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Amazon Keyspaces (for Apache Cassandra)

API Version 2022-02-10

Amazon Keyspaces (for Apache Cassandra): API Reference

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Welcome

Amazon Keyspaces (for Apache Cassandra) is a scalable, highly available, and managed Apache Cassandra-compatible database service. Amazon Keyspaces makes it easy to migrate, run, and scale Cassandra workloads in the Amazon Web Services Cloud. With just a few clicks on the Amazon Web Services Management Console or a few lines of code, you can create keyspaces and tables in Amazon Keyspaces, without deploying any infrastructure or installing software.

In addition to supporting Cassandra Query Language (CQL) requests via open-source Cassandra drivers, Amazon Keyspaces supports data definition language (DDL) operations to manage keyspaces and tables using the Amazon SDK and Amazon CLI, as well as infrastructure as code (IaC) services and tools such as Amazon CloudFormation and Terraform. This API reference describes the supported DDL operations in detail.

For the list of all supported CQL APIs, see Supported Cassandra APIs, operations, and data types in Amazon Keyspaces in the *Amazon Keyspaces Developer Guide*.

To learn how Amazon Keyspaces API actions are recorded with Amazon CloudTrail, see Amazon Keyspaces information in CloudTrail in the *Amazon Keyspaces Developer Guide*.

For more information about Amazon APIs, for example how to implement retry logic or how to sign Amazon API requests, see Amazon APIs in the *General Reference*.

This document was last published on April 30, 2024.

Actions

The following actions are supported:

- CreateKeyspace
- CreateTable
- DeleteKeyspace
- DeleteTable
- GetKeyspace
- GetTable
- GetTableAutoScalingSettings
- ListKeyspaces
- ListTables
- ListTagsForResource
- RestoreTable
- TagResource
- UntagResource
- UpdateTable

CreateKeyspace

The `CreateKeyspace` operation adds a new keyspace to your account. In an Amazon Web Services account, keyspace names must be unique within each Region.

`CreateKeyspace` is an asynchronous operation. You can monitor the creation status of the new keyspace by using the `GetKeyspace` operation.

For more information, see [Creating keyspaces](#) in the *Amazon Keyspaces Developer Guide*.

Request Syntax

```
{
   "keyspaceName": "string",
   "replicationSpecification": {
      "regionList": [ "string" ],
      "replicationStrategy": "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.

keyspaceName

The name of the keyspace to be created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

replicationSpecification

The replication specification of the keyspace includes:

- `replicationStrategy` - the required value is `SINGLE_REGION` or `MULTI_REGION`.
- `regionList` - if the `replicationStrategy` is `MULTI_REGION`, the `regionList` requires the current Region and at least one additional Amazon Region where the keyspace is going to be replicated in. The maximum number of supported replication Regions including the current Region is six.

Type: ReplicationSpecification object

Required: No

tags

A list of key-value pair tags to be attached to the keyspace.

For more information, see Adding tags and labels to Amazon Keyspaces resources in the *Amazon Keyspaces Developer Guide*.

Type: Array of Tag objects

Array Members: Minimum number of 1 item. Maximum number of 60 items.

Required: No

Response Syntax

```
{
    "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.

resourceArn

> The unique identifier of the keyspace in the format of an Amazon Resource Name (ARN).
>
> Type: String
>
> Length Constraints: Minimum length of 20. Maximum length of 1000.
>
> Pattern: `arn:(aws[a-zA-Z0-9-]*):cassandra:.+.*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

> You don't have sufficient access permissions to perform this action.
>
> HTTP Status Code: 400

ConflictException

> Amazon Keyspaces couldn't complete the requested action. This error may occur if you try to perform an action and the same or a different action is already in progress, or if you try to create a resource that already exists.
>
> HTTP Status Code: 400

InternalServerException

> Amazon Keyspaces was unable to fully process this request because of an internal server error.
>
> HTTP Status Code: 500

ServiceQuotaExceededException

> The operation exceeded the service quota for this resource. For more information on service quotas, see Quotas in the *Amazon Keyspaces Developer Guide*.
>
> HTTP Status Code: 400

ValidationException

> The operation failed due to an invalid or malformed request.

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

CreateTable

The `CreateTable` operation adds a new table to the specified keyspace. Within a keyspace, table names must be unique.

`CreateTable` is an asynchronous operation. When the request is received, the status of the table is set to `CREATING`. You can monitor the creation status of the new table by using the `GetTable` operation, which returns the current `status` of the table. You can start using a table when the status is `ACTIVE`.

For more information, see Creating tables in the *Amazon Keyspaces Developer Guide*.

Request Syntax

```
{
    "autoScalingSpecification": {
        "readCapacityAutoScaling": {
            "autoScalingDisabled": boolean,
            "maximumUnits": number,
            "minimumUnits": number,
            "scalingPolicy": {
                "targetTrackingScalingPolicyConfiguration": {
                    "disableScaleIn": boolean,
                    "scaleInCooldown": number,
                    "scaleOutCooldown": number,
                    "targetValue": number
                }
            }
        },
        "writeCapacityAutoScaling": {
            "autoScalingDisabled": boolean,
            "maximumUnits": number,
            "minimumUnits": number,
            "scalingPolicy": {
                "targetTrackingScalingPolicyConfiguration": {
                    "disableScaleIn": boolean,
                    "scaleInCooldown": number,
                    "scaleOutCooldown": number,
                    "targetValue": number
                }
            }
        }
    }
```

```
      },
      "capacitySpecification": {
         "readCapacityUnits": number,
         "throughputMode": "string",
         "writeCapacityUnits": number
      },
      "clientSideTimestamps": {
         "status": "string"
      },
      "comment": {
         "message": "string"
      },
      "defaultTimeToLive": number,
      "encryptionSpecification": {
         "kmsKeyIdentifier": "string",
         "type": "string"
      },
      "keyspaceName": "string",
      "pointInTimeRecovery": {
         "status": "string"
      },
      "replicaSpecifications": [
         {
            "readCapacityAutoScaling": {
               "autoScalingDisabled": boolean,
               "maximumUnits": number,
               "minimumUnits": number,
               "scalingPolicy": {
                  "targetTrackingScalingPolicyConfiguration": {
                     "disableScaleIn": boolean,
                     "scaleInCooldown": number,
                     "scaleOutCooldown": number,
                     "targetValue": number
                  }
               }
            },
            "readCapacityUnits": number,
            "region": "string"
         }
      ],
      "schemaDefinition": {
         "allColumns": [
            {
               "name": "string",
```

```
                "type": "string"
            }
        ],
        "clusteringKeys": [
            {
                "name": "string",
                "orderBy": "string"
            }
        ],
        "partitionKeys": [
            {
                "name": "string"
            }
        ],
        "staticColumns": [
            {
                "name": "string"
            }
        ]
    },
    "tableName": "string",
    "tags": [
        {
            "key": "string",
            "value": "string"
        }
    ],
    "ttl": {
        "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.

autoScalingSpecification

The optional auto scaling settings for a table in provisioned capacity mode. Specifies if the service can manage throughput capacity automatically on your behalf.

Auto scaling helps you provision throughput capacity for variable workloads efficiently by increasing and decreasing your table's read and write capacity automatically in response to application traffic. For more information, see Managing throughput capacity automatically with Amazon Keyspaces auto scaling in the *Amazon Keyspaces Developer Guide*.

By default, auto scaling is disabled for a table.

Type: AutoScalingSpecification object

Required: No

capacitySpecification

Specifies the read/write throughput capacity mode for the table. The options are:

- `throughputMode:PAY_PER_REQUEST` and

- `throughputMode:PROVISIONED` - Provisioned capacity mode requires `readCapacityUnits` and `writeCapacityUnits` as input.

The default is `throughput_mode:PAY_PER_REQUEST`.

For more information, see Read/write capacity modes in the *Amazon Keyspaces Developer Guide*.

Type: CapacitySpecification object

Required: No

clientSideTimestamps

Enables client-side timestamps for the table. By default, the setting is disabled. You can enable client-side timestamps with the following option:

- `status: "enabled"`

Once client-side timestamps are enabled for a table, this setting cannot be disabled.

Type: ClientSideTimestamps object

Required: No

comment

This parameter allows to enter a description of the table.

Type: Comment object

Required: No

defaultTimeToLive

The default Time to Live setting in seconds for the table.

For more information, see Setting the default TTL value for a table in the *Amazon Keyspaces Developer Guide*.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 630720000.

Required: No

encryptionSpecification

Specifies how the encryption key for encryption at rest is managed for the table. You can choose one of the following KMS key (KMS key):

- `type:AWS_OWNED_KMS_KEY` - This key is owned by Amazon Keyspaces.
- `type:CUSTOMER_MANAGED_KMS_KEY` - This key is stored in your account and is created, owned, and managed by you. This option requires the `kms_key_identifier` of the KMS key in Amazon Resource Name (ARN) format as input.

The default is `type:AWS_OWNED_KMS_KEY`.

For more information, see Encryption at rest in the *Amazon Keyspaces Developer Guide*.

Type: EncryptionSpecification object

Required: No

keyspaceName

The name of the keyspace that the table is going to be created in.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

pointInTimeRecovery

Specifies if `pointInTimeRecovery` is enabled or disabled for the table. The options are:

- `status=ENABLED`

- `status=DISABLED`

If it's not specified, the default is `status=DISABLED`.

For more information, see [Point-in-time recovery](#) in the *Amazon Keyspaces Developer Guide*.

Type: [PointInTimeRecovery](#) object

Required: No

replicaSpecifications

The optional Amazon Region specific settings of a multi-Region table. These settings overwrite the general settings of the table for the specified Region.

For a multi-Region table in provisioned capacity mode, you can configure the table's read capacity differently for each Region's replica. The write capacity, however, remains synchronized between all replicas to ensure that there's enough capacity to replicate writes across all Regions. To define the read capacity for a table replica in a specific Region, you can do so by configuring the following parameters.

- `region`: The Region where these settings are applied. (Required)

- `readCapacityUnits`: The provisioned read capacity units. (Optional)

- `readCapacityAutoScaling`: The read capacity auto scaling settings for the table. (Optional)

Type: Array of [ReplicaSpecification](#) objects

Array Members: Minimum number of 1 item.

Required: No

schemaDefinition

The `schemaDefinition` consists of the following parameters.

For each column to be created:

- `name` - The name of the column.

- `type` - An Amazon Keyspaces data type. For more information, see [Data types](#) in the *Amazon Keyspaces Developer Guide*.

The primary key of the table consists of the following columns:

- `partitionKeys` - The partition key can be a single column, or it can be a compound value composed of two or more columns. The partition key portion of the primary key is required and determines how Amazon Keyspaces stores your data.

- `name` - The name of each partition key column.

- `clusteringKeys` - The optional clustering column portion of your primary key determines how the data is clustered and sorted within each partition.

- `name` - The name of the clustering column.

- `orderBy` - Sets the ascendant (`ASC`) or descendant (`DESC`) order modifier.

  To define a column as static use `staticColumns` - Static columns store values that are shared by all rows in the same partition:

- `name` - The name of the column.

- `type` - An Amazon Keyspaces data type.

Type: [SchemaDefinition](#) object

Required: Yes

tableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

tags

A list of key-value pair tags to be attached to the resource.

For more information, see [Adding tags and labels to Amazon Keyspaces resources](#) in the *Amazon Keyspaces Developer Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 1 item. Maximum number of 60 items.

Required: No

ttl

Enables Time to Live custom settings for the table. The options are:

- `status:enabled`
- `status:disabled`

The default is `status:disabled`. After `ttl` is enabled, you can't disable it for the table.

For more information, see [Expiring data by using Amazon Keyspaces Time to Live (TTL)](#) in the *Amazon Keyspaces Developer Guide*.

Type: [TimeToLive](#) object

Required: No

Response Syntax

```
{
    "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.

resourceArn

The unique identifier of the table in the format of an Amazon Resource Name (ARN).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 1000.

Pattern: `arn:(aws[a-zA-Z0-9-]*):cassandra:.+.*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access permissions to perform this action.

HTTP Status Code: 400

ConflictException

Amazon Keyspaces couldn't complete the requested action. This error may occur if you try to perform an action and the same or a different action is already in progress, or if you try to create a resource that already exists.

HTTP Status Code: 400

InternalServerException

Amazon Keyspaces was unable to fully process this request because of an internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be `ACTIVE`.

HTTP Status Code: 400

ServiceQuotaExceededException

The operation exceeded the service quota for this resource. For more information on service quotas, see Quotas in the *Amazon Keyspaces Developer Guide*.

HTTP Status Code: 400

ValidationException

The operation failed due to an invalid or malformed request.

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
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2
- Amazon SDK for Java V2
- Amazon SDK for JavaScript V3
- Amazon SDK for PHP V3
- Amazon SDK for Python
- Amazon SDK for Ruby V3

DeleteKeyspace

The `DeleteKeyspace` operation deletes a keyspace and all of its tables.

Request Syntax

```
{
    "keyspaceName": "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.

keyspaceName

The name of the keyspace to be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

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 permissions to perform this action.

HTTP Status Code: 400

ConflictException

Amazon Keyspaces couldn't complete the requested action. This error may occur if you try to perform an action and the same or a different action is already in progress, or if you try to create a resource that already exists.

HTTP Status Code: 400

InternalServerException

Amazon Keyspaces was unable to fully process this request because of an internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be ACTIVE.

HTTP Status Code: 400

ServiceQuotaExceededException

The operation exceeded the service quota for this resource. For more information on service quotas, see Quotas in the *Amazon Keyspaces Developer Guide*.

HTTP Status Code: 400

ValidationException

The operation failed due to an invalid or malformed request.

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
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2

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

DeleteTable

The `DeleteTable` operation deletes a table and all of its data. After a `DeleteTable` request is received, the specified table is in the `DELETING` state until Amazon Keyspaces completes the deletion. If the table is in the `ACTIVE` state, you can delete it. If a table is either in the `CREATING` or `UPDATING` states, then Amazon Keyspaces returns a `ResourceInUseException`. If the specified table does not exist, Amazon Keyspaces returns a `ResourceNotFoundException`. If the table is already in the `DELETING` state, no error is returned.

Request Syntax

```
{
    "keyspaceName": "string",
    "tableName": "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.

keyspaceName

The name of the keyspace of the to be deleted table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

tableName

The name of the table to be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

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 permissions to perform this action.

HTTP Status Code: 400

ConflictException

Amazon Keyspaces couldn't complete the requested action. This error may occur if you try to perform an action and the same or a different action is already in progress, or if you try to create a resource that already exists.

HTTP Status Code: 400

InternalServerException

Amazon Keyspaces was unable to fully process this request because of an internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be `ACTIVE`.

HTTP Status Code: 400

ServiceQuotaExceededException

The operation exceeded the service quota for this resource. For more information on service quotas, see Quotas in the *Amazon Keyspaces Developer Guide*.

HTTP Status Code: 400

[ValidationException](#)

The operation failed due to an invalid or malformed request.

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

GetKeyspace

Returns the name and the Amazon Resource Name (ARN) of the specified table.

Request Syntax

```
{
    "keyspaceName": "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.

keyspaceName

>   The name of the keyspace.
>
>   Type: String
>
>   Length Constraints: Minimum length of 1. Maximum length of 48.
>
>   Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`
>
>   Required: Yes

Response Syntax

```
{
    "keyspaceName": "string",
    "replicationRegions": [ "string" ],
    "replicationStrategy": "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.

keyspaceName

The name of the keyspace.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

replicationRegions

If the `replicationStrategy` of the keyspace is `MULTI_REGION`, a list of replication Regions is returned.

Type: Array of strings

Array Members: Minimum number of 2 items. Maximum number of 6 items.

Length Constraints: Minimum length of 2. Maximum length of 25.

replicationStrategy

Returns the replication strategy of the keyspace. The options are `SINGLE_REGION` or `MULTI_REGION`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Valid Values: `SINGLE_REGION | MULTI_REGION`

resourceArn

Returns the ARN of the keyspace.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 1000.

Pattern: `arn:(aws[a-zA-Z0-9-]*):cassandra:.+.*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access permissions to perform this action.

HTTP Status Code: 400

InternalServerException

Amazon Keyspaces was unable to fully process this request because of an internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be ACTIVE.

HTTP Status Code: 400

ServiceQuotaExceededException

The operation exceeded the service quota for this resource. For more information on service quotas, see Quotas in the *Amazon Keyspaces Developer Guide*.

HTTP Status Code: 400

ValidationException

The operation failed due to an invalid or malformed request.

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
- Amazon SDK for .NET

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

GetTable

Returns information about the table, including the table's name and current status, the keyspace name, configuration settings, and metadata.

To read table metadata using `GetTable`, `Select` action permissions for the table and system tables are required to complete the operation.

Request Syntax

```
{
    "keyspaceName": "string",
    "tableName": "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.

keyspaceName

The name of the keyspace that the table is stored in.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

tableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

Response Syntax

```
{
    "capacitySpecification": {
        "lastUpdateToPayPerRequestTimestamp": number,
        "readCapacityUnits": number,
        "throughputMode": "string",
        "writeCapacityUnits": number
    },
    "clientSideTimestamps": {
        "status": "string"
    },
    "comment": {
        "message": "string"
    },
    "creationTimestamp": number,
    "defaultTimeToLive": number,
    "encryptionSpecification": {
        "kmsKeyIdentifier": "string",
        "type": "string"
    },
    "keyspaceName": "string",
    "pointInTimeRecovery": {
        "earliestRestorableTimestamp": number,
        "status": "string"
    },
    "replicaSpecifications": [
        {
            "capacitySpecification": {
                "lastUpdateToPayPerRequestTimestamp": number,
                "readCapacityUnits": number,
                "throughputMode": "string",
                "writeCapacityUnits": number
            },
            "region": "string",
            "status": "string"
        }
    ],
    "resourceArn": "string",
```

```
    "schemaDefinition": {
      "allColumns": [
         {
             "name": "string",
             "type": "string"
         }
      ],
      "clusteringKeys": [
         {
             "name": "string",
             "orderBy": "string"
         }
      ],
      "partitionKeys": [
         {
             "name": "string"
         }
      ],
      "staticColumns": [
         {
             "name": "string"
         }
      ]
    },
    "status": "string",
    "tableName": "string",
    "ttl": {
        "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.

capacitySpecification

The read/write throughput capacity mode for a table. The options are:

- throughputMode:PAY_PER_REQUEST

- throughputMode:PROVISIONED

Type: CapacitySpecificationSummary object

clientSideTimestamps

The client-side timestamps setting of the table.

Type: ClientSideTimestamps object

comment

The the description of the specified table.

Type: Comment object

creationTimestamp

The creation timestamp of the specified table.

Type: Timestamp

defaultTimeToLive

The default Time to Live settings in seconds of the specified table.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 630720000.

encryptionSpecification

The encryption settings of the specified table.

Type: EncryptionSpecification object

keyspaceName

The name of the keyspace that the specified table is stored in.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

pointInTimeRecovery

The point-in-time recovery status of the specified table.

Type: [PointInTimeRecoverySummary](#) object

replicaSpecifications

Returns the Amazon Region specific settings of all Regions a multi-Region table is replicated in.

Type: Array of [ReplicaSpecificationSummary](#) objects

Array Members: Minimum number of 0 items.

resourceArn

The Amazon Resource Name (ARN) of the specified table.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 1000.

Pattern: `arn:(aws[a-zA-Z0-9-]*):cassandra:.+.*`

schemaDefinition

The schema definition of the specified table.

Type: [SchemaDefinition](#) object

status

The current status of the specified table.

Type: String

Valid Values: `ACTIVE | CREATING | UPDATING | DELETING | DELETED | RESTORING | INACCESSIBLE_ENCRYPTION_CREDENTIALS`

tableName

The name of the specified table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

ttl

The custom Time to Live settings of the specified table.

Type: [TimeToLive](#) object

Errors

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

[AccessDeniedException](#)

You don't have sufficient access permissions to perform this action.

HTTP Status Code: 400

[InternalServerException](#)

Amazon Keyspaces was unable to fully process this request because of an internal server error.

HTTP Status Code: 500

[ResourceNotFoundException](#)

The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be `ACTIVE`.

HTTP Status Code: 400

[ServiceQuotaExceededException](#)

The operation exceeded the service quota for this resource. For more information on service quotas, see [Quotas](#) in the *Amazon Keyspaces Developer Guide*.

HTTP Status Code: 400

[ValidationException](#)

The operation failed due to an invalid or malformed request.

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](#)

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

GetTableAutoScalingSettings

Returns auto scaling related settings of the specified table in JSON format. If the table is a multi-Region table, the Amazon Region specific auto scaling settings of the table are included.

Amazon Keyspaces auto scaling helps you provision throughput capacity for variable workloads efficiently by increasing and decreasing your table's read and write capacity automatically in response to application traffic. For more information, see [Managing throughput capacity automatically with Amazon Keyspaces auto scaling](#) in the *Amazon Keyspaces Developer Guide*.

> ⚠️ **Important**
>
> GetTableAutoScalingSettings can't be used as an action in an IAM policy.

To define permissions for GetTableAutoScalingSettings, you must allow the following two actions in the IAM policy statement's Action element:

- application-autoscaling:DescribeScalableTargets
- application-autoscaling:DescribeScalingPolicies

Request Syntax

```
{
    "keyspaceName": "string",
    "tableName": "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.

keyspaceName

The name of the keyspace.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

tableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

Response Syntax

```
{
   "autoScalingSpecification": {
      "readCapacityAutoScaling": {
         "autoScalingDisabled": boolean,
         "maximumUnits": number,
         "minimumUnits": number,
         "scalingPolicy": {
            "targetTrackingScalingPolicyConfiguration": {
               "disableScaleIn": boolean,
               "scaleInCooldown": number,
               "scaleOutCooldown": number,
               "targetValue": number
            }
         }
      },
      "writeCapacityAutoScaling": {
         "autoScalingDisabled": boolean,
         "maximumUnits": number,
         "minimumUnits": number,
         "scalingPolicy": {
            "targetTrackingScalingPolicyConfiguration": {
               "disableScaleIn": boolean,
               "scaleInCooldown": number,
               "scaleOutCooldown": number,
```

```
                    "targetValue": number
                }
            }
        }
    },
    "keyspaceName": "string",
    "replicaSpecifications": [
        {
            "autoScalingSpecification": {
                "readCapacityAutoScaling": {
                    "autoScalingDisabled": boolean,
                    "maximumUnits": number,
                    "minimumUnits": number,
                    "scalingPolicy": {
                        "targetTrackingScalingPolicyConfiguration": {
                            "disableScaleIn": boolean,
                            "scaleInCooldown": number,
                            "scaleOutCooldown": number,
                            "targetValue": number
                        }
                    }
                },
                "writeCapacityAutoScaling": {
                    "autoScalingDisabled": boolean,
                    "maximumUnits": number,
                    "minimumUnits": number,
                    "scalingPolicy": {
                        "targetTrackingScalingPolicyConfiguration": {
                            "disableScaleIn": boolean,
                            "scaleInCooldown": number,
                            "scaleOutCooldown": number,
                            "targetValue": number
                        }
                    }
                }
            },
            "region": "string"
        }
    ],
    "resourceArn": "string",
    "tableName": "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.

autoScalingSpecification

>   The auto scaling settings of the table.

>   Type: AutoScalingSpecification object

keyspaceName

>   The name of the keyspace.

>   Type: String

>   Length Constraints: Minimum length of 1. Maximum length of 48.

>   Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

replicaSpecifications

>   The Amazon Region specific settings of a multi-Region table. Returns the settings for all
>   Regions the table is replicated in.

>   Type: Array of ReplicaAutoScalingSpecification objects

>   Array Members: Minimum number of 0 items.

resourceArn

>   The Amazon Resource Name (ARN) of the table.

>   Type: String

>   Length Constraints: Minimum length of 20. Maximum length of 1000.

>   Pattern: `arn:(aws[a-zA-Z0-9-]*):cassandra:.+.*`

tableName

>   The name of the table.

>   Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

> You don't have sufficient access permissions to perform this action.

> HTTP Status Code: 400

InternalServerException

> Amazon Keyspaces was unable to fully process this request because of an internal server error.

> HTTP Status Code: 500

ResourceNotFoundException

> The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be `ACTIVE`.

> HTTP Status Code: 400

ServiceQuotaExceededException

> The operation exceeded the service quota for this resource. For more information on service quotas, see Quotas in the *Amazon Keyspaces Developer Guide*.

> HTTP Status Code: 400

ValidationException

> The operation failed due to an invalid or malformed request.

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

ListKeyspaces

Returns a list of keyspaces.

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 total number of keyspaces to return in the output. If the total number of keyspaces available is more than the value specified, a NextToken is provided in the output. To resume pagination, provide the NextToken value as an argument of a subsequent API invocation.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

The pagination token. To resume pagination, provide the NextToken value as argument of a subsequent API invocation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

Response Syntax

```
{
   "keyspaces": [
      {
         "keyspaceName": "string",
         "replicationRegions": [ "string" ],
         "replicationStrategy": "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.

keyspaces

A list of keyspaces.

Type: Array of KeyspaceSummary objects

nextToken

A token to specify where to start paginating. This is the NextToken from a previously truncated response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access permissions to perform this action.

HTTP Status Code: 400

InternalServerException

Amazon Keyspaces was unable to fully process this request because of an internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be `ACTIVE`.

HTTP Status Code: 400

ServiceQuotaExceededException

The operation exceeded the service quota for this resource. For more information on service quotas, see Quotas in the *Amazon Keyspaces Developer Guide*.

HTTP Status Code: 400

ValidationException

The operation failed due to an invalid or malformed request.

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
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2
- Amazon SDK for Java V2
- Amazon SDK for JavaScript V3
- Amazon SDK for PHP V3
- Amazon SDK for Python

- [Amazon SDK for Ruby V3](#)

ListTables

Returns a list of tables for a specified keyspace.

Request Syntax

```
{
    "keyspaceName": "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.

keyspaceName

The name of the keyspace.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

maxResults

The total number of tables to return in the output. If the total number of tables available is more than the value specified, a `NextToken` is provided in the output. To resume pagination, provide the `NextToken` value as an argument of a subsequent API invocation.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

The pagination token. To resume pagination, provide the `NextToken` value as an argument of a subsequent API invocation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

Response Syntax

```
{
    "nextToken": "string",
    "tables": [
        {
            "keyspaceName": "string",
            "resourceArn": "string",
            "tableName": "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 token to specify where to start paginating. This is the `NextToken` from a previously truncated response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

tables

A list of tables.

Type: Array of [TableSummary](#) objects

Errors

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

[AccessDeniedException](#)

You don't have sufficient access permissions to perform this action.

HTTP Status Code: 400

[InternalServerException](#)

Amazon Keyspaces was unable to fully process this request because of an internal server error.

HTTP Status Code: 500

[ResourceNotFoundException](#)

The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be ACTIVE.

HTTP Status Code: 400

[ServiceQuotaExceededException](#)

The operation exceeded the service quota for this resource. For more information on service quotas, see [Quotas](#) in the *Amazon Keyspaces Developer Guide*.

HTTP Status Code: 400

[ValidationException](#)

The operation failed due to an invalid or malformed request.

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](#)

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

ListTagsForResource

Returns a list of all tags associated with the specified Amazon Keyspaces resource.

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 total number of tags to return in the output. If the total number of tags available is more than the value specified, a `NextToken` is provided in the output. To resume pagination, provide the `NextToken` value as an argument of a subsequent API invocation.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

The pagination token. To resume pagination, provide the `NextToken` value as argument of a subsequent API invocation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

resourceArn

The Amazon Resource Name (ARN) of the Amazon Keyspaces resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 1000.

Pattern: `arn:(aws[a-zA-Z0-9-]*):cassandra:.+.*`

Required: Yes

Response Syntax

```
{
    "nextToken": "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.

nextToken

A token to specify where to start paginating. This is the `NextToken` from a previously truncated response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

tags

A list of tags.

Type: Array of Tag objects

Array Members: Minimum number of 1 item. Maximum number of 60 items.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access permissions to perform this action.

HTTP Status Code: 400

InternalServerException

Amazon Keyspaces was unable to fully process this request because of an internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be ACTIVE.

HTTP Status Code: 400

ServiceQuotaExceededException

The operation exceeded the service quota for this resource. For more information on service quotas, see Quotas in the *Amazon Keyspaces Developer Guide*.

HTTP Status Code: 400

ValidationException

The operation failed due to an invalid or malformed request.

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
- Amazon SDK for .NET

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

RestoreTable

Restores the table to the specified point in time within the `earliest_restorable_timestamp` and the current time. For more information about restore points, see Time window for PITR continuous backups in the *Amazon Keyspaces Developer Guide.*

Any number of users can execute up to 4 concurrent restores (any type of restore) in a given account.

When you restore using point in time recovery, Amazon Keyspaces restores your source table's schema and data to the state based on the selected timestamp (`day:hour:minute:second`) to a new table. The Time to Live (TTL) settings are also restored to the state based on the selected timestamp.

In addition to the table's schema, data, and TTL settings, `RestoreTable` restores the capacity mode, auto scaling settings, encryption settings, and point-in-time recovery settings from the source table. Unlike the table's schema data and TTL settings, which are restored based on the selected timestamp, these settings are always restored based on the table's settings as of the current time or when the table was deleted.

You can also overwrite these settings during restore:

- Read/write capacity mode

- Provisioned throughput capacity units

- Auto scaling settings

- Point-in-time (PITR) settings

- Tags

For more information, see PITR restore settings in the *Amazon Keyspaces Developer Guide*.

Note that the following settings are not restored, and you must configure them manually for the new table:

- Amazon Identity and Access Management (IAM) policies

- Amazon CloudWatch metrics and alarms

Request Syntax

```
{
    "autoScalingSpecification": {
        "readCapacityAutoScaling": {
            "autoScalingDisabled": boolean,
            "maximumUnits": number,
            "minimumUnits": number,
            "scalingPolicy": {
                "targetTrackingScalingPolicyConfiguration": {
                    "disableScaleIn": boolean,
                    "scaleInCooldown": number,
                    "scaleOutCooldown": number,
                    "targetValue": number
                }
            }
        },
        "writeCapacityAutoScaling": {
            "autoScalingDisabled": boolean,
            "maximumUnits": number,
            "minimumUnits": number,
            "scalingPolicy": {
                "targetTrackingScalingPolicyConfiguration": {
                    "disableScaleIn": boolean,
                    "scaleInCooldown": number,
                    "scaleOutCooldown": number,
                    "targetValue": number
                }
            }
        }
    },
    "capacitySpecificationOverride": {
        "readCapacityUnits": number,
        "throughputMode": "string",
        "writeCapacityUnits": number
    },
    "encryptionSpecificationOverride": {
        "kmsKeyIdentifier": "string",
        "type": "string"
    },
    "pointInTimeRecoveryOverride": {
        "status": "string"
    },
```

```
    "replicaSpecifications": [
        {
            "readCapacityAutoScaling": {
                "autoScalingDisabled": boolean,
                "maximumUnits": number,
                "minimumUnits": number,
                "scalingPolicy": {
                    "targetTrackingScalingPolicyConfiguration": {
                        "disableScaleIn": boolean,
                        "scaleInCooldown": number,
                        "scaleOutCooldown": number,
                        "targetValue": number
                    }
                }
            },
            "readCapacityUnits": number,
            "region": "string"
        }
    ],
    "restoreTimestamp": number,
    "sourceKeyspaceName": "string",
    "sourceTableName": "string",
    "tagsOverride": [
        {
            "key": "string",
            "value": "string"
        }
    ],
    "targetKeyspaceName": "string",
    "targetTableName": "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.

autoScalingSpecification

The optional auto scaling settings for the restored table in provisioned capacity mode. Specifies if the service can manage throughput capacity of a provisioned table automatically on your behalf. Amazon Keyspaces auto scaling helps you provision throughput capacity for

variable workloads efficiently by increasing and decreasing your table's read and write capacity automatically in response to application traffic.

For more information, see [Managing throughput capacity automatically with Amazon Keyspaces auto scaling](#) in the *Amazon Keyspaces Developer Guide*.

Type: [AutoScalingSpecification](#) object

Required: No

capacitySpecificationOverride

Specifies the read/write throughput capacity mode for the target table. The options are:

- `throughputMode:PAY_PER_REQUEST`
- `throughputMode:PROVISIONED` - Provisioned capacity mode requires `readCapacityUnits` and `writeCapacityUnits` as input.

The default is `throughput_mode:PAY_PER_REQUEST`.

For more information, see [Read/write capacity modes](#) in the *Amazon Keyspaces Developer Guide*.

Type: [CapacitySpecification](#) object

Required: No

encryptionSpecificationOverride

Specifies the encryption settings for the target table. You can choose one of the following KMS key (KMS key):

- `type:AWS_OWNED_KMS_KEY` - This key is owned by Amazon Keyspaces.
- `type:CUSTOMER_MANAGED_KMS_KEY` - This key is stored in your account and is created, owned, and managed by you. This option requires the `kms_key_identifier` of the KMS key in Amazon Resource Name (ARN) format as input.

The default is `type:AWS_OWNED_KMS_KEY`.

For more information, see [Encryption at rest](#) in the *Amazon Keyspaces Developer Guide*.

Type: [EncryptionSpecification](#) object

Required: No

pointInTimeRecoveryOverride

Specifies the `pointInTimeRecovery` settings for the target table. The options are:

- `status=ENABLED`
- `status=DISABLED`

If it's not specified, the default is `status=DISABLED`.

For more information, see Point-in-time recovery in the *Amazon Keyspaces Developer Guide*.

Type: PointInTimeRecovery object

Required: No

replicaSpecifications

The optional Region specific settings of a multi-Regional table.

Type: Array of ReplicaSpecification objects

Array Members: Minimum number of 1 item.

Required: No

restoreTimestamp

The restore timestamp in ISO 8601 format.

Type: Timestamp

Required: No

sourceKeyspaceName

The keyspace name of the source table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

sourceTableName

The name of the source table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

tagsOverride

A list of key-value pair tags to be attached to the restored table.

For more information, see Adding tags and labels to Amazon Keyspaces resources in the *Amazon Keyspaces Developer Guide*.

Type: Array of Tag objects

Array Members: Minimum number of 1 item. Maximum number of 60 items.

Required: No

targetKeyspaceName

The name of the target keyspace.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

targetTableName

The name of the target table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

Response Syntax

```
{
    "restoredTableARN": "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.

restoredTableARN

The Amazon Resource Name (ARN) of the restored table.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 1000.

Pattern: `arn:(aws[a-zA-Z0-9-]*):cassandra:.+.*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access permissions to perform this action.

HTTP Status Code: 400

ConflictException

Amazon Keyspaces couldn't complete the requested action. This error may occur if you try to perform an action and the same or a different action is already in progress, or if you try to create a resource that already exists.

HTTP Status Code: 400

[InternalServerException](#)

Amazon Keyspaces was unable to fully process this request because of an internal server error.

HTTP Status Code: 500

[ResourceNotFoundException](#)

The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be ACTIVE.

HTTP Status Code: 400

[ServiceQuotaExceededException](#)

The operation exceeded the service quota for this resource. For more information on service quotas, see [Quotas](#) in the *Amazon Keyspaces Developer Guide*.

HTTP Status Code: 400

[ValidationException](#)

The operation failed due to an invalid or malformed request.

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

TagResource

Associates a set of tags with a Amazon Keyspaces resource. You can then activate these user-defined tags so that they appear on the Cost Management Console for cost allocation tracking. For more information, see [Adding tags and labels to Amazon Keyspaces resources](#) in the *Amazon Keyspaces Developer Guide*.

For IAM policy examples that show how to control access to Amazon Keyspaces resources based on tags, see [Amazon Keyspaces resource access based on tags](#) in the *Amazon Keyspaces Developer Guide*.

Request Syntax

```
{
   "resourceArn": "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.

resourceArn

   The Amazon Resource Name (ARN) of the Amazon Keyspaces resource to which to add tags.

   Type: String

   Length Constraints: Minimum length of 20. Maximum length of 1000.

   Pattern: `arn:(aws[a-zA-Z0-9-]*):cassandra:.+.*`

   Required: Yes

tags

> The tags to be assigned to the Amazon Keyspaces resource.
>
> Type: Array of Tag objects
>
> Array Members: Minimum number of 1 item. Maximum number of 60 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 permissions to perform this action.
>
> HTTP Status Code: 400

InternalServerException

> Amazon Keyspaces was unable to fully process this request because of an internal server error.
>
> HTTP Status Code: 500

ResourceNotFoundException

> The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be `ACTIVE`.
>
> HTTP Status Code: 400

ServiceQuotaExceededException

> The operation exceeded the service quota for this resource. For more information on service quotas, see Quotas in the *Amazon Keyspaces Developer Guide*.
>
> HTTP Status Code: 400

ValidationException

The operation failed due to an invalid or malformed request.

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
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2
- Amazon SDK for Java V2
- Amazon SDK for JavaScript V3
- Amazon SDK for PHP V3
- Amazon SDK for Python
- Amazon SDK for Ruby V3

UntagResource

Removes the association of tags from a Amazon Keyspaces resource.

Request Syntax

```
{
   "resourceArn": "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.

resourceArn

The Amazon Keyspaces resource that the tags will be removed from. This value is an Amazon Resource Name (ARN).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 1000.

Pattern: `arn:(aws[a-zA-Z0-9-]*):cassandra:.+.*`

Required: Yes

tags

A list of existing tags to be removed from the Amazon Keyspaces resource.

Type: Array of Tag objects

Array Members: Minimum number of 1 item. Maximum number of 60 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 permissions to perform this action.

HTTP Status Code: 400

ConflictException

Amazon Keyspaces couldn't complete the requested action. This error may occur if you try to perform an action and the same or a different action is already in progress, or if you try to create a resource that already exists.

HTTP Status Code: 400

InternalServerException

Amazon Keyspaces was unable to fully process this request because of an internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be ACTIVE.

HTTP Status Code: 400

ServiceQuotaExceededException

The operation exceeded the service quota for this resource. For more information on service quotas, see Quotas in the *Amazon Keyspaces Developer Guide*.

HTTP Status Code: 400

ValidationException

The operation failed due to an invalid or malformed request.

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
- Amazon SDK for .NET
- Amazon SDK for C++
- Amazon SDK for Go v2
- Amazon SDK for Java V2
- Amazon SDK for JavaScript V3
- Amazon SDK for PHP V3
- Amazon SDK for Python
- Amazon SDK for Ruby V3

UpdateTable

Adds new columns to the table or updates one of the table's settings, for example capacity mode, auto scaling, encryption, point-in-time recovery, or ttl settings. Note that you can only update one specific table setting per update operation.

Request Syntax

```
{
    "addColumns": [
        {
            "name": "string",
            "type": "string"
        }
    ],
    "autoScalingSpecification": {
        "readCapacityAutoScaling": {
            "autoScalingDisabled": boolean,
            "maximumUnits": number,
            "minimumUnits": number,
            "scalingPolicy": {
                "targetTrackingScalingPolicyConfiguration": {
                    "disableScaleIn": boolean,
                    "scaleInCooldown": number,
                    "scaleOutCooldown": number,
                    "targetValue": number
                }
            }
        },
        "writeCapacityAutoScaling": {
            "autoScalingDisabled": boolean,
            "maximumUnits": number,
            "minimumUnits": number,
            "scalingPolicy": {
                "targetTrackingScalingPolicyConfiguration": {
                    "disableScaleIn": boolean,
                    "scaleInCooldown": number,
                    "scaleOutCooldown": number,
                    "targetValue": number
                }
            }
        }
```

```
    },
    "capacitySpecification": {
        "readCapacityUnits": number,
        "throughputMode": "string",
        "writeCapacityUnits": number
    },
    "clientSideTimestamps": {
        "status": "string"
    },
    "defaultTimeToLive": number,
    "encryptionSpecification": {
        "kmsKeyIdentifier": "string",
        "type": "string"
    },
    "keyspaceName": "string",
    "pointInTimeRecovery": {
        "status": "string"
    },
    "replicaSpecifications": [
        {
            "readCapacityAutoScaling": {
                "autoScalingDisabled": boolean,
                "maximumUnits": number,
                "minimumUnits": number,
                "scalingPolicy": {
                    "targetTrackingScalingPolicyConfiguration": {
                        "disableScaleIn": boolean,
                        "scaleInCooldown": number,
                        "scaleOutCooldown": number,
                        "targetValue": number
                    }
                }
            },
            "readCapacityUnits": number,
            "region": "string"
        }
    ],
    "tableName": "string",
    "ttl": {
        "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.

addColumns

> For each column to be added to the specified table:
>
> - name - The name of the column.
>
> - type - An Amazon Keyspaces data type. For more information, see Data types in the *Amazon Keyspaces Developer Guide*.
>
> Type: Array of ColumnDefinition objects
>
> Array Members: Minimum number of 1 item.
>
> Required: No

autoScalingSpecification

> The optional auto scaling settings to update for a table in provisioned capacity mode. Specifies if the service can manage throughput capacity of a provisioned table automatically on your behalf. Amazon Keyspaces auto scaling helps you provision throughput capacity for variable workloads efficiently by increasing and decreasing your table's read and write capacity automatically in response to application traffic.
>
> If auto scaling is already enabled for the table, you can use `UpdateTable` to update the minimum and maximum values or the auto scaling policy settings independently.
>
> For more information, see Managing throughput capacity automatically with Amazon Keyspaces auto scaling in the *Amazon Keyspaces Developer Guide*.
>
> Type: AutoScalingSpecification object
>
> Required: No

capacitySpecification

> Modifies the read/write throughput capacity mode for the table. The options are:
>
> - `throughputMode:PAY_PER_REQUEST` and

- `throughputMode:PROVISIONED` - Provisioned capacity mode requires `readCapacityUnits` and `writeCapacityUnits` as input.

The default is `throughput_mode:PAY_PER_REQUEST`.

For more information, see [Read/write capacity modes](#) in the *Amazon Keyspaces Developer Guide*.

Type: [CapacitySpecification](#) object

Required: No

clientSideTimestamps

Enables client-side timestamps for the table. By default, the setting is disabled. You can enable client-side timestamps with the following option:

- `status: "enabled"`

Once client-side timestamps are enabled for a table, this setting cannot be disabled.

Type: [ClientSideTimestamps](#) object

Required: No

defaultTimeToLive

The default Time to Live setting in seconds for the table.

For more information, see [Setting the default TTL value for a table](#) in the *Amazon Keyspaces Developer Guide*.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 630720000.

Required: No

encryptionSpecification

Modifies the encryption settings of the table. You can choose one of the following KMS key (KMS key):

- `type:AWS_OWNED_KMS_KEY` - This key is owned by Amazon Keyspaces.
- `type:CUSTOMER_MANAGED_KMS_KEY` - This key is stored in your account and is created, owned, and managed by you. This option requires the `kms_key_identifier` of the KMS key in Amazon Resource Name (ARN) format as input.

The default is AWS_OWNED_KMS_KEY.

For more information, see Encryption at rest in the *Amazon Keyspaces Developer Guide*.

Type: EncryptionSpecification object

Required: No

keyspaceName

The name of the keyspace the specified table is stored in.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

pointInTimeRecovery

Modifies the `pointInTimeRecovery` settings of the table. The options are:

- `status=ENABLED`
- `status=DISABLED`

If it's not specified, the default is `status=DISABLED`.

For more information, see Point-in-time recovery in the *Amazon Keyspaces Developer Guide*.

Type: PointInTimeRecovery object

Required: No

replicaSpecifications

The Region specific settings of a multi-Regional table.

Type: Array of ReplicaSpecification objects

Array Members: Minimum number of 1 item.

Required: No

tableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

ttl

Modifies Time to Live custom settings for the table. The options are:

- `status:enabled`
- `status:disabled`

The default is `status:disabled`. After `ttl` is enabled, you can't disable it for the table.

For more information, see Expiring data by using Amazon Keyspaces Time to Live (TTL) in the *Amazon Keyspaces Developer Guide*.

Type: TimeToLive object

Required: No

Response Syntax

```
{
    "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.

resourceArn

The Amazon Resource Name (ARN) of the modified table.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 1000.

Pattern: `arn:(aws[a-zA-Z0-9-]*):cassandra:.+.*`

Errors

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

[AccessDeniedException](#)

You don't have sufficient access permissions to perform this action.

HTTP Status Code: 400

[ConflictException](#)

Amazon Keyspaces couldn't complete the requested action. This error may occur if you try to perform an action and the same or a different action is already in progress, or if you try to create a resource that already exists.

HTTP Status Code: 400

[InternalServerException](#)

Amazon Keyspaces was unable to fully process this request because of an internal server error.

HTTP Status Code: 500

[ResourceNotFoundException](#)

The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be `ACTIVE`.

HTTP Status Code: 400

[ServiceQuotaExceededException](#)

The operation exceeded the service quota for this resource. For more information on service quotas, see [Quotas](#) in the *Amazon Keyspaces Developer Guide*.

HTTP Status Code: 400

[ValidationException](#)

The operation failed due to an invalid or malformed request.

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

Data Types

The Amazon Keyspaces API contains several data types that various actions use. This section describes each data type in detail.

> **ⓘ Note**
>
> The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- AutoScalingPolicy
- AutoScalingSettings
- AutoScalingSpecification
- CapacitySpecification
- CapacitySpecificationSummary
- ClientSideTimestamps
- ClusteringKey
- ColumnDefinition
- Comment
- EncryptionSpecification
- KeyspaceSummary
- PartitionKey
- PointInTimeRecovery
- PointInTimeRecoverySummary
- ReplicaAutoScalingSpecification
- ReplicaSpecification
- ReplicaSpecificationSummary
- ReplicationSpecification
- SchemaDefinition
- StaticColumn

- TableSummary
- [Tag](Tag)
- TargetTrackingScalingPolicyConfiguration
- TimeToLive

AutoScalingPolicy

Amazon Keyspaces supports the `target tracking` auto scaling policy. With this policy, Amazon Keyspaces auto scaling ensures that the table's ratio of consumed to provisioned capacity stays at or near the target value that you specify. You define the target value as a percentage between 20 and 90.

Contents

targetTrackingScalingPolicyConfiguration

Auto scaling scales up capacity automatically when traffic exceeds this target utilization rate, and then back down when it falls below the target. A `double` between 20 and 90.

Type: TargetTrackingScalingPolicyConfiguration 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

AutoScalingSettings

The optional auto scaling settings for a table with provisioned throughput capacity.

To turn on auto scaling for a table in `throughputMode:PROVISIONED`, you must specify the following parameters.

Configure the minimum and maximum capacity units. The auto scaling policy ensures that capacity never goes below the minimum or above the maximum range.

- `minimumUnits`: The minimum level of throughput the table should always be ready to support. The value must be between 1 and the max throughput per second quota for your account (40,000 by default).
- `maximumUnits`: The maximum level of throughput the table should always be ready to support. The value must be between 1 and the max throughput per second quota for your account (40,000 by default).
- `scalingPolicy`: Amazon Keyspaces supports the `target tracking` scaling policy. The auto scaling target is the provisioned capacity of the table.
  - `targetTrackingScalingPolicyConfiguration`: To define the target tracking policy, you must define the target value.
    - `targetValue`: The target utilization rate of the table. Amazon Keyspaces auto scaling ensures that the ratio of consumed capacity to provisioned capacity stays at or near this value. You define `targetValue` as a percentage. A `double` between 20 and 90. (Required)
    - `disableScaleIn`: A `boolean` that specifies if `scale-in` is disabled or enabled for the table. This parameter is disabled by default. To turn on `scale-in`, set the `boolean` value to `FALSE`. This means that capacity for a table can be automatically scaled down on your behalf. (Optional)
    - `scaleInCooldown`: A cooldown period in seconds between scaling activities that lets the table stabilize before another scale in activity starts. If no value is provided, the default is 0. (Optional)
    - `scaleOutCooldown`: A cooldown period in seconds between scaling activities that lets the table stabilize before another scale out activity starts. If no value is provided, the default is 0. (Optional)

For more information, see Managing throughput capacity automatically with Amazon Keyspaces auto scaling in the *Amazon Keyspaces Developer Guide*.

Contents

autoScalingDisabled

This optional parameter enables auto scaling for the table if set to `false`.

Type: Boolean

Required: No

maximumUnits

Manage costs by specifying the maximum amount of throughput to provision. The value must be between 1 and the max throughput per second quota for your account (40,000 by default).

Type: Long

Valid Range: Minimum value of 1.

Required: No

minimumUnits

The minimum level of throughput the table should always be ready to support. The value must be between 1 and the max throughput per second quota for your account (40,000 by default).

Type: Long

Valid Range: Minimum value of 1.

Required: No

scalingPolicy

Amazon Keyspaces supports the `target tracking` auto scaling policy. With this policy, Amazon Keyspaces auto scaling ensures that the table's ratio of consumed to provisioned capacity stays at or near the target value that you specify. You define the target value as a percentage between 20 and 90.

Type: AutoScalingPolicy 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](#)

AutoScalingSpecification

The optional auto scaling capacity settings for a table in provisioned capacity mode.

Contents

readCapacityAutoScaling

The auto scaling settings for the table's read capacity.

Type: AutoScalingSettings object

Required: No

writeCapacityAutoScaling

The auto scaling settings for the table's write capacity.

Type: AutoScalingSettings 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

CapacitySpecification

Amazon Keyspaces has two read/write capacity modes for processing reads and writes on your tables:

- On-demand (default)

- Provisioned

The read/write capacity mode that you choose controls how you are charged for read and write throughput and how table throughput capacity is managed.

For more information, see Read/write capacity modes in the *Amazon Keyspaces Developer Guide*.

Contents

throughputMode

The read/write throughput capacity mode for a table. The options are:

- `throughputMode:PAY_PER_REQUEST` and

- `throughputMode:PROVISIONED` - Provisioned capacity mode requires `readCapacityUnits` and `writeCapacityUnits` as input.

The default is `throughput_mode:PAY_PER_REQUEST`.

For more information, see Read/write capacity modes in the *Amazon Keyspaces Developer Guide*.

Type: String

Valid Values: `PAY_PER_REQUEST | PROVISIONED`

Required: Yes

readCapacityUnits

The throughput capacity specified for `read` operations defined in `read capacity units` (`RCUs`).

Type: Long

Valid Range: Minimum value of 1.

Required: No

writeCapacityUnits

The throughput capacity specified for `write` operations defined in `write capacity units` (`WCUs`).

Type: Long

Valid Range: Minimum value of 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](#)

CapacitySpecificationSummary

The read/write throughput capacity mode for a table. The options are:

- `throughputMode:PAY_PER_REQUEST` and

- `throughputMode:PROVISIONED`.

For more information, see [Read/write capacity modes](#) in the *Amazon Keyspaces Developer Guide*.

Contents

throughputMode

The read/write throughput capacity mode for a table. The options are:

- `throughputMode:PAY_PER_REQUEST` and

- `throughputMode:PROVISIONED` - Provisioned capacity mode requires `readCapacityUnits` and `writeCapacityUnits` as input.

The default is `throughput_mode:PAY_PER_REQUEST`.

For more information, see [Read/write capacity modes](#) in the *Amazon Keyspaces Developer Guide*.

Type: String

Valid Values: `PAY_PER_REQUEST | PROVISIONED`

Required: Yes

lastUpdateToPayPerRequestTimestamp

The timestamp of the last operation that changed the provisioned throughput capacity of a table.

Type: Timestamp

Required: No

readCapacityUnits

The throughput capacity specified for `read` operations defined in `read capacity units (RCUs)`.

Type: Long

Valid Range: Minimum value of 1.

Required: No

writeCapacityUnits

The throughput capacity specified for `write` operations defined in `write capacity units` (`WCUs`).

Type: Long

Valid Range: Minimum value of 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](#)

ClientSideTimestamps

The client-side timestamp setting of the table.

For more information, see How it works: Amazon Keyspaces client-side timestamps in the *Amazon Keyspaces Developer Guide*.

Contents

status

Shows how to enable client-side timestamps settings for the specified table.

Type: String

Valid Values: ENABLED

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

ClusteringKey

The optional clustering column portion of your primary key determines how the data is clustered and sorted within each partition.

Contents

name

The name(s) of the clustering column(s).

Type: String

Required: Yes

orderBy

Sets the ascendant (ASC) or descendant (DESC) order modifier.

Type: String

Valid Values: ASC | DESC

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](#)

ColumnDefinition

The names and data types of regular columns.

Contents

name

The name of the column.

Type: String

Required: Yes

type

The data type of the column. For a list of available data types, see Data types in the *Amazon Keyspaces Developer Guide*.

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

Comment

An optional comment that describes the table.

Contents

message

An optional description of the table.

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](#)

EncryptionSpecification

Amazon Keyspaces encrypts and decrypts the table data at rest transparently and integrates with Amazon Key Management Service for storing and managing the encryption key. You can choose one of the following Amazon KMS keys (KMS keys):

- Amazon owned key - This is the default encryption type. The key is owned by Amazon Keyspaces (no additional charge).

- Customer managed key - This key is stored in your account and is created, owned, and managed by you. You have full control over the customer managed key (Amazon KMS charges apply).

For more information about encryption at rest in Amazon Keyspaces, see [Encryption at rest](#) in the *Amazon Keyspaces Developer Guide*.

For more information about Amazon KMS, see [Amazon KMS management service concepts](#) in the *Amazon Key Management Service Developer Guide*.

Contents

type

The encryption option specified for the table. You can choose one of the following KMS keys (KMS keys):

- `type:AWS_OWNED_KMS_KEY` - This key is owned by Amazon Keyspaces.

- `type:CUSTOMER_MANAGED_KMS_KEY` - This key is stored in your account and is created, owned, and managed by you. This option requires the `kms_key_identifier` of the KMS key in Amazon Resource Name (ARN) format as input.

The default is `type:AWS_OWNED_KMS_KEY`.

For more information, see [Encryption at rest](#) in the *Amazon Keyspaces Developer Guide*.

Type: String

Valid Values: `CUSTOMER_MANAGED_KMS_KEY | AWS_OWNED_KMS_KEY`

Required: Yes

kmsKeyIdentifier

The Amazon Resource Name (ARN) of the customer managed KMS key, for example `kms_key_identifier:ARN`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 5096.

Required: No

See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

KeyspaceSummary

Represents the properties of a keyspace.

Contents

keyspaceName

The name of the keyspace.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

replicationStrategy

This property specifies if a keyspace is a single Region keyspace or a multi-Region keyspace. The available values are `SINGLE_REGION` or `MULTI_REGION`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Valid Values: `SINGLE_REGION | MULTI_REGION`

Required: Yes

resourceArn

The unique identifier of the keyspace in the format of an Amazon Resource Name (ARN).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 1000.

Pattern: `arn:(aws[a-zA-Z0-9-]*):cassandra:.+.*`

Required: Yes

replicationRegions

If the `replicationStrategy` of the keyspace is `MULTI_REGION`, a list of replication Regions is returned.

Type: Array of strings

Array Members: Minimum number of 2 items. Maximum number of 6 items.

Length Constraints: Minimum length of 2. Maximum length of 25.

Required: No

See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

PartitionKey

The partition key portion of the primary key is required and determines how Amazon Keyspaces stores the data. The partition key can be a single column, or it can be a compound value composed of two or more columns.

Contents

name

The name(s) of the partition key column(s).

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](#)

PointInTimeRecovery

Point-in-time recovery (PITR) helps protect your Amazon Keyspaces tables from accidental write or delete operations by providing you continuous backups of your table data.

For more information, see [Point-in-time recovery](#) in the *Amazon Keyspaces Developer Guide*.

Contents

status

    The options are:

- `status=ENABLED`
- `status=DISABLED`

    Type: String

    Valid Values: `ENABLED | DISABLED`

    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](#)

PointInTimeRecoverySummary

The point-in-time recovery status of the specified table.

Contents

status

Shows if point-in-time recovery is enabled or disabled for the specified table.

Type: String

Valid Values: `ENABLED | DISABLED`

Required: Yes

earliestRestorableTimestamp

Specifies the earliest possible restore point of the table in ISO 8601 format.

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](#)

ReplicaAutoScalingSpecification

The auto scaling settings of a multi-Region table in the specified Amazon Region.

Contents

autoScalingSpecification

The auto scaling settings for a multi-Region table in the specified Amazon Region.

Type: AutoScalingSpecification object

Required: No

region

The Amazon Region.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 25.

Required: No

See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReplicaSpecification

The Amazon Region specific settings of a multi-Region table.

For a multi-Region table, you can configure the table's read capacity differently per Amazon Region. You can do this by configuring the following parameters.

- `region`: The Region where these settings are applied. (Required)
- `readCapacityUnits`: The provisioned read capacity units. (Optional)
- `readCapacityAutoScaling`: The read capacity auto scaling settings for the table. (Optional)

Contents

region

The Amazon Region.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 25.

Required: Yes

readCapacityAutoScaling

The read capacity auto scaling settings for the multi-Region table in the specified Amazon Region.

Type: [AutoScalingSettings](#) object

Required: No

readCapacityUnits

The provisioned read capacity units for the multi-Region table in the specified Amazon Region.

Type: Long

Valid Range: Minimum value of 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](#)

ReplicaSpecificationSummary

The Region-specific settings of a multi-Region table in the specified Amazon Region.

If the multi-Region table is using provisioned capacity and has optional auto scaling policies configured, note that the Region specific summary returns both read and write capacity settings. But only Region specific read capacity settings can be configured for a multi-Region table. In a multi-Region table, your write capacity units will be synced across all Amazon Regions to ensure that there is enough capacity to replicate write events across Regions.

Contents

capacitySpecification

The read/write throughput capacity mode for a table. The options are:

- `throughputMode:PAY_PER_REQUEST` and
- `throughputMode:PROVISIONED`.

For more information, see [Read/write capacity modes](#) in the *Amazon Keyspaces Developer Guide*.

Type: [CapacitySpecificationSummary](#) object

Required: No

region

The Amazon Region.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 25.

Required: No

status

The status of the multi-Region table in the specified Amazon Region.

Type: String

Valid Values: `ACTIVE` | `CREATING` | `UPDATING` | `DELETING` | `DELETED` | `RESTORING` | `INACCESSIBLE_ENCRYPTION_CREDENTIALS`

Required: No

See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

ReplicationSpecification

The replication specification of the keyspace includes:

- `regionList` - up to six Amazon Regions where the keyspace is replicated in.
- `replicationStrategy` - the required value is SINGLE_REGION or MULTI_REGION.

Contents

replicationStrategy

The `replicationStrategy` of a keyspace, the required value is SINGLE_REGION or MULTI_REGION.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Valid Values: `SINGLE_REGION | MULTI_REGION`

Required: Yes

regionList

The `regionList` can contain up to six Amazon Regions where the keyspace is replicated in.

Type: Array of strings

Array Members: Minimum number of 2 items. Maximum number of 6 items.

Length Constraints: Minimum length of 2. Maximum length of 25.

Required: No

See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

SchemaDefinition

Describes the schema of the table.

Contents

allColumns

The regular columns of the table.

Type: Array of [ColumnDefinition](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

partitionKeys

The columns that are part of the partition key of the table .

Type: Array of [PartitionKey](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

clusteringKeys

The columns that are part of the clustering key of the table.

Type: Array of [ClusteringKey](#) objects

Required: No

staticColumns

The columns that have been defined as STATIC. Static columns store values that are shared by all rows in the same partition.

Type: Array of [StaticColumn](#) 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](#)

StaticColumn

The static columns of the table. Static columns store values that are shared by all rows in the same partition.

Contents

name

The name of the static column.

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](#)

TableSummary

Returns the name of the specified table, the keyspace it is stored in, and the unique identifier in the format of an Amazon Resource Name (ARN).

Contents

keyspaceName

The name of the keyspace that the table is stored in.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

Required: Yes

resourceArn

The unique identifier of the table in the format of an Amazon Resource Name (ARN).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 1000.

Pattern: `arn:(aws[a-zA-Z0-9-]*):cassandra:.+.*`

Required: Yes

tableName

The name of the table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9][a-zA-Z0-9_]{0,47}`

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](#)

Tag

Describes a tag. A tag is a key-value pair. You can add up to 50 tags to a single Amazon Keyspaces resource.

Amazon-assigned tag names and values are automatically assigned the `aws:` prefix, which the user cannot assign. Amazon-assigned tag names do not count towards the tag limit of 50. User-assigned tag names have the prefix `user:` in the Cost Allocation Report. You cannot backdate the application of a tag.

For more information, see [Adding tags and labels to Amazon Keyspaces resources](#) in the *Amazon Keyspaces Developer Guide*.

Contents

key

    The key of the tag. Tag keys are case sensitive. Each Amazon Keyspaces resource can only have up to one tag with the same key. If you try to add an existing tag (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.

    Required: Yes

value

    The value of the tag. Tag values are case-sensitive and can be null.

    Type: String

    Length Constraints: Minimum length of 1. 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](#)

TargetTrackingScalingPolicyConfiguration

The auto scaling policy that scales a table based on the ratio of consumed to provisioned capacity.

Contents

targetValue

Specifies the target value for the target tracking auto scaling policy.

Amazon Keyspaces auto scaling scales up capacity automatically when traffic exceeds this target utilization rate, and then back down when it falls below the target. This ensures that the ratio of consumed capacity to provisioned capacity stays at or near this value. You define `targetValue` as a percentage. A `double` between 20 and 90.

Type: Double

Required: Yes

disableScaleIn

Specifies if `scale-in` is enabled.

When auto scaling automatically decreases capacity for a table, the table *scales in*. When scaling policies are set, they can't scale in the table lower than its minimum capacity.

Type: Boolean

Required: No

scaleInCooldown

Specifies a `scale-in` cool down period.

A cooldown period in seconds between scaling activities that lets the table stabilize before another scaling activity starts.

Type: Integer

Required: No

scaleOutCooldown

Specifies a scale out cool down period.

A cooldown period in seconds between scaling activities that lets the table stabilize before another scaling activity starts.

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](#)

TimeToLive

Enable custom Time to Live (TTL) settings for rows and columns without setting a TTL default for the specified table.

For more information, see [Enabling TTL on tables](#) in the *Amazon Keyspaces Developer Guide*.

Contents

status

Shows how to enable custom Time to Live (TTL) settings for the specified table.

Type: String

Valid Values: ENABLED

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](#)

Service-specific Errors

The Amazon Keyspaces API contains service-specific exceptions that various actions return. This section describes each exception in detail.

The following service-specific exceptions are returned:

- AccessDeniedException
- ConflictException
- InternalServerException
- ResourceNotFoundException
- ServiceQuotaExceededException
- ValidationException

AccessDeniedException

You don't have sufficient access permissions to perform this action.

HTTP Status Code returned: 400

Contents

message

Description of the error.

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 Ruby V3](#)

ConflictException

Amazon Keyspaces couldn't complete the requested action. This error may occur if you try to perform an action and the same or a different action is already in progress, or if you try to create a resource that already exists.

HTTP Status Code returned: 400

Contents

message

Description of the error.

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 Ruby V3](#)

InternalServerException

Amazon Keyspaces was unable to fully process this request because of an internal server error.

HTTP Status Code returned: 500

Contents

message

Description of the error.

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 Ruby V3](#)

ResourceNotFoundException

The operation tried to access a keyspace or table that doesn't exist. The resource might not be specified correctly, or its status might not be ACTIVE.

HTTP Status Code returned: 400

Contents

message

Description of the error.

Type: String

Required: No

resourceArn

The unique identifier in the format of Amazon Resource Name (ARN), for the resource not found.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 1000.

Pattern: `arn:(aws[a-zA-Z0-9-]*):cassandra:.+.*`

Required: No

See Also

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

- [Amazon SDK for Ruby V3](#)

ServiceQuotaExceededException

The operation exceeded the service quota for this resource. For more information on service quotas, see [Quotas](#) in the *Amazon Keyspaces Developer Guide*.

HTTP Status Code returned: 400

Contents

message

Description of the error.

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 Ruby V3](#)

ValidationException

The operation failed due to an invalid or malformed request.

HTTP Status Code returned: 400

Contents

message

Description of the error.

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 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 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