value.
 - **Note:** In the **Tax Settings** page of the Amazon Billing console, `Government` appears as **Public institutions**
- If your `sector` is `Business` and you're subject to KDV tax, you must specify your industry in the `industries` field.
- For address, you must specify `districtOrCounty`.

Ukraine

- The `sector` valid values are `Business` and `Individual`.

Request Syntax

```
POST /PutTaxRegistration HTTP/1.1
```

Content-type: application/json

```
{
  "accountId": "string",
  "taxRegistrationEntry": {
    "additionalTaxInformation": {
      "canadaAdditionalInfo": {
        "canadaQuebecSalesTaxNumber": "string",
        "canadaRetailSalesTaxNumber": "string",
        "isResellerAccount": boolean,
        "provincialSalesTaxId": "string"
      },
      "egyptAdditionalInfo": {
        "uniqueIdentificationNumber": "string",
        "uniqueIdentificationNumberExpirationDate": "string"
      },
      "estoniaAdditionalInfo": {
        "registryCommercialCode": "string"
      },
      "georgiaAdditionalInfo": {
        "personType": "string"
      },
      "greeceAdditionalInfo": {
        "contractingAuthorityCode": "string"
      },
      "indonesiaAdditionalInfo": {
        "decisionNumber": "string",
        "ppnExceptionDesignationCode": "string",
        "taxRegistrationNumberType": "string"
      },
      "israelAdditionalInfo": {
        "customerType": "string",
        "dealerType": "string"
      },
      "italyAdditionalInfo": {
        "cigNumber": "string",
        "cupNumber": "string",
        "sdiAccountId": "string",
        "taxCode": "string"
      },
      "kenyaAdditionalInfo": {
        "personType": "string"
      },
      "malaysiaAdditionalInfo": {
```

```
    "businessRegistrationNumber": "string",
    "serviceTaxCodes": [ "string" ],
    "taxInformationNumber": "string"
  },
  "polandAdditionalInfo": {
    "individualRegistrationNumber": "string",
    "isGroupVatEnabled": boolean
  },
  "romaniaAdditionalInfo": {
    "taxRegistrationNumberType": "string"
  },
  "saudiArabiaAdditionalInfo": {
    "taxRegistrationNumberType": "string"
  },
  "southKoreaAdditionalInfo": {
    "businessRepresentativeName": "string",
    "itemOfBusiness": "string",
    "lineOfBusiness": "string"
  },
  "spainAdditionalInfo": {
    "registrationType": "string"
  },
  "turkeyAdditionalInfo": {
    "industries": "string",
    "kepEmailId": "string",
    "secondaryTaxId": "string",
    "taxOffice": "string"
  },
  "ukraineAdditionalInfo": {
    "ukraineTrnType": "string"
  },
  "uzbekistanAdditionalInfo": {
    "taxRegistrationNumberType": "string",
    "vatRegistrationNumber": "string"
  },
  "vietnamAdditionalInfo": {
    "electronicTransactionCodeNumber": "string",
    "enterpriseIdentificationNumber": "string",
    "paymentVoucherNumber": "string",
    "paymentVoucherNumberDate": "string"
  }
},
"certifiedEmailId": "string",
"legalAddress": {
```

```
    "addressLine1": "string",
    "addressLine2": "string",
    "addressLine3": "string",
    "city": "string",
    "countryCode": "string",
    "districtOrCounty": "string",
    "postalCode": "string",
    "stateOrRegion": "string"
  },
  "legalName": "string",
  "registrationId": "string",
  "registrationType": "string",
  "sector": "string",
  "verificationDetails": {
    "dateOfBirth": "string",
    "taxRegistrationDocuments": [
      {
        "file": {
          "fileContent": blob,
          "fileName": "string"
        },
        "s3Location": {
          "bucket": "string",
          "key": "string"
        }
      }
    ]
  }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

accountId

Your unique account identifier.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d+

Required: No

[taxRegistrationEntry](#)

Your TRN information that will be stored to the account mentioned in `accountId`.

Type: [TaxRegistrationEntry](#) object

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[status](#)

The status of your TRN stored in the system after processing. Based on the validation occurring on the TRN, the status can be Verified, Pending or Rejected.

Type: String

Valid Values: Verified | Pending | Deleted | Rejected

Errors

For information about the errors that are common to all actions, see [Common Errors](#).

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerError

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon Command Line Interface V2](#)
- [Amazon SDK for .NET V4](#)
- [Amazon SDK for C++](#)
- [Amazon SDK for Go v2](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

Data Types

The following data types are supported by Amazon Cost Explorer:

- [AnalysisDetails](#)
- [AnalysisSummary](#)
- [Anomaly](#)
- [AnomalyDateInterval](#)
- [AnomalyMonitor](#)
- [AnomalyScore](#)
- [AnomalySubscription](#)
- [CommitmentPurchaseAnalysisConfiguration](#)
- [ComparisonMetricValue](#)
- [CostAllocationTag](#)
- [CostAllocationTagBackfillRequest](#)
- [CostAllocationTagStatusEntry](#)
- [CostAndUsageComparison](#)
- [CostCategory](#)
- [CostCategoryInheritedValueDimension](#)
- [CostCategoryProcessingStatus](#)
- [CostCategoryReference](#)
- [CostCategoryResourceAssociation](#)
- [CostCategoryRule](#)
- [CostCategorySplitChargeRule](#)
- [CostCategorySplitChargeRuleParameter](#)
- [CostCategoryValues](#)
- [CostComparisonDriver](#)
- [CostDriver](#)
- [Coverage](#)
- [CoverageByTime](#)
- [CoverageCost](#)

- [CoverageHours](#)
- [CoverageNormalizedUnits](#)
- [CurrentInstance](#)
- [DateInterval](#)
- [DimensionValues](#)
- [DimensionValuesWithAttributes](#)
- [DiskResourceUtilization](#)
- [DynamoDBCapacityDetails](#)
- [EBSResourceUtilization](#)
- [EC2InstanceDetails](#)
- [EC2ResourceDetails](#)
- [EC2ResourceUtilization](#)
- [EC2Specification](#)
- [ElastiCacheInstanceDetails](#)
- [ESInstanceDetails](#)
- [Expression](#)
- [ForecastResult](#)
- [GenerationSummary](#)
- [Group](#)
- [GroupDefinition](#)
- [Impact](#)
- [InstanceDetails](#)
- [MemoryDBInstanceDetails](#)
- [MetricValue](#)
- [ModifyRecommendationDetail](#)
- [NetworkResourceUtilization](#)
- [RDSInstanceDetails](#)
- [RecommendationDetailData](#)
- [RecommendationDetailHourlyMetrics](#)
- [RedshiftInstanceDetails](#)

- [ReservationAggregates](#)
- [ReservationCoverageGroup](#)
- [ReservationPurchaseRecommendation](#)
- [ReservationPurchaseRecommendationDetail](#)
- [ReservationPurchaseRecommendationMetadata](#)
- [ReservationPurchaseRecommendationSummary](#)
- [ReservationUtilizationGroup](#)
- [ReservedCapacityDetails](#)
- [ResourceDetails](#)
- [ResourceTag](#)
- [ResourceUtilization](#)
- [ResultByTime](#)
- [RightsizingRecommendation](#)
- [RightsizingRecommendationConfiguration](#)
- [RightsizingRecommendationMetadata](#)
- [RightsizingRecommendationSummary](#)
- [RootCause](#)
- [RootCauseImpact](#)
- [SavingsPlans](#)
- [SavingsPlansAmortizedCommitment](#)
- [SavingsPlansCoverage](#)
- [SavingsPlansCoverageData](#)
- [SavingsPlansDetails](#)
- [SavingsPlansPurchaseAnalysisConfiguration](#)
- [SavingsPlansPurchaseAnalysisDetails](#)
- [SavingsPlansPurchaseRecommendation](#)
- [SavingsPlansPurchaseRecommendationDetail](#)
- [SavingsPlansPurchaseRecommendationMetadata](#)
- [SavingsPlansPurchaseRecommendationSummary](#)
- [SavingsPlansSavings](#)

- [SavingsPlansUtilization](#)
- [SavingsPlansUtilizationAggregates](#)
- [SavingsPlansUtilizationByTime](#)
- [SavingsPlansUtilizationDetail](#)
- [ServiceSpecification](#)
- [SortDefinition](#)
- [Subscriber](#)
- [TagValues](#)
- [TargetInstance](#)
- [TerminateRecommendationDetail](#)
- [TotalImpactFilter](#)
- [UpdateCostAllocationTagsStatusError](#)
- [UtilizationByTime](#)

The following data types are supported by Amazon Billing and Cost Management Dashboards:

- [CostAndUsageQuery](#)
- [CostCategoryValues](#)
- [DashboardReference](#)
- [DateTimeRange](#)
- [DateTimeValue](#)
- [DimensionValues](#)
- [DisplayConfig](#)
- [Expression](#)
- [GraphDisplayConfig](#)
- [GroupDefinition](#)
- [QueryParameters](#)
- [ReservationCoverageQuery](#)
- [ReservationUtilizationQuery](#)
- [ResourceTag](#)
- [SavingsPlansCoverageQuery](#)

- [SavingsPlansUtilizationQuery](#)
- [TableDisplayConfigStruct](#)
- [TagValues](#)
- [Widget](#)
- [WidgetConfig](#)

The following data types are supported by Amazon Data Exports:

- [Column](#)
- [DataQuery](#)
- [DestinationConfigurations](#)
- [ExecutionReference](#)
- [ExecutionStatus](#)
- [Export](#)
- [ExportReference](#)
- [ExportStatus](#)
- [RefreshCadence](#)
- [ResourceTag](#)
- [S3Destination](#)
- [S3OutputConfigurations](#)
- [Table](#)
- [TablePropertyDescription](#)
- [ValidationExceptionField](#)

The following data types are supported by Amazon Pricing Calculator:

- [AddReservedInstanceAction](#)
- [AddSavingsPlanAction](#)
- [BatchCreateBillScenarioCommitmentModificationEntry](#)
- [BatchCreateBillScenarioCommitmentModificationError](#)
- [BatchCreateBillScenarioCommitmentModificationItem](#)
- [BatchCreateBillScenarioUsageModificationEntry](#)

- [BatchCreateBillScenarioUsageModificationError](#)
- [BatchCreateBillScenarioUsageModificationItem](#)
- [BatchCreateWorkloadEstimateUsageEntry](#)
- [BatchCreateWorkloadEstimateUsageError](#)
- [BatchCreateWorkloadEstimateUsageItem](#)
- [BatchDeleteBillScenarioCommitmentModificationError](#)
- [BatchDeleteBillScenarioUsageModificationError](#)
- [BatchDeleteWorkloadEstimateUsageError](#)
- [BatchUpdateBillScenarioCommitmentModificationEntry](#)
- [BatchUpdateBillScenarioCommitmentModificationError](#)
- [BatchUpdateBillScenarioUsageModificationEntry](#)
- [BatchUpdateBillScenarioUsageModificationError](#)
- [BatchUpdateWorkloadEstimateUsageEntry](#)
- [BatchUpdateWorkloadEstimateUsageError](#)
- [BillEstimateCommitmentSummary](#)
- [BillEstimateCostSummary](#)
- [BillEstimateInputCommitmentModificationSummary](#)
- [BillEstimateInputUsageModificationSummary](#)
- [BillEstimateLineItemSummary](#)
- [BillEstimateSummary](#)
- [BillInterval](#)
- [BillScenarioCommitmentModificationAction](#)
- [BillScenarioCommitmentModificationItem](#)
- [BillScenarioSummary](#)
- [BillScenarioUsageModificationItem](#)
- [CostAmount](#)
- [CostDifference](#)
- [Expression](#)
- [ExpressionFilter](#)
- [FilterTimestamp](#)

- [HistoricalUsageEntity](#)
- [ListBillEstimateLineItemsFilter](#)
- [ListBillEstimatesFilter](#)
- [ListBillScenariosFilter](#)
- [ListUsageFilter](#)
- [ListWorkloadEstimatesFilter](#)
- [NegateReservedInstanceAction](#)
- [NegateSavingsPlanAction](#)
- [UsageAmount](#)
- [UsageQuantity](#)
- [UsageQuantityResult](#)
- [ValidationExceptionField](#)
- [WorkloadEstimateSummary](#)
- [WorkloadEstimateUsageItem](#)
- [WorkloadEstimateUsageQuantity](#)

The following data types are supported by Amazon Billing and Cost Management Recommended Actions:

- [ActionFilter](#)
- [RecommendedAction](#)
- [RequestFilter](#)
- [ValidationExceptionField](#)

The following data types are supported by Amazon Billing:

- [ActiveTimeRange](#)
- [BillingViewElement](#)
- [BillingViewHealthStatus](#)
- [BillingViewListElement](#)
- [CostCategoryValues](#)
- [DimensionValues](#)

- [Expression](#)
- [ResourceTag](#)
- [StringSearch](#)
- [TagValues](#)
- [TimeRange](#)
- [ValidationExceptionField](#)

The following data types are supported by Amazon Budgets:

- [Action](#)
- [ActionHistory](#)
- [ActionHistoryDetails](#)
- [ActionThreshold](#)
- [AutoAdjustData](#)
- [Budget](#)
- [BudgetedAndActualAmounts](#)
- [BudgetNotificationsForAccount](#)
- [BudgetPerformanceHistory](#)
- [CalculatedSpend](#)
- [CostCategoryValues](#)
- [CostTypes](#)
- [Definition](#)
- [Expression](#)
- [ExpressionDimensionValues](#)
- [HealthStatus](#)
- [HistoricalOptions](#)
- [IamActionDefinition](#)
- [Notification](#)
- [NotificationWithSubscribers](#)
- [ResourceTag](#)
- [ScpActionDefinition](#)

- [Spend](#)
- [SsmActionDefinition](#)
- [Subscriber](#)
- [TagValues](#)
- [TimePeriod](#)

The following data types are supported by Amazon Cost Optimization Hub:

- [AccountEnrollmentStatus](#)
- [AuroraDbClusterStorage](#)
- [AuroraDbClusterStorageConfiguration](#)
- [BlockStoragePerformanceConfiguration](#)
- [ComputeConfiguration](#)
- [ComputeSavingsPlans](#)
- [ComputeSavingsPlansConfiguration](#)
- [DbInstanceConfiguration](#)
- [DynamoDbReservedCapacity](#)
- [DynamoDbReservedCapacityConfiguration](#)
- [EbsVolume](#)
- [EbsVolumeConfiguration](#)
- [Ec2AutoScalingGroup](#)
- [Ec2AutoScalingGroupConfiguration](#)
- [Ec2Instance](#)
- [Ec2InstanceConfiguration](#)
- [Ec2InstanceSavingsPlans](#)
- [Ec2InstanceSavingsPlansConfiguration](#)
- [Ec2ReservedInstances](#)
- [Ec2ReservedInstancesConfiguration](#)
- [EcsService](#)
- [EcsServiceConfiguration](#)
- [EfficiencyMetricsByGroup](#)

- [ElastiCacheReservedInstances](#)
- [ElastiCacheReservedInstancesConfiguration](#)
- [EstimatedDiscounts](#)
- [Filter](#)
- [InstanceConfiguration](#)
- [LambdaFunction](#)
- [LambdaFunctionConfiguration](#)
- [MemoryDbReservedInstances](#)
- [MemoryDbReservedInstancesConfiguration](#)
- [MetricsByTime](#)
- [MixedInstanceConfiguration](#)
- [OpenSearchReservedInstances](#)
- [OpenSearchReservedInstancesConfiguration](#)
- [OrderBy](#)
- [PreferredCommitment](#)
- [RdsDbInstance](#)
- [RdsDbInstanceConfiguration](#)
- [RdsDbInstanceStorage](#)
- [RdsDbInstanceStorageConfiguration](#)
- [RdsReservedInstances](#)
- [RdsReservedInstancesConfiguration](#)
- [Recommendation](#)
- [RecommendationSummary](#)
- [RedshiftReservedInstances](#)
- [RedshiftReservedInstancesConfiguration](#)
- [ReservedInstancesCostCalculation](#)
- [ReservedInstancesPricing](#)
- [ResourceCostCalculation](#)
- [ResourceDetails](#)
- [ResourcePricing](#)

- [SageMakerSavingsPlans](#)
- [SageMakerSavingsPlansConfiguration](#)
- [SavingsPlansCostCalculation](#)
- [SavingsPlansPricing](#)
- [StorageConfiguration](#)
- [SummaryMetricsResult](#)
- [Tag](#)
- [TimePeriod](#)
- [Usage](#)
- [ValidationExceptionDetail](#)

The following data types are supported by Amazon Cost and Usage Report:

- [ReportDefinition](#)
- [ReportStatus](#)
- [Tag](#)

The following data types are supported by Amazon Web Services China Region Free Tier:

- [ActivityReward](#)
- [ActivitySummary](#)
- [DimensionValues](#)
- [Expression](#)
- [FreeTierUsage](#)
- [MonetaryAmount](#)

The following data types are supported by Amazon Web Services Invoicing:

- [AmountBreakdown](#)
- [BillingPeriod](#)
- [Contact](#)
- [CurrencyExchangeDetails](#)

- [DateInterval](#)
- [DiscountsBreakdown](#)
- [DiscountsBreakdownAmount](#)
- [InvoiceDeliveryPreference](#)
- [Entity](#)
- [FeesBreakdown](#)
- [FeesBreakdownAmount](#)
- [Filters](#)
- [InvoiceCurrencyAmount](#)
- [InvoicePDF](#)
- [InvoiceProfile](#)
- [InvoiceSummariesFilter](#)
- [InvoiceSummariesSelector](#)
- [InvoiceSummary](#)
- [InvoiceUnit](#)
- [InvoiceUnitRule](#)
- [ProcurementPortalPreference](#)
- [ProcurementPortalPreferenceSelector](#)
- [ProcurementPortalPreferenceSummary](#)
- [PurchaseOrderDataSource](#)
- [ReceiverAddress](#)
- [ResourceTag](#)
- [SupplementalDocument](#)
- [TaxesBreakdown](#)
- [TaxesBreakdownAmount](#)
- [TestEnvPreference](#)
- [TestEnvPreferenceInput](#)
- [ValidationExceptionField](#)

The following data types are supported by Amazon Price List:

- [AttributeValue](#)
- [Filter](#)
- [PriceList](#)
- [Service](#)

The following data types are supported by Tax Settings:

- [AccountDetails](#)
- [AccountMetaData](#)
- [AdditionalInfoRequest](#)
- [AdditionalInfoResponse](#)
- [Address](#)
- [Authority](#)
- [BatchDeleteTaxRegistrationError](#)
- [BatchPutTaxRegistrationError](#)
- [BrazilAdditionalInfo](#)
- [CanadaAdditionalInfo](#)
- [DestinationS3Location](#)
- [EgyptAdditionalInfo](#)
- [EstoniaAdditionalInfo](#)
- [ExemptionCertificate](#)
- [GeorgiaAdditionalInfo](#)
- [GreeceAdditionalInfo](#)
- [IndiaAdditionalInfo](#)
- [IndonesiaAdditionalInfo](#)
- [IsraelAdditionalInfo](#)
- [ItalyAdditionalInfo](#)
- [Jurisdiction](#)
- [KenyaAdditionalInfo](#)
- [MalaysiaAdditionalInfo](#)
- [PolandAdditionalInfo](#)

- [RomaniaAdditionalInfo](#)
- [SaudiArabiaAdditionalInfo](#)
- [SourceS3Location](#)
- [SouthKoreaAdditionalInfo](#)
- [SpainAdditionalInfo](#)
- [SupplementalTaxRegistration](#)
- [SupplementalTaxRegistrationEntry](#)
- [TaxDocumentMetadata](#)
- [TaxExemption](#)
- [TaxExemptionDetails](#)
- [TaxExemptionType](#)
- [TaxInheritanceDetails](#)
- [TaxRegistration](#)
- [TaxRegistrationDocFile](#)
- [TaxRegistrationDocument](#)
- [TaxRegistrationEntry](#)
- [TaxRegistrationWithJurisdiction](#)
- [TurkeyAdditionalInfo](#)
- [UkraineAdditionalInfo](#)
- [UzbekistanAdditionalInfo](#)
- [ValidationExceptionField](#)
- [VerificationDetails](#)
- [VietnamAdditionalInfo](#)

Amazon Cost Explorer

The following data types are supported by Amazon Cost Explorer:

- [AnalysisDetails](#)
- [AnalysisSummary](#)
- [Anomaly](#)

- [AnomalyDateInterval](#)
- [AnomalyMonitor](#)
- [AnomalyScore](#)
- [AnomalySubscription](#)
- [CommitmentPurchaseAnalysisConfiguration](#)
- [ComparisonMetricValue](#)
- [CostAllocationTag](#)
- [CostAllocationTagBackfillRequest](#)
- [CostAllocationTagStatusEntry](#)
- [CostAndUsageComparison](#)
- [CostCategory](#)
- [CostCategoryInheritedValueDimension](#)
- [CostCategoryProcessingStatus](#)
- [CostCategoryReference](#)
- [CostCategoryResourceAssociation](#)
- [CostCategoryRule](#)
- [CostCategorySplitChargeRule](#)
- [CostCategorySplitChargeRuleParameter](#)
- [CostCategoryValues](#)
- [CostComparisonDriver](#)
- [CostDriver](#)
- [Coverage](#)
- [CoverageByTime](#)
- [CoverageCost](#)
- [CoverageHours](#)
- [CoverageNormalizedUnits](#)
- [CurrentInstance](#)
- [DateInterval](#)
- [DimensionValues](#)
- [DimensionValuesWithAttributes](#)

- [DiskResourceUtilization](#)
- [DynamoDBCapacityDetails](#)
- [EBSResourceUtilization](#)
- [EC2InstanceDetails](#)
- [EC2ResourceDetails](#)
- [EC2ResourceUtilization](#)
- [EC2Specification](#)
- [ElastiCacheInstanceDetails](#)
- [ESInstanceDetails](#)
- [Expression](#)
- [ForecastResult](#)
- [GenerationSummary](#)
- [Group](#)
- [GroupDefinition](#)
- [Impact](#)
- [InstanceDetails](#)
- [MemoryDBInstanceDetails](#)
- [MetricValue](#)
- [ModifyRecommendationDetail](#)
- [NetworkResourceUtilization](#)
- [RDSInstanceDetails](#)
- [RecommendationDetailData](#)
- [RecommendationDetailHourlyMetrics](#)
- [RedshiftInstanceDetails](#)
- [ReservationAggregates](#)
- [ReservationCoverageGroup](#)
- [ReservationPurchaseRecommendation](#)
- [ReservationPurchaseRecommendationDetail](#)
- [ReservationPurchaseRecommendationMetadata](#)
- [ReservationPurchaseRecommendationSummary](#)

- [ReservationUtilizationGroup](#)
- [ReservedCapacityDetails](#)
- [ResourceDetails](#)
- [ResourceTag](#)
- [ResourceUtilization](#)
- [ResultByTime](#)
- [RightsizingRecommendation](#)
- [RightsizingRecommendationConfiguration](#)
- [RightsizingRecommendationMetadata](#)
- [RightsizingRecommendationSummary](#)
- [RootCause](#)
- [RootCauseImpact](#)
- [SavingsPlans](#)
- [SavingsPlansAmortizedCommitment](#)
- [SavingsPlansCoverage](#)
- [SavingsPlansCoverageData](#)
- [SavingsPlansDetails](#)
- [SavingsPlansPurchaseAnalysisConfiguration](#)
- [SavingsPlansPurchaseAnalysisDetails](#)
- [SavingsPlansPurchaseRecommendation](#)
- [SavingsPlansPurchaseRecommendationDetail](#)
- [SavingsPlansPurchaseRecommendationMetadata](#)
- [SavingsPlansPurchaseRecommendationSummary](#)
- [SavingsPlansSavings](#)
- [SavingsPlansUtilization](#)
- [SavingsPlansUtilizationAggregates](#)
- [SavingsPlansUtilizationByTime](#)
- [SavingsPlansUtilizationDetail](#)
- [ServiceSpecification](#)
- [SortDefinition](#)

- [Subscriber](#)
- [TagValues](#)
- [TargetInstance](#)
- [TerminateRecommendationDetail](#)
- [TotalImpactFilter](#)
- [UpdateCostAllocationTagsStatusError](#)
- [UtilizationByTime](#)

AnalysisDetails

Service: Amazon Cost Explorer

Details about the analysis.

Contents

SavingsPlansPurchaseAnalysisDetails

Details about the Savings Plans purchase analysis.

Type: [SavingsPlansPurchaseAnalysisDetails](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

AnalysisSummary

Service: Amazon Cost Explorer

A summary of the analysis.

Contents

AnalysisCompletionTime

The completion time of the analysis.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([\+-]\d\d:\d\d)|Z)$`

Required: No

AnalysisId

The analysis ID that's associated with the commitment purchase analysis.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[\\S\\s]{8}-[\\S\\s]{4}-[\\S\\s]{4}-[\\S\\s]{4}-[\\S\\s]{12}$`

Required: No

AnalysisStartedTime

The start time of the analysis.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([\+-]\d\d:\d\d)|Z)$`

Required: No

AnalysisStatus

The status of the analysis.

Type: String

Valid Values: SUCCEEDED | PROCESSING | FAILED

Required: No

CommitmentPurchaseAnalysisConfiguration

The configuration for the commitment purchase analysis.

Type: [CommitmentPurchaseAnalysisConfiguration](#) object

Required: No

ErrorCode

The error code used for the analysis.

Type: String

Valid Values: NO_USAGE_FOUND | INTERNAL_FAILURE |
INVALID_SAVINGS_PLANS_TO_ADD | INVALID_SAVINGS_PLANS_TO_EXCLUDE |
INVALID_ACCOUNT_ID

Required: No

EstimatedCompletionTime

The estimated time for when the analysis will complete.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(\d{2}|\d{3})Z$`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Anomaly

Service: Amazon Cost Explorer

An unusual cost pattern. This consists of the detailed metadata and the current status of the anomaly object.

Contents

AnomalyId

The unique identifier for the anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

AnomalyScore

The latest and maximum score for the anomaly.

Type: [AnomalyScore](#) object

Required: Yes

Impact

The dollar impact for the anomaly.

Type: [Impact](#) object

Required: Yes

MonitorArn

The Amazon Resource Name (ARN) for the cost monitor that generated this anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

AnomalyEndDate

The last day the anomaly is detected.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: `(\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?`

Required: No

AnomalyStartDate

The first day the anomaly is detected.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: `(\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?`

Required: No

DimensionValue

The dimension for the anomaly (for example, an Amazon Web Services service in a service monitor).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Feedback

The feedback value.

Type: String

Valid Values: YES | NO | PLANNED_ACTIVITY

Required: No

RootCauses

The list of identified root causes for the anomaly.

Type: Array of [RootCause](#) objects

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

AnomalyDateInterval

Service: Amazon Cost Explorer

The time period for an anomaly.

Contents

StartDate

The first date an anomaly was observed.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: `(\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?`

Required: Yes

EndDate

The last date an anomaly was observed.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: `(\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

AnomalyMonitor

Service: Amazon Cost Explorer

This object continuously inspects your account's cost data for anomalies. It's based on `MonitorType` and `MonitorSpecification`. The content consists of detailed metadata and the current status of the monitor object.

Contents

MonitorName

The name of the monitor.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

MonitorType

The type of the monitor.

Set this to `DIMENSIONAL` for an Amazon managed monitor. Amazon managed monitors automatically track up to the top 5,000 values by cost within a dimension of your choosing. Each dimension value is evaluated independently. If you start incurring cost in a new value of your chosen dimension, it will automatically be analyzed by an Amazon managed monitor.

Set this to `CUSTOM` for a customer managed monitor. Customer managed monitors let you select specific dimension values that get monitored in aggregate.

For more information about monitor types, see [Monitor types](#) in the *Billing and Cost Management User Guide*.

Type: String

Valid Values: `DIMENSIONAL` | `CUSTOM`

Required: Yes

CreationDate

The date when the monitor was created.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: (\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?

Required: No

DimensionalValueCount

The value for evaluated dimensions.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

LastEvaluatedDate

The date when the monitor last evaluated for anomalies.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: (\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?

Required: No

LastUpdatedDate

The date when the monitor was last updated.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: (\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?

Required: No

MonitorArn

The Amazon Resource Name (ARN) value.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MonitorDimension

For customer managed monitors, do not specify this field.

For Amazon managed monitors, this field controls which cost dimension is automatically analyzed by the monitor. For `TAG` and `COST_CATEGORY` dimensions, you must also specify `MonitorSpecification` to configure the specific tag or cost category key to analyze.

Type: String

Valid Values: `SERVICE` | `LINKED_ACCOUNT` | `TAG` | `COST_CATEGORY`

Required: No

MonitorSpecification

An [Expression](#) object used to control what costs the monitor analyzes for anomalies.

For Amazon managed monitors:

- If `MonitorDimension` is `SERVICE` or `LINKED_ACCOUNT`, do not specify this field
- If `MonitorDimension` is `TAG`, set this field to `{ "Tags": { "Key": "your tag key" } }`
- If `MonitorDimension` is `COST_CATEGORY`, set this field to `{ "CostCategories": { "Key": "your cost category key" } }`

For customer managed monitors:

- To track linked accounts, set this field to `{ "Dimensions": { "Key": "LINKED_ACCOUNT", "Values": ["your list of up to 10 account IDs"] } }`
- To track cost allocation tags, set this field to `{ "Tags": { "Key": "your tag key", "Values": ["your list of up to 10 tag values"] } }`

- To track cost categories, set this field to { "CostCategories": { "Key": "your cost category key", "Values": ["your cost category value"] } }

Type: [Expression](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

AnomalyScore

Service: Amazon Cost Explorer

Quantifies the anomaly. The higher score means that it's more anomalous.

Contents

CurrentScore

The last observed score.

Type: Double

Required: Yes

MaxScore

The maximum score that's observed during the AnomalyDateInterval.

Type: Double

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

AnomalySubscription

Service: Amazon Cost Explorer

An `AnomalySubscription` resource (also referred to as an alert subscription) sends notifications about specific anomalies that meet an alerting criteria defined by you.

You can specify the frequency of the alerts and the subscribers to notify.

Anomaly subscriptions can be associated with one or more [AnomalyMonitor](#) resources, and they only send notifications about anomalies detected by those associated monitors. You can also configure a threshold to further control which anomalies are included in the notifications.

Anomalies that don't exceed the chosen threshold and therefore don't trigger notifications from an anomaly subscription will still be available on the console and from the [GetAnomalies](#) API.

Contents

Frequency

The frequency that anomaly notifications are sent. Notifications are sent either over email (for DAILY and WEEKLY frequencies) or SNS (for IMMEDIATE frequency). For more information, see [Creating an Amazon SNS topic for anomaly notifications](#).

Type: String

Valid Values: DAILY | IMMEDIATE | WEEKLY

Required: Yes

MonitorArnList

A list of cost anomaly monitors.

Type: Array of strings

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/_:~]+`

Required: Yes

Subscribers

A list of subscribers to notify.

Type: Array of [Subscriber](#) objects

Required: Yes

SubscriptionName

The name for the subscription.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

AccountId

Your unique account identifier.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SubscriptionArn

The AnomalySubscription Amazon Resource Name (ARN).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Threshold

(deprecated)

An absolute dollar value that must be exceeded by the anomaly's total impact (see [Impact](#) for more details) for an anomaly notification to be generated.

This field has been deprecated. To specify a threshold, use `ThresholdExpression`. Continued use of `Threshold` will be treated as shorthand syntax for a `ThresholdExpression`.

One of `Threshold` or `ThresholdExpression` is required for this resource. You cannot specify both.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

ThresholdExpression

An [Expression](#) object used to specify the anomalies that you want to generate alerts for. This supports dimensions and nested expressions. The supported dimensions are `ANOMALY_TOTAL_IMPACT_ABSOLUTE` and `ANOMALY_TOTAL_IMPACT_PERCENTAGE`, corresponding to an anomaly's `TotalImpact` and `TotalImpactPercentage`, respectively (see [Impact](#) for more details). The supported nested expression types are `AND` and `OR`. The match option `GREATER_THAN_OR_EQUAL` is required. Values must be numbers between 0 and 10,000,000,000 in string format.

One of `Threshold` or `ThresholdExpression` is required for this resource. You cannot specify both.

The following are examples of valid `ThresholdExpressions`:

- Absolute threshold:

```
{ "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_ABSOLUTE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }
```
- Percentage threshold:

```
{ "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_PERCENTAGE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }
```
- AND two thresholds together:

```
{ "And": [ { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_ABSOLUTE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }, { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_PERCENTAGE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } } ] }
```
- OR two thresholds together:

```
{ "Or": [ { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_ABSOLUTE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }, { "Dimensions":
```

```
{ "Key": "ANOMALY_TOTAL_IMPACT_PERCENTAGE", "MatchOptions":  
  [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } } ] }
```

Type: [Expression](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CommitmentPurchaseAnalysisConfiguration

Service: Amazon Cost Explorer

The configuration for the commitment purchase analysis.

Contents

SavingsPlansPurchaseAnalysisConfiguration

The configuration for the Savings Plans purchase analysis.

Type: [SavingsPlansPurchaseAnalysisConfiguration](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ComparisonMetricValue

Service: Amazon Cost Explorer

Contains cost or usage metric values for comparing two time periods. Each value includes amounts for the baseline and comparison time periods, their difference, and the unit of measurement.

Contents

BaselineTimePeriodAmount

The numeric value for the baseline time period measurement.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ComparisonTimePeriodAmount

The numeric value for the comparison time period measurement.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Difference

The calculated difference between ComparisonTimePeriodAmount and BaselineTimePeriodAmount.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Unit

The unit of measurement applicable to all numeric values in this comparison.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostAllocationTag

Service: Amazon Cost Explorer

The cost allocation tag structure. This includes detailed metadata for the `CostAllocationTag` object.

Contents

Status

The status of a cost allocation tag.

Type: String

Valid Values: `Active` | `Inactive`

Required: Yes

TagKey

The key for the cost allocation tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Type

The type of cost allocation tag. You can use `AWSGenerated` or `UserDefined` type tags. `AWSGenerated` type tags are tags that Amazon defines and applies to support Amazon resources for cost allocation purposes. `UserDefined` type tags are tags that you define, create, and apply to resources.

Type: String

Valid Values: `AWSGenerated` | `UserDefined`

Required: Yes

LastUpdatedDate

The last date that the tag was either activated or deactivated.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([-]\d\d:\d\d)|Z)$`

Required: No

LastUsedDate

The last month that the tag was used on an Amazon resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([-]\d\d:\d\d)|Z)$`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostAllocationTagBackfillRequest

Service: Amazon Cost Explorer

The cost allocation tag backfill request structure that contains metadata and details of a certain backfill.

Contents

BackfillFrom

The date the backfill starts from.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+ -]\d\d:\d\d)|Z)$`

Required: No

BackfillStatus

The status of the cost allocation tag backfill request.

Type: String

Valid Values: SUCCEEDED | PROCESSING | FAILED

Required: No

CompletedAt

The backfill completion time.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+ -]\d\d:\d\d)|Z)$`

Required: No

LastUpdatedAt

The time when the backfill status was last updated.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([\+-]\d\d:\d\d)|Z)$`

Required: No

RequestedAt

The time when the backfill was requested.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([\+-]\d\d:\d\d)|Z)$`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostAllocationTagStatusEntry

Service: Amazon Cost Explorer

The cost allocation tag status. The status of a key can either be active or inactive.

Contents

Status

The status of a cost allocation tag.

Type: String

Valid Values: Active | Inactive

Required: Yes

TagKey

The key for the cost allocation tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostAndUsageComparison

Service: Amazon Cost Explorer

Represents a comparison of cost and usage metrics between two time periods.

Contents

CostAndUsageSelector

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
 - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
 - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
 - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
 - Specify the `Dimensions` field to define a filter that acts on the [DimensionValues](#).
 - For each filter type, you can set the dimension name and values for the filters that you plan to use.
 - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the Region is a full name (for example, `REGION==US East (N. Virginia)`).
 - The corresponding `Expression` for this example is as follows:

```
{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }
```
 - As shown in the previous example, lists of dimension values are combined with `OR` when applying the filter.
 - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
 - For example, you can filter for linked account names that start with "a".

- The corresponding Expression for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": ["STARTS_WITH"], "Values": ["a"] } }`
- Compound Expression types with logical operations.
 - You can use multiple Expression types and the logical operators AND/OR/NOT to create a list of one or more Expression objects. By doing this, you can filter by more advanced options.
 - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
 - The corresponding Expression for this example is as follows: `{ "And": [{ "Or": [{ "Dimensions": { "Key": "REGION", "Values": ["us-east-1", "us-west-1"] } }, { "Tags": { "Key": "TagName", "Values": ["Value1"] } }] }, { "Not": { "Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] } } }] }`

Note

Because each Expression can have only one operator, the service returns an error if more than one is specified. The following example shows an Expression object that creates an error: `{ "And": [...], "Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] } }`

The following is an example of the corresponding error message: "Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"

Note

For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to LINKED_ACCOUNT, REGION, or RIGHTSIZING_TYPE.

For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to LINKED_ACCOUNT.

Type: [Expression](#) object

Required: No

Metrics

A mapping of metric names to their comparison values.

Type: String to [ComparisonMetricValue](#) object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostCategory

Service: Amazon Cost Explorer

The structure of Cost Categories. This includes detailed metadata and the set of rules for the CostCategory object.

Contents

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

EffectiveStart

The effective start date of your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+ -]\d\d:\d\d)|Z)$`

Required: Yes

Name

The unique name of the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)$`

Required: Yes

Rules

The rules are processed in order. If there are multiple rules that match the line item, then the first rule to match is used to determine that cost category value.

Type: Array of [CostCategoryRule](#) objects

Array Members: Minimum number of 1 item. Maximum number of 500 items.

Required: Yes

RuleVersion

The rule schema version in this particular cost category.

Type: String

Valid Values: `CostCategoryExpression.v1`

Required: Yes

DefaultValue

The default value for the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)$`

Required: No

EffectiveEnd

The effective end date of your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+ -]\d\d:\d\d)|Z)$`

Required: No

ProcessingStatus

The list of processing statuses for Cost Management products for a specific cost category.

Type: Array of [CostCategoryProcessingStatus](#) objects

Required: No

SplitChargeRules

The split charge rules that are used to allocate your charges between your cost category values.

Type: Array of [CostCategorySplitChargeRule](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostCategoryInheritedValueDimension

Service: Amazon Cost Explorer

When you create or update a cost category, you can define the `CostCategoryRule` rule type as `INHERITED_VALUE`. This rule type adds the flexibility to define a rule that dynamically inherits the cost category value from the dimension value that's defined by `CostCategoryInheritedValueDimension`. For example, suppose that you want to dynamically group costs that are based on the value of a specific tag key. First, choose an inherited value rule type, and then choose the tag dimension and specify the tag key to use.

Contents

DimensionKey

The key to extract cost category values.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DimensionName

The name of the dimension that's used to group costs.

If you specify `LINKED_ACCOUNT_NAME`, the cost category value is based on account name. If you specify `TAG`, the cost category value is based on the value of the specified tag key.

Type: String

Valid Values: `LINKED_ACCOUNT_NAME` | `TAG`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostCategoryProcessingStatus

Service: Amazon Cost Explorer

The list of processing statuses for Cost Management products for a specific cost category.

Contents

Component

The Cost Management product name of the applied status.

Type: String

Valid Values: COST_EXPLORER

Required: No

Status

The process status for a specific cost category.

Type: String

Valid Values: PROCESSING | APPLIED

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostCategoryReference

Service: Amazon Cost Explorer

A reference to a cost category containing only enough information to identify the Cost Category.

You can use this information to retrieve the full cost category information using `DescribeCostCategory`.

Contents

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

DefaultValue

The default value for the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)$`

Required: No

EffectiveEnd

The cost category's effective end date.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([\+-]\d\d:\d\d)|Z)$`

Required: No

EffectiveStart

The cost category's effective start date.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: $^{\backslash}d\{4\}-\backslash d\backslash d-\backslash d\backslash dT\backslash d\backslash d:\backslash d\backslash d:\backslash d\backslash d(([\+-]\backslash d\backslash d:\backslash d\backslash d)|Z)\$$

Required: No

Name

The unique name of the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: $^(?!)[\backslash p\{L}\backslash p\{N}\backslash p\{Z}-_]*(?<!)\$$

Required: No

NumberOfRules

The number of rules that are associated with a specific cost category.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

ProcessingStatus

The list of processing statuses for Cost Management products for a specific cost category.

Type: Array of [CostCategoryProcessingStatus](#) objects

Required: No

SupportedResourceTypes

The resource types supported by a specific cost category.

Type: Array of strings

Pattern: `^[-a-zA-Z0-9/_]+: [-a-zA-Z0-9/_]+`

Required: No

Values

A list of unique cost category values in a specific cost category.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)$`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostCategoryResourceAssociation

Service: Amazon Cost Explorer

A reference to a cost category association that contains information on an associated resource.

Contents

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

CostCategoryName

The unique name of the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)$`

Required: No

ResourceArn

The unique identifier for an associated resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostCategoryRule

Service: Amazon Cost Explorer

Rules are processed in order. If there are multiple rules that match the line item, then the first rule to match is used to determine that cost category value.

Contents

InheritedValue

The value the line item is categorized as if the line item contains the matched dimension.

Type: [CostCategoryInheritedValueDimension](#) object

Required: No

Rule

An [Expression](#) object used to categorize costs. This supports dimensions, tags, and nested expressions. Currently the only dimensions supported are LINKED_ACCOUNT, SERVICE_CODE, RECORD_TYPE, LINKED_ACCOUNT_NAME, REGION, and USAGE_TYPE.

RECORD_TYPE is a dimension used for Cost Explorer APIs, and is also supported for cost category expressions. This dimension uses different terms, depending on whether you're using the console or API/JSON editor. For a detailed comparison, see [Term Comparisons](#) in the *Amazon Billing and Cost Management User Guide*.

Type: [Expression](#) object

Required: No

Type

You can define the CostCategoryRule rule type as either REGULAR or INHERITED_VALUE. The INHERITED_VALUE rule type adds the flexibility to define a rule that dynamically inherits the cost category value. This value is from the dimension value that's defined by CostCategoryInheritedValueDimension. For example, suppose that you want to costs to be dynamically grouped based on the value of a specific tag key. First, choose an inherited value rule type, and then choose the tag dimension and specify the tag key to use.

Type: String

Valid Values: REGULAR | INHERITED_VALUE

Required: No

Value

The default value for the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)$`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostCategorySplitChargeRule

Service: Amazon Cost Explorer

Use the split charge rule to split the cost of one cost category value across several other target values.

Contents

Method

The method that's used to define how to split your source costs across your targets.

`Proportional` - Allocates charges across your targets based on the proportional weighted cost of each target.

`Fixed` - Allocates charges across your targets based on your defined allocation percentage.

`>Even` - Allocates costs evenly across all targets.

Type: String

Valid Values: `FIXED` | `PROPORTIONAL` | `EVEN`

Required: Yes

Source

The cost category value that you want to split. That value can't be used as a source or a target in other split charge rules. To indicate uncategorized costs, you can use an empty string as the source.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Targets

The cost category values that you want to split costs across. These values can't be used as a source in other split charge rules.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 500 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Parameters

The parameters for a split charge method. This is only required for the FIXED method.

Type: Array of [CostCategorySplitChargeRuleParameter](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostCategorySplitChargeRuleParameter

Service: Amazon Cost Explorer

The parameters for a split charge method.

Contents

Type

The parameter type.

Type: String

Valid Values: ALLOCATION_PERCENTAGES

Required: Yes

Values

The parameter values.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 500 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostCategoryValues

Service: Amazon Cost Explorer

The Cost Categories values used for filtering the costs.

If `Values` and `Key` are not specified, the `ABSENT MatchOption` is applied to all Cost Categories. That is, it filters on resources that aren't mapped to any Cost Categories.

If `Values` is provided and `Key` isn't specified, the `ABSENT MatchOption` is applied to the Cost Categories `Key` only. That is, it filters on resources without the given Cost Categories key.

Contents

Key

The unique name of the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?!)[\p{L}\p{N}\p{Z}-_]*(?<!)$`

Required: No

MatchOptions

The match options that you can use to filter your results. `MatchOptions` is only applicable for actions related to cost category. The default values for `MatchOptions` is `EQUALS` and `CASE_SENSITIVE`.

Type: Array of strings

Valid Values: `EQUALS` | `ABSENT` | `STARTS_WITH` | `ENDS_WITH` | `CONTAINS` | `CASE_SENSITIVE` | `CASE_INSENSITIVE` | `GREATER_THAN_OR_EQUAL`

Required: No

Values

The specific value of the cost category.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostComparisonDriver

Service: Amazon Cost Explorer

Represents a collection of cost drivers and their associated metrics for cost comparison analysis.

Contents

CostDrivers

An array of cost drivers, each representing a cost difference between the baseline and comparison time periods. Each entry also includes a metric delta (for example, usage change) that contributed to the cost variance, along with the identifier and type of change.

Type: Array of [CostDriver](#) objects

Required: No

CostSelector

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
 - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
 - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
 - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
 - Specify the `Dimensions` field to define a filter that acts on the [DimensionValues](#).
 - For each filter type, you can set the dimension name and values for the filters that you plan to use.
 - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the `Region` is a full name (for example, `REGION==US East (N. Virginia)`).
 - The corresponding `Expression` for this example is as follows:

```
{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }
```

- As shown in the previous example, lists of dimension values are combined with OR when applying the filter.
- You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
 - For example, you can filter for linked account names that start with "a".
 - The corresponding Expression for this example is as follows:

```
{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": [ "STARTS_WITH" ], "Values": [ "a" ] } }
```
- Compound Expression types with logical operations.
 - You can use multiple Expression types and the logical operators AND/OR/NOT to create a list of one or more Expression objects. By doing this, you can filter by more advanced options.
 - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
 - The corresponding Expression for this example is as follows:

```
{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }, {"Tags": { "Key": "TagName", "Values": [ "Value1" ] } } ] }, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } } } ] }
```

Note

Because each Expression can have only one operator, the service returns an error if more than one is specified. The following example shows an Expression object that creates an error:

```
{ "And": [ ... ], "Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } }
```

The following is an example of the corresponding error message: "Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"

Note

For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags.

NOT operators aren't supported. Dimensions are also limited to LINKED_ACCOUNT, REGION, or RIGHTSIZING_TYPE.

For the GetReservationPurchaseRecommendation action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to LINKED_ACCOUNT.

Type: [Expression](#) object

Required: No

Metrics

A mapping of metric names to their comparison values.

Type: String to [ComparisonMetricValue](#) object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostDriver

Service: Amazon Cost Explorer

Represents factors that contribute to cost variations between the baseline and comparison time periods, including the type of driver, an identifier of the driver, and associated metrics.

Contents

Metrics

A mapping of metric names to their comparison values, measuring the impact of this cost driver.

Type: String to [ComparisonMetricValue](#) object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Required: No

Name

The specific identifier of the cost driver.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Type

The category or classification of the cost driver.

Values include: BUNDLED_DISCOUNT, CREDIT, OUT_OF_CYCLE_CHARGE, REFUND, RECURRING_RESERVATION_FEE, RESERVATION_USAGE, RI_VOLUME_DISCOUNT, SAVINGS_PLAN_USAGE, SAVINGS_PLAN_RECURRING_FEE, SUPPORT_FEE, TAX, UPFRONT_RESERVATION_FEE, USAGE_CHANGE, COMMITMENT

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Coverage

Service: Amazon Cost Explorer

The amount of instance usage that a reservation covered.

Contents

CoverageCost

The amount of cost that the reservation covered.

Type: [CoverageCost](#) object

Required: No

CoverageHours

The amount of instance usage that the reservation covered, in hours.

Type: [CoverageHours](#) object

Required: No

CoverageNormalizedUnits

The amount of instance usage that the reservation covered, in normalized units.

Type: [CoverageNormalizedUnits](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CoverageByTime

Service: Amazon Cost Explorer

Reservation coverage for a specified period, in hours.

Contents

Groups

The groups of instances that the reservation covered.

Type: Array of [ReservationCoverageGroup](#) objects

Required: No

TimePeriod

The period that this coverage was used over.

Type: [DateInterval](#) object

Required: No

Total

The total reservation coverage, in hours.

Type: [Coverage](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CoverageCost

Service: Amazon Cost Explorer

How much it costs to run an instance.

Contents

OnDemandCost

How much an On-Demand Instance costs.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CoverageHours

Service: Amazon Cost Explorer

How long a running instance either used a reservation or was On-Demand.

Contents

CoverageHoursPercentage

The percentage of instance hours that a reservation covered.

Type: String

Required: No

OnDemandHours

The number of instance running hours that On-Demand Instances covered.

Type: String

Required: No

ReservedHours

The number of instance running hours that reservations covered.

Type: String

Required: No

TotalRunningHours

The total instance usage, in hours.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CoverageNormalizedUnits

Service: Amazon Cost Explorer

The amount of instance usage, in normalized units. You can use normalized units to see your EC2 usage for multiple sizes of instances in a uniform way. For example, suppose that you run an xlarge instance and a 2xlarge instance. If you run both instances for the same amount of time, the 2xlarge instance uses twice as much of your reservation as the xlarge instance, even though both instances show only one instance-hour. When you use normalized units instead of instance-hours, the xlarge instance used 8 normalized units, and the 2xlarge instance used 16 normalized units.

For more information, see [Modifying Reserved Instances](#) in the *Amazon Elastic Compute Cloud User Guide for Linux Instances*.

Contents

CoverageNormalizedUnitsPercentage

The percentage of your used instance normalized units that a reservation covers.

Type: String

Required: No

OnDemandNormalizedUnits

The number of normalized units that are covered by On-Demand Instances instead of a reservation.

Type: String

Required: No

ReservedNormalizedUnits

The number of normalized units that a reservation covers.

Type: String

Required: No

TotalRunningNormalizedUnits

The total number of normalized units that you used.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CurrentInstance

Service: Amazon Cost Explorer

Context about the current instance.

Contents

CurrencyCode

The currency code that Amazon used to calculate the costs for this instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

InstanceName

The name that you given an instance. This field shows as blank if you haven't given the instance a name.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MonthlyCost

The current On-Demand cost of operating this instance on a monthly basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

OnDemandHoursInLookbackPeriod

The number of hours during the lookback period that's billed at On-Demand rates.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ReservationCoveredHoursInLookbackPeriod

The number of hours during the lookback period that's covered by reservations.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ResourceDetails

Details about the resource and utilization.

Type: [ResourceDetails](#) object

Required: No

ResourceId

Resource ID of the current instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ResourceUtilization

Utilization information of the current instance during the lookback period.

Type: [ResourceUtilization](#) object

Required: No

SavingsPlansCoveredHoursInLookbackPeriod

The number of hours during the lookback period that's covered by Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Tags

Cost allocation resource tags that are applied to the instance.

Type: Array of [TagValues](#) objects

Required: No

TotalRunningHoursInLookbackPeriod

The total number of hours that the instance ran during the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DateInterval

Service: Amazon Cost Explorer

The time period of the request.

Contents

End

The end of the time period. The end date is exclusive. For example, if end is 2017-05-01, Amazon retrieves cost and usage data from the start date up to, but not including, 2017-05-01.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: (\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?

Required: Yes

Start

The beginning of the time period. The start date is inclusive. For example, if start is 2017-01-01, Amazon retrieves cost and usage data starting at 2017-01-01 up to the end date. The start date must be equal to or no later than the current date to avoid a validation error.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: (\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DimensionValues

Service: Amazon Cost Explorer

The metadata that you can use to filter and group your results. You can use `GetDimensionValues` to find specific values.

Contents

Key

The names of the metadata types that you can use to filter and group your results. For example, `AZ` returns a list of Availability Zones.

Not all dimensions are supported in each API. Refer to the documentation for each specific API to see what is supported.

`LINKED_ACCOUNT_NAME` and `SERVICE_CODE` can only be used in [CostCategoryRule](#).

`ANOMALY_TOTAL_IMPACT_ABSOLUTE` and `ANOMALY_TOTAL_IMPACT_PERCENTAGE` can only be used in [AnomalySubscriptions](#).

Type: String

Valid Values: `AZ` | `INSTANCE_TYPE` | `LINKED_ACCOUNT` | `PAYER_ACCOUNT` | `LINKED_ACCOUNT_NAME` | `OPERATION` | `PURCHASE_TYPE` | `REGION` | `SERVICE` | `SERVICE_CODE` | `USAGE_TYPE` | `USAGE_TYPE_GROUP` | `RECORD_TYPE` | `OPERATING_SYSTEM` | `TENANCY` | `SCOPE` | `PLATFORM` | `SUBSCRIPTION_ID` | `LEGAL_ENTITY_NAME` | `DEPLOYMENT_OPTION` | `DATABASE_ENGINE` | `CACHE_ENGINE` | `INSTANCE_TYPE_FAMILY` | `BILLING_ENTITY` | `RESERVATION_ID` | `RESOURCE_ID` | `RIGHTSIZING_TYPE` | `SAVINGS_PLANS_TYPE` | `SAVINGS_PLAN_ARN` | `PAYMENT_OPTION` | `AGREEMENT_END_DATE_TIME_AFTER` | `AGREEMENT_END_DATE_TIME_BEFORE` | `INVOICING_ENTITY` | `ANOMALY_TOTAL_IMPACT_ABSOLUTE` | `ANOMALY_TOTAL_IMPACT_PERCENTAGE`

Required: No

MatchOptions

The match options that you can use to filter your results.

`MatchOptions` is only applicable for actions related to cost category and Anomaly Subscriptions. Refer to the documentation for each specific API to see what is supported.

The default values for `MatchOptions` are `EQUALS` and `CASE_SENSITIVE`.

Type: Array of strings

Valid Values: `EQUALS` | `ABSENT` | `STARTS_WITH` | `ENDS_WITH` | `CONTAINS` | `CASE_SENSITIVE` | `CASE_INSENSITIVE` | `GREATER_THAN_OR_EQUAL`

Required: No

Values

The metadata values that you can use to filter and group your results. You can use `GetDimensionValues` to find specific values.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DimensionValuesWithAttributes

Service: Amazon Cost Explorer

The metadata of a specific type that you can use to filter and group your results. You can use `GetDimensionValues` to find specific values.

Contents

Attributes

The attribute that applies to a specific Dimension.

Type: String to string map

Required: No

Value

The value of a dimension with a specific attribute.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DiskResourceUtilization

Service: Amazon Cost Explorer

The field that contains a list of disk (local storage) metrics that are associated with the current instance.

Contents

DiskReadBytesPerSecond

The maximum read throughput operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DiskReadOpsPerSecond

The maximum number of read operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DiskWriteBytesPerSecond

The maximum write throughput operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DiskWriteOpsPerSecond

The maximum number of write operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DynamoDBCapacityDetails

Service: Amazon Cost Explorer

The DynamoDB reservations that Amazon recommends that you purchase.

Contents

CapacityUnits

The capacity unit of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The Amazon Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

EBSResourceUtilization

Service: Amazon Cost Explorer

The EBS field that contains a list of EBS metrics that are associated with the current instance.

Contents

EbsReadBytesPerSecond

The maximum size of read operations per second

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EbsReadOpsPerSecond

The maximum number of read operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EbsWriteBytesPerSecond

The maximum size of write operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EbsWriteOpsPerSecond

The maximum number of write operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

EC2InstanceDetails

Service: Amazon Cost Explorer

Details about the Amazon EC2 reservations that Amazon recommends that you purchase.

Contents

AvailabilityZone

The Availability Zone of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentGeneration

Determines whether the recommendation is for a current-generation instance.

Type: Boolean

Required: No

Family

The instance family of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

InstanceType

The type of instance that Amazon recommends.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Platform

The platform of the recommended reservation. The platform is the specific combination of operating system, license model, and software on an instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The Amazon Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SizeFlexEligible

Determines whether the recommended reservation is size flexible.

Type: Boolean

Required: No

Tenancy

Determines whether the recommended reservation is dedicated or shared.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

EC2ResourceDetails

Service: Amazon Cost Explorer

Details on the Amazon EC2 Resource.

Contents

HourlyOnDemandRate

The hourly public On-Demand rate for the instance type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Required: No

InstanceType

The type of Amazon instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Required: No

Memory

The memory capacity of the Amazon instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Required: No

NetworkPerformance

The network performance capacity of the Amazon instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Platform

The platform of the Amazon instance. The platform is the specific combination of operating system, license model, and software on an instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The Amazon Web Services Region of the instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SKU

The SKU of the product.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Storage

The disk storage of the Amazon instance. This doesn't include EBS storage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Vcpu

The number of VCPU cores in the Amazon instance type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

EC2ResourceUtilization

Service: Amazon Cost Explorer

Utilization metrics for the instance.

Contents

DiskResourceUtilization

The field that contains a list of disk (local storage) metrics that are associated with the current instance.

Type: [DiskResourceUtilization](#) object

Required: No

EBSResourceUtilization

The EBS field that contains a list of EBS metrics that are associated with the current instance.

Type: [EBSResourceUtilization](#) object

Required: No

MaxCpuUtilizationPercentage

The maximum observed or expected CPU utilization of the instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MaxMemoryUtilizationPercentage

The maximum observed or expected memory utilization of the instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MaxStorageUtilizationPercentage

The maximum observed or expected storage utilization of the instance. This doesn't include EBS storage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NetworkResourceUtilization

The network field that contains a list of network metrics that are associated with the current instance.

Type: [NetworkResourceUtilization](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

EC2Specification

Service: Amazon Cost Explorer

The Amazon EC2 hardware specifications that you want Amazon to provide recommendations for.

Contents

OfferingClass

Indicates whether you want a recommendation for standard or convertible reservations.

Type: String

Valid Values: STANDARD | CONVERTIBLE

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ElastiCacheInstanceDetails

Service: Amazon Cost Explorer

Details about the Amazon ElastiCache reservations that Amazon recommends that you purchase.

Contents

CurrentGeneration

Determines whether the recommendation is for a current generation instance.

Type: Boolean

Required: No

Family

The instance family of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NodeType

The type of node that Amazon recommends.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ProductDescription

The description of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The Amazon Web Services Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SizeFlexEligible

Determines whether the recommended reservation is size flexible.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ESInstanceDetails

Service: Amazon Cost Explorer

Details about the Amazon OpenSearch Service reservations that Amazon recommends that you purchase.

Contents

CurrentGeneration

Determines whether the recommendation is for a current-generation instance.

Type: Boolean

Required: No

InstanceClass

The class of instance that Amazon recommends.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

InstanceSize

The size of instance that Amazon recommends.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The Amazon Web Services Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SizeFlexEligible

Determines whether the recommended reservation is size flexible.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Expression

Service: Amazon Cost Explorer

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
 - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
 - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
 - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
 - Specify the `Dimensions` field to define a filter that acts on the [DimensionValues](#).
 - For each filter type, you can set the dimension name and values for the filters that you plan to use.
 - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the `Region` is a full name (for example, `REGION==US East (N. Virginia)`).
 - The corresponding `Expression` for this example is as follows:

```
{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }
```
 - As shown in the previous example, lists of dimension values are combined with `OR` when applying the filter.
 - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
 - For example, you can filter for linked account names that start with "a".
 - The corresponding `Expression` for this example is as follows:

```
{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": [ "STARTS_WITH" ], "Values": [ "a" ] } }
```
- Compound `Expression` types with logical operations.
 - You can use multiple `Expression` types and the logical operators `AND/OR/NOT` to create a list of one or more `Expression` objects. By doing this, you can filter by more advanced options.

- For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
- The corresponding Expression for this example is as follows:

```
{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] }}, {"Tags": { "Key": "TagName", "Values": [{"Value1"} ] } } ] }, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] }}} ] }
```

Note

Because each Expression can have only one operator, the service returns an error if more than one is specified. The following example shows an Expression object that creates an error:

```
{ "And": [ ... ], "Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } }
```

The following is an example of the corresponding error message: "Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"

Note

For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to `LINKED_ACCOUNT`, `REGION`, or `RIGHTSIZING_TYPE`.

For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to `LINKED_ACCOUNT`.

Contents

And

Return results that match both Dimension objects.

Type: Array of [Expression](#) objects

Required: No

CostCategories

The filter that's based on CostCategory values.

Type: [CostCategoryValues](#) object

Required: No

Dimensions

The specific Dimension to use for Expression.

Type: [DimensionValues](#) object

Required: No

Not

Return results that don't match a Dimension object.

Type: [Expression](#) object

Required: No

Or

Return results that match either Dimension object.

Type: Array of [Expression](#) objects

Required: No

Tags

The specific Tag to use for Expression.

Type: [TagValues](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ForecastResult

Service: Amazon Cost Explorer

The forecast that's created for your query.

Contents

MeanValue

The mean value of the forecast.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

PredictionIntervalLowerBound

The lower limit for the prediction interval.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

PredictionIntervalUpperBound

The upper limit for the prediction interval.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TimePeriod

The period of time that the forecast covers.

Type: [DateInterval](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

GenerationSummary

Service: Amazon Cost Explorer

The summary of the Savings Plans recommendation generation.

Contents

EstimatedCompletionTime

Indicates the estimated time for when the recommendation generation will complete.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+ -]\d\d:\d\d) | Z)$`

Required: No

GenerationCompletionTime

Indicates the completion time of the recommendation generation.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+ -]\d\d:\d\d) | Z)$`

Required: No

GenerationStartedTime

Indicates the start time of the recommendation generation.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+ -]\d\d:\d\d) | Z)$`

Required: No

GenerationStatus

Indicates whether the recommendation generation succeeded, is processing, or failed.

Group

Service: Amazon Cost Explorer

One level of grouped data in the results.

Contents

Keys

The keys that are included in this group.

Type: Array of strings

Required: No

Metrics

The metrics that are included in this group.

Type: String to [MetricValue](#) object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

GroupDefinition

Service: Amazon Cost Explorer

Represents a group when you specify a group by criteria or in the response to a query with a specific grouping.

Contents

Key

The string that represents a key for a specified group.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Type

The string that represents the type of group.

Type: String

Valid Values: DIMENSION | TAG | COST_CATEGORY

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Impact

Service: Amazon Cost Explorer

The dollar value of the anomaly.

Contents

MaxImpact

The maximum dollar value that's observed for an anomaly.

Type: Double

Required: Yes

TotalActualSpend

The cumulative dollar amount that was actually spent during the anomaly.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

TotalExpectedSpend

The cumulative dollar amount that was expected to be spent during the anomaly. It is calculated using advanced machine learning models to determine the typical spending pattern based on historical data for a customer.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

TotalImpact

The cumulative dollar difference between the total actual spend and total expected spend. It is calculated as $\text{TotalActualSpend} - \text{TotalExpectedSpend}$.

Type: Double

Required: No

TotalImpactPercentage

The cumulative percentage difference between the total actual spend and total expected spend. It is calculated as $(\text{TotalImpact} / \text{TotalExpectedSpend}) * 100$. When `TotalExpectedSpend` is zero, this field is omitted. Expected spend can be zero in situations such as when you start to use a service for the first time.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

InstanceDetails

Service: Amazon Cost Explorer

Details about the reservations that Amazon recommends that you purchase.

Contents

EC2InstanceDetails

The Amazon EC2 reservations that Amazon recommends that you purchase.

Type: [EC2InstanceDetails](#) object

Required: No

ElastiCacheInstanceDetails

The ElastiCache reservations that Amazon recommends that you purchase.

Type: [ElastiCacheInstanceDetails](#) object

Required: No

ESInstanceDetails

The Amazon OpenSearch Service reservations that Amazon recommends that you purchase.

Type: [ESInstanceDetails](#) object

Required: No

MemoryDBInstanceDetails

The MemoryDB reservations that Amazon recommends that you purchase.

Type: [MemoryDBInstanceDetails](#) object

Required: No

RDSInstanceDetails

The Amazon RDS reservations that Amazon recommends that you purchase.

Type: [RDSInstanceDetails](#) object

Required: No

RedshiftInstanceDetails

The Amazon Redshift reservations that Amazon recommends that you purchase.

Type: [RedshiftInstanceDetails](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

MemoryDBInstanceDetails

Service: Amazon Cost Explorer

Details about the MemoryDB reservations that Amazon recommends that you purchase.

Contents

CurrentGeneration

Determines whether the recommendation is for a current generation instance.

Type: Boolean

Required: No

Family

The instance family of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NodeType

The node type of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The Amazon Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SizeFlexEligible

Determines whether the recommended reservation is size flexible.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

MetricValue

Service: Amazon Cost Explorer

The aggregated value for a metric.

Contents

Amount

The actual number that represents the metric.

Type: String

Required: No

Unit

The unit that the metric is given in.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ModifyRecommendationDetail

Service: Amazon Cost Explorer

Details for the modification recommendation.

Contents

TargetInstances

Determines whether this instance type is the Amazon default recommendation.

Type: Array of [TargetInstance](#) objects

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

NetworkResourceUtilization

Service: Amazon Cost Explorer

The network field that contains a list of network metrics that are associated with the current instance.

Contents

NetworkInBytesPerSecond

The network inbound throughput utilization measured in Bytes per second (Bps).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NetworkOutBytesPerSecond

The network outbound throughput utilization measured in Bytes per second (Bps).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NetworkPacketsInPerSecond

The network inbound packets that are measured in packets per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NetworkPacketsOutPerSecond

The network outbound packets that are measured in packets per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RDSInstanceDetails

Service: Amazon Cost Explorer

Details about the Amazon RDS reservations that Amazon recommends that you purchase.

Contents

CurrentGeneration

Determines whether the recommendation is for a current-generation instance.

Type: Boolean

Required: No

DatabaseEdition

The database edition that the recommended reservation supports.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DatabaseEngine

The database engine that the recommended reservation supports.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DeploymentModel

Determines whether the recommendation is for a reservation for RDS Custom.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DeploymentOption

Determines whether the recommendation is for a reservation in a single Availability Zone or a reservation with a backup in a second Availability Zone.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Family

The instance family of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

InstanceType

The type of instance that Amazon recommends.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

LicenseModel

The license model that the recommended reservation supports.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The Amazon Web Services Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SizeFlexEligible

Determines whether the recommended reservation is size flexible.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RecommendationDetailData

Service: Amazon Cost Explorer

The details and metrics for the given recommendation.

Contents

AccountId

The AccountID that the recommendation is generated for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AccountScope

The account scope that you want your recommendations for. Amazon calculates recommendations including the management account and member accounts if the value is set to PAYER. If the value is LINKED, recommendations are calculated for individual member accounts only.

Type: String

Valid Values: PAYER | LINKED

Required: No

CurrencyCode

The currency code that Amazon used to generate the recommendation and present potential savings.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentAverageCoverage

The average value of hourly coverage over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentAverageHourlyOnDemandSpend

The average value of hourly On-Demand spend over the lookback period of the applicable usage type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentMaximumHourlyOnDemandSpend

The highest value of hourly On-Demand spend over the lookback period of the applicable usage type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentMinimumHourlyOnDemandSpend

The lowest value of hourly On-Demand spend over the lookback period of the applicable usage type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedAverageCoverage

The estimated coverage of the recommended Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedAverageUtilization

The estimated utilization of the recommended Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavingsAmount

The estimated monthly savings amount based on the recommended Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCost

The remaining On-Demand cost estimated to not be covered by the recommended Savings Plan, over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCostWithCurrentCommitment

The estimated On-Demand costs you expect with no additional commitment, based on your usage of the selected time period and the Savings Plan you own.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedROI

The estimated return on investment that's based on the recommended Savings Plan that you purchased. This is calculated as $\text{estimatedSavingsAmount}/\text{estimatedSPCost} * 100$.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsAmount

The estimated savings amount that's based on the recommended Savings Plan over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsPercentage

The estimated savings percentage relative to the total cost of applicable On-Demand usage over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSPCost

The cost of the recommended Savings Plan over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ExistingHourlyCommitment

The existing hourly commitment for the Savings Plan type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

GenerationTimestamp

The period of time that you want the usage and costs for.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([-]\d\d:\d\d)|Z)$`

Required: No

HourlyCommitmentToPurchase

The recommended hourly commitment level for the Savings Plan type and the configuration that's based on the usage during the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

InstanceFamily

The instance family of the recommended Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

LatestUsageTimestamp

The period of time that you want the usage and costs for.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([-]\d\d:\d\d)|Z)$`

Required: No

LookbackPeriodInDays

How many days of previous usage that Amazon considers when making this recommendation.

Type: String

Valid Values: SEVEN_DAYS | THIRTY_DAYS | SIXTY_DAYS

Required: No

MetricsOverLookbackPeriod

The related hourly cost, coverage, and utilization metrics over the lookback period.

Type: Array of [RecommendationDetailHourlyMetrics](#) objects

Required: No

OfferingId

The unique ID that's used to distinguish Savings Plans from one another.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

PaymentOption

The payment option for the commitment (for example, All Upfront or No Upfront).

Type: String

Valid Values: NO_UPFRONT | PARTIAL_UPFRONT | ALL_UPFRONT | LIGHT_UTILIZATION
| MEDIUM_UTILIZATION | HEAVY_UTILIZATION

Required: No

Region

The region the recommendation is generated for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SavingsPlansType

The requested Savings Plan recommendation type.

Type: String

Valid Values: COMPUTE_SP | EC2_INSTANCE_SP | SAGEMAKER_SP | DATABASE_SP

Required: No

TermInYears

The term of the commitment in years.

Type: String

Valid Values: ONE_YEAR | THREE_YEARS

Required: No

UpfrontCost

The upfront cost of the recommended Savings Plan, based on the selected payment option.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\\S\\s]*

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RecommendationDetailHourlyMetrics

Service: Amazon Cost Explorer

Contains the hourly metrics for the given recommendation over the lookback period.

Contents

CurrentCoverage

The current amount of Savings Plans eligible usage that the Savings Plan covered.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedCoverage

The estimated coverage amount based on the recommended Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedNewCommitmentUtilization

The estimated utilization for the recommended Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCost

The remaining On-Demand cost estimated to not be covered by the recommended Savings Plan, over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

StartTime

The period of time that you want the usage and costs for.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(\[+-]\d\d:\d\d)|Z)$`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RedshiftInstanceDetails

Service: Amazon Cost Explorer

Details about the Amazon Redshift reservations that Amazon recommends that you purchase.

Contents

CurrentGeneration

Determines whether the recommendation is for a current-generation instance.

Type: Boolean

Required: No

Family

The instance family of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NodeType

The type of node that Amazon recommends.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The Amazon Web Services Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SizeFlexEligible

Determines whether the recommended reservation is size flexible.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReservationAggregates

Service: Amazon Cost Explorer

The aggregated numbers for your reservation usage.

Contents

AmortizedRecurringFee

The monthly cost of your reservation. It's amortized over the reservation period.

Type: String

Required: No

AmortizedUpfrontFee

The upfront cost of your reservation. It's amortized over the reservation period.

Type: String

Required: No

NetRISavings

How much you saved due to purchasing and utilizing reservation. Amazon calculates this by subtracting `TotalAmortizedFee` from `OnDemandCostOfRIHoursUsed`.

Type: String

Required: No

OnDemandCostOfRIHoursUsed

How much your reservation costs if charged On-Demand rates.

Type: String

Required: No

PurchasedHours

How many reservation hours that you purchased.

Type: String

Required: No

PurchasedUnits

The number of Amazon EC2 reservation hours that you purchased. It's converted to normalized units. Normalized units are available only for Amazon EC2 usage after November 11, 2017.

Type: String

Required: No

RealizedSavings

The realized savings because of purchasing and using a reservation.

Type: String

Required: No

RICostForUnusedHours

The cost of unused hours for your reservation.

Type: String

Required: No

TotalActualHours

The total number of reservation hours that you used.

Type: String

Required: No

TotalActualUnits

The total number of Amazon EC2 reservation hours that you used. It's converted to normalized units. Normalized units are available only for Amazon EC2 usage after November 11, 2017.

Type: String

Required: No

TotalAmortizedFee

The total cost of your reservation. It's amortized over the reservation period.

Type: String

Required: No

TotalPotentialRISavings

How much you might save if you use your entire reservation.

Type: String

Required: No

UnrealizedSavings

The unrealized savings because of purchasing and using a reservation.

Type: String

Required: No

UnusedHours

The number of reservation hours that you didn't use.

Type: String

Required: No

UnusedUnits

The number of Amazon EC2 reservation hours that you didn't use. It's converted to normalized units. Normalized units are available only for Amazon EC2 usage after November 11, 2017.

Type: String

Required: No

UtilizationPercentage

The percentage of reservation time that you used.

Type: String

Required: No

UtilizationPercentageInUnits

The percentage of Amazon EC2 reservation time that you used. It's converted to normalized units. Normalized units are available only for Amazon EC2 usage after November 11, 2017.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReservationCoverageGroup

Service: Amazon Cost Explorer

A group of reservations that share a set of attributes.

Contents

Attributes

The attributes for this group of reservations.

Type: String to string map

Required: No

Coverage

How much instance usage this group of reservations covered.

Type: [Coverage](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReservationPurchaseRecommendation

Service: Amazon Cost Explorer

A specific reservation that Amazon recommends for purchase.

Contents

AccountScope

The account scope that Amazon recommends that you purchase this instance for. For example, you can purchase this reservation for an entire organization in Amazon Organizations.

Type: String

Valid Values: PAYER | LINKED

Required: No

LookbackPeriodInDays

How many days of previous usage that Amazon considers when making this recommendation.

Type: String

Valid Values: SEVEN_DAYS | THIRTY_DAYS | SIXTY_DAYS

Required: No

PaymentOption

The payment option for the reservation (for example, AllUpfront or NoUpfront).

Type: String

Valid Values: NO_UPFRONT | PARTIAL_UPFRONT | ALL_UPFRONT | LIGHT_UTILIZATION
| MEDIUM_UTILIZATION | HEAVY_UTILIZATION

Required: No

RecommendationDetails

Details about the recommended purchases.

Type: Array of [ReservationPurchaseRecommendationDetail](#) objects

Required: No

RecommendationSummary

A summary about the recommended purchase.

Type: [ReservationPurchaseRecommendationSummary](#) object

Required: No

ServiceSpecification

Hardware specifications for the service that you want recommendations for.

Type: [ServiceSpecification](#) object

Required: No

TermInYears

The term of the reservation that you want recommendations for, in years.

Type: String

Valid Values: ONE_YEAR | THREE_YEARS

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReservationPurchaseRecommendationDetail

Service: Amazon Cost Explorer

Details about your recommended reservation purchase.

Contents

AccountId

The account that this Reserved Instance (RI) recommendation is for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AverageNormalizedUnitsUsedPerHour

The average number of normalized units that you used in an hour during the historical period. Amazon uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AverageNumberOfCapacityUnitsUsedPerHour

The average number of provisioned capacity units that you used in an hour during the historical period. Amazon uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AverageNumberOfInstancesUsedPerHour

The average number of instances that you used in an hour during the historical period. Amazon uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AverageUtilization

The average utilization of your instances. Amazon uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrencyCode

The currency code that Amazon used to calculate the costs for this instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedBreakEvenInMonths

How long Amazon estimates that it takes for this instance to start saving you money, in months.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlyOnDemandCost

How much Amazon estimates that you spend on On-Demand Instances in a month.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavingsAmount

How much Amazon estimates that this specific recommendation might save you in a month.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavingsPercentage

How much Amazon estimates that this specific recommendation might save you in a month, as a percentage of your overall costs.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedReservationCostForLookbackPeriod

How much Amazon estimates that you might spend for all usage during the specified historical period if you had a reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

InstanceDetails

Details about the reservations that Amazon recommends that you purchase.

Type: [InstanceDetails](#) object

Required: No

MaximumNormalizedUnitsUsedPerHour

The maximum number of normalized units that you used in an hour during the historical period. Amazon uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MaximumNumberOfCapacityUnitsUsedPerHour

The maximum number of provisioned capacity units that you used in an hour during the historical period. Amazon uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MaximumNumberOfInstancesUsedPerHour

The maximum number of instances that you used in an hour during the historical period. Amazon uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MinimumNormalizedUnitsUsedPerHour

The minimum number of normalized units that you used in an hour during the historical period. Amazon uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MinimumNumberOfCapacityUnitsUsedPerHour

The minimum number of provisioned capacity units that you used in an hour during the historical period. Amazon uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MinimumNumberOfInstancesUsedPerHour

The minimum number of instances that you used in an hour during the historical period. Amazon uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

RecommendedNormalizedUnitsToPurchase

The number of normalized units that Amazon recommends that you purchase.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

RecommendedNumberOfCapacityUnitsToPurchase

The number of reserved capacity units that Amazon recommends that you purchase.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

RecommendedNumberOfInstancesToPurchase

The number of instances that Amazon recommends that you purchase.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

RecurringStandardMonthlyCost

How much purchasing this instance costs you on a monthly basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ReservedCapacityDetails

Details about the reservations that Amazon recommends that you purchase.

Type: [ReservedCapacityDetails](#) object

Required: No

UpfrontCost

How much purchasing this instance costs you upfront.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReservationPurchaseRecommendationMetadata

Service: Amazon Cost Explorer

Information about a recommendation, such as the timestamp for when Amazon made a specific recommendation.

Contents

AdditionalMetadata

Additional metadata that might be applicable to the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

GenerationTimestamp

The timestamp for when Amazon made the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

RecommendationId

The ID for the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReservationPurchaseRecommendationSummary

Service: Amazon Cost Explorer

A summary about this recommendation, such as the currency code, the amount that Amazon estimates that you could save, and the total amount of reservation to purchase.

Contents

CurrencyCode

The currency code used for this recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TotalEstimatedMonthlySavingsAmount

The total amount that Amazon estimates that this recommendation could save you in a month.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TotalEstimatedMonthlySavingsPercentage

The total amount that Amazon estimates that this recommendation could save you in a month, as a percentage of your costs.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReservationUtilizationGroup

Service: Amazon Cost Explorer

A group of reservations that share a set of attributes.

Contents

Attributes

The attributes for this group of reservations.

Type: String to string map

Required: No

Key

The key for a specific reservation attribute.

Type: String

Required: No

Utilization

How much you used this group of reservations.

Type: [ReservationAggregates](#) object

Required: No

Value

The value of a specific reservation attribute.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReservedCapacityDetails

Service: Amazon Cost Explorer

Details about the reservations that Amazon recommends that you purchase.

Contents

DynamoDBCapacityDetails

The DynamoDB reservations that Amazon recommends that you purchase.

Type: [DynamoDBCapacityDetails](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ResourceDetails

Service: Amazon Cost Explorer

Details for the resource.

Contents

EC2ResourceDetails

Details for the Amazon EC2 resource.

Type: [EC2ResourceDetails](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ResourceTag

Service: Amazon Cost Explorer

The tag structure that contains a tag key and value.

Note

Tagging is supported only for the following Cost Explorer resource types:
[AnomalyMonitor](#), [AnomalySubscription](#), [CostCategory](#).

Contents

Key

The key that's associated with the tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-@]^*)\$$

Required: Yes

Value

The value that's associated with the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-@]^*)\$$

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ResourceUtilization

Service: Amazon Cost Explorer

Resource utilization of current resource.

Contents

EC2ResourceUtilization

The utilization of current Amazon EC2 instance.

Type: [EC2ResourceUtilization](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ResultByTime

Service: Amazon Cost Explorer

The result that's associated with a time period.

Contents

Estimated

Determines whether the result is estimated.

Type: Boolean

Required: No

Groups

The groups that this time period includes.

Type: Array of [Group](#) objects

Required: No

TimePeriod

The time period that the result covers.

Type: [DateInterval](#) object

Required: No

Total

The total amount of cost or usage accrued during the time period.

Type: String to [MetricValue](#) object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RightsizingRecommendation

Service: Amazon Cost Explorer

Recommendations to rightsize resources.

Contents

AccountId

The account that this recommendation is for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentInstance

Context regarding the current instance.

Type: [CurrentInstance](#) object

Required: No

FindingReasonCodes

The list of possible reasons why the recommendation is generated, such as under- or over-utilization of specific metrics (for example, CPU, Memory, Network).

Type: Array of strings

Valid Values: CPU_OVER_PROVISIONED | CPU_UNDER_PROVISIONED
| MEMORY_OVER_PROVISIONED | MEMORY_UNDER_PROVISIONED |
EBS_THROUGHPUT_OVER_PROVISIONED | EBS_THROUGHPUT_UNDER_PROVISIONED
| EBS_IOPS_OVER_PROVISIONED | EBS_IOPS_UNDER_PROVISIONED |
NETWORK_BANDWIDTH_OVER_PROVISIONED | NETWORK_BANDWIDTH_UNDER_PROVISIONED
| NETWORK_PPS_OVER_PROVISIONED | NETWORK_PPS_UNDER_PROVISIONED
| DISK_IOPS_OVER_PROVISIONED | DISK_IOPS_UNDER_PROVISIONED |
DISK_THROUGHPUT_OVER_PROVISIONED | DISK_THROUGHPUT_UNDER_PROVISIONED

Required: No

ModifyRecommendationDetail

The details for the modification recommendations.

Type: [ModifyRecommendationDetail](#) object

Required: No

RightsizingType

A recommendation to either terminate or modify the resource.

Type: String

Valid Values: TERMINATE | MODIFY

Required: No

TerminateRecommendationDetail

The details for termination recommendations.

Type: [TerminateRecommendationDetail](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RightsizingRecommendationConfiguration

Service: Amazon Cost Explorer

You can use `RightsizingRecommendationConfiguration` to customize recommendations across two attributes. You can choose to view recommendations for instances within the same instance families or across different instance families. You can also choose to view your estimated savings that are associated with recommendations with consideration of existing Savings Plans or Reserved Instance (RI) benefits, or neither.

Contents

BenefitsConsidered

The option to consider RI or Savings Plans discount benefits in your savings calculation. The default value is `TRUE`.

Type: Boolean

Required: Yes

RecommendationTarget

The option to see recommendations within the same instance family or recommendations for instances across other families. The default value is `SAME_INSTANCE_FAMILY`.

Type: String

Valid Values: `SAME_INSTANCE_FAMILY` | `CROSS_INSTANCE_FAMILY`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RightsizingRecommendationMetadata

Service: Amazon Cost Explorer

Metadata for a recommendation set.

Contents

AdditionalMetadata

Additional metadata that might be applicable to the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

GenerationTimestamp

The timestamp for when Amazon made the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

LookbackPeriodInDays

The number of days of previous usage that Amazon considers when making the recommendation.

Type: String

Valid Values: SEVEN_DAYS | THIRTY_DAYS | SIXTY_DAYS

Required: No

RecommendationId

The ID for the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RightsizingRecommendationSummary

Service: Amazon Cost Explorer

The summary of rightsizing recommendations

Contents

EstimatedTotalMonthlySavingsAmount

The estimated total savings resulting from modifications, on a monthly basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SavingsCurrencyCode

The currency code that Amazon used to calculate the savings.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SavingsPercentage

The savings percentage based on the recommended modifications. It's relative to the total On-Demand costs that are associated with these instances.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TotalRecommendationCount

The total number of instance recommendations.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RootCause

Service: Amazon Cost Explorer

The combination of Amazon Web Services service, linked account, linked account name, Region, and usage type where a cost anomaly is observed, along with the dollar and percentage amount of the anomaly impact. The linked account name will only be available when the account name can be identified.

Contents

Impact

The dollar impact for the root cause.

Type: [RootCauseImpact](#) object

Required: No

LinkedAccount

The member account value that's associated with the cost anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

LinkedAccountName

The member account name value that's associated with the cost anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The Amazon Web Services Region that's associated with the cost anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Service

The Amazon Web Services service name that's associated with the cost anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

UsageType

The UsageType value that's associated with the cost anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RootCauseImpact

Service: Amazon Cost Explorer

The dollar value of the root cause.

Contents

Contribution

The dollar amount that this root cause contributed to the anomaly's TotalImpact.

Type: Double

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlans

Service: Amazon Cost Explorer

The Savings Plans commitment details.

Contents

InstanceFamily

The instance family of the Savings Plans commitment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

OfferingId

The unique ID that's used to distinguish Savings Plans commitments from one another.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

PaymentOption

The payment option for the Savings Plans commitment.

Type: String

Valid Values: NO_UPFRONT | PARTIAL_UPFRONT | ALL_UPFRONT | LIGHT_UTILIZATION
| MEDIUM_UTILIZATION | HEAVY_UTILIZATION

Required: No

Region

The Region associated with the Savings Plans commitment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SavingsPlansCommitment

The Savings Plans commitment.

Type: Double

Valid Range: Minimum value of 0.001. Maximum value of 5000.

Required: No

SavingsPlansType

The Savings Plans type.

Type: String

Valid Values: `COMPUTE_SP` | `EC2_INSTANCE_SP` | `SAGEMAKER_SP` | `DATABASE_SP`

Required: No

TermInYears

The term that you want the Savings Plans commitment for.

Type: String

Valid Values: `ONE_YEAR` | `THREE_YEARS`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansAmortizedCommitment

Service: Amazon Cost Explorer

The amortized amount of Savings Plans purchased in a specific account during a specific time interval.

Contents

AmortizedRecurringCommitment

The amortized amount of your Savings Plans commitment that was purchased with either a `Partial` or a `NoUpfront`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AmortizedUpfrontCommitment

The amortized amount of your Savings Plans commitment that was purchased with an `Upfront` or `PartialUpfront` Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TotalAmortizedCommitment

The total amortized amount of your Savings Plans commitment, regardless of your Savings Plans purchase method.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansCoverage

Service: Amazon Cost Explorer

The amount of Savings Plans eligible usage that's covered by Savings Plans. All calculations consider the On-Demand equivalent of your Savings Plans usage.

Contents

Attributes

The attribute that applies to a specific Dimension.

Type: String to string map

Required: No

Coverage

The amount of Savings Plans eligible usage that the Savings Plans covered.

Type: [SavingsPlansCoverageData](#) object

Required: No

TimePeriod

The time period of the request.

Type: [DateInterval](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansCoverageData

Service: Amazon Cost Explorer

Specific coverage percentage, On-Demand costs, and spend covered by Savings Plans, and total Savings Plans costs for an account.

Contents

CoveragePercentage

The percentage of your existing Savings Plans covered usage, divided by all of your eligible Savings Plans usage in an account (or set of accounts).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

OnDemandCost

The cost of your Amazon usage at the public On-Demand rate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SpendCoveredBySavingsPlans

The amount of your Amazon usage that's covered by a Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TotalCost

The total cost of your Amazon usage, regardless of your purchase option.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansDetails

Service: Amazon Cost Explorer

The attribute details on a specific Savings Plan.

Contents

InstanceFamily

A group of instance types that Savings Plans applies to.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

OfferingId

The unique ID that's used to distinguish Savings Plans from one another.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

A collection of Amazon resources in a geographic area. Each Amazon Web Services Region is isolated and independent of the other Regions.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansPurchaseAnalysisConfiguration

Service: Amazon Cost Explorer

The configuration for the Savings Plans purchase analysis.

Contents

AnalysisType

The type of analysis.

Type: String

Valid Values: MAX_SAVINGS | CUSTOM_COMMITMENT

Required: Yes

LookBackTimePeriod

The time period associated with the analysis.

Type: [DateInterval](#) object

Required: Yes

SavingsPlansToAdd

Savings Plans to include in the analysis.

Type: Array of [SavingsPlans](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

AccountId

The account that the analysis is for.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `[0-9]{12}`

SavingsPlansPurchaseAnalysisDetails

Service: Amazon Cost Explorer

Details about the Savings Plans purchase analysis.

Contents

AdditionalMetadata

Additional metadata that might be applicable to the commitment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrencyCode

The currency code used for the analysis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentAverageCoverage

The average value of hourly coverage over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentAverageHourlyOnDemandSpend

The average value of hourly On-Demand spend over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentMaximumHourlyOnDemandSpend

The highest value of hourly On-Demand spend over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentMinimumHourlyOnDemandSpend

The lowest value of hourly On-Demand spend over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentOnDemandSpend

The current total On-Demand spend over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedAverageCoverage

The estimated coverage of the Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedAverageUtilization

The estimated utilization of the Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedCommitmentCost

The estimated cost of the Savings Plan over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavingsAmount

The estimated monthly savings amount based on the Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCost

The remaining On-Demand cost estimated to not be covered by the Savings Plan over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCostWithCurrentCommitment

The estimated On-Demand cost you expect with no additional commitment based on your usage of the selected time period and the Savings Plan you own.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedROI

The estimated return on investment that's based on the Savings Plan and estimated savings. This is calculated as $\text{estimatedSavingsAmount} / \text{estimatedSPCost} * 100$.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsAmount

The estimated savings amount that's based on the Savings Plan over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsPercentage

The estimated savings percentage relative to the total cost over the cost calculation lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ExistingHourlyCommitment

The existing hourly commitment for the Savings Plan type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

HourlyCommitmentToPurchase

The recommended or custom hourly commitment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

LatestUsageTimestamp

The date and time of the last hour that went into the analysis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

LookbackPeriodInHours

The lookback period in hours that's used to generate the analysis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MetricsOverLookbackPeriod

The related hourly cost, coverage, and utilization metrics over the lookback period.

Type: Array of [RecommendationDetailHourlyMetrics](#) objects

Required: No

UpfrontCost

The upfront cost of the Savings Plan based on the selected payment option.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansPurchaseRecommendation

Service: Amazon Cost Explorer

Contains your request parameters, Savings Plan Recommendations Summary, and Details.

Contents

AccountScope

The account scope that you want your recommendations for. Amazon Web Services calculates recommendations that include the management account and member accounts if the value is set to PAYER. If the value is LINKED, recommendations are calculated for individual member accounts only.

Type: String

Valid Values: PAYER | LINKED

Required: No

LookbackPeriodInDays

The lookback period in days that's used to generate the recommendation.

Type: String

Valid Values: SEVEN_DAYS | THIRTY_DAYS | SIXTY_DAYS

Required: No

PaymentOption

The payment option that's used to generate the recommendation.

Type: String

Valid Values: NO_UPFRONT | PARTIAL_UPFRONT | ALL_UPFRONT | LIGHT_UTILIZATION | MEDIUM_UTILIZATION | HEAVY_UTILIZATION

Required: No

SavingsPlansPurchaseRecommendationDetails

Details for the Savings Plans that we recommend that you purchase to cover existing Savings Plans eligible workloads.

Type: Array of [SavingsPlansPurchaseRecommendationDetail](#) objects

Required: No

SavingsPlansPurchaseRecommendationSummary

Summary metrics for your Savings Plans Recommendations.

Type: [SavingsPlansPurchaseRecommendationSummary](#) object

Required: No

SavingsPlansType

The requested Savings Plans recommendation type.

Type: String

Valid Values: COMPUTE_SP | EC2_INSTANCE_SP | SAGEMAKER_SP | DATABASE_SP

Required: No

TermInYears

The Savings Plans recommendation term in years. It's used to generate the recommendation.

Type: String

Valid Values: ONE_YEAR | THREE_YEARS

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansPurchaseRecommendationDetail

Service: Amazon Cost Explorer

Details for your recommended Savings Plans.

Contents

AccountId

The AccountID the recommendation is generated for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrencyCode

The currency code that Amazon used to generate the recommendations and present potential savings.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentAverageHourlyOnDemandSpend

The average value of hourly On-Demand spend over the lookback period of the applicable usage type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentMaximumHourlyOnDemandSpend

The highest value of hourly On-Demand spend over the lookback period of the applicable usage type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentMinimumHourlyOnDemandSpend

The lowest value of hourly On-Demand spend over the lookback period of the applicable usage type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedAverageUtilization

The estimated utilization of the recommended Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavingsAmount

The estimated monthly savings amount based on the recommended Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCost

The remaining On-Demand cost estimated to not be covered by the recommended Savings Plans, over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCostWithCurrentCommitment

The estimated On-Demand costs you expect with no additional commitment, based on your usage of the selected time period and the Savings Plans you own.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedROI

The estimated return on investment that's based on the recommended Savings Plans that you purchased. This is calculated as $\text{estimatedSavingsAmount} / \text{estimatedSPCost} * 100$.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsAmount

The estimated savings amount that's based on the recommended Savings Plans over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsPercentage

The estimated savings percentage relative to the total cost of applicable On-Demand usage over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSPCost

The cost of the recommended Savings Plans over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

HourlyCommitmentToPurchase

The recommended hourly commitment level for the Savings Plans type and the configuration that's based on the usage during the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SavingsPlansPurchaseRecommendationMetadata

Service: Amazon Cost Explorer

Metadata about your Savings Plans Purchase Recommendations.

Contents

AdditionalMetadata

Additional metadata that might be applicable to the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

GenerationTimestamp

The timestamp that shows when the recommendations were generated.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

RecommendationId

The unique identifier for the recommendation set.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansPurchaseRecommendationSummary

Service: Amazon Cost Explorer

Summary metrics for your Savings Plans Purchase Recommendations.

Contents

CurrencyCode

The currency code that Amazon used to generate the recommendations and present potential savings.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentOnDemandSpend

The current total on demand spend of the applicable usage types over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DailyCommitmentToPurchase

The recommended Savings Plans cost on a daily (24 hourly) basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavingsAmount

The estimated monthly savings amount that's based on the recommended Savings Plans purchase.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCostWithCurrentCommitment

The estimated On-Demand costs you expect with no additional commitment. It's based on your usage of the selected time period and the Savings Plans you own.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedROI

The estimated return on investment that's based on the recommended Savings Plans and estimated savings.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsAmount

The estimated total savings over the lookback period, based on the purchase of the recommended Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsPercentage

The estimated savings relative to the total cost of On-Demand usage, over the lookback period. This is calculated as $\text{estimatedSavingsAmount} / \text{CurrentOnDemandSpend} * 100$.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedTotalCost

The estimated total cost of the usage after purchasing the recommended Savings Plans. This is a sum of the cost of Savings Plans during this term, and the remaining On-Demand usage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

HourlyCommitmentToPurchase

The recommended hourly commitment that's based on the recommendation parameters.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TotalRecommendationCount

The aggregate number of Savings Plans recommendations that exist for your account.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansSavings

Service: Amazon Cost Explorer

The amount of savings that you're accumulating, against the public On-Demand rate of the usage accrued in an account.

Contents

NetSavings

The savings amount that you're accumulating for the usage that's covered by a Savings Plans, when compared to the On-Demand equivalent of the same usage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

OnDemandCostEquivalent

How much the amount that the usage would have cost if it was accrued at the On-Demand rate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansUtilization

Service: Amazon Cost Explorer

The measurement of how well you're using your existing Savings Plans.

Contents

TotalCommitment

The total amount of Savings Plans commitment that's been purchased in an account (or set of accounts).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

UnusedCommitment

The amount of your Savings Plans commitment that wasn't consumed from Savings Plans eligible usage in a specific period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

UsedCommitment

The amount of your Savings Plans commitment that was consumed from Savings Plans eligible usage in a specific period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

UtilizationPercentage

The amount of UsedCommitment divided by the TotalCommitment for your Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansUtilizationAggregates

Service: Amazon Cost Explorer

The aggregated utilization metrics for your Savings Plans usage.

Contents

Utilization

A ratio of your effectiveness of using existing Savings Plans to apply to workloads that are Savings Plans eligible.

Type: [SavingsPlansUtilization](#) object

Required: Yes

AmortizedCommitment

The total amortized commitment for a Savings Plans. This includes the sum of the upfront and recurring Savings Plans fees.

Type: [SavingsPlansAmortizedCommitment](#) object

Required: No

Savings

The amount that's saved by using existing Savings Plans. Savings returns both net savings from Savings Plans and also the `onDemandCostEquivalent` of the Savings Plans when considering the utilization rate.

Type: [SavingsPlansSavings](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

SavingsPlansUtilizationByTime

Service: Amazon Cost Explorer

The amount of Savings Plans utilization (in hours).

Contents

TimePeriod

The time period of the request.

Type: [DateInterval](#) object

Required: Yes

Utilization

A ratio of your effectiveness of using existing Savings Plans to apply to workloads that are Savings Plans eligible.

Type: [SavingsPlansUtilization](#) object

Required: Yes

AmortizedCommitment

The total amortized commitment for a Savings Plans. This includes the sum of the upfront and recurring Savings Plans fees.

Type: [SavingsPlansAmortizedCommitment](#) object

Required: No

Savings

The amount that's saved by using existing Savings Plans. Savings returns both net savings from Savings Plans and also the `onDemandCostEquivalent` of the Savings Plans when considering the utilization rate.

Type: [SavingsPlansSavings](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansUtilizationDetail

Service: Amazon Cost Explorer

A single daily or monthly Savings Plans utilization rate and details for your account. A management account in an organization have access to member accounts. You can use `GetDimensionValues` to determine the possible dimension values.

Contents

AmortizedCommitment

The total amortized commitment for a Savings Plans. Includes the sum of the upfront and recurring Savings Plans fees.

Type: [SavingsPlansAmortizedCommitment](#) object

Required: No

Attributes

The attribute that applies to a specific `Dimension`.

Type: String to string map

Required: No

Savings

The amount saved by using existing Savings Plans. Savings returns both net savings from savings plans and also the `onDemandCostEquivalent` of the Savings Plans when considering the utilization rate.

Type: [SavingsPlansSavings](#) object

Required: No

SavingsPlanArn

The unique Amazon Resource Name (ARN) for a particular Savings Plan.

Type: String

Required: No

Utilization

A ratio of your effectiveness of using existing Savings Plans to apply to workloads that are Savings Plans eligible.

Type: [SavingsPlansUtilization](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ServiceSpecification

Service: Amazon Cost Explorer

Hardware specifications for the service that you want recommendations for.

Contents

EC2Specification

The Amazon EC2 hardware specifications that you want Amazon to provide recommendations for.

Type: [EC2Specification](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SortDefinition

Service: Amazon Cost Explorer

The details for how to sort the data.

Contents

Key

The key that's used to sort the data.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

SortOrder

The order that's used to sort the data.

Type: String

Valid Values: ASCENDING | DESCENDING

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Subscriber

Service: Amazon Cost Explorer

The recipient of AnomalySubscription notifications.

Contents

Address

The email address or SNS Amazon Resource Name (ARN). This depends on the Type.

Type: String

Length Constraints: Minimum length of 6. Maximum length of 302.

Pattern: `(^[a-zA-Z0-9.!#$%&'*=+?^_'\{\}~-]+@[a-zA-Z0-9_-]+(\.[a-zA-Z0-9_-]+)+$)|(^arn:(aws[a-zA-Z-]*):sns:[a-zA-Z0-9-]+:[0-9]{12}:[a-zA-Z0-9_-]+(\.fifo)?$)`

Required: No

Status

Indicates if the subscriber accepts the notifications.

Type: String

Valid Values: CONFIRMED | DECLINED

Required: No

Type

The notification delivery channel.

Type: String

Valid Values: EMAIL | SNS

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TagValues

Service: Amazon Cost Explorer

The values that are available for a tag.

If `Values` and `Key` aren't specified, the `ABSENT MatchOption` is applied to all tags. That is, it's filtered on resources with no tags.

If `Key` is provided and `Values` isn't specified, the `ABSENT MatchOption` is applied to the tag `Key` only. That is, it's filtered on resources without the given tag key.

Contents

Key

The key for the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MatchOptions

The match options that you can use to filter your results. `MatchOptions` is only applicable for actions related to cost category. The default values for `MatchOptions` are `EQUALS` and `CASE_SENSITIVE`.

Type: Array of strings

Valid Values: `EQUALS` | `ABSENT` | `STARTS_WITH` | `ENDS_WITH` | `CONTAINS` | `CASE_SENSITIVE` | `CASE_INSENSITIVE` | `GREATER_THAN_OR_EQUAL`

Required: No

Values

The specific value of the tag.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TargetInstance

Service: Amazon Cost Explorer

Details on recommended instance.

Contents

CurrencyCode

The currency code that Amazon used to calculate the costs for this instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DefaultTargetInstance

Determines whether this recommendation is the defaulted Amazon recommendation.

Type: Boolean

Required: No

EstimatedMonthlyCost

The expected cost to operate this instance type on a monthly basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavings

The estimated savings that result from modification, on a monthly basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ExpectedResourceUtilization

The expected utilization metrics for target instance type.

Type: [ResourceUtilization](#) object

Required: No

PlatformDifferences

Explains the actions that you might need to take to successfully migrate your workloads from the current instance type to the recommended instance type.

Type: Array of strings

Valid Values: HYPERVISOR | NETWORK_INTERFACE | STORAGE_INTERFACE |
INSTANCE_STORE_AVAILABILITY | VIRTUALIZATION_TYPE

Required: No

ResourceDetails

Details on the target instance type.

Type: [ResourceDetails](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TerminateRecommendationDetail

Service: Amazon Cost Explorer

Details on termination recommendation.

Contents

CurrencyCode

The currency code that Amazon used to calculate the costs for this instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavings

The estimated savings that result from modification, on a monthly basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TotalImpactFilter

Service: Amazon Cost Explorer

Filters cost anomalies based on the total impact.

Contents

NumericOperator

The comparing value that's used in the filter.

Type: String

Valid Values: EQUAL | GREATER_THAN_OR_EQUAL | LESS_THAN_OR_EQUAL | GREATER_THAN | LESS_THAN | BETWEEN

Required: Yes

StartValue

The lower bound dollar value that's used in the filter.

Type: Double

Required: Yes

EndValue

The upper bound dollar value that's used in the filter.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

UpdateCostAllocationTagsStatusError

Service: Amazon Cost Explorer

Gives a detailed description of the result of an action. It's on each cost allocation tag entry in the request.

Contents

Code

An error code representing why the action failed on this entry.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Message

A message explaining why the action failed on this entry.

Type: String

Required: No

TagKey

The key for the cost allocation tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

UtilizationByTime

Service: Amazon Cost Explorer

The amount of utilization, in hours.

Contents

Groups

The groups that this utilization result uses.

Type: Array of [ReservationUtilizationGroup](#) objects

Required: No

TimePeriod

The period of time that this utilization was used for.

Type: [DateInterval](#) object

Required: No

Total

The total number of reservation hours that were used.

Type: [ReservationAggregates](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Amazon Billing and Cost Management Dashboards

The following data types are supported by Amazon Billing and Cost Management Dashboards:

- [CostAndUsageQuery](#)
- [CostCategoryValues](#)
- [DashboardReference](#)
- [DateTimeRange](#)
- [DateTimeValue](#)
- [DimensionValues](#)
- [DisplayConfig](#)
- [Expression](#)
- [GraphDisplayConfig](#)
- [GroupDefinition](#)
- [QueryParameters](#)
- [ReservationCoverageQuery](#)
- [ReservationUtilizationQuery](#)
- [ResourceTag](#)
- [SavingsPlansCoverageQuery](#)
- [SavingsPlansUtilizationQuery](#)
- [TableDisplayConfigStruct](#)
- [TagValues](#)
- [Widget](#)
- [WidgetConfig](#)

CostAndUsageQuery

Service: Amazon Billing and Cost Management Dashboards

Defines the parameters for retrieving Amazon cost and usage data. Includes specifications for metrics, time periods, granularity, grouping dimensions, and filtering conditions.

Contents

granularity

The granularity of the retrieved data: HOURLY, DAILY, or MONTHLY.

Type: String

Valid Values: HOURLY | DAILY | MONTHLY

Required: Yes

metrics

The specific cost and usage metrics to retrieve.

Note

Valid values for CostAndUsageQuery metrics are AmortizedCost, BlendedCost, NetAmortizedCost, NetUnblendedCost, NormalizedUsageAmount, UnblendedCost, and UsageQuantity.

Type: Array of strings

Valid Values: AmortizedCost | BlendedCost | NetAmortizedCost | NetUnblendedCost | NormalizedUsageAmount | UnblendedCost | UsageQuantity | SpendCoveredBySavingsPlans | Hour | Unit | Cost

Required: Yes

timeRange

The time period for which to retrieve data. Can be specified as absolute dates or relative time periods.

Type: [DateTimeRange](#) object

Required: Yes

filter

The filter expression to be applied to the cost and usage data.

Type: [Expression](#) object

Required: No

groupBy

Specifies how to group the retrieved data, such as by SERVICE, ACCOUNT, or TAG.

Type: Array of [GroupDefinition](#) objects

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostCategoryValues

Service: Amazon Billing and Cost Management Dashboards

Specifies the values and match options for cost category-based filtering in cost and usage queries.

Contents

key

The key of the cost category to filter on.

Type: String

Required: No

matchOptions

The match options for cost category values, such as EQUALS, CONTAINS, STARTS_WITH, or ENDS_WITH.

Type: Array of strings

Valid Values: EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL | CASE_SENSITIVE | CASE_INSENSITIVE

Required: No

values

The values to match for the specified cost category key.

Type: Array of strings

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

DashboardReference

Service: Amazon Billing and Cost Management Dashboards

Contains basic information about a dashboard, including its ARN, name, type, and timestamps.

Contents

arn

The ARN of the referenced dashboard.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(*|[-a-z0-9]+)`

Required: Yes

createdAt

The timestamp when the dashboard was created.

Type: Timestamp

Required: Yes

name

The name of the referenced dashboard.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 50.

Pattern: `(?!.*{2})[a-zA-Z][a-zA-Z0-9 _-]{0,48}[a-zA-Z0-9_-]`

Required: Yes

type

The dashboard type.

Type: String

Valid Values: CUSTOM

Required: Yes

updatedAt

The timestamp when the dashboard was last modified.

Type: Timestamp

Required: Yes

description

The description of the referenced dashboard.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: (?!.* {2})[a-zA-Z0-9.,!?:@#%&\-_/\\]*

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DateTimeRange

Service: Amazon Billing and Cost Management Dashboards

Defines a time period with explicit start and end times for data queries.

Contents

endTime

The end time of the date range for querying data.

Type: [DateTimeValue](#) object

Required: Yes

startTime

The start time of the date range for querying data.

Type: [DateTimeValue](#) object

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DateTimeValue

Service: Amazon Billing and Cost Management Dashboards

Represents a point in time that can be specified as either an absolute date (for example, "2025-07-01") or a relative time period using ISO 8601 duration format (for example, "-P3M" for three months ago).

Contents

type

The type of date/time value: ABSOLUTE for specific dates or RELATIVE for dynamic time periods.

Type: String

Valid Values: ABSOLUTE | RELATIVE

Required: Yes

value

The actual date/time value.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DimensionValues

Service: Amazon Billing and Cost Management Dashboards

Specifies the values and match options for dimension-based filtering in cost and usage queries.

Contents

key

The key of the dimension to filter on (for example, SERVICE, USAGE_TYPE, or OPERATION).

Type: String

Valid Values: AZ | INSTANCE_TYPE | LINKED_ACCOUNT | OPERATION | PURCHASE_TYPE | REGION | SERVICE | USAGE_TYPE | USAGE_TYPE_GROUP | RECORD_TYPE | RESOURCE_ID | SUBSCRIPTION_ID | TAG_KEY | OPERATING_SYSTEM | TENANCY | BILLING_ENTITY | RESERVATION_ID | COST_CATEGORY_NAME | DATABASE_ENGINE | LEGAL_ENTITY_NAME | SAVINGS_PLANS_TYPE | INSTANCE_TYPE_FAMILY | CACHE_ENGINE | DEPLOYMENT_OPTION | SCOPE | PLATFORM

Required: Yes

values

The values to match for the specified dimension key.

Type: Array of strings

Required: Yes

matchOptions

The match options for dimension values, such as EQUALS, CONTAINS, STARTS_WITH, or ENDS_WITH.

Type: Array of strings

Valid Values: EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL | CASE_SENSITIVE | CASE_INSENSITIVE

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DisplayConfig

Service: Amazon Billing and Cost Management Dashboards

Defines how the widget's data should be visualized, including chart type, color schemes, axis configurations, and other display preferences.

Contents

Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

graph

The configuration for graphical display of the widget data, including chart type and visual options.

Type: String to [GraphDisplayConfig](#) object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Required: No

table

The configuration for tabular display of the widget data.

Type: [TableDisplayConfigStruct](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Expression

Service: Amazon Billing and Cost Management Dashboards

Defines complex filtering conditions using logical operators (AND, OR, NOT) and various filter types.

Contents

and

A list of expressions to combine with AND logic.

Type: Array of [Expression](#) objects

Required: No

costCategories

The cost category values to include in the filter expression.

Type: [CostCategoryValues](#) object

Required: No

dimensions

The dimension values to include in the filter expression.

Type: [DimensionValues](#) object

Required: No

not

An expression to negate with NOT logic.

Type: [Expression](#) object

Required: No

or

A list of expressions to combine with OR logic.

Type: Array of [Expression](#) objects

Required: No

tags

The tag values to include in the filter expression.

Type: [TagValues](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

GraphDisplayConfig

Service: Amazon Billing and Cost Management Dashboards

Defines the visual representation settings for widget data, including the visualization type, styling options, and display preferences for different metric types.

Contents

visualType

The type of visualization to use for the data.

Type: String

Valid Values: LINE | BAR | STACK

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

GroupDefinition

Service: Amazon Billing and Cost Management Dashboards

Specifies how to group cost and usage data.

Contents

key

The key to use for grouping cost and usage data.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

type

The type of grouping to apply.

Type: String

Valid Values: DIMENSION | TAG | COST_CATEGORY

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

QueryParameters

Service: Amazon Billing and Cost Management Dashboards

Defines the data retrieval parameters for a widget.

Contents

Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

costAndUsage

The parameters for querying cost and usage data, including metrics, time range, granularity, grouping dimensions, and filters.

Type: [CostAndUsageQuery](#) object

Required: No

reservationCoverage

The parameters for querying Reserved Instance coverage data, showing how much of your eligible instance usage is covered by Reserved Instances.

Type: [ReservationCoverageQuery](#) object

Required: No

reservationUtilization

The parameters for querying Reserved Instance utilization data, showing how effectively your Reserved Instances are being used.

Type: [ReservationUtilizationQuery](#) object

Required: No

savingsPlansCoverage

The parameters for querying Savings Plans coverage data, showing how much of your eligible compute usage is covered by Savings Plans.

Type: [SavingsPlansCoverageQuery](#) object

Required: No

savingsPlansUtilization

The parameters for querying Savings Plans utilization data, showing how effectively your Savings Plans are being used.

Type: [SavingsPlansUtilizationQuery](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReservationCoverageQuery

Service: Amazon Billing and Cost Management Dashboards

Defines the parameters for querying Reserved Instance coverage data, including grouping options, metrics, and sorting preferences.

Contents

timeRange

Defines a time period with explicit start and end times for data queries.

Type: [DateTimeRange](#) object

Required: Yes

filter

Defines complex filtering conditions using logical operators (AND, OR, NOT) and various filter types.

Type: [Expression](#) object

Required: No

granularity

The time granularity of the retrieved data: HOURLY, DAILY, or MONTHLY.

Type: String

Valid Values: HOURLY | DAILY | MONTHLY

Required: No

groupBy

Specifies how to group the Reserved Instance coverage data, such as by service, Region, or instance type.

Type: Array of [GroupDefinition](#) objects

Required: No

metrics

The coverage metrics to include in the results.

Note

Valid values for ReservationCoverageQuery metrics are Hour, Unit, and Cost.

Type: Array of strings

Valid Values: AmortizedCost | BlendedCost | NetAmortizedCost |
NetUnblendedCost | NormalizedUsageAmount | UnblendedCost | UsageQuantity
| SpendCoveredBySavingsPlans | Hour | Unit | Cost

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReservationUtilizationQuery

Service: Amazon Billing and Cost Management Dashboards

Defines the parameters for querying Reserved Instance utilization data, including grouping options and time granularity.

Contents

timeRange

Defines a time period with explicit start and end times for data queries.

Type: [DateTimeRange](#) object

Required: Yes

filter

Defines complex filtering conditions using logical operators (AND, OR, NOT) and various filter types.

Type: [Expression](#) object

Required: No

granularity

The time granularity of the retrieved data: HOURLY, DAILY, or MONTHLY.

Type: String

Valid Values: HOURLY | DAILY | MONTHLY

Required: No

groupBy

Specifies how to group the Reserved Instance utilization data, such as by service, Region, or instance type.

Type: Array of [GroupDefinition](#) objects

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ResourceTag

Service: Amazon Billing and Cost Management Dashboards

A key-value pair that can be attached to a dashboard for organization and management purposes.

Contents

key

The key of the tag to be attached to the dashboard resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\S\s]*`

Required: Yes

value

The value of the tag to be attached to the dashboard resource.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansCoverageQuery

Service: Amazon Billing and Cost Management Dashboards

Defines the parameters for querying Savings Plans coverage data, including metrics, grouping options, and time granularity.

Contents

timeRange

Defines a time period with explicit start and end times for data queries.

Type: [DateTimeRange](#) object

Required: Yes

filter

Defines complex filtering conditions using logical operators (AND, OR, NOT) and various filter types.

Type: [Expression](#) object

Required: No

granularity

The time granularity of the retrieved data: HOURLY, DAILY, or MONTHLY.

Type: String

Valid Values: HOURLY | DAILY | MONTHLY

Required: No

groupBy

Specifies how to group the Savings Plans coverage data, such as by service or instance family.

Type: Array of [GroupDefinition](#) objects

Required: No

metrics

The coverage metrics to include in the results.

Note

Valid value for SavingsPlansCoverageQuery metrics is SpendCoveredBySavingsPlans.

Type: Array of strings

Valid Values: AmortizedCost | BlendedCost | NetAmortizedCost | NetUnblendedCost | NormalizedUsageAmount | UnblendedCost | UsageQuantity | SpendCoveredBySavingsPlans | Hour | Unit | Cost

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansUtilizationQuery

Service: Amazon Billing and Cost Management Dashboards

Defines the parameters for querying Savings Plans utilization data, including time granularity and sorting preferences.

Contents

timeRange

Defines a time period with explicit start and end times for data queries.

Type: [DateTimeRange](#) object

Required: Yes

filter

Defines complex filtering conditions using logical operators (AND, OR, NOT) and various filter types.

Type: [Expression](#) object

Required: No

granularity

The time granularity of the retrieved data: HOURLY, DAILY, or MONTHLY.

Type: String

Valid Values: HOURLY | DAILY | MONTHLY

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

TableDisplayConfigStruct

Service: Amazon Billing and Cost Management Dashboards

Configuration structure for customizing the tabular display of widget data.

Contents

The members of this exception structure are context-dependent.

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TagValues

Service: Amazon Billing and Cost Management Dashboards

Specifies tag-based filtering options for cost and usage queries.

Contents

key

The key of the tag to filter on.

Type: String

Required: No

matchOptions

The match options for tag values, such as EQUALS, CONTAINS, STARTS_WITH, or ENDS_WITH.

Type: Array of strings

Valid Values: EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL | CASE_SENSITIVE | CASE_INSENSITIVE

Required: No

values

The values to match for the specified tag key.

Type: Array of strings

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Widget

Service: Amazon Billing and Cost Management Dashboards

A configurable visualization component within a dashboard that displays specific cost and usage metrics. Each widget can show data as charts or tables and includes settings for data querying, filtering, and visual presentation.

Contents

configs

An array of configurations that define the data queries and display settings for the widget.

Type: Array of [WidgetConfig](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: Yes

title

The title of the widget.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 50.

Pattern: `(?!.* {2})[a-zA-Z0-9_-][a-zA-Z0-9_-]*[a-zA-Z0-9_-]`

Required: Yes

description

A description of the widget's purpose or the data it displays.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!.* {2})[a-zA-Z0-9.,!?:;@#%&\-_/\\]*`

Required: No

height

The height of the widget in row spans. The dashboard layout consists of a grid system.

Type: Integer

Valid Range: Minimum value of 4. Maximum value of 10.

Required: No

horizontalOffset

Specifies the starting column position of the widget in the dashboard's grid layout. Used to control widget placement.

Type: Integer

Required: No

width

The width of the widget in column spans. The dashboard layout consists of a grid system.

Type: Integer

Valid Range: Minimum value of 2. Maximum value of 6.

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

WidgetConfig

Service: Amazon Billing and Cost Management Dashboards

Defines the complete configuration for a widget, including data retrieval settings and visualization preferences.

Contents

displayConfig

The configuration that determines how the retrieved data should be visualized in the widget.

Type: [DisplayConfig](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

queryParameters

The parameters that define what data the widget should retrieve and how it should be filtered or grouped.

Type: [QueryParameters](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Amazon Data Exports

The following data types are supported by Amazon Data Exports:

- [Column](#)
- [DataQuery](#)
- [DestinationConfigurations](#)
- [ExecutionReference](#)
- [ExecutionStatus](#)
- [Export](#)
- [ExportReference](#)
- [ExportStatus](#)
- [RefreshCadence](#)
- [ResourceTag](#)
- [S3Destination](#)
- [S3OutputConfigurations](#)
- [Table](#)
- [TablePropertyDescription](#)
- [ValidationExceptionField](#)

Column

Service: Amazon Data Exports

Includes basic information for a data column such as its description, name, and type.

Contents

Description

The description for a column.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Name

The column name.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Type

The kind of data a column stores.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DataQuery

Service: Amazon Data Exports

The SQL query of column selections and row filters from the data table you want.

Contents

QueryStatement

The query statement.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36000.

Pattern: `[\S\s]*`

Required: Yes

TableConfigurations

The table configuration.

Type: String to string to string map map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Value Length Constraints: Minimum length of 0. Maximum length of 1024.

Value Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DestinationConfigurations

Service: Amazon Data Exports

The destinations used for data exports.

Contents

S3Destination

An object that describes the destination of the data exports file.

Type: [S3Destination](#) object

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ExecutionReference

Service: Amazon Data Exports

The reference for the data export update.

Contents

ExecutionId

The ID for this specific execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

ExecutionStatus

The status of this specific execution.

Type: [ExecutionStatus](#) object

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ExecutionStatus

Service: Amazon Data Exports

The status of the execution.

Contents

CompletedAt

The time when the execution was completed.

Type: Timestamp

Required: No

CreatedAt

The time when the execution was created.

Type: Timestamp

Required: No

LastUpdatedAt

The time when the execution was last updated.

Type: Timestamp

Required: No

StatusCode

The code for the status of the execution.

Type: String

Valid Values: INITIATION_IN_PROCESS | QUERY_QUEUED | QUERY_IN_PROCESS
| QUERY_FAILURE | DELIVERY_IN_PROCESS | DELIVERY_SUCCESS |
DELIVERY_FAILURE

Required: No

StatusReason

The reason for the failed status.

Type: String

Valid Values: INSUFFICIENT_PERMISSION | BILL_OWNER_CHANGED | INTERNAL_FAILURE

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Export

Service: Amazon Data Exports

The details that are available for an export.

Contents

DataQuery

The data query for this specific data export.

Type: [DataQuery](#) object

Required: Yes

DestinationConfigurations

The destination configuration for this specific data export.

Type: [DestinationConfigurations](#) object

Required: Yes

Name

The name of this specific data export.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[0-9A-Za-z!\-_\.*\ ' ()]+`

Required: Yes

RefreshCadence

The cadence for Amazon to update the export in your S3 bucket.

Type: [RefreshCadence](#) object

Required: Yes

Description

The description for this specific data export.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/_:~]+`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ExportReference

Service: Amazon Data Exports

The reference details for a given export.

Contents

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

ExportName

The name of this specific data export.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[0-9A-Za-z!\-_\.*\ ' ()]+`

Required: Yes

ExportStatus

The status of this specific data export.

Type: [ExportStatus](#) object

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ExportStatus

Service: Amazon Data Exports

The status of the data export.

Contents

CreatedAt

The timestamp of when the export was created.

Type: Timestamp

Required: No

LastRefreshedAt

The timestamp of when the export was last generated.

Type: Timestamp

Required: No

LastUpdatedAt

The timestamp of when the export was updated.

Type: Timestamp

Required: No

StatusCode

The status code for the request.

Type: String

Valid Values: HEALTHY | UNHEALTHY

Required: No

StatusReason

The description for the status code.

Type: String

Valid Values: INSUFFICIENT_PERMISSION | BILL_OWNER_CHANGED | INTERNAL_FAILURE

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RefreshCadence

Service: Amazon Data Exports

The cadence for Amazon to update the data export in your S3 bucket.

Contents

Frequency

The frequency that data exports are updated. The export refreshes each time the source data updates, up to three times daily.

Type: String

Valid Values: SYNCHRONOUS

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ResourceTag

Service: Amazon Data Exports

The tag structure that contains a tag key and value.

Contents

Key

The key that's associated with the tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Value

The value that's associated with the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

S3Destination

Service: Amazon Data Exports

Describes the destination Amazon Simple Storage Service (Amazon S3) bucket name and object keys of a data exports file.

Contents

S3Bucket

The name of the Amazon S3 bucket used as the destination of a data export file.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [`\S\s`]*

Required: Yes

S3OutputConfigurations

The output configuration for the data export.

Type: [S3OutputConfigurations](#) object

Required: Yes

S3Prefix

The S3 path prefix you want prepended to the name of your data export.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [`\S\s`]*

Required: Yes

S3Region

The S3 bucket Region.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

S3OutputConfigurations

Service: Amazon Data Exports

The compression type, file format, and overwrite preference for the data export.

Contents

Compression

The compression type for the data export.

Type: String

Valid Values: GZIP | PARQUET

Required: Yes

Format

The file format for the data export.

Type: String

Valid Values: TEXT_OR_CSV | PARQUET

Required: Yes

OutputType

The output type for the data export.

Type: String

Valid Values: CUSTOM

Required: Yes

Overwrite

The rule to follow when generating a version of the data export file. You have the choice to overwrite the previous version or to be delivered in addition to the previous versions. Overwriting exports can save on Amazon S3 storage costs. Creating new export versions allows you to track the changes in cost and usage data over time.

Type: String

Valid Values: CREATE_NEW_REPORT | OVERWRITE_REPORT

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Table

Service: Amazon Data Exports

The details for the data export table.

Contents

Description

The description for the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TableProperties

The properties for the table.

Type: Array of [TablePropertyDescription](#) objects

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TablePropertyDescription

Service: Amazon Data Exports

The properties for the data export table.

Contents

DefaultValue

The default value for the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Description

The description for the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Name

The name of the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ValidValues

The valid values for the table.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ValidationExceptionField

Service: Amazon Data Exports

The input failed to meet the constraints specified by the Amazon service in a specified field.

Contents

Message

A message with the reason for the validation exception error.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Name

The field name where the invalid entry was detected.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Amazon Pricing Calculator

The following data types are supported by Amazon Pricing Calculator:

- [AddReservedInstanceAction](#)
- [AddSavingsPlanAction](#)
- [BatchCreateBillScenarioCommitmentModificationEntry](#)
- [BatchCreateBillScenarioCommitmentModificationError](#)
- [BatchCreateBillScenarioCommitmentModificationItem](#)
- [BatchCreateBillScenarioUsageModificationEntry](#)
- [BatchCreateBillScenarioUsageModificationError](#)
- [BatchCreateBillScenarioUsageModificationItem](#)
- [BatchCreateWorkloadEstimateUsageEntry](#)
- [BatchCreateWorkloadEstimateUsageError](#)
- [BatchCreateWorkloadEstimateUsageItem](#)
- [BatchDeleteBillScenarioCommitmentModificationError](#)
- [BatchDeleteBillScenarioUsageModificationError](#)
- [BatchDeleteWorkloadEstimateUsageError](#)
- [BatchUpdateBillScenarioCommitmentModificationEntry](#)
- [BatchUpdateBillScenarioCommitmentModificationError](#)
- [BatchUpdateBillScenarioUsageModificationEntry](#)
- [BatchUpdateBillScenarioUsageModificationError](#)
- [BatchUpdateWorkloadEstimateUsageEntry](#)
- [BatchUpdateWorkloadEstimateUsageError](#)
- [BillEstimateCommitmentSummary](#)
- [BillEstimateCostSummary](#)
- [BillEstimateInputCommitmentModificationSummary](#)
- [BillEstimateInputUsageModificationSummary](#)
- [BillEstimateLineItemSummary](#)
- [BillEstimateSummary](#)
- [BillInterval](#)

- [BillScenarioCommitmentModificationAction](#)
- [BillScenarioCommitmentModificationItem](#)
- [BillScenarioSummary](#)
- [BillScenarioUsageModificationItem](#)
- [CostAmount](#)
- [CostDifference](#)
- [Expression](#)
- [ExpressionFilter](#)
- [FilterTimestamp](#)
- [HistoricalUsageEntity](#)
- [ListBillEstimateLineItemsFilter](#)
- [ListBillEstimatesFilter](#)
- [ListBillScenariosFilter](#)
- [ListUsageFilter](#)
- [ListWorkloadEstimatesFilter](#)
- [NegateReservedInstanceAction](#)
- [NegateSavingsPlanAction](#)
- [UsageAmount](#)
- [UsageQuantity](#)
- [UsageQuantityResult](#)
- [ValidationExceptionField](#)
- [WorkloadEstimateSummary](#)
- [WorkloadEstimateUsageItem](#)
- [WorkloadEstimateUsageQuantity](#)

AddReservedInstanceAction

Service: Amazon Pricing Calculator

Represents an action to add a Reserved Instance to a bill scenario.

Contents

instanceCount

The number of instances to add for this Reserved Instance offering.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

reservedInstancesOfferingId

The ID of the Reserved Instance offering to add. For more information, see [DescribeReservedInstancesOfferings](#).

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

AddSavingsPlanAction

Service: Amazon Pricing Calculator

Represents an action to add a Savings Plan to a bill scenario.

Contents

commitment

The hourly commitment, in the same currency of the `savingsPlanOfferingId`. This is a value between 0.001 and 1 million. You cannot specify more than five digits after the decimal point.

Type: Double

Valid Range: Minimum value of 0.001. Maximum value of 1000000.

Required: No

savingsPlanOfferingId

The ID of the Savings Plan offering to add. For more information, see [DescribeSavingsPlansOfferings](#).

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchCreateBillScenarioCommitmentModificationEntry

Service: Amazon Pricing Calculator

Represents an entry object in the batch operation to create bill scenario commitment modifications.

Contents

commitmentAction

The specific commitment action to be taken (e.g., adding a Reserved Instance or Savings Plan).

Type: [BillScenarioCommitmentModificationAction](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

key

A unique identifier for this entry in the batch operation. This can be any valid string. This key is useful to identify errors associated with any commitment entry as any error is returned with this key.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: [a-zA-Z0-9]*

Required: Yes

usageAccountId

The Amazon account ID to which this commitment will be applied to.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: Yes

group

An optional group identifier for the commitment modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: [a-zA-Z0-9-]*

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchCreateBillScenarioCommitmentModificationError

Service: Amazon Pricing Calculator

Represents an error that occurred during a batch create operation for bill scenario commitment modifications.

Contents

errorCode

The error code associated with the failed operation.

Type: String

Valid Values: CONFLICT | INTERNAL_SERVER_ERROR | INVALID_ACCOUNT

Required: No

errorMessage

A descriptive message for the error that occurred.

Type: String

Required: No

key

The key of the entry that caused the error.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: [a-zA-Z0-9]*

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchCreateBillScenarioCommitmentModificationItem

Service: Amazon Pricing Calculator

Represents a successfully created item in a batch operation for bill scenario commitment modifications.

Contents

commitmentAction

The specific commitment action that was taken.

Type: [BillScenarioCommitmentModificationAction](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: No

group

The group identifier for the created commitment modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: [a-zA-Z0-9-]*

Required: No

id

The unique identifier assigned to the created commitment modification.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

key

The key of the successfully created entry. This can be any valid string. This key is useful to identify errors associated with any commitment entry as any error is returned with this key.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: [a-zA-Z0-9]*

Required: No

usageAccountId

The Amazon account ID associated with the created commitment modification.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchCreateBillScenarioUsageModificationEntry

Service: Amazon Pricing Calculator

Represents an entry in a batch operation to create bill scenario usage modifications.

Contents

key

A unique identifier for this entry in the batch operation. This can be any valid string. This key is useful to identify errors associated with any usage entry as any error is returned with this key.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: `[a-zA-Z0-9]*`

Required: Yes

operation

The specific operation associated with this usage modification. Describes the specific Amazon operation that this usage line models. For example, `RunInstances` indicates the operation of an Amazon EC2 instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_: \/\()]*`

Required: Yes

serviceCode

The Amazon service code for this usage modification. This identifies the specific Amazon service to the customer as a unique short abbreviation. For example, `AmazonEC2` and `AWSKMS`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_: \/\()]*`

Required: Yes

usageAccountId

The Amazon account ID to which this usage will be applied to.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

usageType

Describes the usage details of the usage line item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

amounts

The amount of usage you want to create for the service use you are modeling.

Type: Array of [UsageAmount](#) objects

Required: No

availabilityZone

The Availability Zone that this usage line uses.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: No

group

An optional group identifier for the usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: [a-zA-Z0-9-]*

Required: No

historicalUsage

Historical usage data associated with this modification, if available.

Type: [HistoricalUsageEntity](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchCreateBillScenarioUsageModificationError

Service: Amazon Pricing Calculator

Represents an error that occurred during a batch create operation for bill scenario usage modifications.

Contents

errorCode

The error code associated with the failed operation.

Type: String

Valid Values: BAD_REQUEST | NOT_FOUND | CONFLICT | INTERNAL_SERVER_ERROR

Required: No

errorMessage

A descriptive message for the error that occurred.

Type: String

Required: No

key

The key of the entry that caused the error.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: [a-zA-Z0-9]*

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchCreateBillScenarioUsageModificationItem

Service: Amazon Pricing Calculator

Represents a successfully created item in a batch operation for bill scenario usage modifications.

Contents

operation

The specific operation associated with this usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

serviceCode

The Amazon service code for this usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

usageType

The type of usage that was modified.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

availabilityZone

The availability zone associated with this usage modification, if applicable.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: [-a-zA-Z0-9\._\:, \(\)]*

Required: No

group

The group identifier for the created usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: [a-zA-Z0-9-]*

Required: No

historicalUsage

Historical usage data associated with this modification, if available.

Type: [HistoricalUsageEntity](#) object

Required: No

id

The unique identifier assigned to the created usage modification.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

key

The key of the successfully created entry.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: [a-zA-Z0-9]*

Required: No

location

The location associated with this usage modification.

Type: String

Required: No

quantities

The modified usage quantities.

Type: Array of [UsageQuantity](#) objects

Required: No

usageAccountId

The Amazon account ID associated with the created usage modification.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchCreateWorkloadEstimateUsageEntry

Service: Amazon Pricing Calculator

Represents an entry in a batch operation to create workload estimate usage.

Contents

amount

The estimated usage amount.

Type: Double

Required: Yes

key

A unique identifier for this entry in the batch operation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: [a-zA-Z0-9]*

Required: Yes

operation

The specific operation associated with this usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: [-a-zA-Z0-9\.\-_: \/\()]*

Required: Yes

serviceCode

The Amazon service code for this usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\._\:\ \/\()]*`

Required: Yes

usageAccountId

The Amazon account ID associated with this usage estimate.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

usageType

The type of usage being estimated.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\._\:\ \/\()]*`

Required: Yes

group

An optional group identifier for the usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

historicalUsage

Historical usage data associated with this estimate, if available.

Type: [HistoricalUsageEntity](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchCreateWorkloadEstimateUsageError

Service: Amazon Pricing Calculator

Represents an error that occurred during a batch create operation for workload estimate usage.

Contents

errorCode

The error code associated with the failed operation.

Type: String

Valid Values: BAD_REQUEST | NOT_FOUND | CONFLICT | INTERNAL_SERVER_ERROR

Required: No

errorMessage

A descriptive message for the error that occurred.

Type: String

Required: No

key

The key of the entry that caused the error.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: [a-zA-Z0-9]*

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchCreateWorkloadEstimateUsageItem

Service: Amazon Pricing Calculator

Represents a successfully created item in a batch operation for workload estimate usage.

Contents

operation

The specific operation associated with this usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

serviceCode

The Amazon service code for this usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

usageType

The type of usage that was estimated.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

cost

The estimated cost associated with this usage.

Type: Double

Required: No

currency

The currency of the estimated cost.

Type: String

Valid Values: USD

Required: No

group

The group identifier for the created usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: [a-zA-Z0-9-]*

Required: No

historicalUsage

Historical usage data associated with this estimate, if available.

Type: [HistoricalUsageEntity](#) object

Required: No

id

The unique identifier assigned to the created usage estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

key

The key of the successfully created entry.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: [a-zA-Z0-9]*

Required: No

location

The location associated with this usage estimate.

Type: String

Required: No

quantity

The estimated usage quantity.

Type: [WorkloadEstimateUsageQuantity](#) object

Required: No

status

The current status of the created usage estimate.

Type: String

Valid Values: VALID | INVALID | STALE

Required: No

usageAccountId

The Amazon account ID associated with the created usage estimate.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchDeleteBillScenarioCommitmentModificationError

Service: Amazon Pricing Calculator

Represents an error that occurred when deleting a commitment in a Bill Scenario.

Contents

errorCode

The code associated with the error.

Type: String

Valid Values: BAD_REQUEST | CONFLICT | INTERNAL_SERVER_ERROR

Required: No

errorMessage

The message that describes the error.

Type: String

Required: No

id

The ID of the error.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchDeleteBillScenarioUsageModificationError

Service: Amazon Pricing Calculator

Represents an error that occurred when deleting usage in a Bill Scenario.

Contents

errorCode

The code associated with the error.

Type: String

Valid Values: BAD_REQUEST | CONFLICT | INTERNAL_SERVER_ERROR

Required: No

errorMessage

The message that describes the error.

Type: String

Required: No

id

The ID of the error.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchDeleteWorkloadEstimateUsageError

Service: Amazon Pricing Calculator

Represents an error that occurred when deleting usage in a workload estimate.

Contents

errorCode

The code associated with the error.

Type: String

Valid Values: BAD_REQUEST | NOT_FOUND | CONFLICT | INTERNAL_SERVER_ERROR

Required: No

errorMessage

The message that describes the error.

Type: String

Required: No

id

The ID of the error.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchUpdateBillScenarioCommitmentModificationEntry

Service: Amazon Pricing Calculator

Represents an entry in a batch operation to update bill scenario commitment modifications.

Contents

id

The unique identifier of the commitment modification to update.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

group

The updated group identifier for the commitment modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchUpdateBillScenarioCommitmentModificationError

Service: Amazon Pricing Calculator

Represents an error that occurred when updating a commitment in a Bill Scenario.

Contents

errorCode

The code associated with the error.

Type: String

Valid Values: BAD_REQUEST | NOT_FOUND | CONFLICT | INTERNAL_SERVER_ERROR

Required: No

errorMessage

The message that describes the error.

Type: String

Required: No

id

The ID of the error.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchUpdateBillScenarioUsageModificationEntry

Service: Amazon Pricing Calculator

Represents an entry in a batch operation to update bill scenario usage modifications.

Contents

id

The unique identifier of the usage modification to update.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

amounts

The updated usage amounts for the modification.

Type: Array of [UsageAmount](#) objects

Required: No

group

The updated group identifier for the usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchUpdateBillScenarioUsageModificationError

Service: Amazon Pricing Calculator

Represents an error that occurred when updating usage in a Bill Scenario.

Contents

errorCode

The code associated with the error.

Type: String

Valid Values: BAD_REQUEST | NOT_FOUND | CONFLICT | INTERNAL_SERVER_ERROR

Required: No

errorMessage

The message that describes the error.

Type: String

Required: No

id

The ID of the error.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchUpdateWorkloadEstimateUsageEntry

Service: Amazon Pricing Calculator

Represents an entry in a batch operation to update workload estimate usage.

Contents

id

The unique identifier of the usage estimate to update.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

amount

The updated estimated usage amount.

Type: Double

Required: No

group

The updated group identifier for the usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchUpdateWorkloadEstimateUsageError

Service: Amazon Pricing Calculator

Represents an error that occurred when updating usage in a workload estimate.

Contents

errorCode

The code associated with the error.

Type: String

Valid Values: BAD_REQUEST | NOT_FOUND | CONFLICT | INTERNAL_SERVER_ERROR

Required: No

errorMessage

The message that describes the error.

Type: String

Required: No

id

The ID of the error.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillEstimateCommitmentSummary

Service: Amazon Pricing Calculator

Provides a summary of commitment-related information for a bill estimate.

Contents

id

The unique identifier of the commitment.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

monthlyPayment

The monthly payment amount for this commitment, if applicable.

Type: [CostAmount](#) object

Required: No

offeringId

The identifier of the specific offering associated with this commitment.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

paymentOption

The payment option chosen for this commitment (e.g., All Upfront, Partial Upfront, No Upfront).

Type: String

Required: No

purchaseAgreementType

The type of purchase agreement (e.g., Reserved Instance, Savings Plan).

Type: String

Valid Values: SAVINGS_PLANS | RESERVED_INSTANCE

Required: No

region

The Amazon region associated with this commitment.

Type: String

Required: No

termLength

The length of the commitment term.

Type: String

Required: No

upfrontPayment

The upfront payment amount for this commitment, if applicable.

Type: [CostAmount](#) object

Required: No

usageAccountId

The Amazon account ID associated with this commitment.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillEstimateCostSummary

Service: Amazon Pricing Calculator

Provides a summary of cost-related information for a bill estimate.

Contents

serviceCostDifferences

A breakdown of cost differences by Amazon service.

Type: String to [CostDifference](#) object map

Required: No

totalCostDifference

The total difference in cost between the estimated and historical costs.

Type: [CostDifference](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillEstimateInputCommitmentModificationSummary

Service: Amazon Pricing Calculator

Summarizes an input commitment modification for a bill estimate.

Contents

commitmentAction

The specific commitment action taken in this modification.

Type: [BillScenarioCommitmentModificationAction](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: No

group

The group identifier for the commitment modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: [a-zA-Z0-9-]*

Required: No

id

The unique identifier of the commitment modification.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

usageAccountId

The Amazon account ID associated with this commitment modification.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillEstimateInputUsageModificationSummary

Service: Amazon Pricing Calculator

Summarizes an input usage modification for a bill estimate.

Contents

operation

The specific operation associated with this usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()*]*`

Required: Yes

serviceCode

The Amazon service code for this usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()*]*`

Required: Yes

usageType

The type of usage being modified.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()*]*`

Required: Yes

availabilityZone

The availability zone associated with this usage modification, if applicable.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: [-a-zA-Z0-9\._\:\ \\/()*]*

Required: No

group

The group identifier for the usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: [a-zA-Z0-9-]*

Required: No

historicalUsage

Historical usage data associated with this modification, if available.

Type: [HistoricalUsageEntity](#) object

Required: No

id

The unique identifier of the usage modification.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

location

The location associated with this usage modification.

Type: String

Required: No

quantities

The modified usage quantities.

Type: Array of [UsageQuantity](#) objects

Required: No

usageAccountId

The Amazon account ID associated with this usage modification.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillEstimateLineItemSummary

Service: Amazon Pricing Calculator

Provides a summary of a line item in a bill estimate.

Contents

operation

The specific operation associated with this line item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

serviceCode

The Amazon service code associated with this line item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

usageType

The type of usage for this line item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

availabilityZone

The availability zone associated with this line item, if applicable.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\._\:\ \\/\(\)]*`

Required: No

estimatedCost

The estimated cost for this line item.

Type: [CostAmount](#) object

Required: No

estimatedUsageQuantity

The estimated usage quantity for this line item.

Type: [UsageQuantityResult](#) object

Required: No

historicalCost

The historical cost for this line item.

Type: [CostAmount](#) object

Required: No

historicalUsageQuantity

The historical usage quantity for this line item.

Type: [UsageQuantityResult](#) object

Required: No

id

The unique identifier of this line item.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

lineItemId

The line item identifier from the original bill.

Type: String

Required: No

lineItemType

The type of this line item (e.g., Usage, Tax, Credit).

Type: String

Required: No

location

The location associated with this line item.

Type: String

Required: No

payerAccountId

The Amazon account ID of the payer for this line item.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: No

savingsPlanArns

The Amazon Resource Names (ARNs) of any Savings Plans applied to this line item.

Type: Array of strings

Required: No

usageAccountId

The Amazon account ID associated with the usage for this line item.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillEstimateSummary

Service: Amazon Pricing Calculator

Provides a summary of a bill estimate.

Contents

id

The unique identifier of the bill estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

billInterval

The time period covered by the bill estimate.

Type: [BillInterval](#) object

Required: No

createdAt

The timestamp when the bill estimate was created.

Type: Timestamp

Required: No

expiresAt

The timestamp when the bill estimate will expire.

Type: Timestamp

Required: No

name

The name of the bill estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: [a-zA-Z0-9-]+

Required: No

status

The current status of the bill estimate.

Type: String

Valid Values: IN_PROGRESS | COMPLETE | FAILED

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillInterval

Service: Amazon Pricing Calculator

Represents a time interval for a bill or estimate.

Contents

end

The end date and time of the interval.

Type: Timestamp

Required: No

start

The start date and time of the interval.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillScenarioCommitmentModificationAction

Service: Amazon Pricing Calculator

Represents an action to modify commitments in a bill scenario.

Contents

Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

addReservedInstanceAction

Action to add a Reserved Instance to the scenario.

Type: [AddReservedInstanceAction](#) object

Required: No

addSavingsPlanAction

Action to add a Savings Plan to the scenario.

Type: [AddSavingsPlanAction](#) object

Required: No

negateReservedInstanceAction

Action to remove a Reserved Instance from the scenario.

Type: [NegateReservedInstanceAction](#) object

Required: No

negateSavingsPlanAction

Action to remove a Savings Plan from the scenario.

Type: [NegateSavingsPlanAction](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillScenarioCommitmentModificationItem

Service: Amazon Pricing Calculator

Represents a commitment modification item in a bill scenario.

Contents

commitmentAction

The specific commitment action taken in this modification.

Type: [BillScenarioCommitmentModificationAction](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: No

group

The group identifier for the commitment modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: [a-zA-Z0-9-]*

Required: No

id

The unique identifier of the commitment modification.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

usageAccountId

The Amazon account ID associated with this commitment modification.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillScenarioSummary

Service: Amazon Pricing Calculator

Provides a summary of a bill scenario.

Contents

id

The unique identifier of the bill scenario.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

billInterval

The time period covered by the bill scenario.

Type: [BillInterval](#) object

Required: No

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce::[0-9]{12}:costcategory/[a-f0-9-]{36}`

Required: No

createdAt

The timestamp when the bill scenario was created.

Type: Timestamp

Required: No

expiresAt

The timestamp when the bill scenario will expire.

Type: Timestamp

Required: No

failureMessage

An error message if the bill scenario creation or processing failed.

Type: String

Required: No

groupSharingPreference

The setting for the reserved instance and savings plan group sharing used in this estimate.

Type: String

Valid Values: OPEN | PRIORITIZED | RESTRICTED

Required: No

name

The name of the bill scenario.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: [a-zA-Z0-9-]+

Required: No

status

The current status of the bill scenario.

Type: String

Valid Values: READY | LOCKED | FAILED | STALE

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillScenarioUsageModificationItem

Service: Amazon Pricing Calculator

Represents a usage modification item in a bill scenario.

Contents

operation

The specific operation associated with this usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

serviceCode

The Amazon service code for this usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

usageType

The type of usage being modified.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

availabilityZone

The availability zone associated with this usage modification, if applicable.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: [-a-zA-Z0-9\._\:, \(\)]*

Required: No

group

The group identifier for the usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: [a-zA-Z0-9-]*

Required: No

historicalUsage

Historical usage data associated with this modification, if available.

Type: [HistoricalUsageEntity](#) object

Required: No

id

The unique identifier of the usage modification.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

location

The location associated with this usage modification.

Type: String

Required: No

quantities

The modified usage quantities.

Type: Array of [UsageQuantity](#) objects

Required: No

usageAccountId

The Amazon account ID associated with this usage modification.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostAmount

Service: Amazon Pricing Calculator

Represents a monetary amount with associated currency.

Contents

amount

The numeric value of the cost.

Type: Double

Required: No

currency

The currency code for the cost amount.

Type: String

Valid Values: USD

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostDifference

Service: Amazon Pricing Calculator

Represents the difference between historical and estimated costs.

Contents

estimatedCost

The estimated cost amount.

Type: [CostAmount](#) object

Required: No

historicalCost

The historical cost amount.

Type: [CostAmount](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Expression

Service: Amazon Pricing Calculator

Represents a complex filtering expression for cost and usage data.

Contents

and

A list of expressions to be combined with AND logic.

Type: Array of [Expression](#) objects

Required: No

costCategories

Filters based on cost categories.

Type: [ExpressionFilter](#) object

Required: No

dimensions

Filters based on dimensions (e.g., service, operation).

Type: [ExpressionFilter](#) object

Required: No

not

An expression to be negated.

Type: [Expression](#) object

Required: No

or

A list of expressions to be combined with OR logic.

Type: Array of [Expression](#) objects

Required: No

tags

Filters based on resource tags.

Type: [ExpressionFilter](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ExpressionFilter

Service: Amazon Pricing Calculator

Represents a filter used within an expression.

Contents

key

The key or attribute to filter on.

Type: String

Required: No

matchOptions

The match options for the filter (e.g., equals, contains).

Type: Array of strings

Required: No

values

The values to match against.

Type: Array of strings

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

FilterTimestamp

Service: Amazon Pricing Calculator

Represents a time-based filter.

Contents

afterTimestamp

Include results after this timestamp.

Type: Timestamp

Required: No

beforeTimestamp

Include results before this timestamp.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

HistoricalUsageEntity

Service: Amazon Pricing Calculator

Represents historical usage data for a specific entity.

Contents

billInterval

The time interval for the historical usage data.

Type: [BillInterval](#) object

Required: Yes

filterExpression

An optional filter expression to apply to the historical usage data.

Type: [Expression](#) object

Required: Yes

operation

The specific operation associated with the usage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

serviceCode

The Amazon service code associated with the usage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

usageAccountId

The Amazon account ID associated with the usage.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

usageType

The type of usage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

location

The location associated with the usage.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ListBillEstimateLineItemsFilter

Service: Amazon Pricing Calculator

Represents a filter for listing bill estimate line items.

Contents

name

The name of the filter attribute.

Type: String

Valid Values: USAGE_ACCOUNT_ID | SERVICE_CODE | USAGE_TYPE | OPERATION | LOCATION | LINE_ITEM_TYPE

Required: Yes

values

The values to filter by.

Type: Array of strings

Required: Yes

matchOption

The match option for the filter (e.g., equals, contains).

Type: String

Valid Values: EQUALS | STARTS_WITH | CONTAINS

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

ListBillEstimatesFilter

Service: Amazon Pricing Calculator

Represents a filter for listing bill estimates.

Contents

name

The name of the filter attribute.

Type: String

Valid Values: STATUS | NAME

Required: Yes

values

The values to filter by.

Type: Array of strings

Required: Yes

matchOption

The match option for the filter (e.g., equals, contains).

Type: String

Valid Values: EQUALS | STARTS_WITH | CONTAINS

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ListBillScenariosFilter

Service: Amazon Pricing Calculator

Represents a filter for listing bill scenarios.

Contents

name

The name of the filter attribute.

Type: String

Valid Values: STATUS | NAME | GROUP_SHARING_PREFERENCE | COST_CATEGORY_ARN

Required: Yes

values

The values to filter by.

Type: Array of strings

Required: Yes

matchOption

The match option for the filter (e.g., equals, contains).

Type: String

Valid Values: EQUALS | STARTS_WITH | CONTAINS

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ListUsageFilter

Service: Amazon Pricing Calculator

Represents a filter for listing usage data.

Contents

name

The name of the filter attribute.

Type: String

Valid Values: USAGE_ACCOUNT_ID | SERVICE_CODE | USAGE_TYPE | OPERATION
| LOCATION | USAGE_GROUP | HISTORICAL_USAGE_ACCOUNT_ID |
HISTORICAL_SERVICE_CODE | HISTORICAL_USAGE_TYPE | HISTORICAL_OPERATION |
HISTORICAL_LOCATION

Required: Yes

values

The values to filter by.

Type: Array of strings

Required: Yes

matchOption

The match option for the filter (e.g., equals, contains).

Type: String

Valid Values: EQUALS | STARTS_WITH | CONTAINS

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ListWorkloadEstimatesFilter

Service: Amazon Pricing Calculator

Represents a filter for listing workload estimates.

Contents

name

The name of the filter attribute.

Type: String

Valid Values: STATUS | NAME

Required: Yes

values

The values to filter by.

Type: Array of strings

Required: Yes

matchOption

The match option for the filter (e.g., equals, contains).

Type: String

Valid Values: EQUALS | STARTS_WITH | CONTAINS

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

NegateReservedInstanceAction

Service: Amazon Pricing Calculator

Represents an action to remove a Reserved Instance from a bill scenario.

This is the ID of an existing Reserved Instance in your account.

Contents

reservedInstancesId

The ID of the Reserved Instance to remove.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

NegateSavingsPlanAction

Service: Amazon Pricing Calculator

Represents an action to remove a Savings Plan from a bill scenario.

This is the ID of an existing Savings Plan in your account.

Contents

savingsPlanId

The ID of the Savings Plan to remove.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

UsageAmount

Service: Amazon Pricing Calculator

Represents a usage amount for a specific time period.

Contents

amount

The usage amount for the period.

Type: Double

Required: Yes

startHour

The start hour of the usage period.

Type: Timestamp

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

UsageQuantity

Service: Amazon Pricing Calculator

Represents a usage quantity with associated unit and time period.

Contents

amount

The numeric value of the usage quantity.

Type: Double

Required: No

startHour

The start hour of the usage period.

Type: Timestamp

Required: No

unit

The unit of measurement for the usage quantity.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

UsageQuantityResult

Service: Amazon Pricing Calculator

Represents the result of a usage quantity calculation.

Contents

amount

The numeric value of the usage quantity result.

Type: Double

Required: No

unit

The unit of measurement for the usage quantity result.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ValidationExceptionField

Service: Amazon Pricing Calculator

Represents a field that failed validation in a request.

Contents

message

The error message describing why the field failed validation.

Type: String

Required: Yes

name

The name of the field that failed validation.

Type: String

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

WorkloadEstimateSummary

Service: Amazon Pricing Calculator

Provides a summary of a workload estimate.

Contents

id

The unique identifier of the workload estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

costCurrency

The currency of the estimated cost.

Type: String

Valid Values: USD

Required: No

createdAt

The timestamp when the workload estimate was created.

Type: Timestamp

Required: No

expiresAt

The timestamp when the workload estimate will expire.

Type: Timestamp

Required: No

failureMessage

An error message if the workload estimate creation or processing failed.

Type: String

Required: No

name

The name of the workload estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: [a-zA-Z0-9-]+

Required: No

rateTimestamp

The timestamp of the pricing rates used for the estimate.

Type: Timestamp

Required: No

rateType

The type of pricing rates used for the estimate.

Type: String

Valid Values: BEFORE_DISCOUNTS | AFTER_DISCOUNTS |
AFTER_DISCOUNTS_AND_COMMITMENTS

Required: No

status

The current status of the workload estimate.

Type: String

Valid Values: UPDATING | VALID | INVALID | ACTION_NEEDED

Required: No

totalCost

The total estimated cost for the workload.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

WorkloadEstimateUsageItem

Service: Amazon Pricing Calculator

Represents a usage item in a workload estimate.

Contents

operation

The specific operation associated with this usage item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

serviceCode

The Amazon service code associated with this usage item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

usageType

The type of usage for this item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:\ \\/()]*`

Required: Yes

cost

The estimated cost for this usage item.

Type: Double

Required: No

currency

The currency of the estimated cost.

Type: String

Valid Values: USD

Required: No

group

The group identifier for this usage item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: [a-zA-Z0-9-]*

Required: No

historicalUsage

Historical usage data associated with this item, if available.

Type: [HistoricalUsageEntity](#) object

Required: No

id

The unique identifier of this usage item.

Type: String

Length Constraints: Fixed length of 36.

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

location

The location associated with this usage item.

Type: String

Required: No

quantity

The estimated usage quantity for this item.

Type: [WorkloadEstimateUsageQuantity](#) object

Required: No

status

The current status of this usage item.

Type: String

Valid Values: VALID | INVALID | STALE

Required: No

usageAccountId

The Amazon account ID associated with this usage item.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

WorkloadEstimateUsageQuantity

Service: Amazon Pricing Calculator

Represents a usage quantity for a workload estimate.

Contents

amount

The numeric value of the usage quantity.

Type: Double

Required: No

unit

The unit of measurement for the usage quantity.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Amazon Billing and Cost Management Recommended Actions

The following data types are supported by Amazon Billing and Cost Management Recommended Actions:

- [ActionFilter](#)
- [RecommendedAction](#)

- [RequestFilter](#)
- [ValidationExceptionField](#)

ActionFilter

Service: Amazon Billing and Cost Management Recommended Actions

Describes a filter that returns a more specific list of recommended actions.

Contents

key

The category to filter on. Valid values are FEATURE for feature type, SEVERITY for severity level, and TYPE for recommendation type.

Type: String

Valid Values: FEATURE | SEVERITY | TYPE

Required: Yes

matchOption

Specifies how to apply the filter. Use EQUALS to include matching results or NOT_EQUALS to exclude matching results.

Type: String

Valid Values: EQUALS | NOT_EQUALS

Required: Yes

values

One or more values to match against the specified key.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `.*[\S\s]*.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RecommendedAction

Service: Amazon Billing and Cost Management Recommended Actions

Describes a specific recommended action.

Contents

accountId

The account that the recommended action is for.

Type: String

Length Constraints: Fixed length of 12.

Pattern: [0-9]{12}

Required: No

context

Context that applies to the recommended action.

Type: String to string map

Required: No

feature

The feature associated with the recommended action.

Type: String

Valid Values: ACCOUNT | BUDGETS | COST_ANOMALY_DETECTION | COST_OPTIMIZATION_HUB | FREE_TIER | IAM | PAYMENTS | RESERVATIONS | SAVINGS_PLANS | TAX_SETTINGS

Required: No

id

The ID for the recommended action.

Type: String

Required: No

lastUpdatedTimeStamp

The time when the recommended action status was last updated.

Type: String

Required: No

nextSteps

The possible next steps to execute the recommended action.

Type: Array of strings

Required: No

severity

The severity associated with the recommended action.

Type: String

Valid Values: INFO | WARNING | CRITICAL

Required: No

type

The type of action you can take by adopting the recommended action.

Type: String

Valid Values: ADD_ALTERNATE_BILLING_CONTACT | CREATE_ANOMALY_MONITOR
| CREATE_BUDGET | ENABLE_COST_OPTIMIZATION_HUB |
MIGRATE_TO_GRANULAR_PERMISSIONS | PAYMENTS_DUE | PAYMENTS_PAST_DUE |
REVIEW_ANOMALIES | REVIEW_BUDGET_ALERTS | REVIEW_BUDGETS_EXCEEDED |
REVIEW_EXPIRING_RI | REVIEW_EXPIRING_SP | REVIEW_FREETIER_USAGE_ALERTS
| REVIEW_FREETIER_CREDITS_REMAINING | REVIEW_FREETIER_DAYS_REMAINING
| REVIEW_SAVINGS_OPPORTUNITY_RECOMMENDATIONS |
UPDATE_EXPIRED_PAYMENT_METHOD | UPDATE_INVALID_PAYMENT_METHOD |
UPDATE_TAX_EXEMPTION_CERTIFICATE | UPDATE_TAX_REGISTRATION_NUMBER

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RequestFilter

Service: Amazon Billing and Cost Management Recommended Actions

Enables filtering of results based on specified action criteria. You can define multiple action filters to refine results using combinations of feature type, severity level, and recommendation type.

Contents

actions

A list of action filters that define criteria for filtering results. Each filter specifies a key, match option, and corresponding values to filter on.

Type: Array of [ActionFilter](#) objects

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ValidationExceptionField

Service: Amazon Billing and Cost Management Recommended Actions

Provides specific details about why a particular field failed validation.

Contents

message

Provides a message explaining why the field failed validation.

Type: String

Required: Yes

name

Provides the name of the field that failed validation.

Type: String

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Amazon Billing

The following data types are supported by Amazon Billing:

- [ActiveTimeRange](#)
- [BillingViewElement](#)
- [BillingViewHealthStatus](#)

- [BillingViewListElement](#)
- [CostCategoryValues](#)
- [DimensionValues](#)
- [Expression](#)
- [ResourceTag](#)
- [StringSearch](#)
- [TagValues](#)
- [TimeRange](#)
- [ValidationExceptionField](#)

ActiveTimeRange

Service: Amazon Billing

A time range with a start and end time.

Contents

activeAfterInclusive

The inclusive time range start date.

Type: Timestamp

Required: Yes

activeBeforeInclusive

The inclusive time range end date.

Type: Timestamp

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillingViewElement

Service: Amazon Billing

The metadata associated to the billing view.

Contents

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: No

billingViewType

The type of billing group.

Type: String

Valid Values: PRIMARY | BILLING_GROUP | CUSTOM | BILLING_TRANSFER | BILLING_TRANSFER_SHOWBACK

Required: No

createdAt

The time when the billing view was created.

Type: Timestamp

Required: No

dataFilterExpression

See [Expression](#). Billing view only supports LINKED_ACCOUNT, Tags, and CostCategories.

Type: [Expression](#) object

Required: No

derivedViewCount

The number of billing views that use this billing view as a source.

Type: Integer

Required: No

description

The description of the billing view.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: ([a-zA-Z0-9_+=\. \-@]+)?

Required: No

healthStatus

The current health status of the billing view.

Type: [BillingViewHealthStatus](#) object

Required: No

name

The account name of the billing view.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: [a-zA-Z0-9_+=\. \-@]+

Required: No

ownerAccountId

The account owner of the billing view.

Type: String

Pattern: [0-9]{12}

Required: No

sourceAccountId

The Amazon Web Services account ID that owns the source billing view, if this is a derived billing view.

Type: String

Pattern: [0-9]{12}

Required: No

sourceViewCount

The number of source views associated with this billing view.

Type: Integer

Required: No

updatedAt

The time when the billing view was last updated.

Type: Timestamp

Required: No

viewDefinitionLastUpdatedAt

The timestamp of when the billing view definition was last updated.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

BillingViewHealthStatus

Service: Amazon Billing

Represents the health status of a billing view, including a status code and optional reasons for the status.

Contents

statusCode

The current health status code of the billing view.

Type: String

Valid Values: HEALTHY | UNHEALTHY | CREATING | UPDATING

Required: No

statusReasons

A list of reasons explaining the current health status, if applicable.

Type: Array of strings

Valid Values: SOURCE_VIEW_UNHEALTHY | SOURCE_VIEW_UPDATING
| SOURCE_VIEW_ACCESS_DENIED | SOURCE_VIEW_NOT_FOUND |
CYCLIC_DEPENDENCY | SOURCE_VIEW_DEPTH_EXCEEDED | AGGREGATE_SOURCE |
VIEW_OWNER_NOT_MANAGEMENT_ACCOUNT

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillingViewListElement

Service: Amazon Billing

A representation of a billing view.

Contents

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: No

billingViewType

The type of billing view.

Type: String

Valid Values: PRIMARY | BILLING_GROUP | CUSTOM | BILLING_TRANSFER | BILLING_TRANSFER_SHOWBACK

Required: No

description

The description of the billing view.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `([a-zA-Z0-9_\+=\. \-@]+)?`

Required: No

healthStatus

The current health status of the billing view.

Type: [BillingViewHealthStatus](#) object

Required: No

name

A list of names of the Billing view.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: [a-zA-Z0-9_\+=\. \-@]+

Required: No

ownerAccountId

The list of owners of the Billing view.

Type: String

Pattern: [0-9]{12}

Required: No

sourceAccountId

The Amazon Web Services account ID that owns the source billing view, if this is a derived billing view.

Type: String

Pattern: [0-9]{12}

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

CostCategoryValues

Service: Amazon Billing

The Cost Categories values used for filtering the costs.

Contents

key

The unique name of the Cost Category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: (?!) [\p{L}\p{N}\p{Z}-_]*(?!)

Required: Yes

values

The specific value of the Cost Category.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 200 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\\S\\s]*

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DimensionValues

Service: Amazon Billing

The metadata that you can use to filter and group your results.

Contents

key

The names of the metadata types that you can use to filter and group your results.

Type: String

Valid Values: LINKED_ACCOUNT

Required: Yes

values

The metadata values that you can use to filter and group your results.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 200 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [`\S\s`]*

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Expression

Service: Amazon Billing

See [Expression](#). Billing view only supports LINKED_ACCOUNT, Tags, and CostCategories.

Contents

costCategories

The filter that's based on CostCategory values.

Type: [CostCategoryValues](#) object

Required: No

dimensions

The specific Dimension to use for Expression.

Type: [DimensionValues](#) object

Required: No

tags

The specific Tag to use for Expression.

Type: [TagValues](#) object

Required: No

timeRange

Specifies a time range filter for the billing view data.

Type: [TimeRange](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ResourceTag

Service: Amazon Billing

The tag structure that contains a tag key and value.

Contents

key

The key that's associated with the tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

value

The value that's associated with the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

StringSearch

Service: Amazon Billing

A structure that defines how to search for string values. You can specify a search option and the value to search for.

Contents

searchOption

The type of search operation to perform on the string value. Determines how the search value is matched against the target field.

Type: String

Valid Values: STARTS_WITH

Required: Yes

searchValue

The string value to use in the search operation. This value is compared against the target field using the specified search option.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: [a-zA-Z0-9_\+=\.\-@]+

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TagValues

Service: Amazon Billing

The values that are available for a tag.

Contents

key

The key for the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

values

The specific value of the tag.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 200 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TimeRange

Service: Amazon Billing

Specifies a time range with inclusive begin and end dates.

Contents

beginDateInclusive

The inclusive start date of the time range.

Type: Timestamp

Required: No

endDateInclusive

The inclusive end date of the time range.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ValidationExceptionField

Service: Amazon Billing

The field's information of a request that resulted in an exception.

Contents

message

The message describing why the field failed validation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: Yes

name

The name of the field.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100.

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Amazon Budgets

The following data types are supported by Amazon Budgets:

- [Action](#)

- [ActionHistory](#)
- [ActionHistoryDetails](#)
- [ActionThreshold](#)
- [AutoAdjustData](#)
- [Budget](#)
- [BudgetedAndActualAmounts](#)
- [BudgetNotificationsForAccount](#)
- [BudgetPerformanceHistory](#)
- [CalculatedSpend](#)
- [CostCategoryValues](#)
- [CostTypes](#)
- [Definition](#)
- [Expression](#)
- [ExpressionDimensionValues](#)
- [HealthStatus](#)
- [HistoricalOptions](#)
- [IamActionDefinition](#)
- [Notification](#)
- [NotificationWithSubscribers](#)
- [ResourceTag](#)
- [ScpActionDefinition](#)
- [Spend](#)
- [SsmActionDefinition](#)
- [Subscriber](#)
- [TagValues](#)
- [TimePeriod](#)

Action

Service: Amazon Budgets

A budget action resource.

Contents

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

Required: Yes

ActionThreshold

The trigger threshold of the action.

Type: [ActionThreshold](#) object

Required: Yes

ActionType

The type of action. This defines the type of tasks that can be carried out by this action. This field also determines the format for definition.

Type: String

Valid Values: `APPLY_IAM_POLICY | APPLY_SCP_POLICY | RUN_SSM_DOCUMENTS`

Required: Yes

ApprovalModel

This specifies if the action needs manual or automatic approval.

Type: String

Valid Values: AUTOMATIC | MANUAL

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\\\]+$`

Required: Yes

Definition

Where you specify all of the type-specific parameters.

Type: [Definition](#) object

Required: Yes

ExecutionRoleArn

The role passed for action execution and reversion. Roles and actions must be in the same account.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 618.

Pattern: `^arn:aws(-eusc|-cn|-us-gov|-iso|-iso-[a-z]{1})?:iam::\d{12}:role(\u002F[\u0021-\u007F]+\u002F[\u002F][\w+=,.\@-]+)$`

Required: Yes

NotificationType

The type of a notification. It must be ACTUAL or FORECASTED.

Type: String

Valid Values: ACTUAL | FORECASTED

Required: Yes

Status

The status of the action.

Type: String

Valid Values: STANDBY | PENDING | EXECUTION_IN_PROGRESS | EXECUTION_SUCCESS
| EXECUTION_FAILURE | REVERSE_IN_PROGRESS | REVERSE_SUCCESS |
REVERSE_FAILURE | RESET_IN_PROGRESS | RESET_FAILURE

Required: Yes

Subscribers

A list of subscribers.

Type: Array of [Subscriber](#) objects

Array Members: Minimum number of 1 item. Maximum number of 11 items.

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ActionHistory

Service: Amazon Budgets

The historical records for a budget action.

Contents

ActionHistoryDetails

The description of the details for the event.

Type: [ActionHistoryDetails](#) object

Required: Yes

EventType

This distinguishes between whether the events are triggered by the user or are generated by the system.

Type: String

Valid Values: SYSTEM | CREATE_ACTION | DELETE_ACTION | UPDATE_ACTION | EXECUTE_ACTION

Required: Yes

Status

The status of action at the time of the event.

Type: String

Valid Values: STANDBY | PENDING | EXECUTION_IN_PROGRESS | EXECUTION_SUCCESS | EXECUTION_FAILURE | REVERSE_IN_PROGRESS | REVERSE_SUCCESS | REVERSE_FAILURE | RESET_IN_PROGRESS | RESET_FAILURE

Required: Yes

Timestamp

A generic time stamp. In Java, it's transformed to a Date object.

Type: Timestamp

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ActionHistoryDetails

Service: Amazon Budgets

The description of the details for the event.

Contents

Action

The budget action resource.

Type: [Action](#) object

Required: Yes

Message

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ActionThreshold

Service: Amazon Budgets

The trigger threshold of the action.

Contents

ActionThresholdType

The type of threshold for a notification.

Type: String

Valid Values: PERCENTAGE | ABSOLUTE_VALUE

Required: Yes

ActionThresholdValue

The threshold of a notification.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 15000000000000.

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

AutoAdjustData

Service: Amazon Budgets

The parameters that determine the budget amount for an auto-adjusting budget.

Contents

AutoAdjustType

The string that defines whether your budget auto-adjusts based on historical or forecasted data.

Type: String

Valid Values: HISTORICAL | FORECAST

Required: Yes

HistoricalOptions

The parameters that define or describe the historical data that your auto-adjusting budget is based on.

Type: [HistoricalOptions](#) object

Required: No

LastAutoAdjustTime

The last time that your budget was auto-adjusted.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

Budget

Service: Amazon Budgets

Represents the output of the `CreateBudget` operation. The content consists of the detailed metadata and data file information, and the current status of the budget object.

This is the Amazon Resource Name (ARN) pattern for a budget:

```
arn:aws:budgets::AccountId:budget/budgetName
```

Contents

BudgetName

The name of a budget. The name must be unique within an account. The `:` and `\` characters, and the `"/action/"` substring, aren't allowed in `BudgetName`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\\\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\\\\]+$`

Required: Yes

BudgetType

Specifies whether this budget tracks costs, usage, RI utilization, RI coverage, Savings Plans utilization, or Savings Plans coverage.

Type: String

Valid Values: `USAGE` | `COST` | `RI_UTILIZATION` | `RI_COVERAGE` | `SAVINGS_PLANS_UTILIZATION` | `SAVINGS_PLANS_COVERAGE`

Required: Yes

TimeUnit

The length of time until a budget resets the actual and forecasted spend.

Type: String

Valid Values: `DAILY` | `MONTHLY` | `QUARTERLY` | `ANNUALLY` | `CUSTOM`

Required: Yes

AutoAdjustData

The parameters that determine the budget amount for an auto-adjusting budget.

Type: [AutoAdjustData](#) object

Required: No

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to Amazon Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\\+=\\.\\-@]{0,75}[a-zA-Z0-9]$`

Required: No

BudgetLimit

The total amount of cost, usage, RI utilization, RI coverage, Savings Plans utilization, or Savings Plans coverage that you want to track with your budget.

BudgetLimit is required for cost or usage budgets, but optional for RI or Savings Plans utilization or coverage budgets. RI and Savings Plans utilization or coverage budgets default to 100. This is the only valid value for RI or Savings Plans utilization or coverage budgets. You can't use BudgetLimit with PlannedBudgetLimits for CreateBudget and UpdateBudget actions.

Type: [Spend](#) object

Required: No

CalculatedSpend

The actual and forecasted cost or usage that the budget tracks.

Type: [CalculatedSpend](#) object

Required: No

CostFilters

This member has been deprecated.

The cost filters, such as Region, Service, LinkedAccount, Tag, or CostCategory, that are applied to a budget.

Amazon Budgets supports the following services as a Service filter for RI budgets:

- Amazon EC2
- Amazon Redshift
- Amazon Relational Database Service
- Amazon ElastiCache
- Amazon OpenSearch Service

Type: String to array of strings map

Key Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Key Pattern: .*

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: [\\S\\s]*

Required: No

CostTypes

This member has been deprecated.

The types of costs that are included in this COST budget.

USAGE, RI_UTILIZATION, RI_COVERAGE, SAVINGS_PLANS_UTILIZATION, and SAVINGS_PLANS_COVERAGE budgets do not have CostTypes.

Type: [CostTypes](#) object

Required: No

FilterExpression

The filtering dimensions for the budget and their corresponding values.

Type: [Expression](#) object

Required: No

HealthStatus

The current operational state of a Billing View derived resource.

Type: [HealthStatus](#) object

Required: No

LastUpdatedTime

The last time that you updated this budget.

Type: Timestamp

Required: No

Metrics

The definition for how the budget data is aggregated.

Type: Array of strings

Array Members: Maximum number of 1 item.

Valid Values: `BlendedCost` | `UnblendedCost` | `AmortizedCost` | `NetUnblendedCost` | `NetAmortizedCost` | `UsageQuantity` | `NormalizedUsageAmount` | `Hours`

Required: No

PlannedBudgetLimits

A map containing multiple `BudgetLimit`, including current or future limits.

`PlannedBudgetLimits` is available for cost or usage budget and supports both monthly and quarterly `TimeUnit`.

For monthly budgets, provide 12 months of `PlannedBudgetLimits` values. This must start from the current month and include the next 11 months. The key is the start of the month, UTC in epoch seconds.

For quarterly budgets, provide four quarters of `PlannedBudgetLimits` value entries in standard calendar quarter increments. This must start from the current quarter and include the next three quarters. The key is the start of the quarter, UTC in epoch seconds.

If the planned budget expires before 12 months for monthly or four quarters for quarterly, provide the `PlannedBudgetLimits` values only for the remaining periods.

If the budget begins at a date in the future, provide `PlannedBudgetLimits` values from the start date of the budget.

After all of the `BudgetLimit` values in `PlannedBudgetLimits` are used, the budget continues to use the last limit as the `BudgetLimit`. At that point, the planned budget provides the same experience as a fixed budget.

`DescribeBudget` and `DescribeBudgets` response along with `PlannedBudgetLimits` also contain `BudgetLimit` representing the current month or quarter limit present in `PlannedBudgetLimits`. This only applies to budgets that are created with `PlannedBudgetLimits`. Budgets that are created without `PlannedBudgetLimits` only contain `BudgetLimit`. They don't contain `PlannedBudgetLimits`.

Type: String to [Spend](#) object map

Key Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Key Pattern: . *

Required: No

TimePeriod

The period of time that's covered by a budget. You set the start date and end date. The start date must come before the end date. The end date must come before 06/15/87 00:00 UTC.

If you create your budget and don't specify a start date, Amazon defaults to the start of your chosen time period (DAILY, MONTHLY, QUARTERLY, ANNUALLY, or CUSTOM). For example, if you created your budget on January 24, 2018, chose DAILY, and didn't set a start date, Amazon set your start date to 01/24/18 00:00 UTC. If you chose MONTHLY, Amazon set your start date to 01/01/18 00:00 UTC. If you didn't specify an end date, Amazon set your end date to 06/15/87 00:00 UTC. The defaults are the same for the Amazon Billing and Cost Management console and the API.

You can change either date with the `UpdateBudget` operation.

After the end date, Amazon deletes the budget and all the associated notifications and subscribers.

Type: [TimePeriod](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BudgetedAndActualAmounts

Service: Amazon Budgets

The amount of cost or usage that you created the budget for, compared to your actual costs or usage.

Contents

ActualAmount

Your actual costs or usage for a budget period.

Type: [Spend](#) object

Required: No

BudgetedAmount

The amount of cost or usage that you created the budget for.

Type: [Spend](#) object

Required: No

TimePeriod

The time period that's covered by this budget comparison.

Type: [TimePeriod](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BudgetNotificationsForAccount

Service: Amazon Budgets

The budget name and associated notifications for an account.

Contents

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\\]*\/action\/|(?i).*<script>.*</script>.*)[^\:\\\]+$`

Required: No

Notifications

A list of notifications.

Type: Array of [Notification](#) objects

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BudgetPerformanceHistory

Service: Amazon Budgets

A history of the state of a budget at the end of the budget's specified time period.

Contents

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to Amazon Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\\+=\\.\\-@]{0,75}[a-zA-Z0-9]$`

Required: No

BudgetedAndActualAmountsList

A list of amounts of cost or usage that you created budgets for, which are compared to your actual costs or usage.

Type: Array of [BudgetedAndActualAmounts](#) objects

Required: No

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^\:\\\\]*/action/|(?i).*<script>.*</script>.*)[^\:\\\\]+$`

Required: No

BudgetType

The type of a budget. It must be one of the following types:

COST, USAGE, RI_UTILIZATION, RI_COVERAGE, SAVINGS_PLANS_UTILIZATION, or SAVINGS_PLANS_COVERAGE.

Type: String

Valid Values: USAGE | COST | RI_UTILIZATION | RI_COVERAGE | SAVINGS_PLANS_UTILIZATION | SAVINGS_PLANS_COVERAGE

Required: No

CostFilters

The history of the cost filters for a budget during the specified time period.

Type: String to array of strings map

Key Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Key Pattern: . *

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: [\\S\\s]*

Required: No

CostTypes

The history of the cost types for a budget during the specified time period.

Type: [CostTypes](#) object

Required: No

FilterExpression

The filtering dimensions for the budget and their corresponding values.

Type: [Expression](#) object

Required: No

Metrics

The definition for how the budget data is aggregated.

Type: Array of strings

Array Members: Maximum number of 1 item.

Valid Values: BlendedCost | UnblendedCost | AmortizedCost | NetUnblendedCost
| NetAmortizedCost | UsageQuantity | NormalizedUsageAmount | Hours

Required: No

TimeUnit

The time unit of the budget, such as MONTHLY or QUARTERLY.

Type: String

Valid Values: DAILY | MONTHLY | QUARTERLY | ANNUALLY | CUSTOM

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CalculatedSpend

Service: Amazon Budgets

The spend objects that are associated with this budget. The `actualSpend` tracks how much you've used, cost, usage, RI units, or Savings Plans units and the `forecastedSpend` tracks how much that you're predicted to spend based on your historical usage profile.

For example, if it's the 20th of the month and you have spent 50 dollars on Amazon EC2, your `actualSpend` is 50 USD, and your `forecastedSpend` is 75 USD.

Contents

ActualSpend

The amount of cost, usage, RI units, or Savings Plans units that you used.

Type: [Spend](#) object

Required: Yes

ForecastedSpend

The amount of cost, usage, RI units, or Savings Plans units that you're forecasted to use.

Type: [Spend](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostCategoryValues

Service: Amazon Budgets

The cost category values used for filtering the costs.

Contents

Key

The unique name of the cost category.

Type: String

Required: No

MatchOptions

The match options that you can use to filter your results.

Type: Array of strings

Valid Values: EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL | CASE_SENSITIVE | CASE_INSENSITIVE

Required: No

Values

The specific value of the cost category.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CostTypes

Service: Amazon Budgets

The types of cost that are included in a COST budget, such as tax and subscriptions.

USAGE, RI_UTILIZATION, RI_COVERAGE, SAVINGS_PLANS_UTILIZATION, and SAVINGS_PLANS_COVERAGE budgets don't have CostTypes.

Contents

IncludeCredit

Specifies whether a budget includes credits.

The default value is `true`.

Type: Boolean

Required: No

IncludeDiscount

Specifies whether a budget includes discounts.

The default value is `true`.

Type: Boolean

Required: No

IncludeOtherSubscription

Specifies whether a budget includes non-RI subscription costs.

The default value is `true`.

Type: Boolean

Required: No

IncludeRecurring

Specifies whether a budget includes recurring fees such as monthly RI fees.

The default value is `true`.

Type: Boolean

Required: No

IncludeRefund

Specifies whether a budget includes refunds.

The default value is `true`.

Type: Boolean

Required: No

IncludeSubscription

Specifies whether a budget includes subscriptions.

The default value is `true`.

Type: Boolean

Required: No

IncludeSupport

Specifies whether a budget includes support subscription fees.

The default value is `true`.

Type: Boolean

Required: No

IncludeTax

Specifies whether a budget includes taxes.

The default value is `true`.

Type: Boolean

Required: No

IncludeUpfront

Specifies whether a budget includes upfront RI costs.

The default value is `true`.

Type: Boolean

Required: No

UseAmortized

Specifies whether a budget uses the amortized rate.

The default value is `false`.

Type: Boolean

Required: No

UseBlended

Specifies whether a budget uses a blended rate.

The default value is `false`.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Definition

Service: Amazon Budgets

Specifies all of the type-specific parameters.

Contents

IamActionDefinition

The Amazon Identity and Access Management (IAM) action definition details.

Type: [IamActionDefinition](#) object

Required: No

ScpActionDefinition

The service control policies (SCPs) action definition details.

Type: [ScpActionDefinition](#) object

Required: No

SsmActionDefinition

The Amazon Systems Manager (SSM) action definition details.

Type: [SsmActionDefinition](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Expression

Service: Amazon Budgets

Use Expression to filter in various Budgets APIs.

Contents

And

Return results that match both Dimension objects.

Type: Array of [Expression](#) objects

Required: No

CostCategories

The filter that's based on CostCategoryValues.

Type: [CostCategoryValues](#) object

Required: No

Dimensions

The specific Dimension to use for Expression.

Type: [ExpressionDimensionValues](#) object

Required: No

Not

Return results that don't match a Dimension object.

Type: [Expression](#) object

Required: No

Or

Return results that match either Dimension object.

Type: Array of [Expression](#) objects

Required: No

Tags

The specific Tag to use for Expression.

Type: [TagValues](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ExpressionDimensionValues

Service: Amazon Budgets

Contains the specifications for the filters to use for your request.

Contents

Key

The name of the dimension that you want to filter on.

Type: String

Valid Values: AZ | INSTANCE_TYPE | LINKED_ACCOUNT | LINKED_ACCOUNT_NAME | OPERATION | PURCHASE_TYPE | REGION | SERVICE | SERVICE_CODE | USAGE_TYPE | USAGE_TYPE_GROUP | RECORD_TYPE | OPERATING_SYSTEM | TENANCY | SCOPE | PLATFORM | SUBSCRIPTION_ID | LEGAL_ENTITY_NAME | INVOICING_ENTITY | DEPLOYMENT_OPTION | DATABASE_ENGINE | CACHE_ENGINE | INSTANCE_TYPE_FAMILY | BILLING_ENTITY | RESERVATION_ID | RESOURCE_ID | RIGHTSIZING_TYPE | SAVINGS_PLANS_TYPE | SAVINGS_PLAN_ARN | PAYMENT_OPTION | RESERVATION_MODIFIED | TAG_KEY | COST_CATEGORY_NAME

Required: Yes

Values

The metadata values you can specify to filter upon, so that the results all match at least one of the specified values.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

MatchOptions

The match options that you can use to filter your results. You can specify only one of these values in the array.

Type: Array of strings

Valid Values: EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL | CASE_SENSITIVE | CASE_INSENSITIVE

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

HealthStatus

Service: Amazon Budgets

Provides information about the current operational state of a billing view resource, including its ability to access and update based on its associated billing view.

Contents

LastUpdatedTime

A generic time stamp. In Java, it's transformed to a Date object.

Type: Timestamp

Required: No

Status

The current status of the billing view resource.

Type: String

Valid Values: HEALTHY | UNHEALTHY

Required: No

StatusReason

The reason for the current status.

- **BILLING_VIEW_NO_ACCESS**: The billing view resource does not grant `billing:GetBillingViewData` permission to this account.
- **BILLING_VIEW_UNHEALTHY**: The billing view associated with the budget is unhealthy.
- **FILTER_INVALID**: The filter contains reference to an account you do not have access to.
- **MULTI_YEAR_HISTORICAL_DATA_DISABLED**: The budget is not being updated. Enable multi-year historical data in your Cost Management preferences.

Type: String

Valid Values: BILLING_VIEW_NO_ACCESS | BILLING_VIEW_UNHEALTHY | FILTER_INVALID | MULTI_YEAR_HISTORICAL_DATA_DISABLED

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

HistoricalOptions

Service: Amazon Budgets

The parameters that define or describe the historical data that your auto-adjusting budget is based on.

Contents

BudgetAdjustmentPeriod

The number of budget periods included in the moving-average calculation that determines your auto-adjusted budget amount. The maximum value depends on the `TimeUnit` granularity of the budget:

- For the `DAILY` granularity, the maximum value is 60.
- For the `MONTHLY` granularity, the maximum value is 12.
- For the `QUARTERLY` granularity, the maximum value is 4.
- For the `ANNUALLY` granularity, the maximum value is 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 60.

Required: Yes

LookBackAvailablePeriods

The integer that describes how many budget periods in your `BudgetAdjustmentPeriod` are included in the calculation of your current `BudgetLimit`. If the first budget period in your `BudgetAdjustmentPeriod` has no cost data, then that budget period isn't included in the average that determines your budget limit.

For example, if you set `BudgetAdjustmentPeriod` as 4 quarters, but your account had no cost data in the first quarter, then only the last three quarters are included in the calculation. In this scenario, `LookBackAvailablePeriods` returns 3.

You can't set your own `LookBackAvailablePeriods`. The value is automatically calculated from the `BudgetAdjustmentPeriod` and your historical cost data.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 60.

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

IamActionDefinition

Service: Amazon Budgets

The Amazon Identity and Access Management (IAM) action definition details.

Contents

PolicyArn

The Amazon Resource Name (ARN) of the policy to be attached.

Type: String

Length Constraints: Minimum length of 25. Maximum length of 684.

Pattern: `^arn:aws(-eusc|-cn|-us-gov|-iso|-iso-[a-z]{1})?:iam:([\d{12}|aws]):policy([\u002F[\u0021-\u007F]+\u002F[\u002F][\w+=,.\@-]+)$`

Required: Yes

Groups

A list of groups to be attached. There must be at least one group.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 640.

Pattern: `^([\u0021-\u007F]+\u002F)?[\w+=,.\@-]+$`

Required: No

Roles

A list of roles to be attached. There must be at least one role.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 576.

Pattern: `^([\u0021-\u007F]+\u002F)?[\w+=,.\@-]+$`

Required: No

Users

A list of users to be attached. There must be at least one user.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 576.

Pattern: `^([\u0021-\u007F]+\u002F)?[\w+=, .@-]+$`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Notification

Service: Amazon Budgets

A notification that's associated with a budget. A budget can have up to ten notifications.

Each notification must have at least one subscriber. A notification can have one SNS subscriber and up to 10 email subscribers, for a total of 11 subscribers.

For example, if you have a budget for 200 dollars and you want to be notified when you go over 160 dollars, create a notification with the following parameters:

- A `notificationType` of ACTUAL
- A `thresholdType` of PERCENTAGE
- A `comparisonOperator` of GREATER_THAN
- A notification threshold of 80

Contents

ComparisonOperator

The comparison that's used for this notification.

Type: String

Valid Values: GREATER_THAN | LESS_THAN | EQUAL_TO

Required: Yes

NotificationType

Specifies whether the notification is for how much you have spent (ACTUAL) or for how much that you're forecasted to spend (FORECASTED).

Type: String

Valid Values: ACTUAL | FORECASTED

Required: Yes

Threshold

The threshold that's associated with a notification. Thresholds are always a percentage, and many customers find value being alerted between 50% - 200% of the budgeted amount. The maximum limit for your threshold is 1,000,000% above the budgeted amount.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 15000000000000.

Required: Yes

NotificationState

Specifies whether this notification is in alarm. If a budget notification is in the ALARM state, you passed the set threshold for the budget.

Type: String

Valid Values: OK | ALARM

Required: No

ThresholdType

The type of threshold for a notification. For ABSOLUTE_VALUE thresholds, Amazon notifies you when you go over or are forecasted to go over your total cost threshold. For PERCENTAGE thresholds, Amazon notifies you when you go over or are forecasted to go over a certain percentage of your forecasted spend. For example, if you have a budget for 200 dollars and you have a PERCENTAGE threshold of 80%, Amazon notifies you when you go over 160 dollars.

Type: String

Valid Values: PERCENTAGE | ABSOLUTE_VALUE

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

NotificationWithSubscribers

Service: Amazon Budgets

A notification with subscribers. A notification can have one SNS subscriber and up to 10 email subscribers, for a total of 11 subscribers.

Contents

Notification

The notification that's associated with a budget.

Type: [Notification](#) object

Required: Yes

Subscribers

A list of subscribers who are subscribed to this notification.

Type: Array of [Subscriber](#) objects

Array Members: Minimum number of 1 item. Maximum number of 11 items.

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ResourceTag

Service: Amazon Budgets

The tag structure that contains a tag key and value.

Contents

Key

The key that's associated with the tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Value

The value that's associated with the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ScpActionDefinition

Service: Amazon Budgets

The service control policies (SCP) action definition details.

Contents

PolicyId

The policy ID attached.

Type: String

Length Constraints: Minimum length of 10. Maximum length of 130.

Pattern: `^p-[0-9a-zA-Z_]{8,128}$`

Required: Yes

TargetIds

A list of target IDs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 12. Maximum length of 68.

Pattern: `^(ou-[0-9a-z]{4,32}-[a-z0-9]{8,32}$)|(\d{12})`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Spend

Service: Amazon Budgets

The amount of cost or usage that's measured for a budget.

Cost example: A Spend for 3 USD of costs has the following parameters:

- An Amount of 3
- A Unit of USD

Usage example: A Spend for 3 GB of S3 usage has the following parameters:

- An Amount of 3
- A Unit of GB

Contents

Amount

The cost or usage amount that's associated with a budget forecast, actual spend, or budget threshold.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2147483647.

Pattern: (`[0-9]*\.`)?`[0-9]+`

Required: Yes

Unit

The unit of measurement that's used for the budget forecast, actual spend, or budget threshold.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2147483647.

Pattern: `.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SsmActionDefinition

Service: Amazon Budgets

The Amazon Systems Manager (SSM) action definition details.

Contents

ActionSubType

The action subType.

Type: String

Valid Values: STOP_EC2_INSTANCES | STOP_RDS_INSTANCES

Required: Yes

InstanceIds

The EC2 and RDS instance IDs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^i-(\w{8}|\w{17})$|^[a-zA-Z]([\w-]{0,61}\w)?$`

Required: Yes

Region

The Region to run the SSM document.

Type: String

Length Constraints: Minimum length of 9. Maximum length of 20.

Pattern: `^\w{2,4}-\w+(-\w+)?-\d$`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Subscriber

Service: Amazon Budgets

The subscriber to a budget notification. The subscriber consists of a subscription type and either an Amazon SNS topic or an email address.

For example, an email subscriber has the following parameters:

- A `subscriptionType` of EMAIL
- An address of `example@example.com`

Contents

Address

The address that Amazon sends budget notifications to, either an SNS topic or an email.

When you create a subscriber, the value of `Address` can't contain line breaks.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2147483647.

Pattern: `(.*[\n\r\t\f\]?)*`

Required: Yes

SubscriptionType

The type of notification that Amazon sends to a subscriber.

Type: String

Valid Values: SNS | EMAIL

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TagValues

Service: Amazon Budgets

The values that are available for a tag.

Contents

Key

The key for the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MatchOptions

The match options that you can use to filter your results.

Type: Array of strings

Valid Values: EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL | CASE_SENSITIVE | CASE_INSENSITIVE

Required: No

Values

The specific value of the tag.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TimePeriod

Service: Amazon Budgets

The period of time that's covered by a budget. The period has a start date and an end date. The start date must come before the end date. There are no restrictions on the end date.

Contents

End

The end date for a budget. If you didn't specify an end date, Amazon set your end date to 06/15/87 00:00 UTC. The defaults are the same for the Amazon Billing and Cost Management console and the API.

After the end date, Amazon deletes the budget and all the associated notifications and subscribers. You can change your end date with the UpdateBudget operation.

Type: Timestamp

Required: No

Start

The start date for a budget. If you created your budget and didn't specify a start date, Amazon defaults to the start of your chosen time period (DAILY, MONTHLY, QUARTERLY, ANNUALLY, or CUSTOM). For example, if you created your budget on January 24, 2018, chose DAILY, and didn't set a start date, Amazon set your start date to 01/24/18 00:00 UTC. If you chose MONTHLY, Amazon set your start date to 01/01/18 00:00 UTC. The defaults are the same for the Amazon Billing and Cost Management console and the API.

You can change your start date with the UpdateBudget operation.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Amazon Cost Optimization Hub

The following data types are supported by Amazon Cost Optimization Hub:

- [AccountEnrollmentStatus](#)
- [AuroraDbClusterStorage](#)
- [AuroraDbClusterStorageConfiguration](#)
- [BlockStoragePerformanceConfiguration](#)
- [ComputeConfiguration](#)
- [ComputeSavingsPlans](#)
- [ComputeSavingsPlansConfiguration](#)
- [DbInstanceConfiguration](#)
- [DynamoDbReservedCapacity](#)
- [DynamoDbReservedCapacityConfiguration](#)
- [EbsVolume](#)
- [EbsVolumeConfiguration](#)
- [Ec2AutoScalingGroup](#)
- [Ec2AutoScalingGroupConfiguration](#)
- [Ec2Instance](#)
- [Ec2InstanceConfiguration](#)
- [Ec2InstanceSavingsPlans](#)
- [Ec2InstanceSavingsPlansConfiguration](#)
- [Ec2ReservedInstances](#)
- [Ec2ReservedInstancesConfiguration](#)
- [EcsService](#)
- [EcsServiceConfiguration](#)
- [EfficiencyMetricsByGroup](#)

- [ElastiCacheReservedInstances](#)
- [ElastiCacheReservedInstancesConfiguration](#)
- [EstimatedDiscounts](#)
- [Filter](#)
- [InstanceConfiguration](#)
- [LambdaFunction](#)
- [LambdaFunctionConfiguration](#)
- [MemoryDbReservedInstances](#)
- [MemoryDbReservedInstancesConfiguration](#)
- [MetricsByTime](#)
- [MixedInstanceConfiguration](#)
- [OpenSearchReservedInstances](#)
- [OpenSearchReservedInstancesConfiguration](#)
- [OrderBy](#)
- [PreferredCommitment](#)
- [RdsDbInstance](#)
- [RdsDbInstanceConfiguration](#)
- [RdsDbInstanceStorage](#)
- [RdsDbInstanceStorageConfiguration](#)
- [RdsReservedInstances](#)
- [RdsReservedInstancesConfiguration](#)
- [Recommendation](#)
- [RecommendationSummary](#)
- [RedshiftReservedInstances](#)
- [RedshiftReservedInstancesConfiguration](#)
- [ReservedInstancesCostCalculation](#)
- [ReservedInstancesPricing](#)
- [ResourceCostCalculation](#)
- [ResourceDetails](#)
- [ResourcePricing](#)

- [SageMakerSavingsPlans](#)
- [SageMakerSavingsPlansConfiguration](#)
- [SavingsPlansCostCalculation](#)
- [SavingsPlansPricing](#)
- [StorageConfiguration](#)
- [SummaryMetricsResult](#)
- [Tag](#)
- [TimePeriod](#)
- [Usage](#)
- [ValidationExceptionDetail](#)

AccountEnrollmentStatus

Service: Amazon Cost Optimization Hub

Describes the enrollment status of an organization's member accounts in Cost Optimization Hub.

Contents

accountId

The Amazon account ID.

Type: String

Pattern: [0-9]{12}

Required: No

createdTimestamp

The time when the account enrollment status was created.

Type: Timestamp

Required: No

lastUpdatedTimestamp

The time when the account enrollment status was last updated.

Type: Timestamp

Required: No

status

The account enrollment status.

Type: String

Valid Values: Active | Inactive

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

AuroraDbClusterStorage

Service: Amazon Cost Optimization Hub

Contains the details of an Aurora DB cluster storage.

Contents

configuration

The Aurora DB cluster storage configuration used for recommendations.

Type: [AuroraDbClusterStorageConfiguration](#) object

Required: No

costCalculation

Cost impact of the resource recommendation.

Type: [ResourceCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

AuroraDbClusterStorageConfiguration

Service: Amazon Cost Optimization Hub

The Aurora DB cluster storage configuration used for recommendations.

Contents

storageType

The storage type to associate with the Aurora DB cluster.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BlockStoragePerformanceConfiguration

Service: Amazon Cost Optimization Hub

Describes the Amazon Elastic Block Store performance configuration of the current and recommended resource configuration for a recommendation.

Contents

iops

The number of I/O operations per second.

Type: Double

Required: No

throughput

The throughput that the volume supports.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ComputeConfiguration

Service: Amazon Cost Optimization Hub

Describes the performance configuration for compute services such as Amazon EC2, Lambda, and ECS.

Contents

architecture

The architecture of the resource.

Type: String

Required: No

memorySizeInMB

The memory size of the resource.

Type: Integer

Required: No

platform

The platform of the resource. The platform is the specific combination of operating system, license model, and software on an instance.

Type: String

Required: No

vCpu

The number of vCPU cores in the resource.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ComputeSavingsPlans

Service: Amazon Cost Optimization Hub

The Compute Savings Plans recommendation details.

Contents

configuration

Configuration details of the Compute Savings Plans to purchase.

Type: [ComputeSavingsPlansConfiguration](#) object

Required: No

costCalculation

Cost impact of the Savings Plans purchase recommendation.

Type: [SavingsPlansCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ComputeSavingsPlansConfiguration

Service: Amazon Cost Optimization Hub

The Compute Savings Plans configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations. Amazon calculates recommendations including the management account and member accounts if the value is set to PAYER. If the value is LINKED, recommendations are calculated for individual member accounts only.

Type: String

Required: No

hourlyCommitment

The hourly commitment for the Savings Plans type.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

term

The Savings Plans recommendation term in years.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DbInstanceConfiguration

Service: Amazon Cost Optimization Hub

The DB instance configuration used for recommendations.

Contents

dbInstanceClass

The DB instance class of the DB instance.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DynamoDbReservedCapacity

Service: Amazon Cost Optimization Hub

The DynamoDB reserved capacity recommendation details.

Contents

configuration

The DynamoDB reserved capacity configuration used for recommendations.

Type: [DynamoDbReservedCapacityConfiguration](#) object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: [ReservedInstancesCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DynamoDbReservedCapacityConfiguration

Service: Amazon Cost Optimization Hub

The DynamoDB reserved capacity configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

capacityUnits

The capacity unit of the recommended reservation.

Type: String

Required: No

monthlyRecurringCost

How much purchasing this reserved capacity costs you on a monthly basis.

Type: String

Required: No

numberOfCapacityUnitsToPurchase

The number of reserved capacity units that Amazon recommends that you purchase.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

reservedInstancesRegion

The Amazon Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

term

The reserved capacity recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing this reserved capacity costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

EbsVolume

Service: Amazon Cost Optimization Hub

Describes the Amazon Elastic Block Store volume configuration of the current and recommended resource configuration for a recommendation.

Contents

configuration

The Amazon Elastic Block Store volume configuration used for recommendations.

Type: [EbsVolumeConfiguration](#) object

Required: No

costCalculation

Cost impact of the recommendation.

Type: [ResourceCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

EbsVolumeConfiguration

Service: Amazon Cost Optimization Hub

The Amazon Elastic Block Store volume configuration used for recommendations.

Contents

attachmentState

The Amazon Elastic Block Store attachment state.

Type: String

Required: No

performance

The Amazon Elastic Block Store performance configuration.

Type: [BlockStoragePerformanceConfiguration](#) object

Required: No

storage

The disk storage of the Amazon Elastic Block Store volume.

Type: [StorageConfiguration](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Ec2AutoScalingGroup

Service: Amazon Cost Optimization Hub

The EC2 Auto Scaling group recommendation details.

Contents

configuration

The EC2 Auto Scaling group configuration used for recommendations.

Type: [Ec2AutoScalingGroupConfiguration](#) object

Required: No

costCalculation

Cost impact of the recommendation.

Type: [ResourceCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Ec2AutoScalingGroupConfiguration

Service: Amazon Cost Optimization Hub

The EC2 Auto Scaling group configuration used for recommendations.

Contents

allocationStrategy

The strategy used for allocating instances, based on a predefined priority order or based on the lowest available price.

Type: String

Valid Values: `Prioritized` | `LowestPrice`

Required: No

instance

Details about the instance for the EC2 Auto Scaling group with a single instance type.

Type: [InstanceConfiguration](#) object

Required: No

mixedInstances

A list of instance types for an EC2 Auto Scaling group with mixed instance types.

Type: Array of [MixedInstanceConfiguration](#) objects

Required: No

type

The type of EC2 Auto Scaling group, showing whether it consists of a single instance type or mixed instance types.

Type: String

Valid Values: `SingleInstanceType` | `MixedInstanceTypes`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Ec2Instance

Service: Amazon Cost Optimization Hub

Describes the EC2 instance configuration of the current and recommended resource configuration for a recommendation.

Contents

configuration

The EC2 instance configuration used for recommendations.

Type: [Ec2InstanceConfiguration](#) object

Required: No

costCalculation

Cost impact of the recommendation.

Type: [ResourceCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Ec2InstanceConfiguration

Service: Amazon Cost Optimization Hub

The EC2 instance configuration used for recommendations.

Contents

instance

Details about the instance.

Type: [InstanceConfiguration](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Ec2InstanceSavingsPlans

Service: Amazon Cost Optimization Hub

The EC2 instance Savings Plans recommendation details.

Contents

configuration

The EC2 instance Savings Plans configuration used for recommendations.

Type: [Ec2InstanceSavingsPlansConfiguration](#) object

Required: No

costCalculation

Cost impact of the Savings Plans purchase recommendation.

Type: [SavingsPlansCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Ec2InstanceSavingsPlansConfiguration

Service: Amazon Cost Optimization Hub

The EC2 instance Savings Plans configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

hourlyCommitment

The hourly commitment for the Savings Plans type.

Type: String

Required: No

instanceFamily

The instance family of the recommended Savings Plans.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

savingsPlansRegion

The Amazon Region of the commitment.

Type: String

Required: No

term

The Savings Plans recommendation term in years.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Ec2ReservedInstances

Service: Amazon Cost Optimization Hub

The EC2 reserved instances recommendation details.

Contents

configuration

The EC2 reserved instances configuration used for recommendations.

Type: [Ec2ReservedInstancesConfiguration](#) object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: [ReservedInstancesCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Ec2ReservedInstancesConfiguration

Service: Amazon Cost Optimization Hub

The EC2 reserved instances configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

currentGeneration

Determines whether the recommendation is for a current generation instance.

Type: String

Required: No

instanceFamily

The instance family of the recommended reservation.

Type: String

Required: No

instanceType

The type of instance that Amazon recommends.

Type: String

Required: No

monthlyRecurringCost

How much purchasing these reserved instances costs you on a monthly basis.

Type: String

Required: No

normalizedUnitsToPurchase

The number of normalized units that Amazon recommends that you purchase.

Type: String

Required: No

numberOfInstancesToPurchase

The number of instances that Amazon recommends that you purchase.

Type: String

Required: No

offeringClass

Indicates whether the recommendation is for standard or convertible reservations.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

platform

The platform of the recommended reservation. The platform is the specific combination of operating system, license model, and software on an instance.

Type: String

Required: No

reservedInstancesRegion

The Amazon Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

sizeFlexEligible

Determines whether the recommendation is size flexible.

Type: Boolean

Required: No

tenancy

Determines whether the recommended reservation is dedicated or shared.

Type: String

Required: No

term

The reserved instances recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing this instance costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

EcsService

Service: Amazon Cost Optimization Hub

The ECS service recommendation details.

Contents

configuration

The ECS service configuration used for recommendations.

Type: [EcsServiceConfiguration](#) object

Required: No

costCalculation

Cost impact of the recommendation.

Type: [ResourceCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

EcsServiceConfiguration

Service: Amazon Cost Optimization Hub

The ECS service configuration used for recommendations.

Contents

compute

Details about the compute configuration.

Type: [ComputeConfiguration](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

EfficiencyMetricsByGroup

Service: Amazon Cost Optimization Hub

Contains cost efficiency metrics for a specific group over time. The group is defined by the grouping dimension specified in the request, such as account ID, Amazon Region.

Contents

group

The value of the grouping dimension for this set of metrics. For example, if grouped by account ID, this field contains the account ID. If no grouping is specified, this field is empty.

Type: String

Required: No

message

An explanation of why efficiency metrics could not be calculated for this group when the `metricsByTime` field is null. Common reasons include insufficient or inconclusive cost and usage data during the specified time period. This field is null or empty when metrics are successfully calculated.

Type: String

Required: No

metricsByTime

A list of time-series data points containing efficiency metrics for this group. Each data point includes an efficiency score, estimated savings, spending, and a timestamp corresponding to the specified granularity. This field is null when efficiency metrics cannot be calculated for the group, in which case the `message` field provides an explanation.

Type: Array of [MetricsByTime](#) objects

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ElastiCacheReservedInstances

Service: Amazon Cost Optimization Hub

The ElastiCache reserved instances recommendation details.

Contents

configuration

The ElastiCache reserved instances configuration used for recommendations.

Type: [ElastiCacheReservedInstancesConfiguration](#) object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: [ReservedInstancesCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ElastiCacheReservedInstancesConfiguration

Service: Amazon Cost Optimization Hub

The ElastiCache reserved instances configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

currentGeneration

Determines whether the recommendation is for a current generation instance.

Type: String

Required: No

instanceFamily

The instance family of the recommended reservation.

Type: String

Required: No

instanceType

The type of instance that Amazon recommends.

Type: String

Required: No

monthlyRecurringCost

How much purchasing these reserved instances costs you on a monthly basis.

Type: String

Required: No

normalizedUnitsToPurchase

The number of normalized units that Amazon recommends that you purchase.

Type: String

Required: No

numberOfInstancesToPurchase

The number of instances that Amazon recommends that you purchase.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

reservedInstancesRegion

The Amazon Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

sizeFlexEligible

Determines whether the recommendation is size flexible.

Type: Boolean

Required: No

term

The reserved instances recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing this instance costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

EstimatedDiscounts

Service: Amazon Cost Optimization Hub

Estimated discount details of the current and recommended resource configuration for a recommendation.

Contents

otherDiscount

Estimated other discounts include all discounts that are not itemized. Itemized discounts include `reservedInstanceDiscount` and `savingsPlansDiscount`.

Type: Double

Required: No

reservedInstancesDiscount

Estimated reserved instance discounts.

Type: Double

Required: No

savingsPlansDiscount

Estimated Savings Plans discounts.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Filter

Service: Amazon Cost Optimization Hub

Describes a filter that returns a more specific list of recommendations. Filters recommendations by different dimensions.

Contents

accountIds

The account to which the recommendation applies.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Pattern: [0-9]{12}

Required: No

actionTypes

The type of action you can take by adopting the recommendation.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Valid Values: Rightsize | Stop | Upgrade | PurchaseSavingsPlans |
PurchaseReservedInstances | MigrateToGraviton | Delete | ScaleIn

Required: No

implementationEfforts

The effort required to implement the recommendation.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Valid Values: VeryLow | Low | Medium | High | VeryHigh

Required: No

recommendationIds

The IDs for the recommendations.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

regions

The Amazon Region of the resource.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

resourceArns

The Amazon Resource Name (ARN) of the recommendation.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

resourceIds

The resource ID of the recommendation.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

resourceTypes

The resource type of the recommendation.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Valid Values: Ec2Instance | LambdaFunction | EbsVolume | EcsService | Ec2AutoScalingGroup | Ec2InstanceSavingsPlans | ComputeSavingsPlans | SageMakerSavingsPlans | Ec2ReservedInstances | RdsReservedInstances | OpenSearchReservedInstances | RedshiftReservedInstances | ElastiCacheReservedInstances | RdsDbInstanceStorage | RdsDbInstance | AuroraDbClusterStorage | DynamoDbReservedCapacity | MemoryDbReservedInstances

Required: No

restartNeeded

Whether or not implementing the recommendation requires a restart.

Type: Boolean

Required: No

rollbackPossible

Whether or not implementing the recommendation can be rolled back.

Type: Boolean

Required: No

tags

A list of tags assigned to the recommendation.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

InstanceConfiguration

Service: Amazon Cost Optimization Hub

The instance configuration used for recommendations.

Contents

type

The instance type of the configuration.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

LambdaFunction

Service: Amazon Cost Optimization Hub

The Lambda function recommendation details.

Contents

configuration

The Lambda function configuration used for recommendations.

Type: [LambdaFunctionConfiguration](#) object

Required: No

costCalculation

Cost impact of the recommendation.

Type: [ResourceCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

LambdaFunctionConfiguration

Service: Amazon Cost Optimization Hub

The Lambda function configuration used for recommendations.

Contents

compute

Details about the compute configuration.

Type: [ComputeConfiguration](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

MemoryDbReservedInstances

Service: Amazon Cost Optimization Hub

The MemoryDB reserved instances recommendation details.

Note

While the API reference uses "MemoryDB reserved instances", the user guide and other documentation refer to them as "MemoryDB reserved nodes", as the terms are used interchangeably.

Contents

configuration

The MemoryDB reserved instances configuration used for recommendations.

Type: [MemoryDbReservedInstancesConfiguration](#) object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: [ReservedInstancesCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

MemoryDbReservedInstancesConfiguration

Service: Amazon Cost Optimization Hub

The MemoryDB reserved instances configuration used for recommendations.

Note

While the API reference uses "MemoryDB reserved instances", the user guide and other documentation refer to them as "MemoryDB reserved nodes", as the terms are used interchangeably.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

currentGeneration

Determines whether the recommendation is for a current generation instance.

Type: String

Required: No

instanceFamily

The instance family of the recommended reservation.

Type: String

Required: No

instanceType

The type of instance that Amazon recommends.

Type: String

Required: No

monthlyRecurringCost

How much purchasing these reserved instances costs you on a monthly basis.

Type: String

Required: No

normalizedUnitsToPurchase

The number of normalized units that Amazon recommends that you purchase.

Type: String

Required: No

numberOfInstancesToPurchase

The number of instances that Amazon recommends that you purchase.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

reservedInstancesRegion

The Amazon Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

sizeFlexEligible

Determines whether the recommendation is size flexible.

Type: Boolean

Required: No

term

The reserved instances recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing these reserved instances costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

MetricsByTime

Service: Amazon Cost Optimization Hub

Contains efficiency metrics for a specific point in time, including an efficiency score, potential savings, optimizable spend, and timestamp.

Contents

savings

The estimated savings amount for this time period, representing the potential cost reduction achieved through optimization recommendations.

Type: Double

Required: No

score

The efficiency score for this time period. The score represents a measure of how effectively the cloud resources are being optimized, with higher scores indicating better optimization performance.

Type: Double

Required: No

spend

The total spending amount for this time period.

Type: Double

Required: No

timestamp

The timestamp for this data point. The format depends on the granularity: YYYY-MM-DD for daily metrics, or YYYY-MM for monthly metrics.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

MixedInstanceConfiguration

Service: Amazon Cost Optimization Hub

The configuration for the EC2 Auto Scaling group with mixed instance types.

Contents

type

The instance type of the configuration.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

OpenSearchReservedInstances

Service: Amazon Cost Optimization Hub

The OpenSearch reserved instances recommendation details.

Contents

configuration

The OpenSearch reserved instances configuration used for recommendations.

Type: [OpenSearchReservedInstancesConfiguration](#) object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: [ReservedInstancesCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

OpenSearchReservedInstancesConfiguration

Service: Amazon Cost Optimization Hub

The OpenSearch reserved instances configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

currentGeneration

Determines whether the recommendation is for a current generation instance.

Type: String

Required: No

instanceType

The type of instance that Amazon recommends.

Type: String

Required: No

monthlyRecurringCost

How much purchasing these reserved instances costs you on a monthly basis.

Type: String

Required: No

normalizedUnitsToPurchase

The number of normalized units that Amazon recommends that you purchase.

Type: String

Required: No

numberOfInstancesToPurchase

The number of instances that Amazon recommends that you purchase.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

reservedInstancesRegion

The Amazon Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

sizeFlexEligible

Determines whether the recommendation is size flexible.

Type: Boolean

Required: No

term

The reserved instances recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing this instance costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

OrderBy

Service: Amazon Cost Optimization Hub

Defines how rows will be sorted in the response.

Contents

dimension

Sorts by dimension values.

Type: String

Required: No

order

The order that's used to sort the data.

Type: String

Valid Values: Asc | Desc

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

PreferredCommitment

Service: Amazon Cost Optimization Hub

The preferred configuration for Reserved Instances and Savings Plans commitment-based discounts, consisting of a payment option and a commitment duration.

Contents

paymentOption

The preferred upfront payment structure for commitments. If the value is null, it will default to AllUpfront (highest savings) where applicable.

Type: String

Valid Values: AllUpfront | PartialUpfront | NoUpfront

Required: No

term

The preferred length of the commitment period. If the value is null, it will default to ThreeYears (highest savings) where applicable.

Type: String

Valid Values: OneYear | ThreeYears

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RdsDbInstance

Service: Amazon Cost Optimization Hub

Contains the details of an Amazon RDS DB instance.

Contents

configuration

The Amazon RDS DB instance configuration used for recommendations.

Type: [RdsDbInstanceConfiguration](#) object

Required: No

costCalculation

Cost impact of the resource recommendation.

Type: [ResourceCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RdsDbInstanceConfiguration

Service: Amazon Cost Optimization Hub

The Amazon RDS DB instance configuration used for recommendations.

Contents

instance

Details about the instance configuration.

Type: [DbInstanceConfiguration](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RdsDbInstanceStorage

Service: Amazon Cost Optimization Hub

Contains the details of an Amazon RDS DB instance storage.

Contents

configuration

The Amazon RDS DB instance storage configuration used for recommendations.

Type: [RdsDbInstanceStorageConfiguration](#) object

Required: No

costCalculation

Cost impact of the resource recommendation.

Type: [ResourceCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RdsDbInstanceStorageConfiguration

Service: Amazon Cost Optimization Hub

The Amazon RDS DB instance storage configuration used for recommendations.

Contents

allocatedStorageInGb

The new amount of storage in GB to allocate for the DB instance.

Type: Double

Required: No

iops

The amount of Provisioned IOPS (input/output operations per second) to be initially allocated for the DB instance.

Type: Double

Required: No

storageThroughput

The storage throughput for the DB instance.

Type: Double

Required: No

storageType

The storage type to associate with the DB instance.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RdsReservedInstances

Service: Amazon Cost Optimization Hub

The RDS reserved instances recommendation details.

Contents

configuration

The RDS reserved instances configuration used for recommendations.

Type: [RdsReservedInstancesConfiguration](#) object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: [ReservedInstancesCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RdsReservedInstancesConfiguration

Service: Amazon Cost Optimization Hub

The RDS reserved instances configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

currentGeneration

Determines whether the recommendation is for a current generation instance.

Type: String

Required: No

databaseEdition

The database edition that the recommended reservation supports.

Type: String

Required: No

databaseEngine

The database engine that the recommended reservation supports.

Type: String

Required: No

deploymentOption

Determines whether the recommendation is for a reservation in a single Availability Zone or a reservation with a backup in a second Availability Zone.

Type: String

Required: No

instanceFamily

The instance family of the recommended reservation.

Type: String

Required: No

instanceType

The type of instance that Amazon recommends.

Type: String

Required: No

licenseModel

The license model that the recommended reservation supports.

Type: String

Required: No

monthlyRecurringCost

How much purchasing this instance costs you on a monthly basis.

Type: String

Required: No

normalizedUnitsToPurchase

The number of normalized units that Amazon recommends that you purchase.

Type: String

Required: No

numberOfInstancesToPurchase

The number of instances that Amazon recommends that you purchase.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

reservedInstancesRegion

The Amazon Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

sizeFlexEligible

Determines whether the recommendation is size flexible.

Type: Boolean

Required: No

term

The reserved instances recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing this instance costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Recommendation

Service: Amazon Cost Optimization Hub

Describes a recommendation.

Contents

accountId

The account to which the recommendation applies.

Type: String

Required: No

actionType

The type of tasks that can be carried out by this action.

Type: String

Required: No

currencyCode

The currency code used for the recommendation.

Type: String

Required: No

currentResourceSummary

Describes the current resource.

Type: String

Required: No

currentResourceType

The current resource type.

Type: String

Required: No

estimatedMonthlyCost

The estimated monthly cost of the current resource. For Reserved Instances and Savings Plans, it refers to the cost for eligible usage.

Type: Double

Required: No

estimatedMonthlySavings

The estimated monthly savings amount for the recommendation.

Type: Double

Required: No

estimatedSavingsPercentage

The estimated savings percentage relative to the total cost over the cost calculation lookback period.

Type: Double

Required: No

implementationEffort

The effort required to implement the recommendation.

Type: String

Required: No

lastRefreshTimestamp

The time when the recommendation was last generated.

Type: Timestamp

Required: No

recommendationId

The ID for the recommendation.

Type: String

Required: No

recommendationLookbackPeriodInDays

The lookback period that's used to generate the recommendation.

Type: Integer

Required: No

recommendedResourceSummary

Describes the recommended resource.

Type: String

Required: No

recommendedResourceType

The recommended resource type.

Type: String

Required: No

region

The Amazon Region of the resource.

Type: String

Required: No

resourceArn

The Amazon Resource Name (ARN) for the recommendation.

Type: String

Required: No

resourceId

The resource ID for the recommendation.

Type: String

Required: No

restartNeeded

Whether or not implementing the recommendation requires a restart.

Type: Boolean

Required: No

rollbackPossible

Whether or not implementing the recommendation can be rolled back.

Type: Boolean

Required: No

source

The source of the recommendation.

Type: String

Valid Values: `ComputeOptimizer` | `CostExplorer`

Required: No

tags

A list of tags assigned to the recommendation.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

RecommendationSummary

Service: Amazon Cost Optimization Hub

The summary of rightsizing recommendations, including de-duped savings from all types of recommendations.

Contents

estimatedMonthlySavings

The estimated total savings resulting from modifications, on a monthly basis.

Type: Double

Required: No

group

The grouping of recommendations.

Type: String

Required: No

recommendationCount

The total number of instance recommendations.

Type: Integer

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RedshiftReservedInstances

Service: Amazon Cost Optimization Hub

The Redshift reserved instances recommendation details.

Contents

configuration

The Redshift reserved instances configuration used for recommendations.

Type: [RedshiftReservedInstancesConfiguration](#) object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: [ReservedInstancesCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RedshiftReservedInstancesConfiguration

Service: Amazon Cost Optimization Hub

The Redshift reserved instances configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

currentGeneration

Determines whether the recommendation is for a current generation instance.

Type: String

Required: No

instanceFamily

The instance family of the recommended reservation.

Type: String

Required: No

instanceType

The type of instance that Amazon recommends.

Type: String

Required: No

monthlyRecurringCost

How much purchasing these reserved instances costs you on a monthly basis.

Type: String

Required: No

normalizedUnitsToPurchase

The number of normalized units that Amazon recommends that you purchase.

Type: String

Required: No

numberOfInstancesToPurchase

The number of instances that Amazon recommends that you purchase.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

reservedInstancesRegion

The Amazon Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

sizeFlexEligible

Determines whether the recommendation is size flexible.

Type: Boolean

Required: No

term

The reserved instances recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing this instance costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReservedInstancesCostCalculation

Service: Amazon Cost Optimization Hub

Cost impact of the purchase recommendation.

Contents

pricing

Pricing details of the purchase recommendation.

Type: [ReservedInstancesPricing](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReservedInstancesPricing

Service: Amazon Cost Optimization Hub

Pricing details for your recommended reserved instance.

Contents

estimatedMonthlyAmortizedReservationCost

The estimated cost of your recurring monthly fees for the recommended reserved instance across the month.

Type: Double

Required: No

estimatedOnDemandCost

The remaining On-Demand cost estimated to not be covered by the recommended reserved instance, over the length of the lookback period.

Type: Double

Required: No

monthlyReservationEligibleCost

The cost of paying for the recommended reserved instance monthly.

Type: Double

Required: No

savingsPercentage

The savings percentage relative to the total On-Demand costs that are associated with this instance.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ResourceCostCalculation

Service: Amazon Cost Optimization Hub

Cost impact of the resource recommendation.

Contents

pricing

Pricing details of the resource recommendation.

Type: [ResourcePricing](#) object

Required: No

usages

Usage details of the resource recommendation.

Type: Array of [Usage](#) objects

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ResourceDetails

Service: Amazon Cost Optimization Hub

Contains detailed information about the specified resource.

Contents

Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

auroraDbClusterStorage

The Aurora DB cluster storage recommendation details.

Type: [AuroraDbClusterStorage](#) object

Required: No

computeSavingsPlans

The Compute Savings Plans recommendation details.

Type: [ComputeSavingsPlans](#) object

Required: No

dynamoDbReservedCapacity

The DynamoDB reserved capacity recommendation details.

Type: [DynamoDbReservedCapacity](#) object

Required: No

ebsVolume

The Amazon Elastic Block Store volume recommendation details.

Type: [EbsVolume](#) object

Required: No

ec2AutoScalingGroup

The EC2 Auto Scaling group recommendation details.

Type: [Ec2AutoScalingGroup](#) object

Required: No

ec2Instance

The EC2 instance recommendation details.

Type: [Ec2Instance](#) object

Required: No

ec2InstanceSavingsPlans

The EC2 instance Savings Plans recommendation details.

Type: [Ec2InstanceSavingsPlans](#) object

Required: No

ec2ReservedInstances

The EC2 reserved instances recommendation details.

Type: [Ec2ReservedInstances](#) object

Required: No

ecsService

The ECS service recommendation details.

Type: [EcsService](#) object

Required: No

elasticacheReservedInstances

The ElastiCache reserved instances recommendation details.

Type: [ElasticacheReservedInstances](#) object

Required: No

lambdaFunction

The Lambda function recommendation details.

Type: [LambdaFunction](#) object

Required: No

memoryDbReservedInstances

The MemoryDB reserved instances recommendation details.

Type: [MemoryDbReservedInstances](#) object

Required: No

openSearchReservedInstances

The OpenSearch reserved instances recommendation details.

Type: [OpenSearchReservedInstances](#) object

Required: No

rdsDbInstance

The DB instance recommendation details.

Type: [RdsDbInstance](#) object

Required: No

rdsDbInstanceStorage

The DB instance storage recommendation details.

Type: [RdsDbInstanceStorage](#) object

Required: No

rdsReservedInstances

The RDS reserved instances recommendation details.

Type: [RdsReservedInstances](#) object

Required: No

redshiftReservedInstances

The Redshift reserved instances recommendation details.

Type: [RedshiftReservedInstances](#) object

Required: No

sageMakerSavingsPlans

The SageMaker AI Savings Plans recommendation details.

Type: [SageMakerSavingsPlans](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ResourcePricing

Service: Amazon Cost Optimization Hub

Contains pricing information about the specified resource.

Contents

estimatedCostAfterDiscounts

The savings estimate incorporating all discounts with Amazon, such as Reserved Instances and Savings Plans.

Type: Double

Required: No

estimatedCostBeforeDiscounts

The savings estimate using Amazon public pricing without incorporating any discounts.

Type: Double

Required: No

estimatedDiscounts

The estimated discounts for a recommendation.

Type: [EstimatedDiscounts](#) object

Required: No

estimatedNetUnusedAmortizedCommitments

The estimated net unused amortized commitment for the recommendation.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SageMakerSavingsPlans

Service: Amazon Cost Optimization Hub

The SageMaker Savings Plans recommendation details.

Contents

configuration

The SageMaker Savings Plans configuration used for recommendations.

Type: [SageMakerSavingsPlansConfiguration](#) object

Required: No

costCalculation

Cost impact of the Savings Plans purchase recommendation.

Type: [SavingsPlansCostCalculation](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SageMakerSavingsPlansConfiguration

Service: Amazon Cost Optimization Hub

The SageMaker Savings Plans configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

hourlyCommitment

The hourly commitment for the Savings Plans type.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

term

The Savings Plans recommendation term in years.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansCostCalculation

Service: Amazon Cost Optimization Hub

Cost impact of the purchase recommendation.

Contents

pricing

Pricing details of the purchase recommendation.

Type: [SavingsPlansPricing](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SavingsPlansPricing

Service: Amazon Cost Optimization Hub

Pricing information about a Savings Plans.

Contents

estimatedMonthlyCommitment

Estimated monthly commitment for the Savings Plans.

Type: Double

Required: No

estimatedOnDemandCost

Estimated On-Demand cost you will pay after buying the Savings Plans.

Type: Double

Required: No

monthlySavingsPlansEligibleCost

The cost of paying for the recommended Savings Plans monthly.

Type: Double

Required: No

savingsPercentage

Estimated savings as a percentage of your overall costs after buying the Savings Plans.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

StorageConfiguration

Service: Amazon Cost Optimization Hub

The storage configuration used for recommendations.

Contents

sizeInGb

The storage volume.

Type: Double

Required: No

type

The storage type.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SummaryMetricsResult

Service: Amazon Cost Optimization Hub

The results or descriptions for the additional metrics, based on whether the metrics were or were not requested.

Contents

savingsPercentage

The savings percentage based on your Amazon spend over the past 30 days.

 **Note**

Savings percentage is only supported when filtering by Region, account ID, or tags.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Tag

Service: Amazon Cost Optimization Hub

The tag structure that contains a tag key and value.

Contents

key

The key that's associated with the tag.

Type: String

Required: No

value

The value that's associated with the tag.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TimePeriod

Service: Amazon Cost Optimization Hub

Specifies a date range for retrieving efficiency metrics. The start date is inclusive and the end date is exclusive.

Contents

end

The end of the time period (exclusive). Specify the date in ISO 8601 format, such as 2024-12-31.

Type: String

Required: Yes

start

The beginning of the time period (inclusive). Specify the date in ISO 8601 format, such as 2024-01-01.

Type: String

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Usage

Service: Amazon Cost Optimization Hub

Details about the usage.

Contents

operation

The operation value.

Type: String

Required: No

productCode

The product code.

Type: String

Required: No

unit

The usage unit.

Type: String

Required: No

usageAmount

The usage amount.

Type: Double

Required: No

usageType

The usage type.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ValidationExceptionDetail

Service: Amazon Cost Optimization Hub

The input failed to meet the constraints specified by the Amazon service in a specified field.

Contents

fieldName

The field name where the invalid entry was detected.

Type: String

Required: Yes

message

A message with the reason for the validation exception error.

Type: String

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Amazon Cost and Usage Report

The following data types are supported by Amazon Cost and Usage Report:

- [ReportDefinition](#)
- [ReportStatus](#)
- [Tag](#)

ReportDefinition

Service: Amazon Cost and Usage Report

The definition of Amazon Cost and Usage Report. You can specify the report name, time unit, report format, compression format, S3 bucket, additional artifacts, and schema elements in the definition.

Contents

AdditionalSchemaElements

A list of strings that indicate additional content that Amazon includes in the report, such as individual resource IDs.

Type: Array of strings

Valid Values: RESOURCES | SPLIT_COST_ALLOCATION_DATA |
MANUAL_DISCOUNT_COMPATIBILITY

Required: Yes

Compression

The compression format that Amazon uses for the report.

If you choose Parquet for the Compression, you must also specify Parquet for the Format parameter.

If you choose ZIP or GZIP for the Compression, you must specify textORcsv for the Format parameter.

Type: String

Valid Values: ZIP | GZIP | Parquet

Required: Yes

Format

The format that Amazon saves the report in.

If you choose Parquet for the Format, you must also specify Parquet for the Compression parameter.

If you choose `text0Rcsv` for the `Format`, you must specify `ZIP` or `GZIP` for the `Compression` parameter.

Type: String

Valid Values: `text0Rcsv` | `Parquet`

Required: Yes

ReportName

The name of the report that you want to create. The name must be unique, is case sensitive, and can't include spaces.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[0-9A-Za-z!\-_.*\ ' ()]+`

Required: Yes

S3Bucket

The S3 bucket where Amazon delivers the report. The S3 bucket must be owned by the Amazon account that was used to create the report.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[A-Za-z0-9_\.\-]+`

Required: Yes

S3Prefix

The prefix that Amazon adds to the report name when Amazon delivers the report. Your prefix can't include spaces.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[0-9A-Za-z!\-_.*\ ' () /]*`

Required: Yes

S3Region

The region of the S3 bucket that Amazon delivers the report into.

Type: String

Valid Values: af-south-1 | ap-east-1 | ap-south-1 | ap-south-2 | ap-southeast-1 | ap-southeast-2 | ap-southeast-3 | ap-northeast-1 | ap-northeast-2 | ap-northeast-3 | ca-central-1 | eu-central-1 | eu-central-2 | eu-west-1 | eu-west-2 | eu-west-3 | eu-north-1 | eu-south-1 | eu-south-2 | me-central-1 | me-south-1 | sa-east-1 | us-east-1 | us-east-2 | us-west-1 | us-west-2 | cn-north-1 | cn-northwest-1

Required: Yes

TimeUnit

The length of time covered by the report.

Type: String

Valid Values: HOURLY | DAILY | MONTHLY

Required: Yes

AdditionalArtifacts

A list of manifests that you want Amazon to create for this report.

Type: Array of strings

Valid Values: REDSHIFT | QUICKSIGHT | ATHENA

Required: No

BillingViewArn

The Amazon resource name of the billing view. The BillingViewArn is needed to create Amazon Cost and Usage Report for each billing group maintained in the Amazon Billing Conductor service. The BillingViewArn for a billing group can be constructed as: `arn:aws:billing::payer-account-id:billingview/billing-group-primary-account-id` or retrieved by calling the [ListBillingViews](#) API.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `(arn:aws(-cn)?:billing::[0-9]{12}:billingview/)?[a-zA-Z0-9_+\=\. \-@]{1,30}`

Required: No

RefreshClosedReports

Whether you want Amazon to update your reports after they have been finalized if Amazon detects charges related to previous months. These charges can include refunds, credits, or support fees.

Type: Boolean

Required: No

ReportStatus

The status of the report.

Type: [ReportStatus](#) object

Required: No

ReportVersioning

Whether you want Amazon to overwrite the previous version of each report or to deliver the report in addition to the previous versions.

Type: String

Valid Values: `CREATE_NEW_REPORT` | `OVERWRITE_REPORT`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReportStatus

Service: Amazon Cost and Usage Report

A two element dictionary with a `lastDelivery` and `lastStatus` key whose values describe the date and status of the last delivered report for a particular report definition.

Contents

lastDelivery

A timestamp that gives the date of a report delivery.

Type: String

Length Constraints: Minimum length of 16. Maximum length of 20.

Pattern: `[0-9]{8}[T][0-9]{6}([Z]|[-+][0-9]{4})`

Required: No

lastStatus

An enum that gives the status of a report delivery.

Type: String

Valid Values: `SUCCESS` | `ERROR_PERMISSIONS` | `ERROR_NO_BUCKET`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Tag

Service: Amazon Cost and Usage Report

Describes a tag. A tag is a key-value pair. You can add up to 50 tags to a report definition.

Contents

Key

The key of the tag. Tag keys are case sensitive. Each report definition can only have up to one tag with the same key. If you try to add an existing tag with the same key, the existing tag value will be updated to the new value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*

Required: Yes

Value

The value of the tag. Tag values are case-sensitive. This can be an empty string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: .*

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Amazon Web Services China Region Free Tier

The following data types are supported by Amazon Web Services China Region Free Tier:

- [ActivityReward](#)
- [ActivitySummary](#)
- [DimensionValues](#)
- [Expression](#)
- [FreeTierUsage](#)
- [MonetaryAmount](#)

ActivityReward

Service: Amazon Web Services China Region Free Tier

The summary of the rewards granted as a result of activities completed.

Contents

Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

credit

The credits gained by activity rewards.

Type: [MonetaryAmount](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ActivitySummary

Service: Amazon Web Services China Region Free Tier

The summary of activities.

Contents

activityId

A unique identifier that identifies the activity.

Type: String

Length Constraints: Fixed length of 32.

Pattern: [a-zA-Z0-9]+

Required: Yes

reward

The reward for the activity.

Type: [ActivityReward](#) object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

status

The current status of the activity.

Type: String

Valid Values: NOT_STARTED | IN_PROGRESS | COMPLETED | EXPIRING

Required: Yes

title

The title of the activity.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DimensionValues

Service: Amazon Web Services China Region Free Tier

Contains the specifications for the filters to use for your request.

Contents

Key

The name of the dimension that you want to filter on.

Type: String

Valid Values: SERVICE | OPERATION | USAGE_TYPE | REGION | FREE_TIER_TYPE | DESCRIPTION | USAGE_PERCENTAGE

Required: Yes

MatchOptions

The match options that you can use to filter your results. You can specify only one of these values in the array.

Type: Array of strings

Valid Values: EQUALS | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL

Required: Yes

Values

The metadata values you can specify to filter upon, so that the results all match at least one of the specified values.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: [a-zA-Z0-9\-\:\._\/\,\\$\(\)]*

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Expression

Service: Amazon Web Services China Region Free Tier

Use Expression to filter in the `GetFreeTierUsage` API operation.

You can use the following patterns:

- Simple dimension values (Dimensions root operator)
- Complex expressions with logical operators (AND, NOT, and OR root operators).

For *simple dimension values*, you can set the dimension name, values, and match type for the filters that you plan to use.

Example for simple dimension values

You can filter to match exactly for `REGION==us-east-1 OR REGION==us-west-1`.

The corresponding Expression appears like the following:

```
{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ], "MatchOptions": ["EQUALS"] } }
```

As shown in the previous example, lists of dimension values are combined with OR when you apply the filter.

For *complex expressions with logical operators*, you can have nested expressions to use the logical operators and specify advanced filtering.

Example for complex expressions with logical operators

You can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (SERVICE CONTAINS AWSLambda)) AND (USAGE_TYPE !CONTAINS DataTransfer)`.

The corresponding Expression appears like the following:

```
{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ], "MatchOptions": ["EQUALS"] }}, {"Dimensions": { "Key": "SERVICE", "Values": ["AWSLambda"], "MatchOptions": ["CONTAINS"] } } ]}, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"], "MatchOptions": ["CONTAINS"] }}} ] }
```

In the following **Contents**, you must specify exactly one of the following root operators.

Contents

And

Return results that match all Expressions that you specified in the array.

Type: Array of [Expression](#) objects

Required: No

Dimensions

The specific dimension, values, and match type to filter objects with.

Type: [DimensionValues](#) object

Required: No

Not

Return results that don't match the Expression that you specified.

Type: [Expression](#) object

Required: No

Or

Return results that match any of the Expressions that you specified. in the array.

Type: Array of [Expression](#) objects

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

FreeTierUsage

Service: Amazon Web Services China Region Free Tier

Consists of a Amazon Free Tier offer's metadata and your data usage for the offer.

Contents

actualUsageAmount

Describes the actual usage accrued month-to-day (MTD) that you've used so far.

Type: Double

Required: No

description

The description of the Free Tier offer.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

forecastedUsageAmount

Describes the forecasted usage by the month that you're expected to use.

Type: Double

Required: No

freeTierType

Describes the type of the Free Tier offer. For example, the offer can be "12 Months Free", "Always Free", and "Free Trial".

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

limit

Describes the maximum usage allowed in Free Tier.

Type: Double

Required: No

operation

Describes usageType more granularly with the specific Amazon Web Services service API operation. For example, this can be the RunInstances API operation for Amazon Elastic Compute Cloud.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [`\S\s`]*

Required: No

region

Describes the Amazon Web Services Region for which this offer is applicable

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [`\S\s`]*

Required: No

service

The name of the Amazon Web Services service providing the Free Tier offer. For example, this can be Amazon Elastic Compute Cloud.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [`\S\s`]*

Required: No

unit

Describes the unit of the `usageType`, such as `Hrs`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

usageType

Describes the usage details of the offer. For example, this might be `Global-BoxUsage:freetrial`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

MonetaryAmount

Service: Amazon Web Services China Region Free Tier

The monetary amount of the credit.

Contents

amount

The aggregated monetary amount of credits earned.

Type: Double

Required: Yes

unit

The unit that the monetary amount is given in.

Type: String

Valid Values: USD

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Amazon Web Services Invoicing

The following data types are supported by Amazon Web Services Invoicing:

- [AmountBreakdown](#)
- [BillingPeriod](#)

- [Contact](#)
- [CurrencyExchangeDetails](#)
- [DateInterval](#)
- [DiscountsBreakdown](#)
- [DiscountsBreakdownAmount](#)
- [EinvoiceDeliveryPreference](#)
- [Entity](#)
- [FeesBreakdown](#)
- [FeesBreakdownAmount](#)
- [Filters](#)
- [InvoiceCurrencyAmount](#)
- [InvoicePDF](#)
- [InvoiceProfile](#)
- [InvoiceSummariesFilter](#)
- [InvoiceSummariesSelector](#)
- [InvoiceSummary](#)
- [InvoiceUnit](#)
- [InvoiceUnitRule](#)
- [ProcurementPortalPreference](#)
- [ProcurementPortalPreferenceSelector](#)
- [ProcurementPortalPreferenceSummary](#)
- [PurchaseOrderDataSource](#)
- [ReceiverAddress](#)
- [ResourceTag](#)
- [SupplementalDocument](#)
- [TaxesBreakdown](#)
- [TaxesBreakdownAmount](#)
- [TestEnvPreference](#)
- [TestEnvPreferenceInput](#)
- [ValidationExceptionField](#)

AmountBreakdown

Service: Amazon Web Services Invoicing

Details about how the total amount was calculated and categorized.

Contents

Discounts

The discounted amount.

Type: [DiscountsBreakdown](#) object

Required: No

Fees

The fee amount.

Type: [FeesBreakdown](#) object

Required: No

SubTotalAmount

The total of a set of the breakdown.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Taxes

The tax amount.

Type: [TaxesBreakdown](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BillingPeriod

Service: Amazon Web Services Invoicing

The billing period for which you want to retrieve invoice-related documents.

Contents

Month

The billing period month.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 12.

Required: Yes

Year

The billing period year.

Type: Integer

Valid Range: Minimum value of 2005. Maximum value of 2050.

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Contact

Service: Amazon Web Services Invoicing

Represents contact information for a person or role associated with the procurement portal preference.

Contents

Email

The email address of the contact person or role.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}`

Required: No

Name

The name of the contact person or role.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CurrencyExchangeDetails

Service: Amazon Web Services Invoicing

The details of currency exchange.

Contents

Rate

The currency exchange rate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

SourceCurrencyCode

The exchange source currency.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

TargetCurrencyCode

The exchange target currency.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DateInterval

Service: Amazon Web Services Invoicing

The time period that you want invoice-related documents for.

Contents

EndDate

The end of the time period that you want invoice-related documents for. The end date is exclusive. For example, if `end` is `2019-01-10`, Amazon retrieves invoice-related documents from the start date up to, but not including, `2018-01-10`.

Type: Timestamp

Required: Yes

StartDate

The beginning of the time period that you want invoice-related documents for. The start date is inclusive. For example, if `start` is `2019-01-01`, AWS retrieves invoices starting at `2019-01-01` up to the end date.

Type: Timestamp

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DiscountsBreakdown

Service: Amazon Web Services Invoicing

The discounts details.

Contents

Breakdown

The list of discounts information.

Type: Array of [DiscountsBreakdownAmount](#) objects

Required: No

TotalAmount

The discount's total amount.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DiscountsBreakdownAmount

Service: Amazon Web Services Invoicing

The discounted amount.

Contents

Amount

The discounted amount.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Description

The list of discounts information.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Rate

The details for the discount rate..

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

InvoiceDeliveryPreference

Service: Amazon Web Services Invoicing

Specifies the preferences for e-invoice delivery, including document types, attachment types, and customization settings.

Contents

ConnectionTestingMethod

The method to use for testing the connection to the procurement portal.

Type: String

Valid Values: PROD_ENV_DOLLAR_TEST | TEST_ENV_REPLAY_TEST

Required: Yes

InvoiceDeliveryActivationDate

The date when e-invoice delivery should be activated for this preference.

Type: Timestamp

Required: Yes

InvoiceDeliveryDocumentTypes

The types of e-invoice documents to be delivered.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Valid Values: AWS_CLOUD_INVOICE | AWS_CLOUD_CREDIT_MEMO |
AWS_MARKETPLACE_INVOICE | AWS_MARKETPLACE_CREDIT_MEMO |
AWS_REQUEST_FOR_PAYMENT

Required: Yes

Protocol

The communication protocol to use for e-invoice delivery.

Type: String

Valid Values: CXML

Required: Yes

PurchaseOrderDataSources

The sources of purchase order data to use for e-invoice generation and delivery.

Type: Array of [PurchaseOrderDataSource](#) objects

Required: Yes

InvoiceDeliveryAttachmentTypes

The types of attachments to include with the e-invoice delivery.

Type: Array of strings

Valid Values: INVOICE_PDF | RFP_PDF

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Entity

Service: Amazon Web Services Invoicing

The organization name providing Amazon Web Services services.

Contents

InvoicingEntity

The name of the entity that issues the Amazon invoice.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

FeesBreakdown

Service: Amazon Web Services Invoicing

The details of fees.

Contents

Breakdown

The list of fees information.

Type: Array of [FeesBreakdownAmount](#) objects

Required: No

TotalAmount

The total amount of fees.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

FeesBreakdownAmount

Service: Amazon Web Services Invoicing

The fee amount.

Contents

Amount

The fee amount.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Description

The list of fees information.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Rate

Details about the rate amount.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Filters

Service: Amazon Web Services Invoicing

An optional input to the list API. If multiple filters are specified, the returned list will be a configuration that match all of the provided filters. Supported filter types are `InvoiceReceivers`, `Names`, and `Accounts`.

Contents

Accounts

You can specify a list of Amazon Web Services account IDs inside filters to return invoice units that match only the specified accounts. If multiple accounts are provided, the result is an OR condition (match any) of the specified accounts. The specified account IDs are matched with either the receiver or the linked accounts in the rules.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 1000 items.

Pattern: `\d{12}`

Required: No

BillSourceAccounts

A list of Amazon Web Services account IDs used to filter invoice units. These are payer accounts from other Amazon Organizations that have delegated their billing responsibility to the receiver account through the billing transfer feature.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 1000 items.

Pattern: `\d{12}`

Required: No

InvoiceReceivers

You can specify a list of Amazon Web Services account IDs inside filters to return invoice units that match only the specified accounts. If multiple accounts are provided, the result is an OR

condition (match any) of the specified accounts. This filter only matches the specified accounts on the invoice receivers of the invoice units.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 1000 items.

Pattern: `\d{12}`

Required: No

Names

An optional input to the list API. You can specify a list of invoice unit names inside filters to return invoice units that match only the specified invoice unit names. If multiple names are provided, the result is an OR condition (match any) of the specified invoice unit names.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `(?!)[\p{L}\p{N}\p{Z}-_]*(?!)`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

InvoiceCurrencyAmount

Service: Amazon Web Services Invoicing

The amount charged after taxes, in the preferred currency.

Contents

AmountBreakdown

Details about the invoice currency amount.

Type: [AmountBreakdown](#) object

Required: No

CurrencyCode

The currency dominion of the invoice document.

Type: String

Length Constraints: Fixed length of 3.

Required: No

CurrencyExchangeDetails

The details of currency exchange.

Type: [CurrencyExchangeDetails](#) object

Required: No

TotalAmount

The invoice currency amount.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

TotalAmountBeforeTax

Details about the invoice total amount before tax.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

InvoicePDF

Service: Amazon Web Services Invoicing

Invoice document data.

Contents

DocumentUrl

The pre-signed URL to download the invoice document.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: .*

Required: No

DocumentUrlExpirationDate

The pre-signed URL expiration date of the invoice document.

Type: Timestamp

Required: No

InvoiceId

Your unique invoice ID.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: .*

Required: No

SupplementalDocuments

List of supplemental documents associated with the invoice.

Type: Array of [SupplementalDocument](#) objects

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

InvoiceProfile

Service: Amazon Web Services Invoicing

Contains high-level information about the invoice receiver.

Contents

AccountId

The account ID the invoice profile is generated for.

Type: String

Pattern: `\d{12}`

Required: No

Issuer

This specifies the issuing entity of the invoice.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `\S+`

Required: No

ReceiverAddress

The address of the receiver that will be printed on the invoice.

Type: [ReceiverAddress](#) object

Required: No

ReceiverEmail

The email address for the invoice profile receiver.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

ReceiverName

The name of the person receiving the invoice profile.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

TaxRegistrationNumber

Your Tax Registration Number (TRN) information.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

InvoiceSummariesFilter

Service: Amazon Web Services Invoicing

Filters for your invoice summaries.

Contents

BillingPeriod

The billing period associated with the invoice documents.

Type: [BillingPeriod](#) object

Required: No

InvoicingEntity

The name of the entity that issues the Amazon invoice.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

TimeInterval

The date range for invoice summary retrieval.

Type: [DateInterval](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

InvoiceSummariesSelector

Service: Amazon Web Services Invoicing

Specifies the invoice summary.

Contents

ResourceType

The query identifier type (INVOICE_ID or ACCOUNT_ID).

Type: String

Valid Values: ACCOUNT_ID | INVOICE_ID

Required: Yes

Value

The value of the query identifier.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: .*

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

InvoiceSummary

Service: Amazon Web Services Invoicing

The invoice that the API retrieved.

Contents

AccountId

The Amazon account ID.

Type: String

Pattern: \d{12}

Required: No

BaseCurrencyAmount

The summary with the product and service currency.

Type: [InvoiceCurrencyAmount](#) object

Required: No

BillingPeriod

The billing period of the invoice-related document.

Type: [BillingPeriod](#) object

Required: No

DueDate

The invoice due date.

Type: Timestamp

Required: No

Entity

The organization name providing Amazon Web Services services.

Type: [Entity](#) object

Required: No

InvoiceId

The invoice ID.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

InvoiceType

The type of invoice.

Type: String

Valid Values: INVOICE | CREDIT_MEMO

Required: No

IssuedDate

The issued date of the invoice.

Type: Timestamp

Required: No

OriginalInvoiceId

The initial or original invoice ID.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

PaymentCurrencyAmount

The summary with the customer configured currency.

Type: [InvoiceCurrencyAmount](#) object

Required: No

PurchaseOrderNumber

The purchase order number associated to the invoice.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

TaxCurrencyAmount

The summary with the tax currency.

Type: [InvoiceCurrencyAmount](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

InvoiceUnit

Service: Amazon Web Services Invoicing

An invoice unit is a set of mutually exclusive accounts that correspond to your business entity. Invoice units allow you separate Amazon Web Services account costs and configures your invoice for each business entity going forward.

Contents

Description

The assigned description for an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 500.

Pattern: `[\S\s]*`

Required: No

InvoiceReceiver

The account that receives invoices related to the invoice unit.

Type: String

Pattern: `\d{12}`

Required: No

InvoiceUnitArn

ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/_:~]+`

Required: No

LastModified

The last time the invoice unit was updated. This is important to determine the version of invoice unit configuration used to create the invoices. Any invoice created after this modified time will use this invoice unit configuration.

Type: Timestamp

Required: No

Name

A unique name that is distinctive within your Amazon.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: (?!)[\p{L}\p{N}\p{Z}-_]*(?!)

Required: No

Rule

An `InvoiceUnitRule` object used to categorize invoice units.

Type: [InvoiceUnitRule](#) object

Required: No

TaxInheritanceDisabled

Whether the invoice unit based tax inheritance is/ should be enabled or disabled.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

InvoiceUnitRule

Service: Amazon Web Services Invoicing

This is used to categorize the invoice unit. Values are Amazon Web Services account IDs. Currently, the only supported rule is LINKED_ACCOUNT.

Contents

BillSourceAccounts

A list of Amazon Web Services account IDs that have delegated their billing responsibility to the receiver account through transfer billing. Unlike linked accounts, these bill source accounts can be payer accounts from other organizations that have authorized billing transfer to this account.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 1000 items.

Pattern: `\d{12}`

Required: No

LinkedAccounts

The list of LINKED_ACCOUNT IDs where charges are included within the invoice unit.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 1000 items.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

ProcurementPortalPreference

Service: Amazon Web Services Invoicing

Represents the full configuration of a procurement portal preference, including settings for e-invoice delivery and purchase order retrieval.

Contents

AwsAccountId

The Amazon Web Services account ID associated with this procurement portal preference.

Type: String

Pattern: `\d{12}`

Required: Yes

BuyerDomain

The domain identifier for the buyer in the procurement portal.

Type: String

Valid Values: NetworkID

Required: Yes

BuyerIdentifier

The unique identifier for the buyer in the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `\S+`

Required: Yes

CreateDate

The date and time when the procurement portal preference was created.

Type: Timestamp

Required: Yes

InvoiceDeliveryEnabled

Indicates whether e-invoice delivery is enabled for this procurement portal preference.

Type: Boolean

Required: Yes

LastUpdateDate

The date and time when the procurement portal preference was last updated.

Type: Timestamp

Required: Yes

ProcurementPortalName

The name of the procurement portal.

Type: String

Valid Values: SAP_BUSINESS_NETWORK | COUPA

Required: Yes

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the procurement portal preference.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing:[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Required: Yes

PurchaseOrderRetrievalEnabled

Indicates whether purchase order retrieval is enabled for this procurement portal preference.

Type: Boolean

Required: Yes

SupplierDomain

The domain identifier for the supplier in the procurement portal.

Type: String

Valid Values: NetworkID

Required: Yes

SupplierIdentifier

The unique identifier for the supplier in the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: Yes

Version

The version number of the procurement portal preference configuration.

Type: Long

Required: Yes

Contacts

List of contact information for portal administrators and technical contacts.

Type: Array of [Contact](#) objects

Array Members: Fixed number of 1 item.

Required: No

InvoiceDeliveryPreference

The configuration settings that specify how e-invoices are delivered to the procurement portal.

Type: [InvoiceDeliveryPreference](#) object

Required: No

InvoiceDeliveryPreferenceStatus

The current status of the e-invoice delivery preference.

Type: String

Valid Values: PENDING_VERIFICATION | TEST_INITIALIZED | TEST_INITIALIZATION_FAILED | TEST_FAILED | ACTIVE | SUSPENDED

Required: No

InvoiceDeliveryPreferenceStatusReason

The reason for the current e-invoice delivery preference status.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

ProcurementPortalInstanceEndpoint

The endpoint URL where e-invoices are delivered to the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `\S+`

Required: No

ProcurementPortalSharedSecret

The shared secret or authentication credential used for secure communication with the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

PurchaseOrderRetrievalEndpoint

The endpoint URL used for retrieving purchase orders from the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

PurchaseOrderRetrievalPreferenceStatus

The current status of the purchase order retrieval preference.

Type: String

Valid Values: PENDING_VERIFICATION | TEST_INITIALIZED | TEST_INITIALIZATION_FAILED | TEST_FAILED | ACTIVE | SUSPENDED

Required: No

PurchaseOrderRetrievalPreferenceStatusReason

The reason for the current purchase order retrieval preference status.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\s\S]*

Required: No

Selector

Specifies criteria for selecting which invoices should be processed using a particular procurement portal preference.

Type: [ProcurementPortalPreferenceSelector](#) object

Required: No

TestEnvPreference

Configuration on settings for the test environment of the procurement portal.

Type: [TestEnvPreference](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ProcurementPortalPreferenceSelector

Service: Amazon Web Services Invoicing

Specifies criteria for selecting which invoices should be processed using a particular procurement portal preference.

Contents

InvoiceUnitArns

The Amazon Resource Name (ARN) of invoice unit identifiers to which this preference applies.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 500 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

SellerOfRecords

The list of seller of record IDs to which this preference applies.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `\S+`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ProcurementPortalPreferenceSummary

Service: Amazon Web Services Invoicing

Provides a summary of a procurement portal preference, including key identifiers and status information.

Contents

AwsAccountId

The Amazon Web Services account ID associated with this procurement portal preference summary.

Type: String

Pattern: `\d{12}`

Required: Yes

BuyerDomain

The domain identifier for the buyer in the procurement portal.

Type: String

Valid Values: NetworkID

Required: Yes

BuyerIdentifier

The unique identifier for the buyer in the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `\S+`

Required: Yes

CreateDate

The date and time when the procurement portal preference was created.

Type: Timestamp

Required: Yes

InvoiceDeliveryEnabled

Indicates whether e-invoice delivery is enabled for this procurement portal preference.

Type: Boolean

Required: Yes

LastUpdateDate

The date and time when the procurement portal preference was last updated.

Type: Timestamp

Required: Yes

ProcurementPortalName

The name of the procurement portal.

Type: String

Valid Values: SAP_BUSINESS_NETWORK | COUPA

Required: Yes

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the procurement portal preference.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing:[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Required: Yes

PurchaseOrderRetrievalEnabled

Indicates whether purchase order retrieval is enabled for this procurement portal preference.

Type: Boolean

Required: Yes

SupplierDomain

The domain identifier for the supplier in the procurement portal.

Type: String

Valid Values: NetworkID

Required: Yes

SupplierIdentifier

The unique identifier for the supplier in the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: Yes

Version

The version number of the procurement portal preference configuration in this summary.

Type: Long

Required: Yes

InvoiceDeliveryPreferenceStatus

The current status of the e-invoice delivery preference in this summary.

Type: String

Valid Values: PENDING_VERIFICATION | TEST_INITIALIZED |
TEST_INITIALIZATION_FAILED | TEST_FAILED | ACTIVE | SUSPENDED

Required: No

InvoiceDeliveryPreferenceStatusReason

The reason for the current e-invoice delivery preference status in this summary.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

PurchaseOrderRetrievalPreferenceStatus

The current status of the purchase order retrieval preference in this summary.

Type: String

Valid Values: PENDING_VERIFICATION | TEST_INITIALIZED | TEST_INITIALIZATION_FAILED | TEST_FAILED | ACTIVE | SUSPENDED

Required: No

PurchaseOrderRetrievalPreferenceStatusReason

The reason for the current purchase order retrieval preference status in this summary.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Selector

Specifies criteria for selecting which invoices should be processed using a particular procurement portal preference.

Type: [ProcurementPortalPreferenceSelector](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

PurchaseOrderDataSource

Service: Amazon Web Services Invoicing

Specifies the source configuration for retrieving purchase order data.

Contents

EinvoiceDeliveryDocumentType

The type of e-invoice document that requires purchase order data.

Type: String

Valid Values: AWS_CLOUD_INVOICE | AWS_CLOUD_CREDIT_MEMO |
AWS_MARKETPLACE_INVOICE | AWS_MARKETPLACE_CREDIT_MEMO |
AWS_REQUEST_FOR_PAYMENT

Required: No

PurchaseOrderDataSourceType

The type of source for purchase order data.

Type: String

Valid Values: ASSOCIATED_PURCHASE_ORDER_REQUIRED |
PURCHASE_ORDER_NOT_REQUIRED

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReceiverAddress

Service: Amazon Web Services Invoicing

The details of the address associated with the receiver.

Contents

AddressLine1

The first line of the address.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

AddressLine2

The second line of the address, if applicable.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

AddressLine3

The third line of the address, if applicable.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

City

The city that the address is in.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

CompanyName

A unique company name.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

CountryCode

The country code for the country the address is in.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

DistrictOrCounty

The district or country the address is located in.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

PostalCode

The postal code associated with the address.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

StateOrRegion

The state, region, or province the address is located.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ResourceTag

Service: Amazon Web Services Invoicing

The tag structure that contains a tag key and value.

Contents

Key

The object key of your of your resource tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Value

The specific value of the resource tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SupplementalDocument

Service: Amazon Web Services Invoicing

Supplemental document associated with the invoice.

Contents

DocumentUrl

The pre-signed URL to download invoice supplemental document.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: .*

Required: No

DocumentUrlExpirationDate

The pre-signed URL expiration date of invoice supplemental document.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TaxesBreakdown

Service: Amazon Web Services Invoicing

The details of the taxes.

Contents

Breakdown

A list of tax information.

Type: Array of [TaxesBreakdownAmount](#) objects

Required: No

TotalAmount

The total amount for your taxes.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TaxesBreakdownAmount

Service: Amazon Web Services Invoicing

The tax amount.

Contents

Amount

The tax amount.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Description

The details of the taxes.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Rate

The details of the tax rate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TestEnvPreference

Service: Amazon Web Services Invoicing

Contains configuration settings for testing the procurement portal integration in a non-production environment.

Contents

BuyerDomain

The domain identifier for the buyer in the test environment of the procurement portal.

Type: String

Valid Values: NetworkID

Required: Yes

BuyerIdentifier

The unique identifier for the buyer in the test environment of the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: Yes

SupplierDomain

The domain identifier for the supplier in the test environment of the procurement portal.

Type: String

Valid Values: NetworkID

Required: Yes

SupplierIdentifier

The unique identifier for the supplier in the test environment of the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: Yes

ProcurementPortalInstanceEndpoint

The endpoint URL where e-invoices are delivered in the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

ProcurementPortalSharedSecret

The shared secret or authentication credential used for secure communication with the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

PurchaseOrderRetrievalEndpoint

The endpoint URL used for retrieving purchase orders in the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TestEnvPreferenceInput

Service: Amazon Web Services Invoicing

Input parameters for configuring test environment preferences for a procurement portal.

Contents

BuyerDomain

The domain identifier to use for the buyer in the test environment.

Type: String

Valid Values: NetworkID

Required: Yes

BuyerIdentifier

The unique identifier to use for the buyer in the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: Yes

SupplierDomain

The domain identifier to use for the supplier in the test environment.

Type: String

Valid Values: NetworkID

Required: Yes

SupplierIdentifier

The unique identifier to use for the supplier in the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: Yes

ProcurementPortalInstanceEndpoint

The endpoint URL where e-invoices will be delivered in the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

ProcurementPortalSharedSecret

The shared secret or authentication credential to use for secure communication in the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ValidationExceptionField

Service: Amazon Web Services Invoicing

The input fails to satisfy the constraints specified by an Amazon Web Services service.

Contents

message

The input fails to satisfy the constraints specified by an Amazon Web Services service.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: Yes

name

The input fails to satisfy the constraints specified by an Amazon Web Services service.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Amazon Price List

The following data types are supported by Amazon Price List:

- [AttributeValue](#)
- [Filter](#)
- [PriceList](#)
- [Service](#)

AttributeValue

Service: Amazon Price List

The values of a given attribute, such as `Throughput Optimized HDD` or `Provisioned IOPS` for the `Amazon EC2 volumeType` attribute.

Contents

Value

The specific value of an `attributeName`.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Filter

Service: Amazon Price List

The constraints that you want all returned products to match.

Contents

Field

The product metadata field that you want to filter on. You can filter by just the service code to see all products for a specific service, filter by just the attribute name to see a specific attribute for multiple services, or use both a service code and an attribute name to retrieve only products that match both fields.

Valid values include: `ServiceCode`, and all attribute names

For example, you can filter by the `AmazonEC2` service code and the `volumeType` attribute name to get the prices for only Amazon EC2 volumes.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

Type

The type of filter that you want to use.

Valid values are:

- `TERM_MATCH`: Returns only products that match both the given filter field and the given value.
- `EQUALS`: Returns products that have a field value exactly matching the provided value.
- `CONTAINS`: Returns products where the field value contains the provided value as a substring.
- `ANY_OF`: Returns products where the field value is any of the provided values.
- `NONE_OF`: Returns products where the field value is not any of the provided values.

Type: String

Valid Values: `TERM_MATCH` | `EQUALS` | `CONTAINS` | `ANY_OF` | `NONE_OF`

Required: Yes

Value

The service code or attribute value that you want to filter by. If you're filtering by service code this is the actual service code, such as AmazonEC2. If you're filtering by attribute name, this is the attribute value that you want the returned products to match, such as a Provisioned IOPS volume.

For ANY_OF and NONE_OF filter types, you can provide multiple values as a comma-separated string. For example, `t2.micro,t2.small,t2.medium` or `Compute optimized, GPU instance, Micro instances`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

PriceList

Service: Amazon Price List

This feature is in preview release and is subject to change. Your use of Amazon Price List API is subject to the Beta Service Participation terms of the [Amazon Service Terms](#) (Section 1.10).

This is the type of price list references that match your request.

Contents

CurrencyCode

The three alphabetical character ISO-4217 currency code the Price List files are denominated in.

Type: String

Pattern: [A-Z]{3}

Required: No

FileFormats

The format you want to retrieve your Price List files. The FileFormat can be obtained from the [ListPriceList](#) response.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

PriceListArn

The unique identifier that maps to where your Price List files are located. PriceListArn can be obtained from the [ListPriceList](#) response.

Type: String

Length Constraints: Minimum length of 18. Maximum length of 2048.

Pattern: arn:[A-Za-z0-9][-.A-Za-z0-9]{0,62}:pricing:::price-list/[A-Za-z0-9+_/.-]{1,1023}

Required: No

RegionCode

This is used to filter the Price List by Amazon Region. For example, to get the price list only for the US East (N. Virginia) Region, use `us-east-1`. If nothing is specified, you retrieve price lists for all applicable Regions. The available RegionCode list can be retrieved from [GetAttributeValues](#) API.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Service

Service: Amazon Price List

The metadata for a service, such as the service code and available attribute names.

Contents

ServiceCode

The code for the Amazon service.

Type: String

Required: Yes

AttributeNames

The attributes that are available for this service.

Type: Array of strings

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Tax Settings

The following data types are supported by Tax Settings:

- [AccountDetails](#)
- [AccountMetaData](#)
- [AdditionalInfoRequest](#)

- [AdditionalInfoResponse](#)
- [Address](#)
- [Authority](#)
- [BatchDeleteTaxRegistrationError](#)
- [BatchPutTaxRegistrationError](#)
- [BrazilAdditionalInfo](#)
- [CanadaAdditionalInfo](#)
- [DestinationS3Location](#)
- [EgyptAdditionalInfo](#)
- [EstoniaAdditionalInfo](#)
- [ExemptionCertificate](#)
- [GeorgiaAdditionalInfo](#)
- [GreeceAdditionalInfo](#)
- [IndiaAdditionalInfo](#)
- [IndonesiaAdditionalInfo](#)
- [IsraelAdditionalInfo](#)
- [ItalyAdditionalInfo](#)
- [Jurisdiction](#)
- [KenyaAdditionalInfo](#)
- [MalaysiaAdditionalInfo](#)
- [PolandAdditionalInfo](#)
- [RomaniaAdditionalInfo](#)
- [SaudiArabiaAdditionalInfo](#)
- [SourceS3Location](#)
- [SouthKoreaAdditionalInfo](#)
- [SpainAdditionalInfo](#)
- [SupplementalTaxRegistration](#)
- [SupplementalTaxRegistrationEntry](#)
- [TaxDocumentMetadata](#)
- [TaxExemption](#)

- [TaxExemptionDetails](#)
- [TaxExemptionType](#)
- [TaxInheritanceDetails](#)
- [TaxRegistration](#)
- [TaxRegistrationDocFile](#)
- [TaxRegistrationDocument](#)
- [TaxRegistrationEntry](#)
- [TaxRegistrationWithJurisdiction](#)
- [TurkeyAdditionalInfo](#)
- [UkraineAdditionalInfo](#)
- [UzbekistanAdditionalInfo](#)
- [ValidationExceptionField](#)
- [VerificationDetails](#)
- [VietnamAdditionalInfo](#)

AccountDetails

Service: Tax Settings

An object with your accountId and TRN information.

Contents

accountId

List of unique account identifiers.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d+

Required: No

accountMetaData

The meta data information associated with the account.

Type: [AccountMetaData](#) object

Required: No

taxInheritanceDetails

Tax inheritance information associated with the account.

Type: [TaxInheritanceDetails](#) object

Required: No

taxRegistration

Your TRN information. Instead of having full legal address, here TRN information will have jurisdiction details (for example, country code and state/region/province if applicable).

Type: [TaxRegistrationWithJurisdiction](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

AccountMetaData

Service: Tax Settings

The meta data information associated with the account.

Contents

accountName

The Amazon Web Services accounts name.

Type: String

Pattern: `[\s\S]*`

Required: No

address

The details of the address associated with the TRN information.

Type: [Address](#) object

Required: No

addressRoleMap

Address roles associated with the account containing country code information.

Type: String to [Jurisdiction](#) object map

Valid Keys: `TaxAddress` | `BillingAddress` | `ContactAddress`

Required: No

addressType

The type of address associated with the legal profile.

Type: String

Valid Values: `TaxAddress` | `BillingAddress` | `ContactAddress`

Required: No

seller

Seller information associated with the account.

Type: String

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

AdditionalInfoRequest

Service: Tax Settings

Additional tax information associated with your tax registration number (TRN). Depending on the TRN for a specific country, you might need to specify this information when you set your TRN.

You can only specify one of the following parameters and the value can't be empty.

Note

The parameter that you specify must match the country for the TRN, if available. For example, if you set a TRN in Canada for specific provinces, you must also specify the `canadaAdditionalInfo` parameter.

Contents

canadaAdditionalInfo

Additional tax information associated with your TRN in Canada.

Type: [CanadaAdditionalInfo](#) object

Required: No

egyptAdditionalInfo

Additional tax information to specify for a TRN in Egypt.

Type: [EgyptAdditionalInfo](#) object

Required: No

estoniaAdditionalInfo

Additional tax information to specify for a TRN in Estonia.

Type: [EstoniaAdditionalInfo](#) object

Required: No

georgiaAdditionalInfo

Additional tax information to specify for a TRN in Georgia.

Type: [GeorgiaAdditionalInfo](#) object

Required: No

greeceAdditionalInfo

Additional tax information to specify for a TRN in Greece.

Type: [GreeceAdditionalInfo](#) object

Required: No

indonesiaAdditionalInfo

Type: [IndonesiaAdditionalInfo](#) object

Required: No

israelAdditionalInfo

Additional tax information to specify for a TRN in Israel.

Type: [IsraelAdditionalInfo](#) object

Required: No

italyAdditionalInfo

Additional tax information to specify for a TRN in Italy.

Type: [ItalyAdditionalInfo](#) object

Required: No

kenyaAdditionalInfo

Additional tax information to specify for a TRN in Kenya.

Type: [KenyaAdditionalInfo](#) object

Required: No

malaysiaAdditionalInfo

Additional tax information to specify for a TRN in Malaysia.

Type: [MalaysiaAdditionalInfo](#) object

Required: No

polandAdditionalInfo

Additional tax information associated with your TRN in Poland.

Type: [PolandAdditionalInfo](#) object

Required: No

romaniaAdditionalInfo

Additional tax information to specify for a TRN in Romania.

Type: [RomaniaAdditionalInfo](#) object

Required: No

saudiArabiaAdditionalInfo

Additional tax information associated with your TRN in Saudi Arabia.

Type: [SaudiArabiaAdditionalInfo](#) object

Required: No

southKoreaAdditionalInfo

Additional tax information to specify for a TRN in South Korea.

Type: [SouthKoreaAdditionalInfo](#) object

Required: No

spainAdditionalInfo

Additional tax information to specify for a TRN in Spain.

Type: [SpainAdditionalInfo](#) object

Required: No

turkeyAdditionalInfo

Additional tax information to specify for a TRN in Turkey.

Type: [TurkeyAdditionalInfo](#) object

Required: No

ukraineAdditionalInfo

Additional tax information associated with your TRN in Ukraine.

Type: [UkraineAdditionalInfo](#) object

Required: No

uzbekistanAdditionalInfo

Additional tax information to specify for a TRN in Uzbekistan.

Type: [UzbekistanAdditionalInfo](#) object

Required: No

vietnamAdditionalInfo

Additional tax information to specify for a TRN in Vietnam.

Type: [VietnamAdditionalInfo](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

AdditionalInfoResponse

Service: Tax Settings

Additional tax information associated with your TRN. The Tax Settings API returns country-specific information in the response when any additional information is present with your TRN for the following countries.

Contents

brazilAdditionalInfo

Additional tax information associated with your TRN in Brazil. The Tax Settings API returns this information in your response when any additional information is present with your TRN in Brazil.

Type: [BrazilAdditionalInfo](#) object

Required: No

canadaAdditionalInfo

Additional tax information associated with your TRN in Canada.

Type: [CanadaAdditionalInfo](#) object

Required: No

egyptAdditionalInfo

Additional tax information to specify for a TRN in Egypt.

Type: [EgyptAdditionalInfo](#) object

Required: No

estoniaAdditionalInfo

Additional tax information associated with your TRN in Estonia.

Type: [EstoniaAdditionalInfo](#) object

Required: No

georgiaAdditionalInfo

Additional tax information associated with your TRN in Georgia.

Type: [GeorgiaAdditionalInfo](#) object

Required: No

greeceAdditionalInfo

Additional tax information to specify for a TRN in Greece.

Type: [GreeceAdditionalInfo](#) object

Required: No

indiaAdditionalInfo

Additional tax information in India.

Type: [IndiaAdditionalInfo](#) object

Required: No

indonesiaAdditionalInfo

Additional tax information associated with your TRN in Indonesia.

Type: [IndonesiaAdditionalInfo](#) object

Required: No

israelAdditionalInfo

Additional tax information associated with your TRN in Israel.

Type: [IsraelAdditionalInfo](#) object

Required: No

italyAdditionalInfo

Additional tax information associated with your TRN in Italy.

Type: [ItalyAdditionalInfo](#) object

Required: No

kenyaAdditionalInfo

Additional tax information associated with your TRN in Kenya.

Type: [KenyaAdditionalInfo](#) object

Required: No

malaysiaAdditionalInfo

Additional tax information associated with your TRN in Malaysia.

Type: [MalaysiaAdditionalInfo](#) object

Required: No

polandAdditionalInfo

Additional tax information associated with your TRN in Poland.

Type: [PolandAdditionalInfo](#) object

Required: No

romaniaAdditionalInfo

Additional tax information to specify for a TRN in Romania.

Type: [RomaniaAdditionalInfo](#) object

Required: No

saudiArabiaAdditionalInfo

Additional tax information associated with your TRN in Saudi Arabia.

Type: [SaudiArabiaAdditionalInfo](#) object

Required: No

southKoreaAdditionalInfo

Additional tax information associated with your TRN in South Korea.

Type: [SouthKoreaAdditionalInfo](#) object

Required: No

spainAdditionalInfo

Additional tax information associated with your TRN in Spain.

Type: [SpainAdditionalInfo](#) object

Required: No

turkeyAdditionalInfo

Additional tax information associated with your TRN in Turkey.

Type: [TurkeyAdditionalInfo](#) object

Required: No

ukraineAdditionalInfo

Additional tax information associated with your TRN in Ukraine.

Type: [UkraineAdditionalInfo](#) object

Required: No

uzbekistanAdditionalInfo

Additional tax information associated with your TRN in Uzbekistan.

Type: [UzbekistanAdditionalInfo](#) object

Required: No

vietnamAdditionalInfo

Additional tax information to specify for a TRN in Vietnam.

Type: [VietnamAdditionalInfo](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Address

Service: Tax Settings

The details of the address associated with the TRN information.

Contents

addressLine1

The first line of the address.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 180.

Pattern: (?!\s*\$)[\s\S]+

Required: Yes

city

The city that the address is in.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: (?!\s*\$)[\s\S]+

Required: Yes

countryCode

The country code for the country that the address is in.

Type: String

Length Constraints: Fixed length of 2.

Pattern: [a-zA-Z]+

Required: Yes

postalCode

The postal code associated with the address.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: (?!\s*\$)[\s\S]+

Required: Yes

addressLine2

The second line of the address, if applicable.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: (?!\s*\$)[\s\S]+

Required: No

addressLine3

The third line of the address, if applicable. Currently, the Tax Settings API accepts the `addressLine3` parameter only for Saudi Arabia. When you specify a TRN in Saudi Arabia, you must enter the `addressLine3` and specify the building number for the address. For example, you might enter 1234.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: (?!\s*\$)[\s\S]+

Required: No

districtOrCounty

The district or county the address is located.

Note

For addresses in Brazil, this parameter uses the name of the neighborhood. When you set a TRN in Brazil, use `districtOrCounty` for the neighborhood name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: (?!\s*\$)[\s\S]+

Required: No

stateOrRegion

The state, region, or province that the address is located. This field is only required for Canada, India, United Arab Emirates, Romania, and Brazil (CPF). It is optional for all other countries.

If this is required for tax settings, use the same name as shown on the **Tax Settings** page.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: (?!\s*\$)[\s\S]+

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Authority

Service: Tax Settings

The address domain associate with the tax information.

Contents

country

The country code for the country that the address is in.

Type: String

Length Constraints: Fixed length of 2.

Pattern: [a-zA-Z]+

Required: Yes

state

The state that the address is located.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: (?!\s*\$)[\s\S]+

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchDeleteTaxRegistrationError

Service: Tax Settings

The error object for representing failures in the BatchDeleteTaxRegistration operation.

Contents

accountId

The unique account identifier for the account whose tax registration couldn't be deleted during the BatchDeleteTaxRegistration operation.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d+`

Required: Yes

message

The error message for an individual failure in the BatchDeleteTaxRegistration operation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: Yes

code

The error code for an individual failure in BatchDeleteTaxRegistration operation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 50.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BatchPutTaxRegistrationError

Service: Tax Settings

The error object for representing failures in the BatchPutTaxRegistration operation.

Contents

accountId

The unique account identifier for the account that the tax registration couldn't be added, or updated during the BatchPutTaxRegistration operation.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d+`

Required: Yes

message

The error message for an individual failure in the BatchPutTaxRegistration operation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: Yes

code

The error code for an individual failure in the BatchPutTaxRegistration operation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 50.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

BrazilAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Brazil.

Contents

ccmCode

The Cadastro de Contribuintes Mobiliários (CCM) code for your TRN in Brazil. This only applies for a CNPJ tax type for the São Paulo municipality.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \d+

Required: No

legalNatureCode

Legal nature of business, based on your TRN in Brazil. This only applies for a CNPJ tax type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \d+

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

CanadaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Canada .

Contents

canadaQuebecSalesTaxNumber

The Quebec Sales Tax ID number. Leave blank if you do not have a Quebec Sales Tax ID number.

Type: String

Pattern: (`[0-9]{10}`)(`TQ[0-9]{4}`)?

Required: No

canadaRetailSalesTaxNumber

Manitoba Retail Sales Tax ID number. Customers purchasing Amazon Web Services services for resale in Manitoba must provide a valid Retail Sales Tax ID number for Manitoba. Leave this blank if you do not have a Retail Sales Tax ID number in Manitoba or are not purchasing Amazon Web Services services for resale.

Type: String

Pattern: (`[0-9]{6}`-`[0-9]{1}`)

Required: No

isResellerAccount

The value for this parameter must be `true` if the `provincialSalesTaxId` value is provided for a TRN in British Columbia, Saskatchewan, or Manitoba provinces.

To claim a provincial sales tax (PST) and retail sales tax (RST) reseller exemption, you must confirm that purchases from this account were made for resale. Otherwise, remove the PST or RST number from the `provincialSalesTaxId` parameter from your request.

Type: Boolean

Required: No

provincialSalesTaxId

The provincial sales tax ID for your TRN in Canada. This parameter can represent the following:

- Provincial sales tax ID number for British Columbia and Saskatchewan provinces
- Manitoba retail sales tax ID number for Manitoba province
- Quebec sales tax ID number for Quebec province

The Tax Setting API only accepts this parameter if the TRN is specified for the previous provinces. For other provinces, the Tax Settings API doesn't accept this parameter.

Type: String

Length Constraints: Minimum length of 7. Maximum length of 16.

Pattern: ([0-9A-Z/-]+)

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

DestinationS3Location

Service: Tax Settings

The location of the Amazon S3 bucket that you specify to download your tax documents to.

Contents

bucket

The name of your Amazon S3 bucket that you specify to download your tax documents to.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `(?=^.{3,63}$)(?!^\d+\.)+\d+$)(^\(([a-z0-9]|[a-z0-9][a-z0-9\-\-]*[a-z0-9])\.)*\([a-z0-9]|[a-z0-9][a-z0-9\-\-]*[a-z0-9])$)`

Required: Yes

prefix

The Amazon S3 object prefix that you specify for your tax document file.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 512.

Pattern: `.*\S.*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

EgyptAdditionalInfo

Service: Tax Settings

Additional tax information to specify for a TRN in Egypt.

Contents

uniqueIdentificationNumber

The unique identification number provided by the Egypt Tax Authority.

Type: String

Pattern: [a-zA-Z0-9]{39}

Required: No

uniqueIdentificationNumberExpirationDate

The expiration date of the unique identification number provided by the Egypt Tax Authority.

Type: String

Pattern: (\d{4}-(0[0-9]|1[0-2])-(0[0-2][0-9]|3[0-1]))

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

EstoniaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Estonia.

Contents

registryCommercialCode

Registry commercial code (RCC) for your TRN in Estonia. This value is an eight-numeric string, such as 12345678.

Type: String

Length Constraints: Fixed length of 8.

Pattern: \d+

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ExemptionCertificate

Service: Tax Settings

The exemption certificate.

Contents

documentFile

The exemption certificate file content.

Type: Base64-encoded binary data object

Length Constraints: Minimum length of 1. Maximum length of 4194304.

Required: Yes

documentName

The exemption certificate file name.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: ([A-Za-z0-9-_.]+).(pdf|jpg|png)

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

GeorgiaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Georgia.

Contents

personType

The legal person or physical person assigned to this TRN in Georgia.

Type: String

Valid Values: Legal Person | Physical Person | Business

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

GreeceAdditionalInfo

Service: Tax Settings

Additional tax information to specify for a TRN in Greece.

Contents

contractingAuthorityCode

The code of contracting authority for e-invoicing.

Type: String

Pattern: `\d{4}\.[A-Z]\d{5}\.\d{4}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

IndiaAdditionalInfo

Service: Tax Settings

Additional tax information in India.

Contents

pan

India pan information associated with the account.

Type: String

Pattern: [A-Z]{5}[0-9]{4}[A-Z]{1}

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

IndonesiaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Indonesia.

Contents

decisionNumber

VAT-exempt customers have a Directorate General of Taxation (DGT) exemption letter or certificate (Surat Keterangan Bebas) decision number. Non-collected VAT have a DGT letter or certificate (Surat Keterangan Tidak Dipungut).

Type: String

Pattern: (`[a-zA-Z0-9/.\-]{0,200}`)

Required: No

ppnExceptionDesignationCode

Exception code if you are designated by Directorate General of Taxation (DGT) as a VAT collector, non-collected VAT, or VAT-exempt customer.

Type: String

Pattern: (`01|02|03|07|08`)

Required: No

taxRegistrationNumberType

The tax registration number type.

Type: String

Valid Values: `NIK` | `PassportNumber` | `NPWP` | `NITKU`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

IsraelAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Israel.

Contents

customerType

Customer type for your TRN in Israel. The value can be `Business` or `Individual`. Use `Business` for entities such as not-for-profit and financial institutions.

Type: String

Valid Values: `Business` | `Individual`

Required: Yes

dealerType

Dealer type for your TRN in Israel. If you're not a local authorized dealer with an Israeli VAT ID, specify your tax identification number so that Amazon can send you a compliant tax invoice.

Type: String

Valid Values: `Authorized` | `Non-authorized`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ItalyAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Italy.

Contents

cigNumber

The tender procedure identification code.

Type: String

Pattern: ([0-9A-Z]{1,15})

Required: No

cupNumber

Additional tax information to specify for a TRN in Italy. This is managed by the Interministerial Committee for Economic Planning (CIPE) which characterizes every public investment project (Individual Project Code).

Type: String

Pattern: ([0-9A-Z]{1,15})

Required: No

sdiAccountId

Additional tax information to specify for a TRN in Italy. Use CodiceDestinatario to receive your invoices via web service (API) or FTP.

Type: String

Pattern: [0-9A-Z]{6,7}

Required: No

taxCode

List of service tax codes for your TRN in Italy. You can use your customer tax code as part of a VAT Group.

Type: String

Pattern: ([0-9]{11}|[A-Z]{6}[0-9]{2}[A-Z][0-9]{2}[A-Z][0-9]{3}[A-Z])

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Jurisdiction

Service: Tax Settings

The jurisdiction details of the TRN information of the customers. This doesn't contain full legal address, and contains only country code and state/region/province.

Contents

countryCode

The country code of the jurisdiction.

Type: String

Length Constraints: Fixed length of 2.

Pattern: [a-zA-Z]+

Required: Yes

stateOrRegion

The state, region, or province associated with the country of the jurisdiction, if applicable.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: (?!\\s*\$)[\\s\\S]+

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

KenyaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Kenya.

Contents

personType

The legal person or physical person assigned to this TRN in Kenya.

Type: String

Valid Values: Legal Person | Physical Person | Business

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

MalaysiaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Malaysia.

Contents

businessRegistrationNumber

The tax registration number (TRN) in Malaysia.

For individual, you can specify the `taxInformationNumber` in `MalaysiaAdditionalInfo` with NRIC type, and a valid MyKad or NRIC number. For business, you must specify a `businessRegistrationNumber` in `MalaysiaAdditionalInfo` with a TIN type and tax identification number. For business resellers, you must specify a `businessRegistrationNumber` and `taxInformationNumber` in `MalaysiaAdditionalInfo` with a sales and service tax (SST) type and a valid SST number.

For business resellers with service codes, you must specify `businessRegistrationNumber`, `taxInformationNumber`, and distinct `serviceTaxCodes` in `MalaysiaAdditionalInfo` with a SST type and valid sales and service tax (SST) number. By using this API operation, Amazon registers your self-declaration that you're an authorized business reseller registered with the Royal Malaysia Customs Department (RMCD), and have a valid SST number.

Type: String

Pattern: `[0-9]{12}`

Required: No

serviceTaxCodes

List of service tax codes for your TRN in Malaysia.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 4 items.

Valid Values: `Consultancy | Digital Service And Electronic Medium | IT Services | Training Or Coaching`

Required: No

taxInformationNumber

The tax information number in Malaysia.

For individual, you can specify the `taxInformationNumber` in `MalaysiaAdditionalInfo` with NRIC type, and a valid MyKad or NRIC number. For business resellers, you must specify a `businessRegistrationNumber` and `taxInformationNumber` in `MalaysiaAdditionalInfo` with a sales and service tax (SST) type and a valid SST number.

For business resellers with service codes, you must specify `businessRegistrationNumber`, `taxInformationNumber`, and distinct `serviceTaxCodes` in `MalaysiaAdditionalInfo` with a SST type and valid sales and service tax (SST) number. By using this API operation, Amazon registers your self-declaration that you're an authorized business reseller registered with the Royal Malaysia Customs Department (RMCD), and have a valid SST number.

Type: String

Pattern: `[A-Z]{1,2}[0-9]{1,11}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

PolandAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Poland.

Contents

individualRegistrationNumber

The individual tax registration number (NIP). Individual NIP is valid for other taxes excluding VAT purposes.

Type: String

Pattern: (`[0-9]{10}`)

Required: No

isGroupVatEnabled

True if your business is a member of a VAT group with a NIP active for VAT purposes. Otherwise, this is false.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

RomaniaAdditionalInfo

Service: Tax Settings

Additional tax information to specify for a TRN in Romania.

Contents

taxRegistrationNumberType

The tax registration number type. The value can be `TaxRegistrationNumber` or `LocalRegistrationNumber`.

Type: String

Valid Values: `TaxRegistrationNumber` | `LocalRegistrationNumber`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SaudiArabiaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Saudi Arabia.

Contents

taxRegistrationNumberType

The tax registration number type.

Type: String

Valid Values: `TaxRegistrationNumber` | `TaxIdentificationNumber` | `CommercialRegistrationNumber`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SourceS3Location

Service: Tax Settings

The Amazon S3 bucket in your account where your tax document is located.

Contents

bucket

The name of your Amazon S3 bucket that your tax document is located.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `(?=^.{3,63}$)(?!^\d+\d+)$)^(([a-z0-9]|[a-z0-9][a-z0-9\-\-]*[a-z0-9])\.)*([a-z0-9]|[a-z0-9][a-z0-9\-\-]*[a-z0-9])$)`

Required: Yes

key

The object key of your tax document object in Amazon S3.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SouthKoreaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in South Korea.

Contents

businessRepresentativeName

The business legal name based on the most recently uploaded tax registration certificate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[0-9\u3130-\u318F\uAC00-\uD7AF,.()-\s]*`

Required: Yes

itemOfBusiness

Item of business based on the most recently uploaded tax registration certificate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `[0-9\u3130-\u318F\uAC00-\uD7AF,.()-\s]*`

Required: Yes

lineOfBusiness

Line of business based on the most recently uploaded tax registration certificate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `[0-9\u3130-\u318F\uAC00-\uD7AF,.()-\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SpainAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Spain.

Contents

registrationType

The registration type in Spain.

Type: String

Valid Values: Intra-EU | Local

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SupplementalTaxRegistration

Service: Tax Settings

Supplemental TRN details.

Contents

address

The details of the address associated with the TRN information.

Type: [Address](#) object

Required: Yes

authorityId

Unique authority ID for the supplemental TRN.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Required: Yes

legalName

The legal name associated with your TRN registration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!\\s*$)[\\s\S]+`

Required: Yes

registrationId

The supplemental TRN unique identifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: (?!\s*\$)[\s\S]+

Required: Yes

registrationType

Type of supplemental TRN. Currently, this can only be VAT.

Type: String

Valid Values: VAT

Required: Yes

status

The status of your TRN.

Type: String

Valid Values: Verified | Pending | Deleted | Rejected

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

SupplementalTaxRegistrationEntry

Service: Tax Settings

The supplemental TRN information to provide when adding or updating a supplemental TRN.

Contents

address

The details of the address associated with the TRN information.

Type: [Address](#) object

Required: Yes

legalName

The legal name associated with your TRN registration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: (?!\s*\$)[\s\S]+

Required: Yes

registrationId

The supplemental TRN unique identifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: (?!\s*\$)[\s\S]+

Required: Yes

registrationType

Type of supplemental TRN. Currently, this can only be VAT.

Type: String

Valid Values: VAT

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TaxDocumentMetadata

Service: Tax Settings

The metadata for your tax document.

Contents

taxDocumentAccessToken

The tax document access token, which contains information that the Tax Settings API uses to locate the tax document.

 **Note**

If you update your tax registration, the existing `taxDocumentAccessToken` won't be valid. To get the latest token, call the `GetTaxRegistration` or `ListTaxRegistrations` API operation. This token is valid for 24 hours.

Type: String

Pattern: `[\s\S]*`

Required: Yes

taxDocumentName

The name of your tax document.

Type: String

Pattern: `[\s\S]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TaxExemption

Service: Tax Settings

The tax exemption.

Contents

authority

The address domain associate with tax exemption.

Type: [Authority](#) object

Required: Yes

taxExemptionType

The tax exemption type.

Type: [TaxExemptionType](#) object

Required: Yes

effectiveDate

The tax exemption effective date.

Type: Timestamp

Required: No

expirationDate

The tax exemption expiration date.

Type: Timestamp

Required: No

status

The tax exemption status.

Type: String

Valid Values: None | Valid | Expired | Pending

Required: No

systemEffectiveDate

The tax exemption recording time in the TaxSettings system.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TaxExemptionDetails

Service: Tax Settings

The tax exemption details.

Contents

heritageObtainedDetails

The indicator if the tax exemption is inherited from the consolidated billing family management account.

Type: Boolean

Required: No

heritageObtainedParentEntity

The consolidated billing family management account the tax exemption inherited from.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Required: No

heritageObtainedReason

The reason of the heritage inheritance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Required: No

taxExemptions

Tax exemptions.

Type: Array of [TaxExemption](#) objects

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TaxExemptionType

Service: Tax Settings

The tax exemption type.

Contents

applicableJurisdictions

The tax exemption's applicable jurisdictions.

Type: Array of [Authority](#) objects

Required: No

description

The tax exemption's type description.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Required: No

displayName

The tax exemption's type display name.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 50.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TaxInheritanceDetails

Service: Tax Settings

Tax inheritance information associated with the account.

Contents

inheritanceObtainedReason

Tax inheritance reason information associated with the account.

Type: String

Pattern: `[\s\S]*`

Required: No

parentEntityId

Tax inheritance parent account information associated with the account.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d+`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TaxRegistration

Service: Tax Settings

Your TRN information.

Contents

legalAddress

The legal address associated with your TRN registration.

Type: [Address](#) object

Required: Yes

legalName

The legal name associated with your TRN registration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: (?!\s*\$)[\s\S]+

Required: Yes

registrationId

Your tax registration unique identifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: (?!\s*\$)[\s\S]+

Required: Yes

registrationType

Type of your tax registration.

Type: String

Valid Values: VAT | GST | CPF | CNPJ | SST | TIN | NRIC

Required: Yes

status

The status of your TRN. This can be either `Verified`, `Pending`, `Deleted`, or `Rejected`.

Type: String

Valid Values: `Verified` | `Pending` | `Deleted` | `Rejected`

Required: Yes

additionalTaxInformation

Additional tax information associated with your TRN.

Type: [AdditionalInfoResponse](#) object

Required: No

certifiedEmailId

The email address to receive VAT invoices.

Type: String

Pattern: `[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,20}`

Required: No

sector

The industry that describes your business. For business-to-business (B2B) customers, specify `Business`. For business-to-consumer (B2C) customers, specify `Individual`. For business-to-government (B2G), specify `Government`. Note that certain values may not be applicable for the request country. Please refer to country specific information in API document.

Type: String

Valid Values: `Business` | `Individual` | `Government`

Required: No

taxDocumentMetadatas

The metadata for your tax document.

Type: Array of [TaxDocumentMetadata](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TaxRegistrationDocFile

Service: Tax Settings

The tax registration document.

Contents

fileContent

The tax registration document content.

Type: Base64-encoded binary data object

Length Constraints: Minimum length of 1. Maximum length of 5242880.

Required: Yes

fileName

The tax registration document name.

Type: String

Pattern: `[\s\S]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TaxRegistrationDocument

Service: Tax Settings

Tax registration document information.

Contents

file

The tax registration document.

Type: [TaxRegistrationDocFile](#) object

Required: No

s3Location

The Amazon S3 location where your tax registration document is stored.

Type: [SourceS3Location](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TaxRegistrationEntry

Service: Tax Settings

The TRN information you provide when you add a new TRN, or update.

Contents

registrationId

Your tax registration unique identifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!\\s*$)[\\s\\S]+`

Required: Yes

registrationType

Your tax registration type. This can be either VAT or GST.

Type: String

Valid Values: VAT | GST | CPF | CNPJ | SST | TIN | NRIC

Required: Yes

additionalTaxInformation

Additional tax information associated with your TRN. You only need to specify this parameter if Amazon collects any additional information for your country within [AdditionalInfoRequest](#).

Type: [AdditionalInfoRequest](#) object

Required: No

certifiedEmailId

The email address to receive VAT invoices.

Type: String

Pattern: `[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\\.[A-Za-z]{2,20}`

Required: No

legalAddress

The legal address associated with your TRN.

Note

If you're setting a TRN in Brazil for the CNPJ tax type, you don't need to specify the legal address.

For TRNs in other countries and for CPF tax types Brazil, you must specify the legal address.

Type: [Address](#) object

Required: No

legalName

The legal name associated with your TRN.

Note

If you're setting a TRN in Brazil, you don't need to specify the legal name. For TRNs in other countries, you must specify the legal name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!\\s*$)[\\s\\S]+`

Required: No

sector

The industry that describes your business. For business-to-business (B2B) customers, specify Business. For business-to-consumer (B2C) customers, specify Individual. For business-to-government (B2G), specify Government. Note that certain values may not be applicable for the request country. Please refer to country specific information in API document.

Type: String

Valid Values: Business | Individual | Government

Required: No

verificationDetails

Additional details needed to verify your TRN information in Brazil. You only need to specify this parameter when you set a TRN in Brazil that is the CPF tax type.

Note

Don't specify this parameter to set a TRN in Brazil of the CNPJ tax type or to set a TRN for another country.

Type: [VerificationDetails](#) object

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TaxRegistrationWithJurisdiction

Service: Tax Settings

Your TRN information with jurisdiction details. This doesn't contain the full legal address associated with the TRN information.

Contents

jurisdiction

The jurisdiction associated with your TRN information.

Type: [Jurisdiction](#) object

Required: Yes

legalName

The legal name associated with your TRN information.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: (?!\s*\$)[\s\S]+

Required: Yes

registrationId

Your tax registration unique identifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: (?!\s*\$)[\s\S]+

Required: Yes

registrationType

The type of your tax registration. This can be either VAT or GST.

Type: String

Valid Values: VAT | GST | CPF | CNPJ | SST | TIN | NRIC

Required: Yes

status

The status of your TRN. This can be either Verified, Pending, Deleted, or Rejected.

Type: String

Valid Values: Verified | Pending | Deleted | Rejected

Required: Yes

additionalTaxInformation

Additional tax information associated with your TRN.

Type: [AdditionalInfoResponse](#) object

Required: No

certifiedEmailId

The email address to receive VAT invoices.

Type: String

Pattern: `[A-Za-z0-9._%+ -]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,20}`

Required: No

sector

The industry that describes your business. For business-to-business (B2B) customers, specify Business. For business-to-consumer (B2C) customers, specify Individual. For business-to-government (B2G), specify Government. Note that certain values may not be applicable for the request country. Please refer to country specific information in API document.

Type: String

Valid Values: Business | Individual | Government

Required: No

taxDocumentMetadatas

The metadata for your tax document.

Type: Array of [TaxDocumentMetadata](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

TurkeyAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Turkey.

Contents

industries

The industry information that tells the Tax Settings API if you're subject to additional withholding taxes. This information required for business-to-business (B2B) customers. This information is conditionally mandatory for B2B customers who are subject to KDV tax.

Type: String

Valid Values: `CirculatingOrg` | `ProfessionalOrg` | `Banks` | `Insurance` | `PensionAndBenefitFunds` | `DevelopmentAgencies`

Required: No

kepEmailId

The Registered Electronic Mail (REM) that is used to send notarized communication. This parameter is optional for business-to-business (B2B) and business-to-government (B2G) customers. It's not required for business-to-consumer (B2C) customers.

Type: String

Pattern: `[\s\S]*`

Required: No

secondaryTaxId

Secondary tax ID ("harcama birimi VKN"si). If one isn't provided, we will use your VKN as the secondary ID.

Type: String

Pattern: `([0-9]{10})`

Required: No

taxOffice

The tax office where you're registered. You can enter this information as a string. The Tax Settings API will add this information to your invoice. This parameter is required for business-to-business (B2B) and business-to-government customers. It's not required for business-to-consumer (B2C) customers.

Type: String

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

UkraineAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Ukraine.

Contents

ukraineTrnType

The tax registration type.

Type: String

Valid Values: Business | Individual

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

UzbekistanAdditionalInfo

Service: Tax Settings

Additional tax information to specify for a TRN in Uzbekistan.

Contents

taxRegistrationNumberType

The tax registration number type. The tax registration number type valid values are `Business` and `Individual`.

Type: String

Valid Values: `Business` | `Individual`

Required: No

vatRegistrationNumber

The unique 12-digit number issued to identify VAT-registered identities in Uzbekistan.

Type: String

Pattern: `[0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ValidationExceptionField

Service: Tax Settings

The information about the specified parameter in the request that caused an error.

Contents

name

The name of the parameter that caused a `ValidationException` error.

Type: String

Pattern: `(?!\\s*$)[\\s\\S]+`

Required: Yes

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

VerificationDetails

Service: Tax Settings

Required information to verify your TRN.

Contents

dateOfBirth

Date of birth to verify your submitted TRN. Use the YYYY-MM-DD format.

Type: String

Length Constraints: Fixed length of 10.

Pattern: $(\{4\}-(0[0-9]|1[0-2])-([0-2][0-9]|3[0-1]))$

Required: No

taxRegistrationDocuments

The tax registration document, which is required for specific countries such as Bangladesh, Kenya, South Korea and Spain.

Type: Array of [TaxRegistrationDocument](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

VietnamAdditionalInfo

Service: Tax Settings

Additional tax information to specify for a TRN in Vietnam.

Contents

electronicTransactionCodeNumber

The electronic transaction code number on the tax return document. This field must be provided for successful API operation.

Type: String

Pattern: `\d{17}`

Required: No

enterpriseIdentificationNumber

The enterprise identification number for tax registration. This field must be provided for successful API operation.

Type: String

Pattern: `(\d{10}|(\d{10}-\d{3}))`

Required: No

paymentVoucherNumber

The payment voucher number on the tax return payment document. This field must be provided for successful API operation.

Type: String

Pattern: `(\d{17}|[A-Za-z]{3}\d{13})`

Required: No

paymentVoucherNumberDate

The date on the tax return payment document. This field must be provided for successful API operation.

Type: String

Pattern: (\d{4}-(0[0-9]|1[0-2])-(0[0-2][0-9]|3[0-1]))

Required: No

See Also

For more information about using this API in one of the language-specific Amazon SDKs, see the following:

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [Signing Amazon API requests](#) in the *IAM User Guide*.

Action

The action to be performed.

Type: string

Required: Yes

Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: AWS4-HMAC-SHA256

Required: Conditional

X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key/YYYYMMDD/region/service/aws4_request*.

For more information, see [Create a signed Amazon API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-Date

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see [Elements of an Amazon API request signature](#) in the *IAM User Guide*.

Type: string

Required: Conditional

X-Amz-Security-Token

The temporary security token that was obtained through a call to Amazon Security Token Service (Amazon STS). For a list of services that support temporary security credentials from Amazon STS, see [Amazon Web Services services that work with IAM](#) in the *IAM User Guide*.

Condition: If you're using temporary security credentials from Amazon STS, you must include the security token.

Type: string

Required: Conditional

X-Amz-Signature

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-SignedHeaders

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see [Create a signed Amazon API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

Common Errors

This section lists the errors common to the API actions of all Amazon services. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to Amazon standards.

HTTP Status Code: 400

InternalFailure

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

InvalidAction

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

InvalidClientTokenId

The X.509 certificate or Amazon access key ID provided does not exist in our records.

HTTP Status Code: 403

NotAuthorized

You do not have permission to perform this action.

HTTP Status Code: 400

OptInRequired

The Amazon access key ID needs a subscription for the service.

HTTP Status Code: 403

RequestExpired

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

ServiceUnavailable

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

The input fails to satisfy the constraints specified by an Amazon service.

HTTP Status Code: 400