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## Welcome
Welcome to the AWS Database Migration Service API Reference. This document provides detailed information on all the actions available in the AWS Database Migration Service API, including how to use each action, its parameters, and possible errors. It also includes examples of how to use the API in different scenarios.

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Welcome

AWS Database Migration Service (AWS DMS) can migrate your data to and from the most widely used commercial and open-source databases such as Oracle, PostgreSQL, Microsoft SQL Server, Amazon Redshift, MariaDB, Amazon Aurora, MySQL, and SAP Adaptive Server Enterprise (ASE). The service supports homogeneous migrations such as Oracle to Oracle, as well as heterogeneous migrations between different database platforms, such as Oracle to MySQL or SQL Server to PostgreSQL.

For more information about AWS DMS, see What Is AWS Database Migration Service? in the AWS Database Migration User Guide.

This document was last published on April 3, 2020.
Actions

The following actions are supported:

- AddTagsToResource (p. 4)
- ApplyPendingMaintenanceAction (p. 6)
- CreateEndpoint (p. 8)
- CreateEventSubscription (p. 18)
- CreateReplicationInstance (p. 22)
- CreateReplicationSubnetGroup (p. 29)
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- RemoveTagsFromResource (p. 165)
- StartReplicationTask (p. 167)
- StartReplicationTaskAssessment (p. 172)
- StopReplicationTask (p. 174)
- TestConnection (p. 178)
AddTagsToResource

Add metadata tags to an AWS DMS resource, including replication instance, endpoint, security group, and migration task. These tags can also be used with cost allocation reporting to track cost associated with DMS resources, or used in a Condition statement in an IAM policy for DMS.

Request Syntax

```json
{
    "ResourceArn": "string",
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**ResourceArn (p. 4)**

Identifies the AWS DMS resource to which tags should be added. The value for this parameter is an Amazon Resource Name (ARN).

For AWS DMS, you can tag a replication instance, an endpoint, or a replication task.

*Type: String*

*Required: Yes*

**Tags (p. 4)**

One or more tags to be assigned to the resource.

*Type: Array of Tag (p. 244) objects*

*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 (p. 248).

**ResourceNotFoundFault**

The resource could not be found.
HTTP Status Code: 400

Example

Sample Request

```bash
POST / HTTP/1.1
Host: dms.<region>.<domain>
X-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.AddTagsToResource
{
  "Tags":[
    {
      "Key":"CostCenter",
      "Value":"1234"
    }
  ]
}
```

Sample Response

```
Empty
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ApplyPendingMaintenanceAction

Applies a pending maintenance action to a resource (for example, to a replication instance).

Request Syntax

```json
{
    "ApplyAction": "string",
    "OptInType": "string",
    "ReplicationInstanceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**ApplyAction (p. 6)**

The pending maintenance action to apply to this resource.

Type: String

Required: Yes

**OptInType (p. 6)**

A value that specifies the type of opt-in request, or undoes an opt-in request. You can't undo an opt-in request of type immediate.

Valid values:
- immediate - Apply the maintenance action immediately.
- next-maintenance - Apply the maintenance action during the next maintenance window for the resource.
- undo-opt-in - Cancel any existing next-maintenance opt-in requests.

Type: String

Required: Yes

**ReplicationInstanceArn (p. 6)**

The Amazon Resource Name (ARN) of the AWS DMS resource that the pending maintenance action applies to.

Type: String

Required: Yes

Response Syntax

```json
{
    "ResourcePendingMaintenanceActions": {
        "PendingMaintenanceActionDetails": [
```

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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.

ResourcePendingMaintenanceActions (p. 6)

The AWS DMS resource that the pending maintenance action will be applied to.

Type: ResourcePendingMaintenanceActions (p. 231) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateEndpoint

Creates an endpoint using the provided settings.

Request Syntax

```json
{
    "CertificateArn": "string",
    "DatabaseName": "string",
    "DmsTransferSettings": {
        "BucketName": "string",
        "ServiceAccessRoleArn": "string"
    },
    "DynamoDbSettings": {
        "ServiceAccessRoleArn": "string"
    },
    "ElasticsearchSettings": {
        "EndpointUri": "string",
        "ErrorRetryDuration": number,
        "FullLoadErrorPercentage": number,
        "ServiceAccessRoleArn": "string"
    },
    "EndpointIdentifier": "string",
    "EndpointType": "string",
    "EngineName": "string",
    "ExternalTableDefinition": "string",
    "ExtraConnectionAttributes": "string",
    "KafkaSettings": {
        "Broker": "string",
        "Topic": "string"
    },
    "KinesisSettings": {
        "IncludeControlDetails": boolean,
        "IncludePartitionValue": boolean,
        "IncludeTableAlterOperations": boolean,
        "IncludeTransactionDetails": boolean,
        "MessageFormat": "string",
        "PartitionIncludeSchemaTable": boolean,
        "ServiceAccessRoleArn": "string",
        "StreamArn": "string"
    },
    "KmsKeyId": "string",
    "MongoDbSettings": {
        "AuthMechanism": "string",
        "AuthSource": "string",
        "AuthType": "string",
        "DatabaseName": "string",
        "DocsToInvestigate": "string",
        "ExtractDocId": "string",
        "KmsKeyId": "string",
        "NestingLevel": "string",
        "Password": "string",
        "Port": number,
        "ServerName": "string",
        "Username": "string"
    },
    "Password": "string",
    "Port": number,
    "RedshiftSettings": {
        "AcceptAnyDate": boolean,
        "AfterConnectScript": "string",
        "BucketFolder": "string"
    }
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.
CertificateArn (p. 8)

The Amazon Resource Name (ARN) for the certificate.

Type: String

Required: No

DatabaseName (p. 8)

The name of the endpoint database.

Type: String

Required: No

DmsTransferSettings (p. 8)

The settings in JSON format for the DMS transfer type of source endpoint.

Possible settings include the following:
- ServiceAccessRoleArn - The IAM role that has permission to access the Amazon S3 bucket.
- BucketName - The name of the S3 bucket to use.
- CompressionType - An optional parameter to use GZIP to compress the target files. To use GZIP, set this value to NONE (the default). To keep the files uncompressed, don't use this value.

Shorthand syntax for these settings is as follows:
```
ServiceAccessRoleArn=string,BucketName=string,CompressionType=string
```

JSON syntax for these settings is as follows:
```
{ "ServiceAccessRoleArn": "string", "BucketName": "string", "CompressionType": "none" | "gzip" }
```

Type: DmsTransferSettings (p. 189) object

Required: No

DynamoDbSettings (p. 8)

Settings in JSON format for the target Amazon DynamoDB endpoint. For information about other available settings, see Using Object Mapping to Migrate Data to DynamoDB in the AWS Database Migration Service User Guide.

Type: DynamoDbSettings (p. 190) object

Required: No

ElasticsearchSettings (p. 8)

Settings in JSON format for the target Elasticsearch endpoint. For more information about the available settings, see Extra Connection Attributes When Using Elasticsearch as a Target for AWS DMS in the AWS Database Migration User Guide.

Type: ElasticsearchSettings (p. 191) object

Required: No

EndpointIdentifier (p. 8)

The database endpoint identifier. Identifiers must begin with a letter and must contain only ASCII letters, digits, and hyphens. They can’t end with a hyphen or contain two consecutive hyphens.

Type: String

Required: Yes
**EndpointType (p. 8)**

The type of endpoint. Valid values are `source` and `target`.

Type: String

Required: Yes

**EngineName (p. 8)**

The type of engine for the endpoint. Valid values, depending on the `EndpointType` value, include "mysql", "oracle", "postgres", "mariadb", "aurora", "aurora-postgresql", "redshift", "s3", "db2", "azuredb", "sybase", "dynamodb", "mongodb", "kinesis", "kafka", "elasticsearch", "documentdb", and "sqlserver".

Type: String

Required: Yes

**ExternalTableDefinition (p. 8)**

The external table definition.

Type: String

Required: No

**ExtraConnectionAttributes (p. 8)**

Additional attributes associated with the connection. Each attribute is specified as a name-value pair associated by an equal sign (=). Multiple attributes are separated by a semicolon (;) with no additional white space. For information on the attributes available for connecting your source or target endpoint, see Working with AWS DMS Endpoints in the AWS Database Migration Service User Guide.

Type: String

Required: No

**KafkaSettings (p. 8)**

Settings in JSON format for the target Apache Kafka endpoint. For information about other available settings, see Using Object Mapping to Migrate Data to Apache Kafka in the AWS Database Migration User Guide.

Type: KafkaSettings (p. 202) object

Required: No

**KinesisSettings (p. 8)**

Settings in JSON format for the target endpoint for Amazon Kinesis Data Streams. For information about other available settings, see Using Object Mapping to Migrate Data to a Kinesis Data Stream in the AWS Database Migration User Guide.

Type: KinesisSettings (p. 203) object

Required: No

**KmsKeyId (p. 8)**

An AWS KMS key identifier that is used to encrypt the connection parameters for the endpoint.
If you don't specify a value for the KmsKeyId parameter, then AWS DMS uses your default encryption key.

AWS KMS creates the default encryption key for your AWS account. Your AWS account has a different default encryption key for each AWS Region.

Type: String
Required: No

**MongoDbSettings (p. 8)**

Settings in JSON format for the source MongoDB endpoint. For more information about the available settings, see the configuration properties section in Using MongoDB as a Target for AWS Database Migration Service in the AWS Database Migration Service User Guide.

Type: MongoDbSettings (p. 205) object
Required: No

**Password (p. 8)**

The password to be used to log in to the endpoint database.

Type: String
Required: No

**Port (p. 8)**

The port used by the endpoint database.

Type: Integer
Required: No

**RedshiftSettings (p. 8)**

Provides information that defines an Amazon Redshift endpoint.

Type: RedshiftSettings (p. 212) object
Required: No

**S3Settings (p. 8)**

Settings in JSON format for the target Amazon S3 endpoint. For more information about the available settings, see Extra Connection Attributes When Using Amazon S3 as a Target for AWS DMS in the AWS Database Migration Service User Guide.

Type: S3Settings (p. 232) object
Required: No

**ServerName (p. 8)**

The name of the server where the endpoint database resides.

Type: String
Required: No

**ServiceAccessRoleArn (p. 8)**

The Amazon Resource Name (ARN) for the service access role that you want to use to create the endpoint.
**SslMode (p. 8)**

The Secure Sockets Layer (SSL) mode to use for the SSL connection. The default is `none`.

Type: String

Valid Values: `none` | `require` | `verify-ca` | `verify-full`

Required: No

**Tags (p. 8)**

One or more tags to be assigned to the endpoint.

Type: Array of `Tag (p. 244)` objects

Required: No

**Username (p. 8)**

The user name to be used to log in to the endpoint database.

Type: String

Required: No

**Response Syntax**

```json
{
    "Endpoint": {
        "CertificateArn": "string",
        "DatabaseName": "string",
        "DmsTransferSettings": {
            "BucketName": "string",
            "ServiceAccessRoleArn": "string"
        },
        "DynamoDbSettings": {
            "ServiceAccessRoleArn": "string"
        },
        "ElasticsearchSettings": {
            "EndpointUri": "string",
            "ErrorRetryDuration": number,
            "FullLoadErrorPercentage": number,
            "ServiceAccessRoleArn": "string"
        },
        "EndpointArn": "string",
        "EndpointIdentifier": "string",
        "EndpointType": "string",
        "EngineDisplayName": "string",
        "EngineName": "string",
        "ExternalId": "string",
        "ExternalTableDefinition": "string",
        "ExtraConnectionAttributes": "string",
        "KafkaSettings": {
            "Broker": "string",
            "Topic": "string"
        },
        "KinesisSettings": {
            "IncludeControlDetails": boolean,
```
"IncludePartitionValue": boolean,
"IncludeTableAlterOperations": boolean,
"IncludeTransactionDetails": boolean,
"MessageFormat": "string",
"PartitionIncludeSchemaTable": boolean,
"ServiceAccessRoleArn": "string",
"StreamArn": "string"
},
"KmsKeyId": "string",
"MongoDbSettings": { 
  "AuthMechanism": "string",
  "AuthSource": "string",
  "AuthType": "string",
  "DatabaseName": "string",
  "DocsToInvestigate": "string",
  "ExtractDocId": "string",
  "KmsKeyId": "string",
  "NestingLevel": "string",
  "Password": "string",
  "Port": number,
  "ServerName": "string",
  "Username": "string"
},
"Port": number,
"RedshiftSettings": { 
  "AcceptAnyDate": boolean,
  "AfterConnectScript": "string",
  "BucketFolder": "string",
  "BucketName": "string",
  "ConnectionTimeout": number,
  "DatabaseName": "string",
  "DateFormat": "string",
  "EmptyAsNull": boolean,
  "EncryptionMode": "string",
  "FileTransferUploadStreams": number,
  "LoadTimeout": number,
  "MaxFileSize": number,
  "Password": "string",
  "Port": number,
  "RemoveQuotes": boolean,
  "ReplaceChars": "string",
  "ReplaceInvalidChars": "string",
  "ServerName": "string",
  "ServerSideEncryptionKmsKeyId": "string",
  "ServiceAccessRoleArn": "string",
  "TimeFormat": "string",
  "TrimBlanks": boolean,
  "TruncateColumns": boolean,
  "Username": "string",
  "WriteBufferSize": number
},
"S3Settings": { 
  "BucketFolder": "string",
  "BucketName": "string",
  "CdcInsertsAndUpdates": boolean,
  "CdcInsertsOnly": boolean,
  "CompressionType": "string",
  "CsvDelimiter": "string",
  "CsvRowDelimiter": "string",
  "DataFormat": "string",
  "DataPageSize": number,
  "DictPageSizeLimit": number,
  "EnableStatistics": boolean,
  "EncodingType": "string",
  "EncryptionMode": "string",
  "ExternalTableDefinition": "string",
  "DictPageSizeLimit": number,
AWS Database Migration Service API Reference
Response Elements

"IncludeOpForFullLoad": boolean,
"ParquetTimestampInMillisecond": boolean,
"ParquetVersion": "string",
"RowGroupLength": number,
"ServerSideEncryptionKmsKeyId": "string",
"ServiceAccessRoleArn": "string",
"TimestampColumnName": "string"
}

"ServerName": "string",
"ServiceAccessRoleArn": "string",
"SslMode": "string",
"Status": "string",
"Username": "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.

Endpoint (p. 13)
The endpoint that was created.
Type: Endpoint (p. 192) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

AccessDeniedFault

AWS DMS was denied access to the endpoint. Check that the role is correctly configured.

HTTP Status Code: 400

InvalidResourceStateFault

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

KMSKeyNotAccessibleFault

AWS DMS cannot access the AWS KMS key.

HTTP Status Code: 400

ResourceAlreadyExistsFault

The resource you are attempting to create already exists.

HTTP Status Code: 400

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400
**ResourceQuotaExceededFault**

The quota for this resource quota has been exceeded.

HTTP Status Code: 400

---

**Example**

**Sample Request**

```plaintext
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
                SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
                requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.CreateEndpoint

{
    "EndpointIdentifier":"test-endpoint-1",
    "EndpointType":"source",
    "EngineName":"mysql",
    "Username":"username",
    "Password":"password",
    "ServerName":"test-source.cxln7iyxx1lo.us-west-2.rds.amazonaws.com",
    "Port":3306,
    "DatabaseName":"
    "ExtraConnectionAttributes":"
    "KmsKeyId":"
    "Tags":
    {
        "Key":"
        "Value":"
    }
}
```

---

**Sample Response**

```plaintext
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>

{
    "Endpoint":{
        "Username":"username",
        "Status":"active",
        "ServerName":"test-source.cxln7iyxx1lo.us-west-2.rds.amazonaws.com",
        "EndpointType":"SOURCE",
        "KmsKeyId":"arn:aws:kms:us-east-1:123456789012:key/4dc17316-5543-4ded-b1e3-d53a7cfb411d",
```

---

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See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateEventSubscription

Creates an AWS DMS event notification subscription.

You can specify the type of source (`SourceType`) you want to be notified of, provide a list of AWS DMS source IDs (`SourceIds`) that triggers the events, and provide a list of event categories (`EventCategories`) for events you want to be notified of. If you specify both the `SourceType` and `SourceIds`, such as `SourceType = replication-instance` and `SourceIdentifier = my-replinstance`, you will be notified of all the replication instance events for the specified source. If you specify a `SourceType` but don't specify a `SourceIdentifier`, you receive notice of the events for that source type for all your AWS DMS sources. If you don't specify either `SourceType` nor `SourceIdentifier`, you will be notified of events generated from all AWS DMS sources belonging to your customer account.

For more information about AWS DMS events, see Working with Events and Notifications in the AWS Database Migration Service User Guide.

Request Syntax

```json
{
    "Enabled": boolean,
    "EventCategories": [ "string" ],
    "SnsTopicArn": "string",
    "SourceIds": [ "string" ],
    "SourceType": "string",
    "SubscriptionName": "string",
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**Enabled (p. 18)**

A Boolean value; set to `true` to activate the subscription, or set to `false` to create the subscription but not activate it.

Type: Boolean

Required: No

**EventCategories (p. 18)**

A list of event categories for a source type that you want to subscribe to. For more information, see Working with Events and Notifications in the AWS Database Migration Service User Guide.

Type: Array of strings

Required: No
**SnsTopicArn (p. 18)**

The Amazon Resource Name (ARN) of the Amazon SNS topic created for event notification. The ARN is created by Amazon SNS when you create a topic and subscribe to it.

Type: String

Required: Yes

**SourceIds (p. 18)**

A list of identifiers for which AWS DMS provides notification events.

If you don't specify a value, notifications are provided for all sources.

If you specify multiple values, they must be of the same type. For example, if you specify a database instance ID, then all of the other values must be database instance IDs.

Type: Array of strings

Required: No

**SourceType (p. 18)**

The type of AWS DMS resource that generates the events. For example, if you want to be notified of events generated by a replication instance, you set this parameter to `replication-instance`. If this value isn't specified, all events are returned.

Valid values: replication-instance | replication-task

Type: String

Required: No

**SubscriptionName (p. 18)**

The name of the AWS DMS event notification subscription. This name must be less than 255 characters.

Type: String

Required: Yes

**Tags (p. 18)**

One or more tags to be assigned to the event subscription.

Type: Array of Tag (p. 244) objects

Required: No

**Response Syntax**

```json
{
    "EventSubscription": {
        "CustomerAwsId": "string",
        "CustSubscriptionId": "string",
        "Enabled": boolean,
        "EventCategoriesList": [ "string" ],
        "SnsTopicArn": "string",
        "SourceIdsList": [ "string" ],
        "SourceType": "string",
    } // End of EventSubscription
}
```
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.

**EventSubscription (p. 19)**

The event subscription that was created.

Type: `EventSubscription (p. 199)` object

Errors

For information about the errors that are common to all actions, see `Common Errors (p. 248)`.  

**KMSAccessDeniedFault**

The ciphertext references a key that doesn't exist or that the DMS account doesn't have access to.

HTTP Status Code: 400

**KMSDisabledFault**

The specified master key (CMK) isn't enabled.

HTTP Status Code: 400

**KMSInvalidStateException**

The state of the specified AWS KMS resource isn't valid for this request.

HTTP Status Code: 400

**KMSNotFoundFault**

The specified AWS KMS entity or resource can't be found.

HTTP Status Code: 400

**KMSThrottlingFault**

This request triggered AWS KMS request throttling.

HTTP Status Code: 400

**ResourceAlreadyExistsFault**

The resource you are attempting to create already exists.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource could not be found.

HTTP Status Code: 400
ResourceQuotaExceededFault

The quota for this resource quota has been exceeded.

HTTP Status Code: 400

SNSInvalidTopicFault

The SNS topic is invalid.

HTTP Status Code: 400

SNSNoAuthorizationFault

You are not authorized for the SNS subscription.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateReplicationInstance

Creates the replication instance using the specified parameters.

AWS DMS requires that your account have certain roles with appropriate permissions before you can create a replication instance. For information on the required roles, see Creating the IAM Roles to Use With the AWS CLI and AWS DMS API. For information on the required permissions, see IAM Permissions Needed to Use AWS DMS.

Request Syntax

```json
{
  "AllocatedStorage": number,
  "AutoMinorVersionUpgrade": boolean,
  "AvailabilityZone": "string",
  "DnsNameServers": "string",
  "EngineVersion": "string",
  "KmsKeyId": "string",
  "MultiAZ": boolean,
  "PreferredMaintenanceWindow": "string",
  "PubliclyAccessible": boolean,
  "ReplicationInstanceClass": "string",
  "ReplicationInstanceIdentifier": "string",
  "ReplicationSubnetGroupIdentifier": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "VpcSecurityGroupIds": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

AllocatedStorage (p. 22)

The amount of storage (in gigabytes) to be initially allocated for the replication instance.

Type: Integer

Required: No

AutoMinorVersionUpgrade (p. 22)

A value that indicates whether minor engine upgrades are applied automatically to the replication instance during the maintenance window. This parameter defaults to true.

Default: true

Type: Boolean

Required: No
AvailabilityZone (p. 22)

The Availability Zone where the replication instance will be created. The default value is a random, system-chosen Availability Zone in the endpoint's AWS Region, for example: us-east-1d

Type: String
Required: No

DnsNameServers (p. 22)

A list of DNS name servers supported for the replication instance.

Type: String
Required: No

EngineVersion (p. 22)

The engine version number of the replication instance.

Type: String
Required: No

KmsKeyId (p. 22)

An AWS KMS key identifier that is used to encrypt the data on the replication instance.

If you don't specify a value for the KmsKeyId parameter, then AWS DMS uses your default encryption key.

AWS KMS creates the default encryption key for your AWS account. Your AWS account has a different default encryption key for each AWS Region.

Type: String
Required: No

MultiAZ (p. 22)

Specifies whether the replication instance is a Multi-AZ deployment. You can't set the AvailabilityZone parameter if the Multi-AZ parameter is set to true.

Type: Boolean
Required: No

PreferredMaintenanceWindow (p. 22)

The weekly time range during which system maintenance can occur, in Universal Coordinated Time (UTC).


Default: A 30-minute window selected at random from an 8-hour block of time per AWS Region, occurring on a random day of the week.

Valid Days: Mon, Tue, Wed, Thu, Fri, Sat, Sun

Constraints: Minimum 30-minute window.

Type: String
PubliclyAccessible (p. 22)

Specifies the accessibility options for the replication instance. A value of true represents an instance with a public IP address. A value of false represents an instance with a private IP address. The default value is true.

Type: Boolean

ReplicationInstanceClass (p. 22)

The compute and memory capacity of the replication instance as specified by the replication instance class.

Valid Values: dms.t2.micro | dms.t2.small | dms.t2.medium | dms.t2.large | dms.c4.large | dms.c4.xlarge | dms.c4.2xlarge | dms.c4.4xlarge

Type: String

ReplicationInstanceIdentifier (p. 22)

The replication instance identifier. This parameter is stored as a lowercase string.

Constraints:
- Must contain from 1 to 63 alphanumeric characters or hyphens.
- First character must be a letter.
- Can't end with a hyphen or contain two consecutive hyphens.

Example: myrepinstance

Type: String

ReplicationSubnetGroupIdentifier (p. 22)

A subnet group to associate with the replication instance.

Type: String

Tags (p. 22)

One or more tags to be assigned to the replication instance.

Type: Array of Tag objects

VpcSecurityGroupIds (p. 22)

Specifies the VPC security group to be used with the replication instance. The VPC security group must work with the VPC containing the replication instance.

Type: Array of strings
Required: No

Response Syntax

```json
{
  "ReplicationInstance": {
    "AllocatedStorage": number,
    "AutoMinorVersionUpgrade": boolean,
    "AvailabilityZone": "string",
    "DnsNameServers": ["string"],
    "EngineVersion": "string",
    "FreeUntil": number,
    "InstanceCreateTime": number,
    "KmsKeyId": "string",
    "MultiAZ": boolean,
    "PendingModifiedValues": {
      "AllocatedStorage": number,
      "EngineVersion": "string",
      "MultiAZ": boolean,
      "ReplicationInstanceClass": "string"
    },
    "PreferredMaintenanceWindow": "string",
    "PubliclyAccessible": boolean,
    "ReplicationInstanceArn": "string",
    "ReplicationInstanceClass": "string",
    "ReplicationInstanceIdentifier": "string",
    "ReplicationInstancePrivateIpAddress": "string",
    "ReplicationInstancePrivateIpAddresses": ["string"],
    "ReplicationInstancePublicIpAddress": "string",
    "ReplicationInstancePublicIpAddresses": ["string"],
    "ReplicationInstanceStatus": "string",
    "ReplicationSubnetGroup": {
      "ReplicationSubnetGroupDescription": "string",
      "ReplicationSubnetGroupIdentifier": "string",
      "SubnetGroupStatus": "string",
      "Subnets": ["string"",
        {
          "SubnetAvailabilityZone": {
            "Name": "string"
          },
          "SubnetIdentifier": "string",
          "SubnetStatus": "string"
        }]
    },
    "VpcId": "string",
    "SecondaryAvailabilityZone": "string",
    "VpcSecurityGroups": ["string"],
    "MultiAZ": boolean
  }
}
```

Response Elements

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

The following data is returned in JSON format by the service.
**ReplicationInstance** *(p. 25)*

The replication instance that was created.

Type: **ReplicationInstance** *(p. 217) object*

### Errors

For information about the errors that are common to all actions, see **Common Errors** *(p. 248).*

**AccessDeniedFault**

AWS DMS was denied access to the endpoint. Check that the role is correctly configured.

HTTP Status Code: 400

**InsufficientResourceCapacityFault**

There are not enough resources allocated to the database migration.

HTTP Status Code: 400

**InvalidResourceStateFault**

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

**InvalidSubnet**

The subnet provided is invalid.

HTTP Status Code: 400

**KMSKeyNotAccessibleFault**

AWS DMS cannot access the AWS KMS key.

HTTP Status Code: 400

**ReplicationSubnetGroupDoesNotCoverEnoughAZs**

The replication subnet group does not cover enough Availability Zones (AZs). Edit the replication subnet group and add more AZs.

HTTP Status Code: 400

**ResourceAlreadyExistsFault**

The resource you are attempting to create already exists.

HTTP Status Code: 400

**ResourceNotFoundFault**

The resource could not be found.

HTTP Status Code: 400

**ResourceQuotaExceededFault**

The quota for this resource quota has been exceeded.

HTTP Status Code: 400

**StorageQuotaExceededFault**

The storage quota has been exceeded.
Example

Sample Request

POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
    SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.CreateReplicationInstance
{
    "ReplicationInstanceIdentifier":"test-rep-1",
    "AllocatedStorage":5,
    "ReplicationInstanceClass":"dms.t2.micro",
    "AvailabilityZone":"
    "ReplicationSubnetGroupIdentifier":"default",
    "PreferredMaintenanceWindow":"
    "EngineVersion":"1.5.0",
    "AutoMinorVersionUpgrade":true,
    "Tags":[
        {
            "Key":"
            "Value":"
        }
    ],
    "KmsKeyId":"
    "PubliclyAccessible":true
}

Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
    "ReplicationInstance":{
        "PubliclyAccessible":true,
        "ReplicationInstanceClass":"dms.t2.micro",
        "ReplicationSubnetGroup":{
            "ReplicationSubnetGroupDescription":"default",
            "Subnets":[
                {
                    "SubnetStatus":"Active",
                    "SubnetIdentifier":"subnet-f6dd91af",
                    "SubnetAvailabilityZone":{
"Name":"us-east-1d"
}
},
{
  "SubnetStatus":"Active",
  "SubnetIdentifier":"subnet-3605751d",
  "SubnetAvailabilityZone":{
    "Name":"us-east-1b"
  }
},
{
  "SubnetStatus":"Active",
  "SubnetIdentifier":"subnet-c2daefb5",
  "SubnetAvailabilityZone":{
    "Name":"us-east-1c"
  }
},
{
  "SubnetStatus":"Active",
  "SubnetIdentifier":"subnet-85e90cb8",
  "SubnetAvailabilityZone":{
    "Name":"us-east-1e"
  }
}]
},
"VpcId":"vpc-6741a603",
"SubnetGroupStatus":"Complete",
"ReplicationSubnetGroupIdentifier":"default"
},
"AutoMinorVersionUpgrade":true,
"ReplicationInstanceStatus":"creating",
"KmsKeyId":"arn:aws:kms:us-east-1:123456789012:key/4dc17316-5543-4ded-b1e3-d53a7cfb411d",
"AllocatedStorage":5,
"EngineVersion":"1.5.0",
"ReplicationInstanceIdentifier":"test-rep-1",
"PreferredMaintenanceWindow":"sun:06:00-sun:14:00",
"PendingModifiedValues":{}
}
}
}

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

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CreateReplicationSubnetGroup

Creates a replication subnet group given a list of the subnet IDs in a VPC.

**Request Syntax**

```json
{
    "ReplicationSubnetGroupDescription": "string",
    "ReplicationSubnetGroupIdentifier": "string",
    "SubnetIds": [ "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.

**ReplicationSubnetGroupDescription (p. 29)**

The description for the subnet group.

Type: String

Required: Yes

**ReplicationSubnetGroupIdentifier (p. 29)**

The name for the replication subnet group. This value is stored as a lowercase string.

Constraints: Must contain no more than 255 alphanumeric characters, periods, spaces, underscores, or hyphens. Must not be "default".

Example: mySubnetgroup

Type: String

Required: Yes

**SubnetIds (p. 29)**

One or more subnet IDs to be assigned to the subnet group.

Type: Array of strings

Required: Yes

**Tags (p. 29)**

One or more tags to be assigned to the subnet group.

Type: Array of [Tag (p. 244)] objects

Required: No
Response Syntax

```json
{
   "ReplicationSubnetGroup": {
      "ReplicationSubnetGroupDescription": "string",
      "ReplicationSubnetGroupIdentifier": "string",
      "SubnetGroupStatus": "string",
      "Subnets": [
         {
            "SubnetAvailabilityZone": {
               "Name": "string"
            },
            "SubnetIdentifier": "string",
            "SubnetStatus": "string"
         }
      ],
      "VpcId": "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.

**ReplicationSubnetGroup (p. 30)**

The replication subnet group that was created.

Type: ReplicationSubnetGroup (p. 223) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

**AccessDeniedFault**

AWS DMS was denied access to the endpoint. Check that the role is correctly configured.

HTTP Status Code: 400

**InvalidSubnet**

The subnet provided is invalid.

HTTP Status Code: 400

**ReplicationSubnetGroupDoesNotCoverEnoughAZs**

The replication subnet group does not cover enough Availability Zones (AZs). Edit the replication subnet group and add more AZs.

HTTP Status Code: 400

**ResourceAlreadyExistsFault**

The resource you are attempting to create already exists.

HTTP Status Code: 400
ResourceNotFoundFault

The resource could not be found.
HTTP Status Code: 400

ResourceQuotaExceededFault

The quota for this resource quota has been exceeded.
HTTP Status Code: 400

Example

Sample Request

POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>, SignedHeaders=contenttype;date:host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.CreateReplicationSubnetGroup
{
    "ReplicationSubnetGroupIdentifier":"test-subnet-group",
    "ReplicationSubnetGroupDescription":"dms testing",
    "SubnetIds":[
        "subnet-f6dd91af",
        "subnet-3605751d",
        "subnet-c2daefb5"
    ],
    "Tags":[
        {
            "Key":"
            "Value":"
        }
    ]
}

Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
    "ReplicationSubnetGroup":{
        "ReplicationSubnetGroupDescription":"dms testing",
        "Subnets":[
            {
                "SubnetStatus":"Active",
            }
        ]
    }
}
"SubnetIdentifier":"subnet-f6dd91af",
"SubnetAvailabilityZone":{
    "Name":"us-east-1d"
},
{
    "SubnetStatus":"Active",
    "SubnetIdentifier":"subnet-3605751d",
    "SubnetAvailabilityZone":{
        "Name":"us-east-1b"
    }
},
{
    "SubnetStatus":"Active",
    "SubnetIdentifier":"subnet-c2daefb5",
    "SubnetAvailabilityZone":{
        "Name":"us-east-1c"
    }
},
"VpcId":"vpc-6741a603",
"SubnetGroupStatus":"Complete",
"ReplicationSubnetGroupIdentifier":"test-subnet-group"}
CreateReplicationTask

Creates a replication task using the specified parameters.

Request Syntax

```
{
    "CdcStartPosition": "string",
    "CdcStartTime": number,
    "CdcStopPosition": "string",
    "MigrationType": "string",
    "ReplicationInstanceArn": "string",
    "ReplicationTaskIdentifier": "string",
    "ReplicationTaskSettings": "string",
    "SourceEndpointArn": "string",
    "TableMappings": "string",
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ],
    "TargetEndpointArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

CdcStartPosition (p. 33)

Indicates when you want a change data capture (CDC) operation to start. Use either CdcStartPosition or CdcStartTime to specify when you want a CDC operation to start. Specifying both values results in an error.

The value can be in date, checkpoint, or LSN/SCN format.

Date Example: --cdc-start-position "2018-03-08T12:12:12"

Checkpoint Example: --cdc-start-position "checkpoint:V1#27#mysql-bin-changelog.157832:1975:-1:2002:677883278264080:mysql-bin-changelog.157832:1876#0#0#0#0#93"

LSN Example: --cdc-start-position "mysql-bin-changelog.000024:373"

Note

When you use this task setting with a source PostgreSQL database, a logical replication slot should already be created and associated with the source endpoint. You can verify this by setting the slotName extra connection attribute to the name of this logical replication slot. For more information, see Extra Connection Attributes When Using PostgreSQL as a Source for AWS DMS.

Type: String

Required: No
CdcStartTime (p. 33)

Indicates the start time for a change data capture (CDC) operation. Use either CdcStartTime or CdcStopPosition to specify when you want a CDC operation to start. Specifying both values results in an error.

Timestamp Example: --cdc-start-time "2018-03-08T12:12:12"

Type: Timestamp

Required: No

CdcStopPosition (p. 33)

Indicates when you want a change data capture (CDC) operation to stop. The value can be either server time or commit time.

Server time example: --cdc-stop-position "server_time:3018-02-09T12:12:12"

Commit time example: --cdc-stop-position "commit_time: 3018-02-09T12:12:12 "

Type: String

Required: No

MigrationType (p. 33)

The migration type. Valid values: full-load | cdc | full-load-and-cdc

Type: String

Valid Values: full-load | cdc | full-load-and-cdc

Required: Yes

ReplicationInstanceArn (p. 33)

The Amazon Resource Name (ARN) of a replication instance.

Type: String

Required: Yes

ReplicationTaskIdentifier (p. 33)

An identifier for the replication task.

Constraints:
- Must contain from 1 to 255 alphanumeric characters or hyphens.
- First character must be a letter.
- Cannot end with a hyphen or contain two consecutive hyphens.

Type: String

Required: Yes

ReplicationTaskSettings (p. 33)

Overall settings for the task, in JSON format. For more information, see Task Settings in the AWS Database Migration User Guide.
Type: String

Required: No

**SourceEndpointArn (p. 33)**

An Amazon Resource Name (ARN) that uniquely identifies the source endpoint.

Type: String

Required: Yes

**TableMappings (p. 33)**

The table mappings for the task, in JSON format. For more information, see Table Mapping in the AWS Database Migration User Guide.

Type: String

Required: Yes

**Tags (p. 33)**

One or more tags to be assigned to the replication task.

Type: Array of Tag (p. 244) objects

Required: No

**TargetEndpointArn (p. 33)**

An Amazon Resource Name (ARN) that uniquely identifies the target endpoint.

Type: String

Required: Yes

---

**Response Syntax**

```json
{
    "ReplicationTask": {
        "CdcStartPosition": "string",
        "CdcStopPosition": "string",
        "LastFailureMessage": "string",
        "MigrationType": "string",
        "RecoveryCheckpoint": "string",
        "ReplicationInstanceArn": "string",
        "ReplicationTaskArn": "string",
        "ReplicationTaskCreationDate": number,
        "ReplicationTaskIdentifier": "string",
        "ReplicationTaskSettings": "string",
        "ReplicationTaskStartDate": number,
        "ReplicationTaskStats": {
            "ElapsedTimeMillis": number,
            "FreshStartDate": number,
            "FullLoadFinishDate": number,
            "FullLoadProgressPercent": number,
            "FullLoadStartDate": number,
            "StartDate": number,
            "StopDate": number,
            "TablesErrored": number,
            "TablesLoaded": number
        }
    }
}
```

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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.

ReplicationTask (p. 35)

The replication task that was created.

Type: ReplicationTask (p. 224) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

AccessDeniedFault

AWS DMS was denied access to the endpoint. Check that the role is correctly configured.

HTTP Status Code: 400

InvalidResourceStateFault

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

KMSKeyNotAccessibleFault

AWS DMS cannot access the AWS KMS key.

HTTP Status Code: 400

ResourceAlreadyExistsFault

The resource you are attempting to create already exists.

HTTP Status Code: 400

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

ResourceQuotaExceededFault

The quota for this resource quota has been exceeded.
HTTP Status Code: 400

Example

Sample Request

POST / HTTP/1.1
Host: dms.<region>.<domain>
Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
SignedHeaders=content-type;date:host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.CreateReplicationTask
{
  "ReplicationTaskIdentifier":"task1",
  "SourceEndpointArn":"arn:aws:dms:us-east-1:123456789012:.endpoint:RZZK4EZW5UANC7Y3P4E776WHBE",
  "MigrationType":"full-load",
  "TableMappings":"file:///home/apurvap/table-mappings.json",
  "ReplicationTaskSettings":"",
  "CdcStartTime":null,
  "Tags":[
    {
      "Key":"
      "Value":"
    }
  ]
}

Sample Response

HTTP/1.1 200 OK
Date: <Date>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
X-Amzn-RequestId: <RequestId>
{
  "ReplicationTask":{
  "SourceEndpointArn":"arn:aws:dms:us-east-1:123456789012:endpoint:RZZK4EZW5UANC7Y3P4E776WHBE",
  "TargetEndpointArn":null,
  "ReplicationInstanceArn":null,
  "TableMappings":null,
  "Status":"creating",
  "ReplicationTaskArn":"arn:aws:dms:us-east-1:123456789012:task:OEAMB3NXSTZ6LFYFAEBPBBXYPY",}
"ReplicationTaskCreationDate":1457658407.492,
"MigrationType":"full-load",
"ReplicationTaskSettings":"{"TargetMetadata":{
"FullLoadEnabled":true,
"TargetTablePrepMode":"DROP_AND_CREATE",
"CreatePKAfterFullLoad":false,
"StopTaskCachedChangesApplied":false,
"StopTaskCachedChangesNotApplied":false,
"ResumeEnabled":false,
"ResumeMinTableSize":100000,
"ResumeOnlyClusteredPKTables":true,
"MaxFullLoadSubTasks":8,
"TransactionConsistencyTimeout":600,
"CommitRate":10000
},
"Logging":{
"EnableLogging":false
}
}
"See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteCertificate

Deletes the specified certificate.

Request Syntax

```
{
   "CertificateArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

CertificateArn (p. 39)

The Amazon Resource Name (ARN) of the deleted certificate.

Type: String

Required: Yes

Response Syntax

```
{
   "Certificate": {
      "CertificateArn": "string",
      "CertificateCreationDate": number,
      "CertificateIdentifier": "string",
      "CertificateOwner": "string",
      "CertificatePem": "string",
      "CertificateWallet": blob,
      "KeyLength": number,
      "SigningAlgorithm": "string",
      "ValidFromDate": number,
      "ValidToDate": number
   }
}
```

Response Elements

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

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

Certificate (p. 39)

The Secure Sockets Layer (SSL) certificate.

Type: Certificate (p. 185) object
Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

**InvalidResourceStateFault**

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

**ResourceNotFoundFault**

The resource could not be found.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteConnection

Deletes the connection between a replication instance and an endpoint.

Request Syntax

```json
{
    "EndpointArn": "string",
    "ReplicationInstanceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**EndpointArn (p. 41)**

The Amazon Resource Name (ARN) string that uniquely identifies the endpoint.

Type: String

Required: Yes

**ReplicationInstanceArn (p. 41)**

The Amazon Resource Name (ARN) of the replication instance.

Type: String

Required: Yes

Response Syntax

```json
{
    "Connection": {
        "EndpointArn": "string",
        "EndpointIdentifier": "string",
        "LastFailureMessage": "string",
        "ReplicationInstanceArn": "string",
        "ReplicationInstanceIdentifier": "string",
        "Status": "string"
    }
}
```

Response Elements

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

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

**Connection (p. 41)**

The connection that is being deleted.
Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

AccessDeniedFault

AWS DMS was denied access to the endpoint. Check that the role is correctly configured.

HTTP Status Code: 400

InvalidResourceStateFault

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

```plaintext
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DeleteConnection
{
    "EndpointArn": "arn:aws:dms:us-east-1:123456789012:endpoint:WKBDZKUDQZIHPOUSEH34EMU"
}
```

Sample Response

```plaintext
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestID>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
```
See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteEndpoint

Deletes the specified endpoint.

Note
All tasks associated with the endpoint must be deleted before you can delete the endpoint.

Request Syntax

```
{  
  "EndpointArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**EndpointArn (p. 44)**

The Amazon Resource Name (ARN) string that uniquely identifies the endpoint.

  Type: String
  Required: Yes

Response Syntax

```
{  
  "Endpoint": {  
    "CertificateArn": "string",
    "DatabaseName": "string",
    "DmsTransferSettings": {  
      "BucketName": "string",
      "ServiceAccessRoleArn": "string"
    },
    "DynamoDbSettings": {  
      "ServiceAccessRoleArn": "string"
    },
    "ElasticsearchSettings": {  
      "EndpointUri": "string",
      "ErrorRetryDuration": number,
      "FullLoadErrorPercentage": number,
      "ServiceAccessRoleArn": "string"
    },
    "EndpointArn": "string",
    "EndpointIdentifier": "string",
    "EndpointType": "string",
    "EngineDisplayName": "string",
    "EngineName": "string",
    "ExternalId": "string",
    "ExternalTableDefinition": "string",
    "ExtraConnectionAttributes": "string",
    "KafkaSettings": {  
```

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44
### Response Syntax

<table>
<thead>
<tr>
<th>Field</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broker</td>
<td><code>string</code></td>
</tr>
<tr>
<td>Topic</td>
<td><code>string</code></td>
</tr>
<tr>
<td>KinesisSettings</td>
<td></td>
</tr>
<tr>
<td>IncludeControlDetails</td>
<td><code>boolean</code></td>
</tr>
<tr>
<td>IncludePartitionValue</td>
<td><code>boolean</code></td>
</tr>
<tr>
<td>IncludeTableAlterOperations</td>
<td><code>boolean</code></td>
</tr>
<tr>
<td>IncludeTransactionDetails</td>
<td><code>boolean</code></td>
</tr>
<tr>
<td>MessageFormat</td>
<td><code>string</code></td>
</tr>
<tr>
<td>PartitionIncludeSchemaTable</td>
<td><code>boolean</code></td>
</tr>
<tr>
<td>ServiceAccessRoleArn</td>
<td><code>string</code></td>
</tr>
<tr>
<td>StreamArn</td>
<td><code>string</code></td>
</tr>
<tr>
<td>KmsKeyId</td>
<td><code>string</code></td>
</tr>
<tr>
<td>MongoDbSettings</td>
<td></td>
</tr>
<tr>
<td>AuthMechanism</td>
<td><code>string</code></td>
</tr>
<tr>
<td>AuthSource</td>
<td><code>string</code></td>
</tr>
<tr>
<td>AuthType</td>
<td><code>string</code></td>
</tr>
<tr>
<td>DatabaseName</td>
<td><code>string</code></td>
</tr>
<tr>
<td>DocsToInvestigate</td>
<td><code>string</code></td>
</tr>
<tr>
<td>ExtractDocId</td>
<td><code>string</code></td>
</tr>
<tr>
<td>KmsKeyId</td>
<td><code>string</code></td>
</tr>
<tr>
<td>NestingLevel</td>
<td><code>string</code></td>
</tr>
<tr>
<td>PasswordLevel</td>
<td><code>string</code></td>
</tr>
<tr>
<td>Port</td>
<td><code>number</code></td>
</tr>
<tr>
<td>ServerName</td>
<td><code>string</code></td>
</tr>
<tr>
<td>Username</td>
<td><code>string</code></td>
</tr>
<tr>
<td>Port</td>
<td><code>number</code></td>
</tr>
<tr>
<td>RedshiftSettings</td>
<td></td>
</tr>
<tr>
<td>AcceptAnyDate</td>
<td><code>boolean</code></td>
</tr>
<tr>
<td>AfterConnectScript</td>
<td><code>string</code></td>
</tr>
<tr>
<td>BucketFolder</td>
<td><code>string</code></td>
</tr>
<tr>
<td>BucketName</td>
<td><code>string</code></td>
</tr>
<tr>
<td>ConnectionTimeout</td>
<td><code>number</code></td>
</tr>
<tr>
<td>DatabaseName</td>
<td><code>string</code></td>
</tr>
<tr>
<td>DateFormat</td>
<td><code>string</code></td>
</tr>
<tr>
<td>EmptyAsNull</td>
<td><code>boolean</code></td>
</tr>
<tr>
<td>EncryptionMode</td>
<td><code>string</code></td>
</tr>
<tr>
<td>FileTransferUploadStreams</td>
<td><code>number</code></td>
</tr>
<tr>
<td>LoadTimeout</td>
<td><code>number</code></td>
</tr>
<tr>
<td>MaxFileSize</td>
<td><code>number</code></td>
</tr>
<tr>
<td>Password</td>
<td><code>string</code></td>
</tr>
<tr>
<td>Port</td>
<td><code>number</code></td>
</tr>
<tr>
<td>RemoveQuotes</td>
<td><code>boolean</code></td>
</tr>
<tr>
<td>ReplaceChars</td>
<td><code>string</code></td>
</tr>
<tr>
<td>ReplaceInvalidChars</td>
<td><code>string</code></td>
</tr>
<tr>
<td>ServerName</td>
<td><code>string</code></td>
</tr>
<tr>
<td>ServerSideEncryptionKeyId</td>
<td><code>string</code></td>
</tr>
<tr>
<td>ServiceAccessRoleArn</td>
<td><code>string</code></td>
</tr>
<tr>
<td>TimeFormat</td>
<td><code>string</code></td>
</tr>
<tr>
<td>TrimBlanks</td>
<td><code>boolean</code></td>
</tr>
<tr>
<td>TruncateColumns</td>
<td><code>boolean</code></td>
</tr>
<tr>
<td>Username</td>
<td><code>string</code></td>
</tr>
<tr>
<td>WriteBufferSize</td>
<td><code>number</code></td>
</tr>
<tr>
<td>S3Settings</td>
<td></td>
</tr>
<tr>
<td>BucketFolder</td>
<td><code>string</code></td>
</tr>
<tr>
<td>BucketName</td>
<td><code>string</code></td>
</tr>
<tr>
<td>CdcInsertsAndUpdates</td>
<td><code>boolean</code></td>
</tr>
<tr>
<td>CdcInsertsOnly</td>
<td><code>boolean</code></td>
</tr>
<tr>
<td>CompressionType</td>
<td><code>string</code></td>
</tr>
<tr>
<td>CsvDelimiter</td>
<td><code>string</code></td>
</tr>
<tr>
<td>CsvRowDelimiter</td>
<td><code>string</code></td>
</tr>
<tr>
<td>DataFormat</td>
<td><code>string</code></td>
</tr>
<tr>
<td>DataPageSize</td>
<td><code>number</code></td>
</tr>
</tbody>
</table>
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.

**Endpoint (p. 44)**

The endpoint that was deleted.

Type: Endpoint (p. 192) object

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 248).

**InvalidResourceStateFault**

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

**ResourceNotFoundFault**

The resource could not be found.

HTTP Status Code: 400

**Example**

**Sample Request**

```
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-date: <Date>
```
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DeleteEndpoint
{
  "EndpointArn": "arn:aws:dms:us-east-1:123456789012:endpoint:RAAR3R22XSH46S3PWLC3NJAWKM"
}

Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "Endpoint":{
    "Username":"username",
    "Status":"deleting",
    "ServerName":"apurvap-source.cxln7iyxxllo.us-west-2.rds.amazonaws.com",
    "EndpointType":"TARGET",
    "KmsKeyId":"arn:aws:kms:us-east-1:123456789012:key/4dc17316-5543-4ded-b1e3-d53a7c9f411d",
    "ExtraConnectionAttributes":"parallelLoadThreads=1",
    "EngineName":"mysql",
    "EndpointIdentifier":"test-endpoint-1",
    "Port":3306
  }
}

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteEventSubscription

Deletes an AWS DMS event subscription.

Request Syntax

```
{
    "SubscriptionName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

SubscriptionName (p. 48)

The name of the DMS event notification subscription to be deleted.

Type: String

Required: Yes

Response Syntax

```
{
    "EventSubscription": {
        "CustomerAwsId": "string",
        "CustSubscriptionId": "string",
        "Enabled": boolean,
        "EventCategoriesList": [ "string" ],
        "SnsTopicArn": "string",
        "SourceIdsList": [ "string" ],
        "SourceType": "string",
        "Status": "string",
        "SubscriptionCreationTime": "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.

EventSubscription (p. 48)

The event subscription that was deleted.

Type: EventSubscription (p. 199) object
Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

InvalidResourceStateFault

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteReplicationInstance

Deletes the specified replication instance.

**Note**
You must delete any migration tasks that are associated with the replication instance before you can delete it.

**Request Syntax**

```
{
   "ReplicationInstanceArn": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**ReplicationInstanceArn (p. 50)**

The Amazon Resource Name (ARN) of the replication instance to be deleted.

Type: String

Required: Yes

**Response Syntax**

```
{
   "ReplicationInstance": {
      "AllocatedStorage": number,
      "AutoMinorVersionUpgrade": boolean,
      "AvailabilityZone": "string",
      "DnsNameServers": "string",
      "EngineVersion": "string",
      "FreeUntil": number,
      "InstanceCreateTime": number,
      "KmsKeyId": "string",
      "MultiAZ": boolean,
      "PendingModifiedValues": {
         "AllocatedStorage": number,
         "EngineVersion": "string",
         "MultiAZ": boolean,
         "ReplicationInstanceClass": "string"
      },
      "PreferredMaintenanceWindow": "string",
      "PubliclyAccessible": boolean,
      "ReplicationInstanceArn": "string",
      "ReplicationInstanceClass": "string",
      "ReplicationInstanceIdentifier": "string",
      "ReplicationInstancePrivateIpAddress": "string",
      "ReplicationInstancePrivateIpAddresses": [ "string" ],
      "ReplicationInstancePublicIpAddress": "string",
      "ReplicationInstancePublicIpAddresses": [ "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.

ReplicationInstance (p. 50)

The replication instance that was deleted.

Type: ReplicationInstance (p. 217) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

InvalidResourceStateFault

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DeleteReplicationInstance
{
  "ReplicationInstanceArn": "arn:aws:dms:us-east-1:123456789012:rep:PWEBBEUNOLU7VEB2OHTEH4I4GQ"
}

Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "ReplicationInstance":{
    "AvailabilityZone":"us-east-1c",
    "ReplicationInstancePrivateIpAddress":"172.31.15.23",
    "ReplicationInstanceClass":"dms.t2.small",
    "ReplicationSubnetGroup":{
      "ReplicationSubnetGroupDescription":"default",
      "Subnets":[
        {
          "SubnetStatus":"Active",
          "SubnetIdentifier":"subnet-f6dd91af",
          "SubnetAvailabilityZone":{
            "Name":"us-east-1d"
          }
        },
        {
          "SubnetStatus":"Active",
          "SubnetIdentifier":"subnet-3605751d",
          "SubnetAvailabilityZone":{
            "Name":"us-east-1b"
          }
        },
        {
          "SubnetStatus":"Active",
          "SubnetIdentifier":"subnet-c2daefb5",
          "SubnetAvailabilityZone":{
            "Name":"us-east-1c"
          }
        },
        {
          "SubnetStatus":"Active",
          "SubnetIdentifier":"subnet-85e90cb8",
          "SubnetAvailabilityZone":{
            "Name":"us-east-1e"
          }
        }
      ]
    }
  }
}
"VpcId":"vpc-6741a603",
"SubnetGroupStatus":"Complete",
"ReplicationSubnetGroupIdentifier":"default"
},
"AutoMinorVersionUpgrade":true,
"ReplicationInstanceStatus":"deleting",
"KmsKeyId":"arn:aws:kms:us-east-1:123456789012:key/4dc17316-5543-4ded-b1e3-d53a7cfb411d",
"InstanceCreateTime":1457645140.38,
"ReplicationInstancePublicIpAddress":"52.87.94.254",
"AllocatedStorage":5,
"EngineVersion":"1.5.0",
"ReplicationInstanceIdentifier":"test-rep-1",
"PubliclyAccessible":true,
"PreferredMaintenanceWindow":"sun:06:00-sun:14:00",
"PendingModifiedValues":{  
  
}
}
}

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteReplicationSubnetGroup

Deletes a subnet group.

Request Syntax

```json
{
   "ReplicationSubnetGroupIdentifier": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

ReplicationSubnetGroupIdentifier (p. 54)

The subnet group name of the replication instance.

Type: String

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 (p. 248).

InvalidResourceStateFault

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

```text
POST / HTTP/1.1
Host: dms.<region>.<domain>
```

API Version 2016-01-01
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
   SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
   requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DeleteReplicationSubnetGroup
{
   "ReplicationSubnetGroupIdentifier": "test-subnet-group"
}

Sample Response

Empty

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteReplicationTask

Deletes the specified replication task.

Request Syntax

```
{
  "ReplicationTaskArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

ReplicationTaskArn (p. 56)

The Amazon Resource Name (ARN) of the replication task to be deleted.

Type: String

Required: Yes

Response Syntax

```
{
  "ReplicationTask": {
    "CdcStartPosition": "string",
    "CdcStopPosition": "string",
    "LastFailureMessage": "string",
    "MigrationType": "string",
    "RecoveryCheckpoint": "string",
    "ReplicationInstanceArn": "string",
    "ReplicationTaskArn": "string",
    "ReplicationTaskCreationDate": number,
    "ReplicationTaskIdentifier": "string",
    "ReplicationTaskSettings": "string",
    "ReplicationTaskStartDate": number,
    "ReplicationTaskStats": {
      "ElapsedTimeMillis": number,
      "FreshStartDate": number,
      "FullLoadFinishDate": number,
      "FullLoadProgressPercent": number,
      "FullLoadStartDate": number,
      "StartDate": number,
      "StopDate": number,
      "TablesErrored": number,
      "TablesLoaded": number,
      "TablesLoading": number,
      "TablesQueued": number
    },
    "SourceEndpointArn": "string",
    "Status": "string",
    "StopReason": "string",
    "TableMappings": "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.

**ReplicationTask (p. 56)**

The deleted replication task.

Type: ReplicationTask (p. 224) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

**InvalidResourceStateFault**

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

**ResourceNotFoundFault**

The resource could not be found.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeAccountAttributes

Lists all of the AWS DMS attributes for a customer account. These attributes include AWS DMS quotas for the account and a unique account identifier in a particular DMS region. DMS quotas include a list of resource quotas supported by the account, such as the number of replication instances allowed. The description for each resource quota, includes the quota name, current usage toward that quota, and the quota’s maximum value. DMS uses the unique account identifier to name each artifact used by DMS in the given region.

This command does not take any parameters.

Response Syntax

```
{
  "AccountQuotas": [
    {
      "AccountQuotaName": "string",
      "Max": number,
      "Used": number
    }
  ],
  "UniqueAccountIdentifier": "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.

**AccountQuotas (p. 58)**

Account quota information.

Type: Array of AccountQuota (p. 183) objects

**UniqueAccountIdentifier (p. 58)**

A unique AWS DMS identifier for an account in a particular AWS Region. The value of this identifier has the following format: c99999999999. DMS uses this identifier to name artifacts. For example, DMS uses this identifier to name the default Amazon S3 bucket for storing task assessment reports in a given AWS Region. The format of this S3 bucket name is the following: dms-`AccountNumber-UniqueAccountIdentifier`. Here is an example name for this default S3 bucket: dms-111122223333-c44445555666.

*Note*

AWS DMS supports the UniqueAccountIdentifier parameter in versions 3.1.4 and later.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).
Example

Sample Request

POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
    SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DescribeAccountAttributes

Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
    "AccountQuotas": [ 
        { 
            "Max":20,
            "AccountQuotaName":"ReplicationInstances",
            "Used":12
        },
        { 
            "Max":10000,
            "AccountQuotaName":"AllocatedStorage",
            "Used":6339
        },
        { 
            "Max":20,
            "AccountQuotaName":"ReplicationSubnetGroups",
            "Used":5
        },
        { 
            "Max":20,
            "AccountQuotaName":"SubnetsPerReplicationSubnetGroup",
            "Used":4
        },
        { 
            "Max":100,
            "AccountQuotaName":"Endpoints",
            "Used":10
        },
        { 
            "Max":200,
            "AccountQuotaName":"ReplicationTasks",
            "Used":2
        }
    ]
}
See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeCertificates

Provides a description of the certificate.

Request Syntax

```json
{
  "Filters": [
    {
      "Name": "string",
      "Values": [ "string" ]
    }
  ],
  "Marker": "string",
  "MaxRecords": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**Filters (p. 61)**

Filters applied to the certificate described in the form of key-value pairs.

Type: Array of Filter (p. 201) objects

Required: No

**Marker (p. 61)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Required: No

**MaxRecords (p. 61)**

The maximum number of records to include in the response. If more records exist than the specified MaxRecords value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

Default: 10

Type: Integer

Required: No

Response Syntax

```json
{
  "Certificates": [  

```
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.

Certificates (p. 61)

The Secure Sockets Layer (SSL) certificates associated with the replication instance.

Type: Array of Certificate (p. 185) objects

Marker (p. 61)

The pagination token.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
See Also

- AWS SDK for Ruby V3
DescribeConnections

Describes the status of the connections that have been made between the replication instance and an endpoint. Connections are created when you test an endpoint.

Request Syntax

```json
{
    "Filters": [
        {
            "Name": "string",
            "Values": [ "string" ]
        }
    ],
    "Marker": "string",
    "MaxRecords": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**Filters (p. 64)**

The filters applied to the connection.

Valid filter names: endpoint-arn | replication-instance-arn

Type: Array of Filter (p. 201) objects

Required: No

**Marker (p. 64)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Required: No

**MaxRecords (p. 64)**

The maximum number of records to include in the response. If more records exist than the specified MaxRecords value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

Default: 100

Constraints: Minimum 20, maximum 100.

Type: Integer

Required: No
Response Syntax

```json
{
   "Connections": [
      {
         "EndpointArn": "string",
         "EndpointIdentifier": "string",
         "LastFailureMessage": "string",
         "ReplicationInstanceArn": "string",
         "ReplicationInstanceIdentifier": "string",
         "Status": "string"
      }
   ],
   "Marker": "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.

**Connections (p. 65)**

A description of the connections.

Type: Array of [Connection (p. 187)] objects

**Marker (p. 65)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors (p. 248)].

**ResourceNotFoundFault**

The resource could not be found.

HTTP Status Code: 400

Example

**Sample Request**

```plaintext
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
```
signedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DescribeConnections
{
  "Filters": [
    {
      "Name": "endpoint-arn",
      "Values": [
        "arn:aws:dms:us-east-1:123456789012:endpoint:RZZK4EZWSUANC73P4E776WHBE"
      ]
    },
    "MaxRecords": 0,
    "Marker": ""
  ]
}

Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "Connections": [
    {
      "Status": "successful",
      "ReplicationInstanceIdentifier": "akshay1",
      "EndpointIdentifier": "akssrc1",
      "ReplicationInstanceArn": "arn:aws:dms:us-east-1:123456789012:rep:6USOU366XFJWATDJ6BCJS3VIQ"
    }
  ]
}

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
• AWS SDK for Ruby V3
DescribeEndpoints

Returns information about the endpoints for your account in the current region.

Request Syntax

```
{
  "Filters": [
    {
      "Name": "string",
      "Values": [ "string" ]
    },
    "Marker": "string",
    "MaxRecords": number
  }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

Filters (p. 68)

Filters applied to the describe action.

Valid filter names: endpoint-arn | endpoint-type | endpoint-id | engine-name

Type: Array of Filter (p. 201) objects

Required: No

Marker (p. 68)

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Required: No

MaxRecords (p. 68)

The maximum number of records to include in the response. If more records exist than the specified MaxRecords value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

Default: 100

Constraints: Minimum 20, maximum 100.

Type: Integer

Required: No

Response Syntax

```
{
}
```
"Endpoints": [ 
  { 
    "CertificateArn": "string",
    "DatabaseName": "string",
    "DmsTransferSettings": { 
      "BucketName": "string",
      "ServiceAccessRoleArn": "string"
    },
    "DynamodbSettings": { 
      "ServiceAccessRoleArn": "string"
    },
    "ElasticsearchSettings": { 
      "EndpointUri": "string",
      "ErrorRetryDuration": number,
      "FullLoadErrorPercentage": number,
      "ServiceAccessRoleArn": "string"
    },
    "EndpointArn": "string",
    "EndpointIdentifier": "string",
    "EndpointType": "string",
    "EngineDisplayName": "string",
    "EngineName": "string",
    "ExternalId": "string",
    "ExternalTableDefinition": "string",
    "ExtraConnectionAttributes": "string",
    "KafkaSettings": { 
      "Broker": "string",
      "Topic": "string"
    },
    "KinesisSettings": { 
      "IncludeControlDetails": boolean,
      "IncludePartitionValue": boolean,
      "IncludeTableAlterOperations": boolean,
      "IncludeTransactionDetails": boolean,
      "MessageFormat": "string",
      "PartitionIncludeSchemaTable": boolean,
      "ServiceAccessRoleArn": "string",
      "StreamArn": "string"
    },
    "KmsKeyId": "string",
    "MongoDbSettings": { 
      "AuthMechanism": "string",
      "AuthSource": "string",
      "AuthType": "string",
      "DatabaseName": "string",
      "DocsToInvestigate": "string",
      "ExtractDocId": "string",
      "KmsKeyId": "string",
      "NestingLevel": "string",
      "Password": "string",
      "Port": number,
      "ServerName": "string",
      "Username": "string"
    },
    "Port": number,
    "RedshiftSettings": { 
      "AcceptAnyDate": boolean,
      "AfterConnectScript": "string",
      "BucketFolder": "string",
      "BucketName": "string",
      "ConnectionTimeout": number,
      "DatabaseName": "string",
      "DateFormat": "string",
      "EmptyAsNull": boolean,
      "EncryptionMode": "string",
      "FileTransferUploadStreams": number,
      "FileTransferUploadStreams": number
    } 
  } ]
"LoadTimeout": number,
"MaxFileSize": number,
"Password": "string",
"Port": number,
"RemoveQuotes": boolean,
"ReplaceChars": "string",
"ReplaceInvalidChars": "string",
"ServerName": "string",
"ServerSideEncryptionKmsKeyId": "string",
"TimeFormat": "string",
"TrimBlanks": boolean,
"Username": "string",
"WriteBufferSize": number
},
"S3Settings": {
  "BucketFolder": "string",
  "BucketName": "string",
  "CdcInsertsAndUpdates": boolean,
  "CdcInsertsOnly": boolean,
  "CompressionType": "string",
  "CsvDelimiter": "string",
  "CsvRowDelimiter": "string",
  "DataFormat": "string",
  "DataPageSize": number,
  "DictPageSizeLimit": number,
  "EnableStatistics": boolean,
  "EncodingType": "string",
  "EncryptionMode": "string",
  "ExternalTableDefinition": "string",
  "IncludeOpForFullLoad": boolean,
  "ParquetTimestampInMillisecond": boolean,
  "ParquetVersion": "string",
  "RowGroupLength": number,
  "ServerSideEncryptionKmsKeyId": "string",
  "ServiceAccessRoleArn": "string",
  "TimestampColumnName": "string"
},
"ServerName": "string",
"ServiceAccessRoleArn": "string",
"SslMode": "string",
"Status": "string",
"Username": "string"
}
"Marker": "string"
Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

```plaintext
POST / HTTP/1.1
Host: dms.<region>.<domain>
X-Amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestId,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DescribeEndpoints
{
  "Filters":[
    {
      "Name":"endpoint-type",
      "Values": ["source"]
    }
  ],
  "MaxRecords":0,
  "Marker":"
}
```

Sample Response

```plaintext
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "Endpoints":[
    {
      "Username":"dms",
      "Status":"active",
      "EndpointArn":"arn:aws:dms:us-east-```
See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeEndpointTypes

Returns information about the type of endpoints available.

Request Syntax

```
{
  "Filters": [
    {
      "Name": "string",
      "Values": [ "string" ]
    }
  ],
  "Marker": "string",
  "MaxRecords": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**Filters (p. 73)**

Filters applied to the describe action.

Valid filter names: engine-name | endpoint-type

Type: Array of Filter (p. 201) objects

Required: No

**Marker (p. 73)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Required: No

**MaxRecords (p. 73)**

The maximum number of records to include in the response. If more records exist than the specified MaxRecords value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

Default: 100

Constraints: Minimum 20, maximum 100.

Type: Integer

Required: No

Response Syntax

```
{
}
```
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.

Marker (p. 73)

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

SupportedEndpointTypes (p. 73)

The types of endpoints that are supported.

Type: Array of SupportedEndpointType (p. 239) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

Example

Sample Request

```
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DescribeEndpointTypes
{
  "Filters": [
    {
      "Name": "endpoint-type",
      "Values": [
        "source"
      ]
    }
  ]
}
```
Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "SupportedEndpointTypes": [  
    { "EngineName": "mysql",  
      "SupportsCDC": true,  
      "EndpointType": "source"  
    },  
    { "EngineName": "oracle",  
      "SupportsCDC": true,  
      "EndpointType": "source"  
    },  
    { "EngineName": "postgres",  
      "SupportsCDC": true,  
      "EndpointType": "source"  
    },  
    { "EngineName": "aurora",  
      "SupportsCDC": true,  
      "EndpointType": "source"  
    },  
    { "EngineName": "mariadb",  
      "SupportsCDC": true,  
      "EndpointType": "source"  
    },  
    { "EngineName": "sqlserver",  
      "SupportsCDC": true,  
      "EndpointType": "source"  
    }  
  ]
}

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
See Also

- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeEventCategories

Lists categories for all event source types, or, if specified, for a specified source type. You can see a list of the event categories and source types in Working with Events and Notifications in the AWS Database Migration Service User Guide.

Request Syntax

```
{
  "Filters": [
    {
      "Name": "string",
      "Values": [ "string" ]
    }
  ],
  "SourceType": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

Filters (p. 77)

Filters applied to the action.

Type: Array of Filter (p. 201) objects

Required: No

SourceType (p. 77)

The type of AWS DMS resource that generates events.

Valid values: replication-instance | replication-task

Type: String

Required: No

Response Syntax

```
{
  "EventCategoryGroupList": [
    {
      "EventCategories": [ "string" ],
      "SourceType": "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.

**EventCategoryGroupList (p. 77)**

A list of event categories.

Type: Array of EventCategoryGroup (p. 198) objects

---

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 248).

---

**See Also**

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeEvents

Lists events for a given source identifier and source type. You can also specify a start and end time. For more information on AWS DMS events, see Working with Events and Notifications in the AWS Database Migration User Guide.

Request Syntax

```json
{
  "Duration": number,
  "EndTime": number,
  "EventCategories": [ "string" ],
  "Filters": [
    {
      "Name": "string",
      "Values": [ "string" ]
    }
  ],
  "Marker": "string",
  "MaxRecords": number,
  "SourceIdentifier": "string",
  "SourceType": "string",
  "StartTime": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

Duration (p. 79)

The duration of the events to be listed.

- Type: Integer
- Required: No

EndTime (p. 79)

The end time for the events to be listed.

- Type: Timestamp
- Required: No

EventCategories (p. 79)

A list of event categories for the source type that you've chosen.

- Type: Array of strings
- Required: No

Filters (p. 79)

Filters applied to the action.

- Type: Array of Filter (p. 201) objects
Required: No

Marker (p. 79)

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Required: No

MaxRecords (p. 79)

The maximum number of records to include in the response. If more records exist than the specified MaxRecords value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

Default: 100

Constraints: Minimum 20, maximum 100.

Type: Integer

Required: No

SourceIdentifier (p. 79)

The identifier of an event source.

Type: String

Required: No

SourceType (p. 79)

The type of AWS DMS resource that generates events.

Valid values: replication-instance | replication-task

Type: String

Valid Values: replication-instance

Required: No

StartTime (p. 79)

The start time for the events to be listed.

Type:Timestamp

Required: No

Response Syntax

```
{
  "Events": [
    {
      "Date": number,
      "EventCategories": [ "string" ],
      "Message": "string",
      "SourceIdentifier": "string",
      "SourceType": "string"
    }
  ]
}
```

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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.

**Events (p. 80)**

The events described.

Type: Array of Event (p. 196) objects

**Marker (p. 80)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 248).

**See Also**

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeEventSubscriptions

Lists all the event subscriptions for a customer account. The description of a subscription includes SubscriptionName, SNSTopicARN, CustomerID, SourceType, SourceID, CreationTime, and Status.

If you specify SubscriptionName, this action lists the description for that subscription.

Request Syntax

```json
{
   "Filters": [
      {
         "Name": "string",
         "Values": [ "string" ]
      }
   ],
   "Marker": "string",
   "MaxRecords": number,
   "SubscriptionName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**Filters (p. 82)**

Filters applied to the action.

Type: Array of Filter (p. 201) objects

Required: No

**Marker (p. 82)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Required: No

**MaxRecords (p. 82)**

The maximum number of records to include in the response. If more records exist than the specified MaxRecords value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

Default: 100

Constraints: Minimum 20, maximum 100.

Type: Integer
Required: No

**SubscriptionName (p. 82)**

The name of the AWS DMS event subscription to be described.

Type: String

Required: No

### Response Syntax

```json
{
  "EventSubscriptionsList": [
    {
      "CustomerAwsId": "string",
      "CustSubscriptionId": "string",
      "Enabled": boolean,
      "EventCategoriesList": [ "string" ],
      "SnsTopicArn": "string",
      "SourceIdsList": [ "string" ],
      "SourceType": "string",
      "Status": "string",
      "SubscriptionCreationTime": "string"
    }
  ],
  "Marker": "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.

**EventSubscriptionsList (p. 83)**

A list of event subscriptions.

- **Type**: Array of **EventSubscription (p. 199)** objects

**Marker (p. 83)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by `MaxRecords`.

- **Type**: String

### Errors

For information about the errors that are common to all actions, see **Common Errors (p. 248)**.

**ResourceNotFoundFault**

- **The resource could not be found.**

  - **HTTP Status Code**: 400
See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeOrderableReplicationInstances

Returns information about the replication instance types that can be created in the specified region.

Request Syntax

```json
{
   "Marker": "string",
   "MaxRecords": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**Marker (p. 85)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by `MaxRecords`.

Type: String

Required: No

**MaxRecords (p. 85)**

The maximum number of records to include in the response. If more records exist than the specified `MaxRecords` value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

Default: 100

Constraints: Minimum 20, maximum 100.

Type: Integer

Required: No

Response Syntax

```json
{
   "Marker": "string",
   "OrderableReplicationInstances": [
      {
         "AvailabilityZones": [ "string" ],
         "DefaultAllocatedStorage": number,
         "EngineVersion": "string",
         "IncludedAllocatedStorage": number,
         "MaxAllocatedStorage": number,
         "MinAllocatedStorage": number,
         "ReleaseStatus": "string",
         "ReplicationInstanceClass": "string",
         "StorageType": "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.

**Marker (p. 85)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by `MaxRecords`.

Type: String

**OrderableReplicationInstances (p. 85)**

The order-able replication instances available.

Type: Array of `OrderableReplicationInstance` (p. 208) objects

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 248).

**Example**

**Sample Request**

```plaintext
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DescribeOrderableReplicationInstances
{
    "MaxRecords": 0,
    "Marker": "",
}
```

**Sample Response**

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
```
Date: <Date>
{
  "OrderableReplicationInstances": [
    {
      "StorageType": "gp2",
      "ReplicationInstanceClass": "dms.c4.2xlarge",
      "EngineVersion": "1.3.0",
      "IncludedAllocatedStorage": 100,
      "DefaultAllocatedStorage": 100,
      "MinAllocatedStorage": 5,
      "MaxAllocatedStorage": 6144
    },
    {
      "StorageType": "gp2",
      "ReplicationInstanceClass": "dms.c4.4xlarge",
      "EngineVersion": "1.3.0",
      "IncludedAllocatedStorage": 100,
      "DefaultAllocatedStorage": 100,
      "MinAllocatedStorage": 5,
      "MaxAllocatedStorage": 6144
    },
    {
      "StorageType": "gp2",
      "ReplicationInstanceClass": "dms.c4.large",
      "EngineVersion": "1.3.0",
      "IncludedAllocatedStorage": 100,
      "DefaultAllocatedStorage": 100,
      "MinAllocatedStorage": 5,
      "MaxAllocatedStorage": 6144
    },
    {
      "StorageType": "gp2",
      "ReplicationInstanceClass": "dms.c4.xlarge",
      "EngineVersion": "1.3.0",
      "IncludedAllocatedStorage": 100,
      "DefaultAllocatedStorage": 100,
      "MinAllocatedStorage": 5,
      "MaxAllocatedStorage": 6144
    },
    {
      "StorageType": "gp2",
      "ReplicationInstanceClass": "dms.t2.large",
      "EngineVersion": "1.3.0",
      "IncludedAllocatedStorage": 50,
      "DefaultAllocatedStorage": 50,
      "MinAllocatedStorage": 5,
      "MaxAllocatedStorage": 6144
    },
    {
      "StorageType": "gp2",
      "ReplicationInstanceClass": "dms.t2.medium",
      "EngineVersion": "1.3.0",
      "IncludedAllocatedStorage": 50,
      "DefaultAllocatedStorage": 50,
      "MinAllocatedStorage": 5,
      "MaxAllocatedStorage": 6144
    },
    {
      "StorageType": "gp2",
      "ReplicationInstanceClass": "dms.t2.micro",
      "EngineVersion": "1.3.0",
      "IncludedAllocatedStorage": 50,
      "DefaultAllocatedStorage": 50,
      "MinAllocatedStorage": 5,
      "MaxAllocatedStorage": 6144
    }],
}

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{
  "StorageType":"gp2",
  "ReplicationInstanceClass":"dms.t2.small",
  "EngineVersion":"1.3.0",
  "IncludedAllocatedStorage":50,
  "DefaultAllocatedStorage":50,
  "MinAllocatedStorage":5,
  "MaxAllocatedStorage":6144
},
{
  "StorageType":"gp2",
  "ReplicationInstanceClass":"dms.c4.2xlarge",
  "EngineVersion":"1.4.0",
  "IncludedAllocatedStorage":100,
  "DefaultAllocatedStorage":100,
  "MinAllocatedStorage":5,
  "MaxAllocatedStorage":6144
},
{
  "StorageType":"gp2",
  "ReplicationInstanceClass":"dms.c4.4xlarge",
  "EngineVersion":"1.4.0",
  "IncludedAllocatedStorage":100,
  "DefaultAllocatedStorage":100,
  "MinAllocatedStorage":5,
  "MaxAllocatedStorage":6144
},
{
  "StorageType":"gp2",
  "ReplicationInstanceClass":"dms.c4.large",
  "EngineVersion":"1.4.0",
  "IncludedAllocatedStorage":100,
  "DefaultAllocatedStorage":100,
  "MinAllocatedStorage":5,
  "MaxAllocatedStorage":6144
},
{
  "StorageType":"gp2",
  "ReplicationInstanceClass":"dms.c4.xlarge",
  "EngineVersion":"1.4.0",
  "IncludedAllocatedStorage":100,
  "DefaultAllocatedStorage":100,
  "MinAllocatedStorage":5,
  "MaxAllocatedStorage":6144
},
{
  "StorageType":"gp2",
  "ReplicationInstanceClass":"dms.t2.large",
  "EngineVersion":"1.4.0",
  "IncludedAllocatedStorage":50,
  "DefaultAllocatedStorage":50,
  "MinAllocatedStorage":5,
  "MaxAllocatedStorage":6144
},
{
  "StorageType":"gp2",
  "ReplicationInstanceClass":"dms.t2.medium",
  "EngineVersion":"1.4.0",
  "IncludedAllocatedStorage":50,
  "DefaultAllocatedStorage":50,
  "MinAllocatedStorage":5,
  "MaxAllocatedStorage":6144
},
{
  "StorageType":"gp2",
  "ReplicationInstanceClass":"dms.t2.micro",
  "EngineVersion":"1.4.0",
  "IncludedAllocatedStorage":50,
  "DefaultAllocatedStorage":50,
  "MinAllocatedStorage":5,
  "MaxAllocatedStorage":6144
}
<table>
<thead>
<tr>
<th>StorageType</th>
<th>ReplicationInstanceClass</th>
<th>EngineVersion</th>
<th>IncludedAllocatedStorage</th>
<th>DefaultAllocatedStorage</th>
<th>MinAllocatedStorage</th>
<th>MaxAllocatedStorage</th>
</tr>
</thead>
<tbody>
<tr>
<td>gp2</td>
<td>dms.t2.small</td>
<td>1.4.0</td>
<td>50</td>
<td>50</td>
<td>5</td>
<td>6144</td>
</tr>
<tr>
<td>gp2</td>
<td>dms.t2.medium</td>
<td>1.4.0</td>
<td>50</td>
<td>50</td>
<td>5</td>
<td>6144</td>
</tr>
<tr>
<td>gp2</td>
<td>dms.c4.2xlarge</td>
<td>1.5.0</td>
<td>100</td>
<td>100</td>
<td>5</td>
<td>6144</td>
</tr>
<tr>
<td>gp2</td>
<td>dms.c4.3xlarge</td>
<td>1.5.0</td>
<td>100</td>
<td>100</td>
<td>5</td>
<td>6144</td>
</tr>
<tr>
<td>gp2</td>
<td>dms.c4.large</td>
<td>1.5.0</td>
<td>100</td>
<td>100</td>
<td>5</td>
<td>6144</td>
</tr>
<tr>
<td>gp2</td>
<td>dms.c4.xlarge</td>
<td>1.5.0</td>
<td>100</td>
<td>100</td>
<td>5</td>
<td>6144</td>
</tr>
<tr>
<td>gp2</td>
<td>dms.t2.large</td>
<td>1.5.0</td>
<td>50</td>
<td>50</td>
<td>5</td>
<td>6144</td>
</tr>
<tr>
<td>gp2</td>
<td>dms.t2.medium</td>
<td>1.5.0</td>
<td>50</td>
<td>50</td>
<td>5</td>
<td>6144</td>
</tr>
</tbody>
</table>
for more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribePendingMaintenanceActions

For internal use only

Request Syntax

```
{
  "Filters": [
    {
      "Name": "string",
      "Values": [ "string" ]
    },
    "Marker": "string",
    "MaxRecords": number,
    "ReplicationInstanceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**Filters (p. 91)**

Type: Array of Filter (p. 201) objects

Required: No

**Marker (p. 91)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Required: No

**MaxRecords (p. 91)**

The maximum number of records to include in the response. If more records exist than the specified MaxRecords value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

Default: 100

Constraints: Minimum 20, maximum 100.

Type: Integer

Required: No

**ReplicationInstanceArn (p. 91)**

The Amazon Resource Name (ARN) of the replication instance.

Type: String

Required: No
Response Syntax

```json
{
    "Marker": "string",
    "PendingMaintenanceActions": [ 
        { 
            "PendingMaintenanceActionDetails": [ 
                { 
                    "Action": "string",
                    "AutoAppliedAfterDate": number,
                    "CurrentApplyDate": number,
                    "Description": "string",
                    "ForcedApplyDate": number,
                    "OptInStatus": "string"
                }
            ],
            "ResourceIdentifier": "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.

**Marker (p. 92)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

**PendingMaintenanceActions (p. 92)**

The pending maintenance action.

Type: Array of ResourcePendingMaintenanceActions (p. 231) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

**ResourceNotFoundFault**

The resource could not be found.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DescribeRefreshSchemasStatus

Returns the status of the RefreshSchemas operation.

Request Syntax

```json
{
   "EndpointArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**EndpointArn (p. 94)**

The Amazon Resource Name (ARN) string that uniquely identifies the endpoint.

Type: String

Required: Yes

Response Syntax

```json
{
   "RefreshSchemasStatus": {
      "EndpointArn": "string",
      "LastFailureMessage": "string",
      "LastRefreshDate": number,
      "ReplicationInstanceArn": "string",
      "Status": "string"
   }
}
```

Response Elements

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

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

**RefreshSchemasStatus (p. 94)**

The status of the schema.

Type: RefreshSchemasStatus (p. 216) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).
InvalidResourceStateFault

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

```plaintext
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DescribeRefreshSchemasStatus
{
  "EndpointArn": "arn:aws:dms:us-east-1:123456789012:endpoint:WKBULDZKUDQZIHPOUUSEH34EMU"
}
```

Sample Response

```plaintext
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "RefreshSchemasStatus":{
    "Status":"successful",
    "LastRefreshDate":1457659238.93,
    "EndpointArn": "arn:aws:dms:us-east-1:123456789012:endpoint:WKBULDZKUDQZIHPOUUSEH34EMU",
    "ReplicationInstanceArn": "arn:aws:dms:us-east-1:123456789012:rep:6USOU366XFJUWATDJGBCJS3VIQ"
  }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:
• AWS Command Line Interface
• AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DescribeReplicationInstances

Returns information about replication instances for your account in the current region.

**Request Syntax**

```
{
    "Filters": [
        {
            "Name": "string",
            "Values": [ "string" ]
        }
    ],
    "Marker": "string",
    "MaxRecords": number
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**Filters (p. 97)**

Filters applied to the describe action.

Valid filter names: replication-instance-arn | replication-instance-id | replication-instance-class | engine-version

Type: Array of Filter (p. 201) objects

Required: No

**Marker (p. 97)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Required: No

**MaxRecords (p. 97)**

The maximum number of records to include in the response. If more records exist than the specified MaxRecords value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

Default: 100

Constraints: Minimum 20, maximum 100.

Type: Integer

Required: No
Response Syntax

```
{
  "Marker": "string",
  "ReplicationInstances": [
    {
      "AllocatedStorage": number,
      "AutoMinorVersionUpgrade": boolean,
      "AvailabilityZone": "string",
      "DnsNameServers": "string",
      "EngineVersion": "string",
      "FreeUntil": number,
      "InstanceCreateTime": number,
      "KmsKeyId": "string",
      "MultiAZ": boolean,
      "PendingModifiedValues": {
        "AllocatedStorage": number,
        "EngineVersion": "string",
        "MultiAZ": boolean,
        "ReplicationInstanceClass": "string"
      },
      "PreferredMaintenanceWindow": "string",
      "PubliclyAccessible": boolean,
      "ReplicationInstanceArn": "string",
      "ReplicationInstanceClass": "string",
      "ReplicationInstanceIdentifier": "string",
      "ReplicationInstancePrivateIpAddress": "string",
      "ReplicationInstancePrivateIpAddresses": [ "string" ],
      "ReplicationInstancePublicIpAddress": "string",
      "ReplicationInstancePublicIpAddresses": [ "string" ],
      "ReplicationInstanceStatus": "string",
      "ReplicationSubnetGroup": {
        "ReplicationSubnetGroupDescription": "string",
        "ReplicationSubnetGroupIdentifier": "string",
        "SubnetGroupStatus": "string",
        "Subnets": [
          {
            "SubnetAvailabilityZone": {
              "Name": "string"
            },
            "SubnetIdentifier": "string",
            "SubnetStatus": "string"
          }
        ],
        "VpcId": "string"
      },
      "SecondaryAvailabilityZone": "string",
      "VpcSecurityGroups": [
        {
          "Status": "string",
          "VpcSecurityGroupId": "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.
Marker (p. 98)

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

ReplicationInstances (p. 98)

The replication instances described.

Type: Array of ReplicationInstance (p. 217) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

```
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DescribeReplicationInstances
{
  "Filters": [
    {
      "Name": "rep-instance-arn",
      "Values": [
      ]
    }]
  "MaxRecords": 0,
  "Marker": ""
}
```

Sample Response
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
    "ReplicationInstances": [
        {
            "AvailabilityZone": "us-east-1c",
            "PubliclyAccessible": true,
            "ReplicationInstanceArn": "arn:aws:dms:us-east-1:123456789012:rep:PWEBBEUNOLU7VEB2OHTE41GQ",
            "ReplicationInstanceClass": "dms.t2.micro",
            "ReplicationSubnetGroup": {
                "ReplicationSubnetGroupDescription": "default",
                "Subnets": [
                    {
                        "SubnetStatus": "Active",
                        "SubnetIdentifier": "subnet-f6dd91af",
                        "SubnetAvailabilityZone": {
                            "Name": "us-east-1d"
                        }
                    },
                    {
                        "SubnetStatus": "Active",
                        "SubnetIdentifier": "subnet-3605751d",
                        "SubnetAvailabilityZone": {
                            "Name": "us-east-1b"
                        }
                    },
                    {
                        "SubnetStatus": "Active",
                        "SubnetIdentifier": "subnet-c2daefb5",
                        "SubnetAvailabilityZone": {
                            "Name": "us-east-1c"
                        }
                    },
                    {
                        "SubnetStatus": "Active",
                        "SubnetIdentifier": "subnet-85e90cb8",
                        "SubnetAvailabilityZone": {
                            "Name": "us-east-1e"
                        }
                    }
                ],
                "VpcId": "vpc-6741a603",
                "SubnetGroupStatus": "Complete",
                "ReplicationSubnetGroupIdentifier": "default"
            }
        },
        {
            "AutoMinorVersionUpgrade": true,
            "ReplicationInstanceStatus": "creating",
            "KmsKeyId": "arn:aws:kms:us-east-1:123456789012:key/4dc17316-5543-4ded-b1e3-d53a7cfb411d",
            "AllocatedStorage": 5,
            "EngineVersion": "1.5.0",
            "ReplicationInstanceIdentifier": "test-rep-1",
            "PreferredMaintenanceWindow": "sun:06:00-sun:14:00",
            "PendingModifiedValues": {
            }
        }
    ]
}
See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeReplicationInstanceTaskLogs

Returns information about the task logs for the specified task.

Request Syntax

```json
{
  "Marker": "string",
  "MaxRecords": number,
  "ReplicationInstanceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**Marker (p. 102)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Required: No

**MaxRecords (p. 102)**

The maximum number of records to include in the response. If more records exist than the specified MaxRecords value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

Default: 100

Constraints: Minimum 20, maximum 100.

Type: Integer

Required: No

**ReplicationInstanceArn (p. 102)**

The Amazon Resource Name (ARN) of the replication instance.

Type: String

Required: Yes

Response Syntax

```json
{
  "Marker": "string",
  "ReplicationInstanceArn": "string",
  "ReplicationInstanceTaskLogs": [ ...
```
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.

**Marker (p. 102)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by `MaxRecords`.

Type: String

**ReplicationInstanceArn (p. 102)**

The Amazon Resource Name (ARN) of the replication instance.

Type: String

**ReplicationInstanceTaskLogs (p. 102)**

An array of replication task log metadata. Each member of the array contains the replication task name, ARN, and task log size (in bytes).

Type: Array of `ReplicationInstanceTaskLog (p. 221)` objects

Errors

For information about the errors that are common to all actions, see [Common Errors (p. 248)]("https://docs.aws.amazon.com/dms/latest/migration-service/API_2016-01-01.html#common-errors").

**InvalidResourceStateFault**

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

**ResourceNotFoundFault**

The resource could not be found.

HTTP Status Code: 400

Example

**Sample Request**

```
POST / HTTP/1.1
Host: dms.<region>.<domain>
```
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DescribeReplicationInstanceTaskLogs
{
  "Filters": [
    {
      "Name": "replication-task-arn",
      "Values": ["arn:aws:dms:us-east-1:237565436:task:MY34U6Z4MSY52GRTIX3O4AY"]
    }
  ],
  "MaxRecords": 0,
  "Marker": ""
}

Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "ReplicationInstanceTaskLogs": [
    {
      "ReplicationTaskName": "mysql-to-ddb",
      "ReplicationInstanceTaskLogSize": 3726134
    }
  ],
  "ReplicationInstanceArn": "arn:aws:dms:us-east-1:237565436:rep:CDSFSFSFFSSUFCAAY"
}

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
• AWS SDK for Ruby V3
DescribeReplicationSubnetGroups

Returns information about the replication subnet groups.

**Request Syntax**

```
{
  "Filters": [
    {
      "Name": "string",
      "Values": [ "string" ]
    },
    "Marker": "string",
    "MaxRecords": number
  }
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**Filters (p. 106)**

Filters applied to the describe action.

Type: Array of Filter (p. 201) objects

Required: No

**Marker (p. 106)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Required: No

**MaxRecords (p. 106)**

The maximum number of records to include in the response. If more records exist than the specified MaxRecords value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

Default: 100

Constraints: Minimum 20, maximum 100.

Type: Integer

Required: No

**Response Syntax**

```
{
  "Marker": "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.

Marker (p. 106)

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

ReplicationSubnetGroups (p. 106)

A description of the replication subnet groups.

Type: Array of ReplicationSubnetGroup (p. 223) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,

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Example

Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DescribeReplicationSubnetGroups
{
    "Filters": [
        {
            "Name": "replication-subnet-group-id",
            "Values": [
                "test-subnet-group"
            ]
        },
        "MaxRecords": 0,
        "Marker": ""
    ]
}

Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
    "ReplicationSubnetGroups": [
        {
            "ReplicationSubnetGroupDescription": "dms testing",
            "Subnets": [
                {
                    "SubnetStatus": "Active",
                    "SubnetIdentifier": "subnet-f6dd91af",
                    "SubnetAvailabilityZone": {
                        "Name": "us-east-1d"
                    }
                },
                {
                    "SubnetStatus": "Active",
                    "SubnetIdentifier": "subnet-3605751d",
                    "SubnetAvailabilityZone": {
                        "Name": "us-east-1b"
                    }
                },
                {
                    "SubnetStatus": "Active",
                    "SubnetIdentifier": "subnet-c2daefb5",
                    "SubnetAvailabilityZone": {
                        "Name": "us-east-1c"
                    }
                }
            ],
            "VpcId": "vpc-6741a603",
            "SubnetGroupStatus": "Complete",
            "ReplicationSubnetGroupIdentifier": "test-subnet-group"
        }
    ]
}
See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeReplicationTaskAssessmentResults

Returns the task assessment results from Amazon S3. This action always returns the latest results.

Request Syntax

```
{
  "Marker": "string",
  "MaxRecords": number,
  "ReplicationTaskArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

Marker (p. 110)

An optional pagination token provided by a previous request. If this parameter is specified, the
response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Required: No

MaxRecords (p. 110)

The maximum number of records to include in the response. If more records exist than the specified
MaxRecords value, a pagination token called a marker is included in the response so that the
remaining results can be retrieved.

Default: 100

Constraints: Minimum 20, maximum 100.

Type: Integer

Required: No

ReplicationTaskArn (p. 110)

The Amazon Resource Name (ARN) string that uniquely identifies the task. When this input
parameter is specified, the API returns only one result and ignore the values of the MaxRecords and
Marker parameters.

Type: String

Required: No

Response Syntax

```
{
  "BucketName": "string",
  "Marker": "string",
```

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"ReplicationTaskAssessmentResults": [  
  {  
    "AssessmentResults": "string",
    "AssessmentResultsFile": "string",
    "AssessmentStatus": "string",
    "ReplicationTaskArn": "string",
    "ReplicationTaskIdentifier": "string",
    "ReplicationTaskLastAssessmentDate": number,
    "S3ObjectUrl": "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.

BucketName (p. 110)

- The Amazon S3 bucket where the task assessment report is located.

  Type: String

Marker (p. 110)

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by `MaxRecords`.

  Type: String

ReplicationTaskAssessmentResults (p. 110)

The task assessment report.

  Type: Array of ReplicationTaskAssessmentResult (p. 227) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

ResourceNotFoundFault

The resource could not be found.

  HTTP Status Code: 400

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
See Also

- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeReplicationTasks

Returns information about replication tasks for your account in the current region.

Request Syntax

```json
{
    "Filters": [  
        {  
            "Name": "string",
            "Values": [ "string" ]
        },
        "Marker": "string",
        "MaxRecords": number,
        "WithoutSettings": boolean
    }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

Filters (p. 113)

Filters applied to the describe action.

Valid filter names: replication-task-arn | replication-task-id | migration-type | endpoint-arn | replication-instance-arn

Type: Array of Filter (p. 201) objects

Required: No

Marker (p. 113)

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Required: No

MaxRecords (p. 113)

The maximum number of records to include in the response. If more records exist than the specified MaxRecords value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

Default: 100

Constraints: Minimum 20, maximum 100.

Type: Integer

Required: No
WithoutSettings (p. 113)

An option to set to avoid returning information about settings. Use this to reduce overhead when setting information is too large. To use this option, choose true; otherwise, choose false (the default).

Type: Boolean

Required: No

Response Syntax

{  "Marker": "string",
   "ReplicationTasks": [
   {
      "CdcStartPosition": "string",
      "CdcStopPosition": "string",
      "LastFailureMessage": "string",
      "MigrationType": "string",
      "RecoveryCheckpoint": "string",
      "ReplicationInstanceArn": "string",
      "ReplicationTaskArn": "string",
      "ReplicationTaskCreationDate": number,
      "ReplicationTaskIdentifier": "string",
      "ReplicationTaskSettings": "string",
      "ReplicationTaskStartDate": number,
      "ReplicationTaskStats": {
         "ElapsedTimeMillis": number,
         "FreshStartDate": number,
         "FullLoadFinishDate": number,
         "FullLoadProgressPercent": number,
         "FullLoadStartDate": number,
         "StartDate": number,
         "StopDate": number,
         "TablesErrored": number,
         "TablesLoaded": number,
         "TablesLoading": number,
         "TablesQueued": number
      },
      "SourceEndpointArn": "string",
      "Status": "string",
      "StopReason": "string",
      "TableMappings": "string",
      "TargetEndpointArn": "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.

Marker (p. 114)

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String
ReplicationTasks (p. 114)

A description of the replication tasks.

Type: Array of ReplicationTask (p. 224) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

```plaintext
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DescribeReplicationTasks
{
  "Filters": [
    {
      "Name": "endpoint-arn",
      "Values": [
        "arn:aws:dms:us-east-1:123456789012:endpoint:RZZK4EZW5UANC7Y3P4E776WHBE"
      ]
    }
  ],
  "MaxRecords": 0,
  "Marker": ""
}
```

Sample Response

```plaintext
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
}
"ReplicationTasks": [ 
{
  "SourceEndpointArn": "arn:aws:dms:us-east-1:123456789012:endpoint:RZZK4EZW5UANC7Y3P4E776WHBE",
  "ReplicationTaskIdentifier": "aks145",
  "TableMappings": [ { 
    "Type": "Include",
    "SourceSchema": "testDB",
    "SourceTable": "%"
  }, { 
    "Type": "Include",
    "SourceSchema": "testDB",
    "SourceTable": "%"
  } ]
},

{ "TablesLoading": 0,
  "TablesQueued": 0,
  "TablesErrored": 0,
  "FullLoadProgressPercent": 100,
  "TablesLoaded": 0,
  "ElapsedTimeMillis": 0
},

"Status": "stopped",
"ReplicationTaskArn": "arn:aws:dms:us-east-1:123456789012:task:RALPZGYI3IUSJCBKKIRBEURKDY",
"ReplicationTaskCreationDate": 1449185680.107,
"MigrationType": "full-load",
"TargetEndpointArn": "arn:aws:dms:us-east-1:123456789012:endpoint:GVBUJQXJZASXWHTWCLN2WNT57E",
"ReplicationTaskSettings": {"TargetMetadata": {"TargetSchema": "", "SupportLobs": true, "FullLobMode": true, "LobChunkSize": 64, "LimitedSizeLobMode": false, "LobMaxSize": 0},
  "FullLoadSettings": {
    "FullLoadEnabled": true,
    "TargetTablePrepMode": "DO NOTHING",
    "CreatePkAfterFullLoad": false,
    "StopTaskCachedChangesApplied": false,
    "StopTaskCachedChangesNotApplied": false,
    "ResumeEnabled": false,
    "ResumeMinTableSize": 100000,
    "ResumeOnlyClusteredPKTables": true,
    "MaxFullLoadSubTasks": 8,
    "TransactionConsistencyTimeout": 600,
    "CommitRate": 10000
  }
} ]
See Also

- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeSchemas

Returns information about the schema for the specified endpoint.

Request Syntax

```json
{
  "EndpointArn": "string",
  "Marker": "string",
  "MaxRecords": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**EndpointArn (p. 118)**

The Amazon Resource Name (ARN) string that uniquely identifies the endpoint.

- Type: String
- Required: Yes

**Marker (p. 118)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

- Type: String
- Required: No

**MaxRecords (p. 118)**

The maximum number of records to include in the response. If more records exist than the specified MaxRecords value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

- Default: 100
- Constraints: Minimum 20, maximum 100.

Response Syntax

```json
{
  "Marker": "string",
  "Schemas": [ "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.

**Marker (p. 118)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by `MaxRecords`.

Type: String

**Schemas (p. 118)**

The described schema.

Type: Array of strings

Errors

For information about the errors that are common to all actions, see [Common Errors (p. 248)](https://docs.aws.amazon.com/dms/latest/ug/API_CommonErrors.html).

**InvalidResourceStateFault**

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

**ResourceNotFoundFault**

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

```plaintext
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.DescribeSchemas
{
    "MaxRecords":0,
    "Marker":"
```
Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
   "Schemas":[
      "testDB",
      "tmp"
   ]
}

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeTableStatistics

Returns table statistics on the database migration task, including table name, rows inserted, rows updated, and rows deleted.

Note that the "last updated" column the DMS console only indicates the time that AWS DMS last updated the table statistics record for a table. It does not indicate the time of the last update to the table.

Request Syntax

```json
{
  "Filters": [
    {
      "Name": "string",
      "Values": [ "string" ]
    }
  ],
  "Marker": "string",
  "MaxRecords": number,
  "ReplicationTaskArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**Filters (p. 121)**

Filters applied to the describe table statistics action.

Valid filter names: schema-name | table-name | table-state

A combination of filters creates an AND condition where each record matches all specified filters.

Type: Array of Filter (p. 201) objects

Required: No

**Marker (p. 121)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by MaxRecords.

Type: String

Required: No

**MaxRecords (p. 121)**

The maximum number of records to include in the response. If more records exist than the specified MaxRecords value, a pagination token called a marker is included in the response so that the remaining results can be retrieved.

Default: 100

Constraints: Minimum 20, maximum 500.
Response Syntax

```json
{
  "Marker": "string",
  "ReplicationTaskArn": "string",
  "TableStatistics": [
    {
      "Ddls": number,
      "Deletes": number,
      "FullLoadCondtnlChkFailedRows": number,
      "FullLoadEndTime": number,
      "FullLoadErrorRows": number,
      "FullLoadReloaded": boolean,
      "FullLoadRows": number,
      "FullLoadStartTime": number,
      "Inserts": number,
      "LastUpdateTime": number,
      "SchemaName": "string",
      "TableName": "string",
      "TableState": "string",
      "Updates": number,
      "ValidationFailedRecords": number,
      "ValidationPendingRecords": number,
      "ValidationState": "string",
      "ValidationStateDetails": "string",
      "ValidationSuspendedRecords": number
    }
  ]
}
```

Response Elements

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

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

**Marker (p. 122)**

An optional pagination token provided by a previous request. If this parameter is specified, the response includes only records beyond the marker, up to the value specified by **MaxRecords**.

Type: String

**ReplicationTaskArn (p. 122)**

The Amazon Resource Name (ARN) of the replication task.

Type: String
TableStatistics (p. 122)

The table statistics.

Type: Array of TableStatistics (p. 240) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

InvalidResourceStateException

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

```xml
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amzn-Target: AmazonDMSv20160101.DescribeTableStatistics
{
  "SchemaName": "",
  "TableNames": [""
  ],
  "MaxRecords": 0,
  "Marker": ""
}
```

Sample Response

```xml
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
```
"ReplicationTaskArn": "arn:aws:dms:us-west-2:918017823489:task:WZVIPF3D4AJSNJAS42D4Z7GBE", "TableStatistics": [
  {
   "ReplicationTaskArn": "arn:aws:dms:us-west-2:918017823489:task:WZVIPF3D4AJSNJAS42D4Z7GBE", "TableStatistics": [
    {
      "ReplicationTaskArn": "arn:aws:dms:us-west-2:918017823489:task:WZVIPF3D4AJSNJAS42D4Z7GBE", "TableStatistics": [
        {
          "Inserts": 0, "LastUpdateTime": 1457655132.796, "Ddl": 0, "TableName": "DataInsert_5D28A14AB66AB4ED", "Updates": 0, "FullLoadRows": 0, "TableState": "Table completed", "SchemaName": "rdststdb", "Deletes": 0
        },
        {
          "Inserts": 0, "LastUpdateTime": 1457655132.796, "Ddl": 0, "TableName": "DataInsert_05CF105ABC22BB83", "Updates": 0, "FullLoadRows": 0, "TableState": "Table completed", "SchemaName": "rdststdb", "Deletes": 0
        },
        {
          "Inserts": 0, "LastUpdateTime": 1457655132.796, "Ddl": 0, "TableName": "DataInsert_BEB962DE10FB7B60", "Updates": 0, "FullLoadRows": 0, "TableState": "Table completed", "SchemaName": "rdststdb", "Deletes": 0
        }
      ]
    }
  ]
]
ImportCertificate

Uploads the specified certificate.

Request Syntax

```
{
   "CertificateIdentifier": "string",
   "CertificatePem": "string",
   "CertificateWallet": blob,
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**CertificateIdentifier (p. 125)**

A customer-assigned name for the certificate. Identifiers must begin with a letter and must contain only ASCII letters, digits, and hyphens. They can't end with a hyphen or contain two consecutive hyphens.

Type: String

Required: Yes

**CertificatePem (p. 125)**

The contents of a .pem file, which contains an X.509 certificate.

Type: String

Required: No

**CertificateWallet (p. 125)**

The location of an imported Oracle Wallet certificate for use with SSL.

Type: Base64-encoded binary data object

Required: No

**Tags (p. 125)**

The tags associated with the certificate.

Type: Array of Tag (p. 244) objects

Required: No
Response Syntax

```json
{
    "Certificate": {
        "CertificateArn": "string",
        "CertificateCreationDate": number,
        "CertificateIdentifier": "string",
        "CertificateOwner": "string",
        "CertificatePem": "string",
        "CertificateWallet": blob,
        "KeyLength": number,
        "SigningAlgorithm": "string",
        "ValidFromDate": number,
        "ValidToDate": number
    }
}
```

Response Elements

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

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

**Certificate (p. 126)**

The certificate to be uploaded.

Type: **Certificate (p. 185)** object

Errors

For information about the errors that are common to all actions, see **Common Errors (p. 248)**.

**InvalidCertificateFault**

The certificate was not valid.

HTTP Status Code: 400

**ResourceAlreadyExistsFault**

The resource you are attempting to create already exists.

HTTP Status Code: 400

**ResourceQuotaExceededFault**

The quota for this resource quota has been exceeded.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
• AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
ListTagsForResource

Lists all tags for an AWS DMS resource.

Request Syntax

```json
{
  "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**ResourceArn (p. 128)**

The Amazon Resource Name (ARN) string that uniquely identifies the AWS DMS resource.

Type: String

Required: Yes

Response Syntax

```json
{
  "TagList": [
    {
      "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.

**TagList (p. 128)**

A list of tags for the resource.

Type: Array of Tag (p. 244) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).
ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

```plaintext
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.ListTagsForResource
{
}
```

Sample Response

```plaintext
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "TagList":[
    {"Value":"1234",
     "Key":"CostCenter"
    }
  ]
}
```

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
See Also

- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ModifyEndpoint

Modifies the specified endpoint.

Request Syntax

```json
{
   "CertificateArn": "string",
   "DatabaseName": "string",
   "DmsTransferSettings": {
      "BucketName": "string",
      "ServiceAccessRoleArn": "string"
   },
   "DynamoDbSettings": {
      "ServiceAccessRoleArn": "string"
   },
   "ElasticsearchSettings": {
      "EndpointUri": "string",
      "ErrorRetryDuration": number,
      "FullLoadErrorPercentage": number,
      "ServiceAccessRoleArn": "string"
   },
   "EndpointArn": "string",
   "EndpointIdentifier": "string",
   "EndpointType": "string",
   "EngineName": "string",
   "ExternalTableDefinition": "string",
   "ExtraConnectionAttributes": "string",
   "KafkaSettings": {
      "Broker": "string",
      "Topic": "string"
   },
   "KinesisSettings": {
      "IncludeControlDetails": boolean,
      "IncludePartitionValue": boolean,
      "IncludeTableAlterOperations": boolean,
      "IncludeTransactionDetails": boolean,
      "MessageFormat": "string",
      "PartitionIncludeSchemaTable": boolean,
      "ServiceAccessRoleArn": "string",
      "StreamArn": "string"
   },
   "MongoDbSettings": {
      "AuthMechanism": "string",
      "AuthSource": "string",
      "AuthType": "string",
      "DatabaseName": "string",
      "DocsToInvestigate": "string",
      "ExtractDocId": "string",
      "KmsKeyId": "string",
      "NestingLevel": "string",
      "Password": "string",
      "Port": number,
      "ServerName": "string",
      "Username": "string"
   },
   "Password": "string",
   "Port": number,
   "RedshiftSettings": {
      "AcceptAnyDate": boolean,
      "AfterConnectScript": "string",
      "BucketFolder": "string",
      "BucketName": "string",
      "DatabaseName": "string",
      "DocsToInvestigate": "string",
      "ExtractDocId": "string",
      "KmsKeyId": "string",
      "NestingLevel": "string",
      "Password": "string",
      "Port": number,
      "ServerName": "string",
      "Username": "string"
   }
}
```

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Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**CertificateArn (p. 131)**

The Amazon Resource Name (ARN) of the certificate used for SSL connection.

Type: String
Required: No

**DatabaseName (p. 131)**

The name of the endpoint database.

Type: String

Required: No

**DmsTransferSettings (p. 131)**

The settings in JSON format for the DMS transfer type of source endpoint.

Attributes include the following:
- serviceAccessRoleArn - The AWS Identity and Access Management (IAM) role that has permission to access the Amazon S3 bucket.
- BucketName - The name of the S3 bucket to use.
- compressionType - An optional parameter to use GZIP to compress the target files. Either set this parameter to NONE (the default) or don't use it to leave the files uncompressed.

Shorthand syntax for these settings is as follows:
```
ServiceAccessRoleArn=string, BucketName=string, CompressionType=string
```

JSON syntax for these settings is as follows:
```
{ "ServiceAccessRoleArn": "string", "BucketName": "string", "CompressionType": "none" | "gzip" }
```

Type: [DmsTransferSettings (p. 189)](p=131) object

Required: No

**DynamoDbSettings (p. 131)**

Settings in JSON format for the target Amazon DynamoDB endpoint. For information about other available settings, see Using Object Mapping to Migrate Data to DynamoDB in the [AWS Database Migration Service User Guide](https://docs.aws.amazon.com/dms/latest/user_guide/).

Type: [DynamoDbSettings (p. 190)](p=131) object

Required: No

**ElasticsearchSettings (p. 131)**

Settings in JSON format for the target Elasticsearch endpoint. For more information about the available settings, see Extra Connection Attributes When Using Elasticsearch as a Target for AWS DMS in the [AWS Database Migration User Guide](https://docs.aws.amazon.com/dms/latest/user_guide/).

Type: [ElasticsearchSettings (p. 191)](p=131) object

Required: No

**EndpointArn (p. 131)**

The Amazon Resource Name (ARN) string that uniquely identifies the endpoint.

Type: String

Required: Yes

**EndpointIdentifier (p. 131)**

The database endpoint identifier. Identifiers must begin with a letter and must contain only ASCII letters, digits, and hyphens. They can't end with a hyphen or contain two consecutive hyphens.

Type: String
Required: No

**EndpointType (p. 131)**

The type of endpoint. Valid values are `source` and `target`.

Type: String

Required: No

**EngineName (p. 131)**

The type of engine for the endpoint. Valid values, depending on the EndpointType, include "mysql", "oracle", "postgres", "mariadb", "aurora", "aurora-postgresql", "redshift", "s3", "db2", "azuredb", "sybase", "dynamodb", "mongodb", "kinesis", "kafka", "elasticsearch", "documentdb", and "sqlserver".

Type: String

Required: No

**ExternalTableDefinition (p. 131)**

The external table definition.

Type: String

Required: No

**ExtraConnectionAttributes (p. 131)**

Additional attributes associated with the connection. To reset this parameter, pass the empty string ("") as an argument.

Type: String

Required: No

**KafkaSettings (p. 131)**

Settings in JSON format for the target Apache Kafka endpoint. For information about other available settings, see Using Object Mapping to Migrate Data to Apache Kafka in the *AWS Database Migration User Guide*.

Type: `KafkaSettings (p. 202)` object

Required: No

**KinesisSettings (p. 131)**

Settings in JSON format for the target endpoint for Amazon Kinesis Data Streams. For information about other available settings, see Using Object Mapping to Migrate Data to a Kinesis Data Stream in the *AWS Database Migration User Guide*.

Type: `KinesisSettings (p. 203)` object

Required: No

**MongoDbSettings (p. 131)**

Settings in JSON format for the source MongoDB endpoint. For more information about the available settings, see the configuration properties section in Using MongoDB as a Target for AWS Database Migration Service in the *AWS Database Migration Service User Guide*.
Type: `MongoDbSettings (p. 205)` object

Required: No

**Password (p. 131)**

The password to be used to login to the endpoint database.

Type: String

Required: No

**Port (p. 131)**

The port used by the endpoint database.

Type: Integer

Required: No

**RedshiftSettings (p. 131)**

Provides information that defines an Amazon Redshift endpoint.

Type: `RedshiftSettings (p. 212)` object

Required: No

**S3Settings (p. 131)**

Settings in JSON format for the target Amazon S3 endpoint. For more information about the available settings, see [Extra Connection Attributes When Using Amazon S3 as a Target for AWS DMS](https://docs.aws.amazon.com/dms/latest/userguide) in the AWS Database Migration Service User Guide.

Type: `S3Settings (p. 232)` object

Required: No

**ServerName (p. 131)**

The name of the server where the endpoint database resides.

Type: String

Required: No

**ServiceAccessRoleArn (p. 131)**

The Amazon Resource Name (ARN) for the service access role you want to use to modify the endpoint.

Type: String

Required: No

**SslMode (p. 131)**

The SSL mode used to connect to the endpoint. The default value is `none`.

Type: String

Valid Values: none | require | verify-ca | verify-full
Username (p. 131)

The user name to be used to login to the endpoint database.

Type: String

Required: No

Response Syntax

```
{
  "Endpoint": {
    "CertificateArn": "string",
    "DatabaseName": "string",
    "DmsTransferSettings": {
      "BucketName": "string",
      "ServiceAccessRoleArn": "string"
    },
    "DynamoDbSettings": {
      "ServiceAccessRoleArn": "string"
    },
    "ElasticsearchSettings": {
      "EndpointUri": "string",
      "ErrorRetryDuration": number,
      "FullLoadErrorPercentage": number,
      "ServiceAccessRoleArn": "string"
    },
    "EndpointArn": "string",
    "EndpointIdentifier": "string",
    "EndpointType": "string",
    "EngineDisplayName": "string",
    "EngineName": "string",
    "ExternalId": "string",
    "ExternalTableDefinition": "string",
    "ExtraConnectionAttributes": "string",
    "KafkaSettings": {
      "Broker": "string",
      "Topic": "string"
    },
    "KinesisSettings": {
      "IncludeControlDetails": boolean,
      "IncludePartitionValue": boolean,
      "IncludeTableAlterOperations": boolean,
      "IncludeTransactionDetails": boolean,
      "MessageFormat": "string",
      "PartitionIncludeSchemaTable": boolean,
      "ServiceAccessRoleArn": "string",
      "StreamArn": "string"
    },
    "KmsKeyId": "string",
    "MongoDbSettings": {
      "AuthMechanism": "string",
      "AuthSource": "string",
      "AuthType": "string",
      "DatabaseName": "string",
      "DocsToInvestigate": "string",
      "ExtractDocId": "string",
      "KmsKeyId": "string",
      "NestingLevel": "string",
      "Password": "string",
      "Port": number,
      "ServerName": "string",
    }
  }

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"Username": "string",
"Port": number,
"RedshiftSettings": {
  "AcceptAnyDate": boolean,
  "AfterConnectScript": "string",
  "BucketFolder": "string",
  "BucketName": "string",
  "ConnectionTimeout": number,
  "DatabaseName": "string",
  "DateFormat": "string",
  "EmptyAsNull": boolean,
  "EncryptionMode": "string",
  "FileTransferUploadStreams": number,
  "LoadTimeout": number,
  "MaxFileSize": number,
  "Password": "string",
  "Port": number,
  "RemoveQuotes": boolean,
  "ReplaceChars": "string",
  "ReplaceInvalidChars": "string",
  "ServerName": "string",
  "ServerSideEncryptionKmsKeyId": "string",
  "ServiceAccessRoleArn": "string",
  "TimeFormat": "string",
  "TrimBlanks": boolean,
  "TruncateColumns": boolean,
  "Username": "string",
  "WriteBufferSize": number
},
"S3Settings": {
  "BucketFolder": "string",
  "BucketName": "string",
  "CdcInsertsAndUpdates": boolean,
  "CdcInsertsOnly": boolean,
  "CompressionType": "string",
  "CsvDelimiter": "string",
  "CsvRowDelimiter": "string",
  "DataFormat": "string",
  "DataPageSize": number,
  "DictPageSizeLimit": number,
  "EnableStatistics": boolean,
  "EncodingType": "string",
  "EncryptionMode": "string",
  "ExternalTableDefinition": "string",
  "IncludeOpForFullLoad": boolean,
  "ParquetTimestampInMillisecond": boolean,
  "ParquetVersion": "string",
  "RowGroupLength": number,
  "ServerSideEncryptionKmsKeyId": "string",
  "ServiceAccessRoleArn": "string",
  "TimestampColumnName": "string"
},
"ServerName": "string",
"ServiceAccessRoleArn": "string",
"SslMode": "string",
"Status": "string",
"Username": "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.

**Endpoint (p. 136)**

The modified endpoint.

Type: Endpoint (p. 192) object

---

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 248).

**AccessDeniedFault**

AWS DMS was denied access to the endpoint. Check that the role is correctly configured.

HTTP Status Code: 400

**InvalidResourceStateFault**

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

**KMSKeyNotAccessibleFault**

AWS DMS cannot access the AWS KMS key.

HTTP Status Code: 400

**ResourceAlreadyExistsFault**

The resource you are attempting to create already exists.

HTTP Status Code: 400

**ResourceNotFoundFault**

The resource could not be found.

HTTP Status Code: 400

---

**Example**

**Sample Request**

```plaintext
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.ModifyEndpoint
```

---

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{  
  "EndpointArn":"arn:aws:dms:us-east-1:123456789012:endpoint:RAAR3R22XSH46S3PWLC3NJAWKM","EndpointIdentifier":"","EndpointType":"target","EngineName":"","Username":"","Password":"","ServerName":"","Port":0,"DatabaseName":"","ExtraConnectionAttributes":""
}

Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "Endpoint":{
    "Username":"username",
    "Status":"active",
    "ServerName":"apurvap-source.cxln7iyxxilo.us-west-2.rds.amazonaws.com",
    "ServerName":"apurvap-source.cxln7iyxxilo.us-west-2.rds.amazonaws.com",
    "EndpointType":"TARGET",
    "KmsKeyId":"arn:aws:kms:us-east-1:123456789012:key/4dc17316-5543-4ded-b1e3-d53a7c5b411d",
    "ExtraConnectionAttributes":"parallelLoadThreads=1",
    "EngineName":"mysql",
    "EndpointIdentifier":"test-endpoint-1",
    "Port":3306
  }
}

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ModifyEventSubscription

Modifies an existing AWS DMS event notification subscription.

Request Syntax

```json
{
    "Enabled": boolean,
    "EventCategories": [ "string" ],
    "SnsTopicArn": "string",
    "SourceType": "string",
    "SubscriptionName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

Enabled (p. 140)

A Boolean value; set to true to activate the subscription.

Type: Boolean

Required: No

EventCategories (p. 140)

A list of event categories for a source type that you want to subscribe to. Use the DescribeEventCategories action to see a list of event categories.

Type: Array of strings

Required: No

SnsTopicArn (p. 140)

The Amazon Resource Name (ARN) of the Amazon SNS topic created for event notification. The ARN is created by Amazon SNS when you create a topic and subscribe to it.

Type: String

Required: No

SourceType (p. 140)

The type of AWS DMS resource that generates the events you want to subscribe to.

Valid values: replication-instance | replication-task

Type: String

Required: No

SubscriptionName (p. 140)

The name of the AWS DMS event notification subscription to be modified.
Type: String
Required: Yes

Response Syntax

```
{
  "EventSubscription": {
    "CustomerAwsId": "string",
    "CustSubscriptionId": "string",
    "Enabled": boolean,
    "EventCategoriesList": [ "string" ],
    "SnsTopicArn": "string",
    "SourceIdsList": [ "string" ],
    "SourceType": "string",
    "Status": "string",
    "SubscriptionCreationTime": "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.

**EventSubscription (p. 141)**

The modified event subscription.

Type: EventSubscription (p. 199) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

**KMSAccessDeniedFault**

The ciphertext references a key that doesn't exist or that the DMS account doesn't have access to.

HTTP Status Code: 400

**KMSDisabledFault**

The specified master key (CMK) isn't enabled.

HTTP Status Code: 400

**KMSInvalidStateFault**

The state of the specified AWS KMS resource isn't valid for this request.

HTTP Status Code: 400

**KMSNotFoundFault**

The specified AWS KMS entity or resource can't be found.

HTTP Status Code: 400
**See Also**

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ModifyReplicationInstance

Modifies the replication instance to apply new settings. You can change one or more parameters by specifying these parameters and the new values in the request.

Some settings are applied during the maintenance window.

Request Syntax

```
{
    "AllocatedStorage": number,
    "AllowMajorVersionUpgrade": boolean,
    "ApplyImmediately": boolean,
    "AutoMinorVersionUpgrade": boolean,
    "EngineVersion": "string",
    "MultiAZ": boolean,
    "PreferredMaintenanceWindow": "string",
    "ReplicationInstanceArn": "string",
    "ReplicationInstanceClass": "string",
    "ReplicationInstanceIdentifier": "string",
    "VpcSecurityGroupIds": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**AllocatedStorage (p. 143)**

The amount of storage (in gigabytes) to be allocated for the replication instance.

Type: Integer

Required: No

**AllowMajorVersionUpgrade (p. 143)**

Indicates that major version upgrades are allowed. Changing this parameter does not result in an outage, and the change is asynchronously applied as soon as possible.

This parameter must be set to true when specifying a value for the EngineVersion parameter that is a different major version than the replication instance's current version.

Type: Boolean

Required: No

**ApplyImmediately (p. 143)**

Indicates whether the changes should be applied immediately or during the next maintenance window.

Type: Boolean

Required: No
AutoMinorVersionUpgrade (p. 143)

A value that indicates that minor version upgrades are applied automatically to the replication instance during the maintenance window. Changing this parameter doesn't result in an outage, except in the case described following. The change is asynchronously applied as soon as possible.

An outage does result if these factors apply:
- This parameter is set to true during the maintenance window.
- A newer minor version is available.
- AWS DMS has enabled automatic patching for the given engine version.

Type: Boolean
Required: No

EngineVersion (p. 143)

The engine version number of the replication instance.

Type: String
Required: No

MultiAZ (p. 143)

Specifies whether the replication instance is a Multi-AZ deployment. You can't set the AvailabilityZone parameter if the Multi-AZ parameter is set to true.

Type: Boolean
Required: No

PreferredMaintenanceWindow (p. 143)

The weekly time range (in UTC) during which system maintenance can occur, which might result in an outage. Changing this parameter does not result in an outage, except in the following situation, and the change is asynchronously applied as soon as possible. If moving this window to the current time, there must be at least 30 minutes between the current time and end of the window to ensure pending changes are applied.

Default: Uses existing setting


Valid Days: Mon | Tue | Wed | Thu | Fri | Sat | Sun

Constraints: Must be at least 30 minutes

Type: String
Required: No

ReplicationInstanceArn (p. 143)

The Amazon Resource Name (ARN) of the replication instance.

Type: String
Required: Yes

ReplicationInstanceClass (p. 143)

The compute and memory capacity of the replication instance.
Response Syntax

```json
{
   "ReplicationInstance": {
      "AllocatedStorage": number,
      "AutoMinorVersionUpgrade": boolean,
      "AvailabilityZone": "string",
      "DnsNameServers": "string",
      "EngineVersion": "string",
      "FreeUntil": number,
      "InstanceCreateTime": number,
      "KmsKeyId": "string",
      "MultiAZ": boolean,
      "PendingModifiedValues": {
         "AllocatedStorage": number,
         "EngineVersion": "string",
         "MultiAZ": boolean,
         "ReplicationInstanceClass": "string"
      },
      "PreferredMaintenanceWindow": "string",
      "PubliclyAccessible": boolean,
      "ReplicationInstanceArn": "string",
      "ReplicationInstanceClass": "string",
      "ReplicationInstanceIdentifier": "string",
      "ReplicationInstancePrivateIpAddress": "string",
      "ReplicationInstancePrivateIpAddresses": [ "string" ],
      "ReplicationInstancePublicIpAddress": "string",
      "ReplicationInstancePublicIpAddresses": [ "string" ],
      "ReplicationInstanceStatus": "string",
      "ReplicationSubnetGroup": {
         "ReplicationSubnetGroupDescription": "string",
         "ReplicationSubnetGroupIdentifier": "string",
         "SubnetGroupStatus": "string",
         "Subnets": [
            {
               "SubnetAvailabilityZone": {
                  "Name": "string"
               },
               "SubnetIdentifier": "string"
            }
         ]
      }
   }
}
```

Valid Values: dms.t2.micro | dms.t2.small | dms.t2.medium | dms.t2.large | dms.c4.large | dms.c4.xlarge | dms.c4.2xlarge | dms.c4.4xlarge

Type: String
Required: No

ReplicationInstanceIdentifier (p. 143)

The replication instance identifier. This parameter is stored as a lowercase string.

Type: String
Required: No

VpcSecurityGroupIds (p. 143)

Specifies the VPC security group to be used with the replication instance. The VPC security group must work with the VPC containing the replication instance.

Type: Array of strings
Required: No
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.

**ReplicationInstance (p. 145)**

The modified replication instance.

Type: ReplicationInstance (p. 217) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

**AccessDeniedFault**

AWS DMS was denied access to the endpoint. Check that the role is correctly configured.

HTTP Status Code: 400

**InsufficientResourceCapacityFault**

There are not enough resources allocated to the database migration.

HTTP Status Code: 400

**InvalidResourceStateFault**

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

**ResourceAlreadyExistsFault**

The resource you are attempting to create already exists.

HTTP Status Code: 400

**ResourceNotFoundFault**

The resource could not be found.

HTTP Status Code: 400

**StorageQuotaExceededFault**

The storage quota has been exceeded.
HTTP Status Code: 400
UpgradeDependencyFailureFault
An upgrade dependency is preventing the database migration.

HTTP Status Code: 400

Example

Sample Request

POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.ModifyReplicationInstance
{
  "AllocatedStorage":0,
  "ApplyImmediately":true,
  "ReplicationInstanceClass":"dms.t2.small",
  "PreferredMaintenanceWindow":"",
  "EngineVersion":"",
  "AllowMajorVersionUpgrade":true,
  "AutoMinorVersionUpgrade":true,
  "ReplicationInstanceIdentifier":"
}

Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "ReplicationInstance":{
    "AvailabilityZone":"us-east-1c",
    "ReplicationInstancePrivateIpAddress":"172.31.6.45",
    "ReplicationInstanceClass":"dms.t2.micro",
    "ReplicationSubnetGroup":{
      "ReplicationSubnetGroupDescription":"default",
      "Subnets":[
        "SubnetStatus":"Active",
      ]
    }
  }
}
"SubnetIdentifier": "subnet-f6dd91af",
"SubnetAvailabilityZone": {
  "Name": "us-east-1d"
},

"SubnetStatus": "Active",
"SubnetIdentifier": "subnet-3605751d",
"SubnetAvailabilityZone": {
  "Name": "us-east-1b"
},

"SubnetStatus": "Active",
"SubnetIdentifier": "subnet-c2daefb5",
"SubnetAvailabilityZone": {
  "Name": "us-east-1c"
},

"SubnetStatus": "Active",
"SubnetIdentifier": "subnet-85e90cb8",
"SubnetAvailabilityZone": {
  "Name": "us-east-1e"
}
]

"VpcId": "vpc-6741a603",
"SubnetGroupStatus": "Complete",
"ReplicationSubnetGroupIdentifier": "default"
},

"AutoMinorVersionUpgrade": true,
"ReplicationInstanceStatus": "available",
"KmsKeyId": "arn:aws:kms:us-east-1:123456789012:key/4dc17316-5543-4ded-b1e3-d53a7cfb411d",
"InstanceCreateTime": 1457645140.38,
"ReplicationInstancePublicIpAddress": "52.87.66.36",
"AllocatedStorage": 5,
"EngineVersion": "1.5.0",
"ReplicationInstanceIdentifier": "test-rep-1",
"PubliclyAccessible": true,
"PreferredMaintenanceWindow": "sun:06:00-sun:14:00",
"PendingModifiedValues": {
  "ReplicationInstanceClass": "dms.t2.small"
} }]

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ModifyReplicationSubnetGroup

Modifies the settings for the specified replication subnet group.

Request Syntax

```
{
    "ReplicationSubnetGroupDescription": "string",
    "ReplicationSubnetGroupIdentifier": "string",
    "SubnetIds": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

ReplicationSubnetGroupDescription (p. 150)

A description for the replication instance subnet group.

Type: String

Required: No

ReplicationSubnetGroupIdentifier (p. 150)

The name of the replication instance subnet group.

Type: String

Required: Yes

SubnetIds (p. 150)

A list of subnet IDs.

Type: Array of strings

Required: Yes

Response Syntax

```
{
    "ReplicationSubnetGroup": {
        "ReplicationSubnetGroupDescription": "string",
        "ReplicationSubnetGroupIdentifier": "string",
        "SubnetGroupStatus": "string",
        "Subnets": [ {
            "SubnetAvailabilityZone": { "Name": "string" }
        } ]
    }
}
```
"SubnetIdentifier": "string",
"SubnetStatus": "string"
],
"VpcId": "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.

ReplicationSubnetGroup (p. 150)

The modified replication subnet group.

Type: ReplicationSubnetGroup (p. 223) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

AccessDeniedFault

AWS DMS was denied access to the endpoint. Check that the role is correctly configured.

HTTP Status Code: 400

InvalidSubnet

The subnet provided is invalid.

HTTP Status Code: 400

ReplicationSubnetGroupDoesNotCoverEnoughAZs

The replication subnet group does not cover enough Availability Zones (AZs). Edit the replication subnet group and add more AZs.

HTTP Status Code: 400

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

ResourceQuotaExceededFault

The quota for this resource quota has been exceeded.

HTTP Status Code: 400

SubnetAlreadyInUse

The specified subnet is already in use.

HTTP Status Code: 400
Example

Sample Request

```plaintext
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=content-type;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.ModifyReplicationSubnetGroup
{
    "ReplicationSubnetGroupIdentifier":"test-subnet-group",
    "ReplicationSubnetGroupDescription":"
    "SubnetIds"[:
        "subnet-f6dd91af",
        "subnet-3605751d "
    ]
}
```

Sample Response

```plaintext
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
    "ReplicationSubnetGroup":{
        "ReplicationSubnetGroupDescription":"dms testing",
        "Subnets":[
        {"SubnetStatus":"Active",
            "SubnetIdentifier":"subnet-f6dd91af",
            "SubnetAvailabilityZone":{
                "Name":"us-east-1d"
            }
        },
        {"SubnetStatus":"Active",
            "SubnetIdentifier":"subnet-3605751d",
            "SubnetAvailabilityZone":{
                "Name":"us-east-1b"
            }
        }]
        "VpcId":"vpc-6741a603",
        "SubnetGroupStatus":"Complete",
        "ReplicationSubnetGroupIdentifier":"test-subnet-group"
    }
}
```
See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ModifyReplicationTask

Modifies the specified replication task.

You can't modify the task endpoints. The task must be stopped before you can modify it.

For more information about AWS DMS tasks, see Working with Migration Tasks in the AWS Database Migration Service User Guide.

Request Syntax

```json
{
  "CdcStartPosition": "string",
  "CdcStartTime": number,
  "CdcStopPosition": "string",
  "MigrationType": "string",
  "ReplicationTaskArn": "string",
  "ReplicationTaskIdentifier": "string",
  "ReplicationTaskSettings": "string",
  "TableMappings": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**CdcStartPosition (p. 154)**

Indicates when you want a change data capture (CDC) operation to start. Use either CdcStartPosition or CdcStartTime to specify when you want a CDC operation to start. Specifying both values results in an error.

The value can be in date, checkpoint, or LSN/SCN format.

Date Example: --cdc-start-position "2018-03-08T12:12:12"

Checkpoint Example: --cdc-start-position "checkpoint:V1#27#mysql-bin-changelog.157832:1975:-1:2002:677883278264080:mysql-bin-changelog.157832:1876#0#0#*#0#93"

LSN Example: --cdc-start-position "mysql-bin-changelog.000024:373"

**Note**

When you use this task setting with a source PostgreSQL database, a logical replication slot should already be created and associated with the source endpoint. You can verify this by setting the `slotName` extra connection attribute to the name of this logical replication slot. For more information, see Extra Connection Attributes When Using PostgreSQL as a Source for AWS DMS.

Type: String

Required: No

**CdcStartTime (p. 154)**

Indicates the start time for a change data capture (CDC) operation. Use either CdcStartTime or CdcStartPosition to specify when you want a CDC operation to start. Specifying both values results in an error.
Request Parameters

Timestamp Example: --cdc-start-time "2018-03-08T12:12:12"
Type: Timestamp
Required: No

CdcStopPosition (p. 154)
Indicates when you want a change data capture (CDC) operation to stop. The value can be either server time or commit time.
Server time example: --cdc-stop-position "server_time:3018-02-09T12:12:12"
Commit time example: --cdc-stop-position "commit_time: 3018-02-09T12:12:12 "
Type: String
Required: No

MigrationType (p. 154)
The migration type. Valid values: full-load | cdc | full-load-and-cdc
Type: String
Valid Values: full-load | cdc | full-load-and-cdc
Required: No

ReplicationTaskArn (p. 154)
The Amazon Resource Name (ARN) of the replication task.
Type: String
Required: Yes

ReplicationTaskIdentifier (p. 154)
The replication task identifier.
Constraints:
• Must contain from 1 to 255 alphanumeric characters or hyphens.
• First character must be a letter.
• Cannot end with a hyphen or contain two consecutive hyphens.
Type: String
Required: No

ReplicationTaskSettings (p. 154)
JSON file that contains settings for the task, such as target metadata settings.
Type: String
Required: No

TableMappings (p. 154)
When using the AWS CLI or boto3, provide the path of the JSON file that contains the table mappings. Precede the path with file://. When working with the DMS API, provide the JSON as the parameter value, for example: --table-mappings file://mappingfile.json
Type: String
Response Syntax

{  
  "ReplicationTask": {  
    "CdcStartPosition": "string",
    "CdcStopPosition": "string",
    "LastFailureMessage": "string",
    "MigrationType": "string",
    "RecoveryCheckpoint": "string",
    "ReplicationInstanceArn": "string",
    "ReplicationTaskArn": "string",
    "ReplicationTaskCreationDate": number,
    "ReplicationTaskIdentifier": "string",
    "ReplicationTaskSettings": "string",
    "ReplicationTaskStartDate": number,
    "ReplicationTaskStats": {  
      "ElapsedTimeMillis": number,
      "FreshStartDate": number,
      "FullLoadFinishDate": number,
      "FullLoadProgressPercent": number,
      "FullLoadStartDate": number,
      "StartDate": number,
      "StopDate": number,
      "TablesErrored": number,
      "TablesLoaded": number,
      "TablesLoading": number,
      "TablesQueued": number
    },
    "SourceEndpointArn": "string",
    "Status": "string",
    "StopReason": "string",
    "TableMappings": "string",
    "TargetEndpointArn": "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.

ReplicationTask (p. 156)

The replication task that was modified.

Type: ReplicationTask (p. 224) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

InvalidResourceStateFault

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400
KMSKeyNotAccessibleFault

AWS DMS cannot access the AWS KMS key.

HTTP Status Code: 400

ResourceAlreadyExistsFault

The resource you are attempting to create already exists.

HTTP Status Code: 400

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

Sample Response

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
RebootReplicationInstance

Reboots a replication instance. Rebooting results in a momentary outage, until the replication instance becomes available again.

Request Syntax

```json
{
  "ForceFailover": boolean,
  "ReplicationInstanceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**ForceFailover (p. 158)**

If this parameter is true, the reboot is conducted through a Multi-AZ failover. (If the instance isn't configured for Multi-AZ, then you can't specify true.)

Type: Boolean

Required: No

**ReplicationInstanceArn (p. 158)**

The Amazon Resource Name (ARN) of the replication instance.

Type: String

Required: Yes

Response Syntax

```json
{
  "ReplicationInstance": {
    "AllocatedStorage": number,
    "AutoMinorVersionUpgrade": boolean,
    "AvailabilityZone": "string",
    "DnsNameServers": "string",
    "EngineVersion": "string",
    "FreeUntil": number,
    "InstanceCreateTime": number,
    "KmsKeyId": "string",
    "MultiAZ": boolean,
    "PendingModifiedValues": {
      "AllocatedStorage": number,
      "EngineVersion": "string",
      "MultiAZ": boolean,
      "ReplicationInstanceClass": "string"
    },
    "PreferredMaintenanceWindow": "string"
  }
}
```
"PubliclyAccessible": boolean,
"ReplicationInstanceArn": "string",
"ReplicationInstanceClass": "string",
"ReplicationInstanceIdentifier": "string",
"ReplicationInstancePrivateIpAddress": "string",
"ReplicationInstancePrivateIpAddresses": [ "string" ],
"ReplicationInstancePublicIpAddress": "string",
"ReplicationInstancePublicIpAddresses": [ "string" ],
"ReplicationInstanceStatus": "string",
"ReplicationSubnetGroup": {
  "ReplicationSubnetGroupDescription": "string",
  "ReplicationSubnetGroupIdentifier": "string",
  "SubnetGroupStatus": "string",
  "Subnets": [
    {
      "SubnetAvailabilityZone": {
        "Name": "string"
      },
      "SubnetIdentifier": "string",
      "SubnetStatus": "string"
    }
  ],
  "VpcId": "string"
},
"SecondaryAvailabilityZone": "string",
"VpcSecurityGroups": [
  {
    "Status": "string",
    "VpcSecurityGroupId": "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.

**ReplicationInstance (p. 158)**

The replication instance that is being rebooted.

Type: ReplicationInstance (p. 217) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

**InvalidResourceStateFault**

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

**ResourceNotFault**

The resource could not be found.

HTTP Status Code: 400
See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
RefreshSchemas

Populates the schema for the specified endpoint. This is an asynchronous operation and can take several minutes. You can check the status of this operation by calling the DescribeRefreshSchemasStatus operation.

Request Syntax

```
{
   "EndpointArn": "string",
   "ReplicationInstanceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**EndpointArn (p. 161)**

The Amazon Resource Name (ARN) string that uniquely identifies the endpoint.

Type: String

Required: Yes

**ReplicationInstanceArn (p. 161)**

The Amazon Resource Name (ARN) of the replication instance.

Type: String

Required: Yes

Response Syntax

```
{
   "RefreshSchemasStatus": {
      "EndpointArn": "string",
      "LastFailureMessage": "string",
      "LastRefreshDate": number,
      "ReplicationInstanceArn": "string",
      "Status": "string"
   }
}
```

Response Elements

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

The following data is returned in JSON format by the service.
**RefreshSchemasStatus (p. 161)**

The status of the refreshed schema.

Type: RefreshSchemasStatus (p. 216) object

---

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 248).

**InvalidResourceStateFault**

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

**KMSKeyNotAccessibleFault**

AWS DMS cannot access the AWS KMS key.

HTTP Status Code: 400

**ResourceNotFoundFault**

The resource could not be found.

HTTP Status Code: 400

**ResourceQuotaExceededFault**

The quota for this resource quota has been exceeded.

HTTP Status Code: 400

---

**See Also**

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ReloadTables

Reloads the target database table with the source data.

Request Syntax

```
{
    "ReloadOption": "string",
    "ReplicationTaskArn": "string",
    "TablesToReload": [
        {
            "SchemaName": "string",
            "TableName": "string"
        }
    ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

ReloadOption (p. 163)

Options for reload. Specify data-reload to reload the data and re-validate it if validation is enabled. Specify validate-only to re-validate the table. This option applies only when validation is enabled for the task.

Valid values: data-reload, validate-only

Default value is data-reload.

Type: String

Valid Values: data-reload | validate-only

Required: No

ReplicationTaskArn (p. 163)

The Amazon Resource Name (ARN) of the replication task.

Type: String

Required: Yes

TablesToReload (p. 163)

The name and schema of the table to be reloaded.

Type: Array of TableToReload (p. 243) objects

Required: Yes

Response Syntax

```
{
}
```
"ReplicationTaskArn": "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.

ReplicationTaskArn (p. 163)

The Amazon Resource Name (ARN) of the replication task.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

InvalidResourceStateFault

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
RemoveTagsFromResource

Removes metadata tags from a DMS resource.

Request Syntax

```json
{
   "ResourceArn": "string",
   "TagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**ResourceArn (p. 165)**

An AWS DMS resource from which you want to remove tag(s). The value for this parameter is an Amazon Resource Name (ARN).

- Type: String
- Required: Yes

**TagKeys (p. 165)**

The tag key (name) of the tag to be removed.

- Type: Array of strings
- 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 (p. 248).

**ResourceNotFoundFault**

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

```text
API Version 2016-01-01
165
```
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.RemoveTagsFromResource
{
    "TagKeys": ["CostCenter"
]}

Sample Response

Empty

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
StartReplicationTask

Starts the replication task.

For more information about AWS DMS tasks, see Working with Migration Tasks in the AWS Database Migration Service User Guide.

Request Syntax

```
{
    "CdcStartPosition": "string",
    "CdcStartTime": number,
    "CdcStopPosition": "string",
    "ReplicationTaskArn": "string",
    "StartReplicationTaskType": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**CdcStartPosition** (p. 167)

Indicates when you want a change data capture (CDC) operation to start. Use either CdcStartPosition or CdcStartTime to specify when you want a CDC operation to start. Specifying both values results in an error.

The value can be in date, checkpoint, or LSN/SCN format.

Date Example: --cdc-start-position "2018-03-08T12:12:12"

Checkpoint Example: --cdc-start-position "checkpoint:V1#27#mysql-bin-changelog.157832:1975:-1:2002:677883278264080:mysql-bin-changelog.157832:1876#0#0#0#93"

LSN Example: --cdc-start-position "mysql-bin-changelog.000024:373"

**Note**

When you use this task setting with a source PostgreSQL database, a logical replication slot should already be created and associated with the source endpoint. You can verify this by setting the slotName extra connection attribute to the name of this logical replication slot.

For more information, see Extra Connection Attributes When Using PostgreSQL as a Source for AWS DMS.

Type: String

Required: No

**CdcStartTime** (p. 167)

Indicates the start time for a change data capture (CDC) operation. Use either CdcStartTime or CdcStartPosition to specify when you want a CDC operation to start. Specifying both values results in an error.

Timestamp Example: --cdc-start-time "2018-03-08T12:12:12"

Type: Timestamp
Required: No

**CdcStopPosition (p. 167)**

Indicates when you want a change data capture (CDC) operation to stop. The value can be either server time or commit time.

Server time example: `--cdc-stop-position "server_time:2018-02-09T12:12:12"`

Commit time example: `--cdc-stop-position "commit_time: 2018-02-09T12:12:12 "`

Type: String

Required: No

**ReplicationTaskArn (p. 167)**

The Amazon Resource Name (ARN) of the replication task to be started.

Type: String

Required: Yes

**StartReplicationTaskType (p. 167)**

The type of replication task.

Type: String

Valid Values: `start-replication | resume-processing | reload-target`

Required: Yes

**Response Syntax**

```json
{
    "ReplicationTask": {
        "CdcStartPosition": "string",
        "CdcStopPosition": "string",
        "LastFailureMessage": "string",
        "MigrationType": "string",
        "RecoveryCheckpoint": "string",
        "ReplicationInstanceArn": "string",
        "ReplicationTaskArn": "string",
        "ReplicationTaskCreationDate": number,
        "ReplicationTaskIdentifier": "string",
        "ReplicationTaskSettings": "string",
        "ReplicationTaskStartDate": number,
        "ReplicationTaskStats": {
            "ElapsedTimeMillis": number,
            "FreshStartDate": number,
            "FullLoadFinishDate": number,
            "FullLoadProgressPercent": number,
            "FullLoadStartDate": number,
            "StartDate": number,
            "StopDate": number,
            "TablesErrored": number,
            "TablesLoaded": number,
            "TablesLoading": number,
            "TablesQueued": number
        },
        "SourceEndpointArn": "string",
        "Status": "string",
        "StopReason": "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.

ReplicationTask (p. 168)

The replication task started.

Type: ReplicationTask (p. 224) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

AccessDeniedFault

AWS DMS was denied access to the endpoint. Check that the role is correctly configured.

HTTP Status Code: 400

InvalidResourceStateFault

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

```
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.StartReplicationTask
{
  "TableMappings": "string",
  "TargetEndpointArn": "string"
}
```
Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "ReplicationTask":{
    "ReplicationTaskIdentifier":"aks145",
    "TableMappings":{
      "TableMappings": [ { "Type": "Include",
      "SourceSchema": "testDB",
      "SourceTable": "%" }
    ]
  },
  "ReplicationTaskStartDate":1457658794.056,
  "Status":"starting",
  "ReplicationTaskArn":"arn:aws:dms:us-east-1:123456789012:task:RALPZGYI3IUSJCBKKIRBEURKDY",
  "ReplicationTaskCreationDate":1449185680.107,
  "MigrationType":"full-load",
  "TargetEndpointArn":"arn:aws:dms:us-east-1:123456789012:endpoint:GVBUJQXJZASXWHTWCLN2WNT57E",
  "ReplicationTaskSettings":{
    "TargetMetadata":{ "TargetSchema": "", "SupportLobs":true, "LimitedSizeLobMode":false, "LobMaxSize":0 },
    "FullLoadSettings":{
      "FullLoadEnabled":true,
      "TargetTablePrepMode": "DO NOTHING",
      "CreatePkAfterFullLoad":false,
      "StopTaskCachedChangesApplied":false,
      "StopTaskCachedChangesNotApplied":false,
      "ResumeEnabled":false,
      "ResumeMinTableSize":100000,
      "ResumeOnlyClusteredPKTableName":true,
      "MaxFullLoadSubTasks":8,
      "TransactionConsistencyTimeout":600,
      "CommitRate":10000
    }
  }
}

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
StartReplicationTaskAssessment

Starts the replication task assessment for unsupported data types in the source database.

Request Syntax

```
{
    "ReplicationTaskArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**ReplicationTaskArn (p. 172)**

The Amazon Resource Name (ARN) of the replication task.

Type: String

Required: Yes

Response Syntax

```
{
    "ReplicationTask": {
        "CdcStartPosition": "string",
        "CdcStopPosition": "string",
        "LastFailureMessage": "string",
        "MigrationType": "string",
        "RecoveryCheckpoint": "string",
        "ReplicationInstanceArn": "string",
        "ReplicationTaskArn": "string",
        "ReplicationTaskCreationDate": number,
        "ReplicationTaskIdentifier": "string",
        "ReplicationTaskSettings": "string",
        "ReplicationTaskStartDate": number,
        "ReplicationTaskStats": {
            "ElapsedTimeMillis": number,
            "FreshStartDate": number,
            "FullLoadFinishDate": number,
            "FullLoadProgressPercent": number,
            "FullLoadStartDate": number,
            "StartDate": number,
            "StopDate": number,
            "TablesErrored": number,
            "TablesLoaded": number,
            "TablesLoading": number,
            "TablesQueued": number
        },
        "SourceEndpointArn": "string",
        "Status": "string",
        "StopReason": "string",
        "TableMappings": "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.

ReplicationTask (p. 172)

The assessed replication task.

Type: ReplicationTask (p. 224) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

InvalidResourceStateFault

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
StopReplicationTask
Stops the replication task.

Request Syntax

```json
{
   "ReplicationTaskArn": "string"
}
```

Request Parameters
For information about the parameters that are common to all actions, see Common Parameters (p. 246).

The request accepts the following data in JSON format.

**ReplicationTaskArn (p. 174)**

The Amazon Resource Name(ARN) of the replication task to be stopped.

Type: String

Required: Yes

Response Syntax

```json
{
   "ReplicationTask": {
      "CdcStartPosition": "string",
      "CdcStopPosition": "string",
      "LastFailureMessage": "string",
      "MigrationType": "string",
      "RecoveryCheckpoint": "string",
      "ReplicationInstanceArn": "string",
      "ReplicationTaskArn": "string",
      "ReplicationTaskCreationDate": number,
      "ReplicationTaskIdentifier": "string",
      "ReplicationTaskSettings": "string",
      "ReplicationTaskStartDate": number,
      "ReplicationTaskStats": {
         "ElapsedTimeMillis": number,
         "FreshStartDate": number,
         "FullLoadFinishDate": number,
         "FullLoadProgressPercent": number,
         "FullLoadStartDate": number,
         "StartDate": number,
         "StopDate": number,
         "TablesErrored": number,
         "TablesLoaded": number,
         "TablesLoading": number,
         "TablesQueued": number
      },
      "SourceEndpointArn": "string",
      "Status": "string",
      "StopReason": "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.

ReplicationTask (p. 174)

The replication task stopped.

Type: ReplicationTask (p. 224) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

InvalidResourceStateFault

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

ResourceNotFoundFault

The resource could not be found.

HTTP Status Code: 400

Example

Sample Request

```
POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AmazonDMSv20160101.StopReplicationTask
{
  "ReplicationTaskArn":"arn:aws:dms:us-east-1:123456789012:task:OEAMB3NXSTZ6LFYZFEPBBXFPYM"
}
```
Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
   "ReplicationTask":{
      "SourceEndpointArn":"arn:aws:dms:us-east-1:123456789012:endpoint:RZZK4EZW5UANC7Y3P4E776WHBB",
      "ReplicationTaskIdentifier":"task1",
      "TableMappings":"\n      \n      \n      \n      "",
      "ReplicationTaskStartDate":1457659049.081,
      "Status":"stopping",
      "ReplicationTaskArn":"arn:aws:dms:us-east-1:123456789012:task:OEAMB3NXSTZ6LFYZFEPPBBXYM",
      "ReplicationTaskCreationDate":1457658407.492,
      "MigrationType":"full-load",
      "ReplicationTaskSettings":"{"TargetMetadata":{"TargetSchema":":\"","SupportLobs":true,"FullLobMode":true,"LobChunkSize":64,"LimitedSizeLobMode":false,"LobMaxSize":0},
      "FullLoadEnabled":true,
      "TargetTablePrepMode":\"DROP_AND_CREATE\",
      "CreatePKAfterFullLoad":false,
      "StopTaskCachedChangesApplied":false,
      "StopTaskCachedChangesNotApplied":false,
      "ResumeEnabled":false,
      "ResumeMinTableSize":100000,
      "ResumeOnlyClustered PKTables":true,
      "MaxFullLoadSubTasks":8,
      "TransactionConsistencyTimeout":600000,
      "CommitRate":10000
    },
    "Logging":{
      "EnableLogging":false
    }
  }
}
AWS SDK for Java
AWS SDK for JavaScript
AWS SDK for PHP V3
AWS SDK for Python
AWS SDK for Ruby V3
TestConnection

Tests the connection between the replication instance and the endpoint.

**Request Syntax**

```json
{
    "EndpointArn": "string",
    "ReplicationInstanceArn": "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.

- **EndpointArn** *(p. 178)*
  - The Amazon Resource Name (ARN) string that uniquely identifies the endpoint.
  - Type: String
  - Required: Yes

- **ReplicationInstanceArn** *(p. 178)*
  - The Amazon Resource Name (ARN) of the replication instance.
  - Type: String
  - Required: Yes

**Response Syntax**

```json
{
    "Connection": {
        "EndpointArn": "string",
        "EndpointIdentifier": "string",
        "LastFailureMessage": "string",
        "ReplicationInstanceArn": "string",
        "ReplicationInstanceIdentifier": "string",
        "Status": "string"
    }
}
```

**Response Elements**

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

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

- **Connection** *(p. 178)*
  - The connection tested.
Errors

For information about the errors that are common to all actions, see Common Errors (p. 248).

InvalidResourceStateFault

The resource is in a state that prevents it from being used for database migration.

HTTP Status Code: 400

KMSKeyNotAccessibleFault

AWS DMS cannot access the AWS KMS key.

HTTP Status Code: 400

ResourceNotFoundException

The resource could not be found.

HTTP Status Code: 400

ResourceQuotaExceededFault

The quota for this resource quota has been exceeded.

HTTP Status Code: 400

Example

Sample Request

POST / HTTP/1.1
Host: dms.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256
Credential=<Credential>,
SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive

X-Amz-Target: AmazonDMSv20160101.TestConnection
{
   "EndpointArn": "arn:aws:dms:us-east-1:123456789012:endpoint:WKBULDZKDZIHPOMUSEH34EMU"
}

Sample Response
See Also

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

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
Data Types

The AWS Database Migration Service 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:

- AccountQuota (p. 183)
- AvailabilityZone (p. 184)
- Certificate (p. 185)
- Connection (p. 187)
- DmsTransferSettings (p. 189)
- DynamoDbSettings (p. 190)
- ElasticsearchSettings (p. 191)
- Endpoint (p. 192)
- Event (p. 196)
- EventCategoryGroup (p. 198)
- EventSubscription (p. 199)
- Filter (p. 201)
- KafkaSettings (p. 202)
- KinesisSettings (p. 203)
- MongoDbSettings (p. 205)
- OrderableReplicationInstance (p. 208)
- PendingMaintenanceAction (p. 210)
- RedshiftSettings (p. 212)
- RefreshSchemasStatus (p. 216)
- ReplicationInstance (p. 217)
- ReplicationInstanceTaskLog (p. 221)
- ReplicationPendingModifiedValues (p. 222)
- ReplicationSubnetGroup (p. 223)
- ReplicationTask (p. 224)
- ReplicationTaskAssessmentResult (p. 227)
- ReplicationTaskStats (p. 229)
- ResourcePendingMaintenanceActions (p. 231)
- S3Settings (p. 232)
- Subnet (p. 238)
- SupportedEndpointType (p. 239)
- TableStatistics (p. 240)
- TableToReload (p. 243)
- Tag (p. 244)
- VpcSecurityGroupMembership (p. 245)
AccountQuota

Describes a quota for an AWS account, for example, the number of replication instances allowed.

Contents

AccountQuotaName

The name of the AWS DMS quota for this AWS account.

Type: String

Required: No

Max

The maximum allowed value for the quota.

Type: Long

Required: No

Used

The amount currently used toward the quota maximum.

Type: Long

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
AvailabilityZone

The name of the Availability Zone for use during database migration.

Contents

Name

The name of the Availability Zone.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Certificate

The SSL certificate that can be used to encrypt connections between the endpoints and the replication instance.

Contents

CertificateArn

The Amazon Resource Name (ARN) for the certificate.

Type: String
Required: No

CertificateCreationDate

The date that the certificate was created.

Type: Timestamp
Required: No

CertificateIdentifier

A customer-assigned name for the certificate. Identifiers must begin with a letter and must contain only ASCII letters, digits, and hyphens. They can't end with a hyphen or contain two consecutive hyphens.

Type: String
Required: No

CertificateOwner

The owner of the certificate.

Type: String
Required: No

CertificatePem

The contents of a .pem file, which contains an X.509 certificate.

Type: String
Required: No

CertificateWallet

The location of an imported Oracle Wallet certificate for use with SSL.

Type: Base64-encoded binary data object
Required: No

KeyLength

The key length of the cryptographic algorithm being used.

Type: Integer
Required: No
**SigningAlgorithm**

The signing algorithm for the certificate.

Type: String

Required: No

**ValidFromDate**

The beginning date that the certificate is valid.

Type: Timestamp

Required: No

**ValidToDate**

The final date that the certificate is valid.

Type: Timestamp

Required: No

**See Also**

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Connection

Status of the connection between an endpoint and a replication instance, including Amazon Resource Names (ARNs) and the last error message issued.

Contents

**EndpointArn**

The ARN string that uniquely identifies the endpoint.

Type: String

Required: No

**EndpointIdentifier**

The identifier of the endpoint. Identifiers must begin with a letter and must contain only ASCII letters, digits, and hyphens. They can’t end with a hyphen or contain two consecutive hyphens.

Type: String

Required: No

**LastFailureMessage**

The error message when the connection last failed.

Type: String

Required: No

**ReplicationInstanceArn**

The ARN of the replication instance.

Type: String

Required: No

**ReplicationInstanceIdentifier**

The replication instance identifier. This parameter is stored as a lowercase string.

Type: String

Required: No

**Status**

The connection status.

Type: String

Required: No

See Also

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

- AWS SDK for C++
• AWS SDK for Go
• AWS SDK for Java
• AWS SDK for Ruby V3
DmsTransferSettings

The settings in JSON format for the DMS Transfer type source endpoint.

Contents

**BucketName**

The name of the S3 bucket to use.

Type: String

Required: No

**ServiceAccessRoleArn**

The IAM role that has permission to access the Amazon S3 bucket.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
DynamoDbSettings

Provides the Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) role used to define an Amazon DynamoDB target endpoint.

Contents

ServiceAccessRoleArn

The Amazon Resource Name (ARN) used by the service access IAM role.

Type: String

Required: Yes

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ElasticsearchSettings

Provides information that defines an Elasticsearch endpoint.

Contents

**EndpointUri**

The endpoint for the Elasticsearch cluster.

Type: String

Required: Yes

**ErrorRetryDuration**

The maximum number of seconds for which DMS retries failed API requests to the Elasticsearch cluster.

Type: Integer

Required: No

**FullLoadErrorPercentage**

The maximum percentage of records that can fail to be written before a full load operation stops.

Type: Integer

Required: No

**ServiceAccessRoleArn**

The Amazon Resource Name (ARN) used by service to access the IAM role.

Type: String

Required: Yes

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Endpoint

Describes an endpoint of a database instance in response to operations such as the following:

- CreateEndpoint
- DescribeEndpoint
- DescribeEndpointTypes
- ModifyEndpoint

Contents

CertificateArn

The Amazon Resource Name (ARN) used for SSL connection to the endpoint.

Type: String

Required: No

DatabaseName

The name of the database at the endpoint.

Type: String

Required: No

DmsTransferSettings

The settings in JSON format for the DMS transfer type of source endpoint.

Possible settings include the following:

- ServiceAccessRoleArn - The IAM role that has permission to access the Amazon S3 bucket.
- BucketName - The name of the S3 bucket to use.
- CompressionType - An optional parameter to use GZIP to compress the target files. To use GZIP, set this value to NONE (the default). To keep the files uncompressed, don't use this value.

Shorthand syntax for these settings is as follows:

```
ServiceAccessRoleArn=string,BucketName=string,CompressionType=none|gzip
```

JSON syntax for these settings is as follows:

```
{ "ServiceAccessRoleArn": "string", "BucketName": "string", "CompressionType": "none"|"gzip" }
```

Type: DmsTransferSettings (p. 189) object

Required: No

DynamoDbSettings

The settings for the target DynamoDB database. For more information, see the DynamoDBSettings structure.

Type: DynamoDbSettings (p. 190) object

Required: No

ElasticsearchSettings

The settings for the Elasticsearch source endpoint. For more information, see the ElasticsearchSettings structure.
Type: `ElasticsearchSettings (p. 191)` object

**Required:** No

**EndpointArn**

The Amazon Resource Name (ARN) string that uniquely identifies the endpoint.

Type: String

**Required:** No

**EndpointIdentifier**

The database endpoint identifier. Identifiers must begin with a letter and must contain only ASCII letters, digits, and hyphens. They can’t end with a hyphen or contain two consecutive hyphens.

Type: String

**Required:** No

**EndpointType**

The type of endpoint. Valid values are `source` and `target`.

Type: String

**Valid Values:** `source` | `target`

**Required:** No

**EngineDisplayName**

The expanded name for the engine name. For example, if the `EngineName` parameter is "aurora," this value would be "Amazon Aurora MySQL."

Type: String

**Required:** No

**EngineName**

The database engine name. Valid values, depending on the `EndpointType`, include "mysql", "oracle", "postgres", "mariadb", "aurora", "aurora-postgresql", "redshift", "s3", "db2", "azuredb", "sybase", "dynamodb", "mongodb", "kinesis", "kafka", "elasticsearch", "documentdb", and "sqlserver".

Type: String

**Required:** No

**ExternalId**

Value returned by a call to `CreateEndpoint` that can be used for cross-account validation. Use it on a subsequent call to `CreateEndpoint` to create the endpoint with a cross-account.

Type: String

**Required:** No

**ExternalTableDefinition**

The external table definition.

Type: String
**ExtraConnectionAttributes**

Additional connection attributes used to connect to the endpoint.

Type: String

Required: No

**KafkaSettings**

The settings for the Apache Kafka target endpoint. For more information, see the `KafkaSettings` structure.

Type: `KafkaSettings (p. 202)` object

Required: No

**KinesisSettings**

The settings for the Amazon Kinesis target endpoint. For more information, see the `KinesisSettings` structure.

Type: `KinesisSettings (p. 203)` object

Required: No

**KmsKeyId**

An AWS KMS key identifier that is used to encrypt the connection parameters for the endpoint.

If you don't specify a value for the `KmsKeyId` parameter, then AWS DMS uses your default encryption key.

AWS KMS creates the default encryption key for your AWS account. Your AWS account has a different default encryption key for each AWS Region.

Type: String

Required: No

**MongoDbSettings**

The settings for the MongoDB source endpoint. For more information, see the `MongoDbSettings` structure.

Type: `MongoDbSettings (p. 205)` object

Required: No

**Port**

The port value used to access the endpoint.

Type: Integer

Required: No

**RedshiftSettings**

Settings for the Amazon Redshift endpoint.

Type: `RedshiftSettings (p. 212)` object

Required: No
S3Settings

The settings for the S3 target endpoint. For more information, see the S3Settings structure.

Type: S3Settings (p. 232) object

Required: No

ServerName

The name of the server at the endpoint.

Type: String

Required: No

ServiceAccessRoleArn

The Amazon Resource Name (ARN) used by the service access IAM role.

Type: String

Required: No

SslMode

The SSL mode used to connect to the endpoint. The default value is none.

Type: String

Valid Values: none | require | verify-ca | verify-full

Required: No

Status

The status of the endpoint.

Type: String

Required: No

Username

The user name used to connect to the endpoint.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Event

Describes an identifiable significant activity that affects a replication instance or task. This object can provide the message, the available event categories, the date and source of the event, and the AWS DMS resource type.

Contents

Date
The date of the event.
Type: Timestamp
Required: No

EventCategories
The event categories available for the specified source type.
Type: Array of strings
Required: No

Message
The event message.
Type: String
Required: No

SourceIdentifier
The identifier of an event source.
Type: String
Required: No

SourceType
The type of AWS DMS resource that generates events.
Valid values: replication-instance | endpoint | replication-task
Type: String
Valid Values: replication-instance
Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
See Also

- AWS SDK for Ruby V3
EventCategoryGroup

Lists categories of events subscribed to, and generated by, the applicable AWS DMS resource type.

Contents

EventCategories

A list of event categories from a source type that you've chosen.

Type: Array of strings

Required: No

SourceType

The type of AWS DMS resource that generates events.

Valid values: replication-instance | replication-server | security-group | replication-task

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
EventSubscription

Describes an event notification subscription created by the `CreateEventSubscription` operation.

Contents

**CustomerAwsId**

The AWS customer account associated with the AWS DMS event notification subscription.

Type: String

Required: No

**CustSubscriptionId**

The AWS DMS event notification subscription Id.

Type: String

Required: No

**Enabled**

Boolean value that indicates if the event subscription is enabled.

Type: Boolean

Required: No

**EventCategoriesList**

A list of event categories.

Type: Array of strings

Required: No

**SnsTopicArn**

The topic ARN of the AWS DMS event notification subscription.

Type: String

Required: No

**SourceIdsList**

A list of source IDs for the event subscription.

Type: Array of strings

Required: No

**SourceType**

The type of AWS DMS resource that generates events.

Valid values: `replication-instance` | `replication-server` | `security-group` | `replication-task`

Type: String

Required: No
**Status**

The status of the AWS DMS event notification subscription.

**Constraints:**

Can be one of the following: creating | modifying | deleting | active | no-permission | topic-not-exist

The status "no-permission" indicates that AWS DMS no longer has permission to post to the SNS topic. The status "topic-not-exist" indicates that the topic was deleted after the subscription was created.

Type: String

Required: No

**SubscriptionCreationTime**

The time the RDS event notification subscription was created.

Type: String

Required: No

**See Also**

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Filter

Identifies the name and value of a source filter object used to limit the number and type of records transferred from your source to your target.

Contents

Name

The name of the filter.
Type: String
Required: Yes

Values

The filter value.
Type: Array of strings
Required: Yes

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
KafkaSettings

Provides information that describes an Apache Kafka endpoint. This information includes the output format of records applied to the endpoint and details of transaction and control table data information.

Contents

Broker

The broker location and port of the Kafka broker that hosts your Kafka instance. Specify the broker in the form `broker-hostname-or-ip:port`. For example, "ec2-12-345-678-901.compute-1.amazonaws.com:2345".

Type: String
Required: No

Topic

The topic to which you migrate the data. If you don't specify a topic, AWS DMS specifies "kafka-default-topic" as the migration topic.

Type: String
Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
KinesisSettings

Provides information that describes an Amazon Kinesis Data Stream endpoint. This information includes the output format of records applied to the endpoint and details of transaction and control table data information.

Contents

IncludeControlDetails

Shows detailed control information for table definition, column definition, and table and column changes in the Kinesis message output. The default is False.

Type: Boolean
Required: No

IncludePartitionValue

Shows the partition value within the Kinesis message output, unless the partition type is schema-table-type. The default is False.

Type: Boolean
Required: No

IncludeTableAlterOperations

Includes any data definition language (DDL) operations that change the table in the control data, such as rename-table, drop-table, add-column, drop-column, and rename-column. The default is False.

Type: Boolean
Required: No

IncludeTransactionDetails

Provides detailed transaction information from the source database. This information includes a commit timestamp, a log position, and values for transaction_id, previous transaction_id, and transaction_record_id (the record offset within a transaction). The default is False.

Type: Boolean
Required: No

MessageFormat

The output format for the records created on the endpoint. The message format is JSON (default) or JSON_UNFORMATTED (a single line with no tab).

Type: String
Valid Values: json | json-unformatted
Required: No

PartitionIncludeSchemaTable

Prefixes schema and table names to partition values, when the partition type is primary-key-type. Doing this increases data distribution among Kinesis shards. For example, suppose that a SysBench schema has thousands of tables and each table has only limited range for a primary key.
In this case, the same primary key is sent from thousands of tables to the same shard, which causes throttling. The default is `False`.

Type: Boolean  
Required: No

**ServiceAccessRoleArn**

The Amazon Resource Name (ARN) for the AWS Identity and Access Management (IAM) role that AWS DMS uses to write to the Kinesis data stream.

Type: String  
Required: No

**StreamArn**

The Amazon Resource Name (ARN) for the Amazon Kinesis Data Streams endpoint.

Type: String  
Required: No

### See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
MongoDBSettings

Provides information that defines a MongoDB endpoint.

Contents

**AuthMechanism**

The authentication mechanism you use to access the MongoDB source endpoint.

Valid values: DEFAULT, MONGODB_CR, SCRAM_SHA_1

DEFAULT – For MongoDB version 2.x, use MONGODB_CR. For MongoDB version 3.x, use SCRAM_SHA_1. This setting isn't used when authType=No.

Type: String

Valid Values: `default` | `mongodb_cr` | `scram_sha_1`

Required: No

**AuthSource**

The MongoDB database name. This setting isn't used when authType=NO.

The default is admin.

Type: String

Required: No

**AuthType**

The authentication type you use to access the MongoDB source endpoint.

Valid values: NO, PASSWORD

When NO is selected, user name and password parameters are not used and can be empty.

Type: String

Valid Values: `no` | `password`

Required: No

**DatabaseName**

The database name on the MongoDB source endpoint.

Type: String

Required: No

**DocsToInvestigate**

Indicates the number of documents to preview to determine the document organization. Use this setting when NestingLevel is set to ONE.

Must be a positive value greater than 0. Default value is 1000.

Type: String

Required: No
ExtractDocId

Specifies the document ID. Use this setting when NestingLevel is set to NONE.

Default value is false.

Type: String
Required: No

KmsKeyId

The AWS KMS key identifier that is used to encrypt the content on the replication instance. If you don't specify a value for the KmsKeyId parameter, then AWS DMS uses your default encryption key. AWS KMS creates the default encryption key for your AWS account. Your AWS account has a different default encryption key for each AWS Region.

Type: String
Required: No

NestingLevel

Specifies either document or table mode.

Valid values: NONE, ONE

Default value is NONE. Specify NONE to use document mode. Specify ONE to use table mode.

Type: String
Valid Values: none | one
Required: No

Password

The password for the user account you use to access the MongoDB source endpoint.

Type: String
Required: No

Port

The port value for the MongoDB source endpoint.

Type: Integer
Required: No

ServerName

The name of the server on the MongoDB source endpoint.

Type: String
Required: No

Username

The user name you use to access the MongoDB source endpoint.

Type: String
Required: No
See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
OrderableReplicationInstance

In response to the DescribeOrderableReplicationInstances operation, this object describes an available replication instance. This description includes the replication instance's type, engine version, and allocated storage.

Contents

AvailabilityZones

List of Availability Zones for this replication instance.

Type: Array of strings

Required: No

DefaultAllocatedStorage

The default amount of storage (in gigabytes) that is allocated for the replication instance.

Type: Integer

Required: No

EngineVersion

The version of the replication engine.

Type: String

Required: No

IncludedAllocatedStorage

The amount of storage (in gigabytes) that is allocated for the replication instance.

Type: Integer

Required: No

MaxAllocatedStorage

The minimum amount of storage (in gigabytes) that can be allocated for the replication instance.

Type: Integer

Required: No

MinAllocatedStorage

The minimum amount of storage (in gigabytes) that can be allocated for the replication instance.

Type: Integer

Required: No

ReleaseStatus

The value returned when the specified EngineVersion of the replication instance is in Beta or test mode. This indicates some features might not work as expected.

Note

AWS DMS supports the ReleaseStatus parameter in versions 3.1.4 and later.
Type: String
Valid Values: beta
Required: No

**ReplicationInstanceClass**

The compute and memory capacity of the replication instance.

Valid Values: dms.t2.micro | dms.t2.small | dms.t2.medium | dms.t2.large |
             dms.c4.large | dms.c4.xlarge | dms.c4.2xlarge | dms.c4.4xlarge

Type: String
Required: No

**StorageType**

The type of storage used by the replication instance.

Type: String
Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
PendingMaintenanceAction

Describes a maintenance action pending for an AWS DMS resource, including when and how it will be applied. This data type is a response element to the DescribePendingMaintenanceActions operation.

Contents

**Action**

The type of pending maintenance action that is available for the resource.

Type: String

Required: No

**AutoAppliedAfterDate**

The date of the maintenance window when the action is to be applied. The maintenance action is applied to the resource during its first maintenance window after this date. If this date is specified, any next-maintenance opt-in requests are ignored.

Type: Timestamp

Required: No

**CurrentApplyDate**

The effective date when the pending maintenance action will be applied to the resource. This date takes into account opt-in requests received from the ApplyPendingMaintenanceAction API operation, and also the AutoAppliedAfterDate and ForcedApplyDate parameter values. This value is blank if an opt-in request has not been received and nothing has been specified for AutoAppliedAfterDate or ForcedApplyDate.

Type: Timestamp

Required: No

**Description**

A description providing more detail about the maintenance action.

Type: String

Required: No

**ForcedApplyDate**

The date when the maintenance action will be automatically applied. The maintenance action is applied to the resource on this date regardless of the maintenance window for the resource. If this date is specified, any immediate opt-in requests are ignored.

Type: Timestamp

Required: No

**OptInStatus**

The type of opt-in request that has been received for the resource.

Type: String

Required: No
See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
RedshiftSettings

Provides information that defines an Amazon Redshift endpoint.

Contents

AcceptAnyDate

A value that indicates to allow any date format, including invalid formats such as 00/00/00 00:00:00, to be loaded without generating an error. You can choose true or false (the default).

This parameter applies only to TIMESTAMP and DATE columns. Always use ACCEPTANYDATE with the DATEFORMAT parameter. If the date format for the data doesn't match the DATEFORMAT specification, Amazon Redshift inserts a NULL value into that field.

Type: Boolean

Required: No

AfterConnectScript

Code to run after connecting. This parameter should contain the code itself, not the name of a file containing the code.

Type: String

Required: No

BucketFolder

The location where the comma-separated value (.csv) files are stored before being uploaded to the S3 bucket.

Type: String

Required: No

BucketName

The name of the S3 bucket you want to use

Type: String

Required: No

ConnectionTimeout

A value that sets the amount of time to wait (in milliseconds) before timing out, beginning from when you initially establish a connection.

Type: Integer

Required: No

DatabaseName

The name of the Amazon Redshift data warehouse (service) that you are working with.

Type: String

Required: No
DateFormat

The date format that you are using. Valid values are auto (case-sensitive), your date format string enclosed in quotes, or NULL. If this parameter is left unset (NULL), it defaults to a format of 'YYYY-MM-DD'. Using auto recognizes most strings, even some that aren't supported when you use a date format string.

If your date and time values use formats different from each other, set this to auto.

Type: String

Required: No

EmptyAsNull

A value that specifies whether AWS DMS should migrate empty CHAR and VARCHAR fields as NULL. A value of true sets empty CHAR and VARCHAR fields to null. The default is false.

Type: Boolean

Required: No

EncryptionMode

The type of server-side encryption that you want to use for your data. This encryption type is part of the endpoint settings or the extra connections attributes for Amazon S3. You can choose either SSE_S3 (the default) or SSE_KMS. To use SSE_S3, create an AWS Identity and Access Management (IAM) role with a policy that allows "arn:aws:s3:::*" to use the following actions: "s3:PutObject", "s3:ListBucket"

Type: String

Valid Values: sse-s3 | sse-kms

Required: No

FileTransferUploadStreams

The number of threads used to upload a single file. This parameter accepts a value from 1 through 64. It defaults to 10.

Type: Integer

Required: No

LoadTimeout

The amount of time to wait (in milliseconds) before timing out, beginning from when you begin loading.

Type: Integer

Required: No

MaxFileSize

The maximum size (in KB) of any .csv file used to transfer data to Amazon Redshift. This accepts a value from 1 through 1,048,576. It defaults to 32,768 KB (32 MB).

Type: Integer

Required: No

Password

The password for the user named in the username property.
Type: String  
Required: No

Port

The port number for Amazon Redshift. The default value is 5439.

Type: Integer  
Required: No

RemoveQuotes

A value that specifies to remove surrounding quotation marks from strings in the incoming data. All characters within the quotation marks, including delimiters, are retained. Choose true to remove quotation marks. The default is false.

Type: Boolean  
Required: No

ReplaceChars

A value that specifies to replaces the invalid characters specified in ReplaceInvalidChars, substituting the specified characters instead. The default is "?".

Type: String  
Required: No

ReplaceInvalidChars

A list of characters that you want to replace. Use with ReplaceChars.

Type: String  
Required: No

ServerName

The name of the Amazon Redshift cluster you are using.

Type: String  
Required: No

ServerSideEncryptionKmsKeyId

The AWS KMS key ID. If you are using SSE_KMS for the EncryptionMode, provide this key ID. The key that you use needs an attached policy that enables IAM user permissions and allows use of the key.

Type: String  
Required: No

ServiceAccessRoleArn

The Amazon Resource Name (ARN) of the IAM role that has access to the Amazon Redshift service.

Type: String  
Required: No
TimeFormat

The time format that you want to use. Valid values are `auto` (case-sensitive), `timeformat_string`, `epochsecs`, or `epochmillisecs`. It defaults to 10. Using `auto` recognizes most strings, even some that aren’t supported when you use a time format string.

If your date and time values use formats different from each other, set this parameter to `auto`.

Type: String

Required: No

TrimBlanks

A value that specifies to remove the trailing white space characters from a VARCHAR string. This parameter applies only to columns with a VARCHAR data type. Choose `true` to remove unneeded white space. The default is `false`.

Type: Boolean

Required: No

TruncateColumns

A value that specifies to truncate data in columns to the appropriate number of characters, so that the data fits in the column. This parameter applies only to columns with a VARCHAR or CHAR data type, and rows with a size of 4 MB or less. Choose `true` to truncate data. The default is `false`.

Type: Boolean

Required: No

Username

An Amazon Redshift user name for a registered user.

Type: String

Required: No

WriteBufferSize

The size of the write buffer to use in rows. Valid values range from 1 through 2,048. The default is 1,024. Use this setting to tune performance.

Type: Integer

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
RefreshSchemasStatus

Provides information that describes status of a schema at an endpoint specified by the DescribeRefreshSchemaStatus operation.

Contents

EndpointArn

The Amazon Resource Name (ARN) string that uniquely identifies the endpoint.

Type: String

Required: No

LastFailureMessage

The last failure message for the schema.

Type: String

Required: No

LastRefreshDate

The date the schema was last refreshed.

Type: Timestamp

Required: No

ReplicationInstanceArn

The Amazon Resource Name (ARN) of the replication instance.

Type: String

Required: No

Status

The status of the schema.

Type: String

Valid Values: successful | failed | refreshing

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ReplicationInstance

Provides information that defines a replication instance.

Contents

AllocatedStorage

The amount of storage (in gigabytes) that is allocated for the replication instance.

Type: Integer

Required: No

AutoMinorVersionUpgrade

Boolean value indicating if minor version upgrades will be automatically applied to the instance.

Type: Boolean

Required: No

AvailabilityZone

The Availability Zone for the instance.

Type: String

Required: No

DnsNameServers

The DNS name servers for the replication instance.

Type: String

Required: No

EngineVersion

The engine version number of the replication instance.

Type: String

Required: No

FreeUntil

The expiration date of the free replication instance that is part of the Free DMS program.

Type: Timestamp

Required: No

InstanceCreateTime

The time the replication instance was created.

Type: Timestamp

Required: No

KmsKeyId

An AWS KMS key identifier that is used to encrypt the data on the replication instance.
If you don't specify a value for the KmsKeyId parameter, then AWS DMS uses your default encryption key.

AWS KMS creates the default encryption key for your AWS account. Your AWS account has a different default encryption key for each AWS Region.

Type: String
Required: No

**MultiAZ**

Specifies whether the replication instance is a Multi-AZ deployment. You can't set the AvailabilityZone parameter if the Multi-AZ parameter is set to `true`.

Type: Boolean
Required: No

**PendingModifiedValues**

The pending modification values.

Type: ReplicationPendingModifiedValues (p. 222) object
Required: No

**PreferredMaintenanceWindow**

The maintenance window times for the replication instance.

Type: String
Required: No

**PubliclyAccessible**

Specifies the accessibility options for the replication instance. A value of `true` represents an instance with a public IP address. A value of `false` represents an instance with a private IP address. The default value is `true`.

Type: Boolean
Required: No

**ReplicationInstanceArn**

The Amazon Resource Name (ARN) of the replication instance.

Type: String
Required: No

**ReplicationInstanceClass**

The compute and memory capacity of the replication instance.

Valid Values: dms.t2.micro | dms.t2.small | dms.t2.medium | dms.t2.large | dms.c4.large | dms.c4.xlarge | dms.c4.2xlarge | dms.c4.4xlarge

Type: String
Required: No

**ReplicationInstanceIdentifier**

The replication instance identifier. This parameter is stored as a lowercase string.
Constraints:
• Must contain from 1 to 63 alphanumeric characters or hyphens.
• First character must be a letter.
• Cannot end with a hyphen or contain two consecutive hyphens.

Example: myrepinstance
Type: String
Required: No

ReplicationInstancePrivateIpAddress
This member has been deprecated.
The private IP address of the replication instance.
Type: String
Required: No

ReplicationInstancePrivateIpAddresses
One or more private IP addresses for the replication instance.
Type: Array of strings
Required: No

ReplicationInstancePublicIpAddress
This member has been deprecated.
The public IP address of the replication instance.
Type: String
Required: No

ReplicationInstancePublicIpAddresses
One or more public IP addresses for the replication instance.
Type: Array of strings
Required: No

ReplicationInstanceStatus
The status of the replication instance.
Type: String
Required: No

ReplicationSubnetGroup
The subnet group for the replication instance.
Type: ReplicationSubnetGroup (p. 223) object
Required: No

SecondaryAvailabilityZone
The Availability Zone of the standby replication instance in a Multi-AZ deployment.
Type: String
Required: No

**VpcSecurityGroups**

The VPC security group for the instance.

Type: Array of [VpcSecurityGroupMembership](p. 245) objects

Required: No

---

**See Also**

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ReplicationInstanceTaskLog

Contains metadata for a replication instance task log.

Contents

ReplicationInstanceTaskLogSize

The size, in bytes, of the replication task log.

Type: Long

Required: No

ReplicationTaskArn

The Amazon Resource Name (ARN) of the replication task.

Type: String

Required: No

ReplicationTaskName

The name of the replication task.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ReplicationPendingModifiedValues

Provides information about the values of pending modifications to a replication instance. This data type is an object of the ReplicationInstance user-defined data type.

Contents

AllocatedStorage

The amount of storage (in gigabytes) that is allocated for the replication instance.

Type: Integer
Required: No

EngineVersion

The engine version number of the replication instance.

Type: String
Required: No

MultiAZ

Specifies whether the replication instance is a Multi-AZ deployment. You can't set the AvailabilityZone parameter if the Multi-AZ parameter is set to true.

Type: Boolean
Required: No

ReplicationInstanceClass

The compute and memory capacity of the replication instance.

Valid Values: dms.t2.micro | dms.t2.small | dms.t2.medium | dms.t2.large | dms.c4.large | dms.c4.xlarge | dms.c4.2xlarge | dms.c4.4xlarge

Type: String
Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ReplicationSubnetGroup

Describes a subnet group in response to a request by the DescribeReplicationSubnetGroup operation.

Contents

ReplicationSubnetGroupDescription

A description for the replication subnet group.

Type: String
Required: No

ReplicationSubnetGroupIdentifier

The identifier of the replication instance subnet group.

Type: String
Required: No

SubnetGroupStatus

The status of the subnet group.

Type: String
Required: No

Subnets

The subnets that are in the subnet group.

Type: Array of Subnet (p. 238) objects
Required: No

VpcId

The ID of the VPC.

Type: String
Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ReplicationTask

Provides information that describes a replication task created by the CreateReplicationTask operation.

Contents

CdcStartPosition

Indicates when you want a change data capture (CDC) operation to start. Use either CdcStartPosition or CdcStartTime to specify when you want the CDC operation to start. Specifying both values results in an error.

The value can be in date, checkpoint, or LSN/SCN format.

Date Example: --cdc-start-position "2018-03-08T12:12:12"

Checkpoint Example: --cdc-start-position "checkpoint:V1#27#mysql-bin-changelog.157832:1975:-1:2002:677883278264080:mysql-bin-changelog.157832:1876#0#0#**#0#93"

LSN Example: --cdc-start-position "mysql-bin-changelog.000024:373"

Type: String

Required: No

CdcStopPosition

Indicates when you want a change data capture (CDC) operation to stop. The value can be either server time or commit time.

Server time example: --cdc-stop-position "server_time:3018-02-09T12:12:12"

Commit time example: --cdc-stop-position "commit_time: 3018-02-09T12:12:12 "

Type: String

Required: No

LastFailureMessage

The last error (failure) message generated for the replication instance.

Type: String

Required: No

MigrationType

The type of migration.

Type: String

Valid Values: full-load | cdc | full-load-and-cdc

Required: No

RecoveryCheckpoint

Indicates the last checkpoint that occurred during a change data capture (CDC) operation. You can provide this value to the CdcStartPosition parameter to start a CDC operation that begins at that checkpoint.
Type: String
Required: No

ReplicationInstanceArn
The Amazon Resource Name (ARN) of the replication instance.
Type: String
Required: No

ReplicationTaskArn
The Amazon Resource Name (ARN) of the replication task.
Type: String
Required: No

ReplicationTaskCreationDate
The date the replication task was created.
Type: Timestamp
Required: No

ReplicationTaskIdentifier
The user-assigned replication task identifier or name.
Constraints:
- Must contain from 1 to 255 alphanumeric characters or hyphens.
- First character must be a letter.
- Cannot end with a hyphen or contain two consecutive hyphens.
Type: String
Required: No

ReplicationTaskSettings
The settings for the replication task.
Type: String
Required: No

ReplicationTaskStartDate
The date the replication task is scheduled to start.
Type: Timestamp
Required: No

ReplicationTaskStats
The statistics for the task, including elapsed time, tables loaded, and table errors.
Type: ReplicationTaskStats (p. 229) object
Required: No
SourceEndpointArn

The Amazon Resource Name (ARN) string that uniquely identifies the endpoint.

Type: String

Required: No

Status

The status of the replication task.

Type: String

Required: No

StopReason

The reason the replication task was stopped.

Type: String

Required: No

TableMappings

Table mappings specified in the task.

Type: String

Required: No

TargetEndpointArn

The Amazon Resource Name (ARN) string that uniquely identifies the endpoint.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ReplicationTaskAssessmentResult

The task assessment report in JSON format.

Contents

AssessmentResults

The task assessment results in JSON format.

Type: String

Required: No

AssessmentResultsFile

The file containing the results of the task assessment.

Type: String

Required: No

AssessmentStatus

The status of the task assessment.

Type: String

Required: No

ReplicationTaskArn

The Amazon Resource Name (ARN) of the replication task.

Type: String

Required: No

ReplicationTaskIdentifier

The replication task identifier of the task on which the task assessment was run.

Type: String

Required: No

ReplicationTaskLastAssessmentDate

The date the task assessment was completed.

Type: Timestamp

Required: No

S3ObjectUrl

The URL of the S3 object containing the task assessment results.

Type: String

Required: No
See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ReplicationTaskStats

In response to a request by the DescribeReplicationTasks operation, this object provides a collection of statistics about a replication task.

Contents

ElapsedTimeMillis

The elapsed time of the task, in milliseconds.
Type: Long
Required: No

FreshStartDate

The date the replication task was started either with a fresh start or a target reload.
Type: Timestamp
Required: No

FullLoadFinishDate

The date the replication task full load was completed.
Type: Timestamp
Required: No

FullLoadProgressPercent

The percent complete for the full load migration task.
Type: Integer
Required: No

FullLoadStartDate

The date the replication task full load was started.
Type: Timestamp
Required: No

StartDate

The date the replication task was started either with a fresh start or a resume. For more information, see StartReplicationTaskType.
Type: Timestamp
Required: No

StopDate

The date the replication task was stopped.
Type: Timestamp
Required: No
TablesErrored
The number of errors that have occurred during this task.
Type: Integer
Required: No

TablesLoaded
The number of tables loaded for this task.
Type: Integer
Required: No

TablesLoading
The number of tables currently loading for this task.
Type: Integer
Required: No

TablesQueued
The number of tables queued for this task.
Type: Integer
Required: No

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
ResourcePendingMaintenanceActions

Identifies an AWS DMS resource and any pending actions for it.

Contents

PendingMaintenanceActionDetails

Detailed information about the pending maintenance action.

Type: Array of PendingMaintenanceAction (p. 210) objects

Required: No

ResourceIdentifier

The Amazon Resource Name (ARN) of the DMS resource that the pending maintenance action applies to. For information about creating an ARN, see Constructing an Amazon Resource Name (ARN) for AWS DMS in the DMS documentation.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
S3Settings

Settings for exporting data to Amazon S3.

Contents

BucketFolder

An optional parameter to set a folder name in the S3 bucket. If provided, tables are created in the path `bucketFolder/schema_name/table_name/`. If this parameter isn't specified, then the path used is `schema_name/table_name/`.

Type: String
Required: No

BucketName

The name of the S3 bucket.

Type: String
Required: No

CdcInsertsAndUpdates

A value that enables a change data capture (CDC) load to write INSERT and UPDATE operations to .csv or .parquet (columnar storage) output files. The default setting is `false`, but when `CdcInsertsAndUpdates` is set to `true` or `y`, INSERTs and UPDATEs from the source database are migrated to the .csv or .parquet file.

For .csv file format only, how these INSERTs and UPDATEs are recorded depends on the value of the `IncludeOpForFullLoad` parameter. If `IncludeOpForFullLoad` is set to `true`, the first field of every CDC record is set to either `I` or `U` to indicate INSERT and UPDATE operations at the source. But if `IncludeOpForFullLoad` is set to `false`, CDC records are written without an indication of INSERT or UPDATE operations at the source. For more information about how these settings work together, see Indicating Source DB Operations in Migrated S3 Data in the AWS Database Migration Service User Guide.

Note

AWS DMS supports the use of the `CdcInsertsAndUpdates` parameter in versions 3.3.1 and later.

`CdcInsertsOnly` and `CdcInsertsAndUpdates` can't both be set to `true` for the same endpoint. Set either `CdcInsertsOnly` or `CdcInsertsAndUpdates` to `true` for the same endpoint, but not both.

Type: Boolean
Required: No

CdcInsertsOnly

A value that enables a change data capture (CDC) load to write only INSERT operations to .csv or columnar storage (.parquet) output files. By default (the `false` setting), the first field in a .csv or .parquet record contains the letter `I` (INSERT), `U` (UPDATE), or `D` (DELETE). These values indicate whether the row was inserted, updated, or deleted at the source database for a CDC load to the target.

If `CdcInsertsOnly` is set to `true` or `y`, only INSERTs from the source database are migrated to the .csv or .parquet file. For .csv format only, how these INSERTs are recorded depends on the value of `IncludeOpForFullLoad`. If `IncludeOpForFullLoad` is set to `true`, the first field of every...
CDC record is set to I to indicate the INSERT operation at the source. If IncludeOpForFullLoad is set to false, every CDC record is written without a first field to indicate the INSERT operation at the source. For more information about how these settings work together, see Indicating Source DB Operations in Migrated S3 Data in the AWS Database Migration Service User Guide.

**Note**
AWS DMS supports the interaction described preceding between the CdcInsertsOnly and IncludeOpForFullLoad parameters in versions 3.1.4 and later. CdcInsertsOnly and CdcInsertsAndUpdates can't both be set to true for the same endpoint. Set either CdcInsertsOnly or CdcInsertsAndUpdates to true for the same endpoint, but not both.

Type: Boolean
Required: No

**CompressType**

An optional parameter to use GZIP to compress the target files. Set to GZIP to compress the target files. Either set this parameter to NONE (the default) or don't use it to leave the files uncompressed. This parameter applies to both .csv and .parquet file formats.

Type: String

Valid Values: none | gzip

Required: No

**CsvDelimiter**

The delimiter used to separate columns in the source files. The default is a comma.

Type: String

Required: No

**CsvRowDelimiter**

The delimiter used to separate rows in the source files. The default is a carriage return (\n).

Type: String

Required: No

**DataFormat**

The format of the data that you want to use for output. You can choose one of the following:
- csv: This is a row-based file format with comma-separated values (.csv).
- parquet: Apache Parquet (.parquet) is a columnar storage file format that features efficient compression and provides faster query response.

Type: String

Valid Values: csv | parquet

Required: No

**DataPageSize**

The size of one data page in bytes. This parameter defaults to 1024 * 1024 bytes (1 MiB). This number is used for .parquet file format only.

Type: Integer

Required: No
**DictPageSizeLimit**

The maximum size of an encoded dictionary page of a column. If the dictionary page exceeds this, this column is stored using an encoding type of `PLAIN`. This parameter defaults to 1024 * 1024 bytes (1 MiB), the maximum size of a dictionary page before it reverts to `PLAIN` encoding. This size is used for .parquet file format only.

Type: Integer

Required: No

**EnableStatistics**

A value that enables statistics for Parquet pages and row groups. Choose `true` to enable statistics, `false` to disable. Statistics include NULL, DISTINCT, MAX, and MIN values. This parameter defaults to `true`. This value is used for .parquet file format only.

Type: Boolean

Required: No

**EncodingType**

The type of encoding you are using:

- **RLE_DICTIONARY** uses a combination of bit-packing and run-length encoding to store repeated values more efficiently. This is the default.
- **PLAIN** doesn't use encoding at all. Values are stored as they are.
- **PLAIN_DICTIONARY** builds a dictionary of the values encountered in a given column. The dictionary is stored in a dictionary page for each column chunk.

Type: String

Valid Values: plain | plain-dictionary | rle-dictionary

Required: No

**EncryptionMode**

The type of server-side encryption that you want to use for your data. This encryption type is part of the endpoint settings or the extra connections attributes for Amazon S3. You can choose either `SSE_S3` (the default) or `SSE_KMS`. To use `SSE_S3`, you need an AWS Identity and Access Management (IAM) role with permission to allow "arn:aws:s3:::dms-*" to use the following actions:

- `s3:CreateBucket`
- `s3:ListBucket`
- `s3:DeleteBucket`
- `s3:GetBucketLocation`
- `s3:GetObject`
- `s3:PutObject`
- `s3:DeleteObject`
- `s3:GetObjectVersion`
- `s3:GetBucketPolicy`
- `s3:PutBucketPolicy`
- `s3:DeleteBucketPolicy`

Type: String

Valid Values: sse-s3 | sse-kms
ExternalTableDefinition

The external table definition.

Type: String

IncludeOpForFullLoad

A value that enables a full load to write INSERT operations to the comma-separated value (.csv) output files only to indicate how the rows were added to the source database.

Note

AWS DMS supports the IncludeOpForFullLoad parameter in versions 3.1.4 and later.

For full load, records can only be inserted. By default (the false setting), no information is recorded in these output files for a full load to indicate that the rows were inserted at the source database. If IncludeOpForFullLoad is set to true or y, the INSERT is recorded as an I annotation in the first field of the .csv file. This allows the format of your target records from a full load to be consistent with the target records from a CDC load.

Note

This setting works together with the CdcInsertsOnly and the CdcInsertsAndUpdates parameters for output to .csv files only. For more information about how these settings work together, see Indicating Source DB Operations in Migrated S3 Data in the AWS Database Migration Service User Guide.

Type: Boolean

ParquetTimestampInMillisecond

A value that specifies the precision of any TIMESTAMP column values that are written to an Amazon S3 object file in .parquet format.

Note

AWS DMS supports the ParquetTimestampInMillisecond parameter in versions 3.1.4 and later.

When ParquetTimestampInMillisecond is set to true or y, AWS DMS writes all TIMESTAMP columns in a .parquet formatted file with millisecond precision. Otherwise, DMS writes them with microsecond precision.

Currently, Amazon Athena and AWS Glue can handle only millisecond precision for TIMESTAMP values. Set this parameter to true for S3 endpoint object files that are .parquet formatted only if you plan to query or process the data with Athena or AWS Glue.

Note

AWS DMS writes any TIMESTAMP column values written to an S3 file in .csv format with microsecond precision.

Setting ParquetTimestampInMillisecond has no effect on the string format of the timestamp column value that is inserted by setting the TimestampColumnName parameter.

Type: Boolean

ParquetVersion

The version of the Apache Parquet format that you want to use: parquet_1_0 (the default) or parquet_2_0.
Type: String

Valid Values: parquet-1-0 | parquet-2-0

Required: No

RowGroupLength

The number of rows in a row group. A smaller row group size provides faster reads. But as the number of row groups grows, the slower writes become. This parameter defaults to 10,000 rows. This number is used for .parquet file format only.

If you choose a value larger than the maximum, RowGroupLength is set to the max row group length in bytes (64 * 1024 * 1024).

Type: Integer

Required: No

ServerSideEncryptionKmsKeyId

If you are using SSE_KMS for the EncryptionMode, provide the AWS KMS key ID. The key that you use needs an attached policy that enables AWS Identity and Access Management (IAM) user permissions and allows use of the key.

Here is a CLI example:

```bash
aws dms create-endpoint --endpoint-identifier value --endpoint-type target --engine-name s3 --s3-settings ServiceAccessRoleArn=value,BucketFolder=value,BucketName=value,EncryptionMode=SSE_KMS,ServerSideEncryptionKmsKeyId=value
```

Type: String

Required: No

ServiceAccessRoleArn

The Amazon Resource Name (ARN) used by the service access IAM role.

Type: String

Required: No

TimestampColumnName

A value that when nonblank causes AWS DMS to add a column with timestamp information to the endpoint data for an Amazon S3 target.

**Note**

AWS DMS supports the TimestampColumnName parameter in versions 3.1.4 and later.

DMS includes an additional STRING column in the .csv or .parquet object files of your migrated data when you set TimestampColumnName to a nonblank value.

For a full load, each row of this timestamp column contains a timestamp for when the data was transferred from the source to the target by DMS.

For a change data capture (CDC) load, each row of the timestamp column contains the timestamp for the commit of that row in the source database.

The string format for this timestamp column value is `yyyy-MM-dd HH:mm:ss.SSSSSS`. By default, the precision of this value is in microseconds. For a CDC load, the rounding of the precision depends on the commit timestamp supported by DMS for the source database.

When the AddColumnName parameter is set to true, DMS also includes a name for the timestamp column that you set with TimestampColumnName.
Type: String
Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Subnet

In response to a request by the DescribeReplicationSubnetGroup operation, this object identifies a subnet by its given Availability Zone, subnet identifier, and status.

Contents

SubnetAvailabilityZone

The Availability Zone of the subnet.

Type: AvailabilityZone (p. 184) object

Required: No

SubnetIdentifier

The subnet identifier.

Type: String

Required: No

SubnetStatus

The status of the subnet.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
SupportedEndpointType

Provides information about types of supported endpoints in response to a request by the DescribeEndpointTypes operation. This information includes the type of endpoint, the database engine name, and whether change data capture (CDC) is supported.

Contents

**EndpointType**

The type of endpoint. Valid values are source and target.

Type: String  
Valid Values: source | target  
Required: No

**EngineDisplayName**

The expanded name for the engine name. For example, if the EngineName parameter is "aurora," this value would be "Amazon Aurora MySQL."

Type: String  
Required: No

**EngineName**

The database engine name. Valid values, depending on the EndpointType, include "mysql","oracle","postgres","mariadb","aurora","aurora-postgresql","redshift","s3","db2","azuredb","sybase","dynamodb","mongodb","kinesis","kafka","elasticsearch","documentdb", and "sqlserver".

Type: String  
Required: No

**SupportsCDC**

Indicates if Change Data Capture (CDC) is supported.

Type: Boolean  
Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TableStatistics

Provides a collection of table statistics in response to a request by the DescribeTableStatistics operation.

Contents

Ddls

The data definition language (DDL) used to build and modify the structure of your tables.

Type: Long

Required: No

Deletes

The number of delete actions performed on a table.

Type: Long

Required: No

FullLoadCondtnlChkFailedRows

The number of rows that failed conditional checks during the full load operation (valid only for migrations where DynamoDB is the target).

Type: Long

Required: No

FullLoadEndTime

The time when the full load operation completed.

Type: Timestamp

Required: No

FullLoadErrorRows

The number of rows that failed to load during the full load operation (valid only for migrations where DynamoDB is the target).

Type: Long

Required: No

FullLoadReloaded

A value that indicates if the table was reloaded (true) or loaded as part of a new full load operation (false).

Type: Boolean

Required: No

FullLoadRows

The number of rows added during the full load operation.

Type: Long
FullLoadStartTime
The time when the full load operation started.
Type: Timestamp
Required: No

Inserts
The number of insert actions performed on a table.
Type: Long
Required: No

LastUpdateTime
The last time a table was updated.
Type: Timestamp
Required: No

SchemaName
The schema name.
Type: String
Required: No

TableName
The name of the table.
Type: String
Required: No

TableState
The state of the tables described.
Valid states: Table does not exist | Before load | Full load | Table completed | Table cancelled | Table error | Table all | Table updates | Table is being reloaded
Type: String
Required: No

Updates
The number of update actions performed on a table.
Type: Long
Required: No

ValidationFailedRecords
The number of records that failed validation.
Type: Long
Required: No
ValidationPendingRecords

The number of records that have yet to be validated.

Type: Long
Required: No

ValidationState

The validation state of the table.

This parameter can have the following values:
- Not enabled - Validation isn't enabled for the table in the migration task.
- Pending records - Some records in the table are waiting for validation.
- Mismatched records - Some records in the table don't match between the source and target.
- Suspended records - Some records in the table couldn't be validated.
- No primary key - The table couldn't be validated because it has no primary key.
- Table error - The table wasn't validated because it's in an error state and some data wasn't migrated.
- Validated - All rows in the table are validated. If the table is updated, the status can change from Validated.
- Error - The table couldn't be validated because of an unexpected error.

Type: String
Required: No

ValidationStateDetails

Additional details about the state of validation.

Type: String
Required: No

ValidationSuspendedRecords

The number of records that couldn't be validated.

Type: Long
Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
TableToReload

Provides the name of the schema and table to be reloaded.

**Contents**

**SchemaName**

The schema name of the table to be reloaded.

Type: String

Required: No

**TableName**

The table name of the table to be reloaded.

Type: String

Required: No

**See Also**

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
Tag

A user-defined key-value pair that describes metadata added to an AWS DMS resource and that is used by operations such as the following:

- `AddTagsToResource`
- `ListTagsForResource`
- `RemoveTagsFromResource`

## Contents

### Key

A key is the required name of the tag. The string value can be from 1 to 128 Unicode characters in length and can't be prefixed with "aws:" or "dms:". The string can only contain only the set of Unicode letters, digits, white-space, `_`, `'`, `/`, `;`, `=`, `+`, `-` (Java regex: `^([\p{L}\p{Z}\p{N}_.:/=+\-]+)$`).

*Type: String*

*Required: No*

### Value

A value is the optional value of the tag. The string value can be from 1 to 256 Unicode characters in length and can't be prefixed with "aws:" or "dms:". The string can only contain only the set of Unicode letters, digits, white-space, `_`, `'`, `/`, `;`, `=`, `+`, `-` (Java regex: `^([\p{L}\p{Z}\p{N}_.:/=+\-]+)$`).

*Type: String*

*Required: No*

## See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
VpcSecurityGroupMembership

Describes status of a security group associated with the virtual private cloud hosting your replication and DB instances.

Contents

Status

The status of the VPC security group.

Type: String

Required: No

VpcSecurityGroupId

The VPC security group Id.

Type: String

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS 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 Signature Version 4 Signing Process in the Amazon Web Services General Reference.

**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 Task 2: Create a String to Sign for Signature Version 4 in the Amazon Web Services General Reference.

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’THHMMSSZ’). 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 Handling Dates in Signature Version 4 in the Amazon Web Services General Reference.

Type: string
Required: Conditional

X-Amz-Security-Token

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS Security Token Service, go to AWS Services That Work with IAM in the IAM User Guide.

Condition: If you're using temporary security credentials from the AWS Security Token Service, 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 Task 1: Create a Canonical Request For Signature Version 4 in the Amazon Web Services General Reference.

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 AWS 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 AWS 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 AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

InvalidParameterCombination

Parameters that must not be used together were used together.

HTTP Status Code: 400

InvalidParameterValue

An invalid or out-of-range value was supplied for the input parameter.

HTTP Status Code: 400

InvalidQueryParameter

The AWS query string is malformed or does not adhere to AWS standards.

HTTP Status Code: 400

MalformedQueryString

The query string contains a syntax error.

HTTP Status Code: 404

MissingAction

The request is missing an action or a required parameter.

HTTP Status Code: 400
MissingAuthenticationToken
The request must contain either a valid (registered) AWS access key ID or X.509 certificate.
HTTP Status Code: 403

MissingParameter
A required parameter for the specified action is not supplied.
HTTP Status Code: 400

OptInRequired
The AWS 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 AWS service.
HTTP Status Code: 400