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</table>

### DeleteServer

**Syntax**

```csharp
public void DeleteServer(string server);
```

**Parameters**

- `string server`: Required User Role: See Required Enterprise Manager Permissions.

**Return Values**

- None

**Errors**

- None
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1 Introduction

The Qlik Enterprise Manager (Enterprise Manager) SDKs provide programmatic interfaces for performing tasks typically carried out using the Enterprise Manager web console, including:

- Viewing a list of tasks for a server
- Viewing details for a particular task
- Stopping a task
- Running a task
- Exporting all definitions from the requested server repository on the selected server
- Importing the JSON definitions provided in the request body into the requested server repository on the selected server
- Reloading a table
- Exporting a task
- Importing a task
- Testing an endpoint's connectivity and configuration

The Enterprise Manager SDKs allows other systems to interact with Enterprise Manager, for example to display data about one or more tasks in a user's dashboard. They also offers a quick and easy way of running batch operations.

Using an SDK requires basic familiarity with web services, Replicate, and Enterprise Manager.

**Note**  The following methods are supported with Replicate tasks only:

- ImportAll
- ExportAll
- ExportTask
- TestEndpoint
- GetEndpointList
- DeleteEndpoint
- ImportTask
- DeleteTask
- ReloadTable
2 Enterprise Manager REST SDK

This chapter explains how to use the Enterprise Manager REST SDK and lists the available methods.

In this chapter:
- Prerequisites
- Standards and Conventions
- Authentication and Authorization
- Error Handling
- Login
- Logout
- PutServerLicense
- GetServerDetails
- PutServer
- PutServerAcl
- GetServer
- GetServerAcl
- GetServerList
- DeleteServer
- DeleteServerAcl
- GetTaskList
- GetTaskDetails
- GetTableList
- GetTableStatuses
- DeleteTask
- ExportTask
- ImportTask
- StopTask
- RunTask
- GetEndpointList
- DeleteEndpoint
- ReconfigureEndpointNoWait
- ExportAll
Prerequisites

Before using the Enterprise Manager REST API, make sure that:

» Qlik Enterprise Manager has been installed.
» The Qlik Enterprise Manager service is active.
» The relevant permissions have been granted.

Standards and Conventions

The API is based on the following standards:

» Names: Camel Case, such as GetTaskList

» Date and time format: ISO 8601 (YYYY-MM-DD HH:MM:SS), in UTC (Universal Time Coordinated)

  Example: 2007-04-05T14:30:25 (implicitly interpreted as UTC without the explicit trailing Z).

» Standard URL format: api/v1/URL

In addition, this topic uses the following conventions:

» Parameters in examples appear in curly brackets as \{xx\} and should be replaced with an actual value. An example of a parameter is \{server\}, which should be replaced by the server name or IP address of the machine where Replicate is installed. For a list of parameters, see Parameters.

All examples in this chapter use cURL as the HTTP engine.

In terms of forward and backward compatibility of the Enterprise Manager REST API, the caller should expect future releases to add new optional request parameters and additional data items in responses.
Authentication and Authorization

The Enterprise Manager REST API uses the BASIC HTTP authorization scheme to authenticate callers and create a client session. A client session is established using the `Login` method, which returns the special header "EnterpriseManager.APISessionID" with a value (session token) that needs to be sent as a request header in any subsequent requests.

A session token expires 5 minutes after the last request. After the session expires, the caller must re-authenticate to establish a new session.

Authorization for performing a specific REST request relies on permission, assigned to the authenticated user either directly or by means of group membership. Each REST request requires a minimum role, which is specified in the section describing the request.

Error Handling

An error response has the following structure:

```
{
   "error_code":"code","error_message":"message"
}
```

This section lists the generic messages that apply to most of the API functions. Errors that are specific to a particular API function appear in the section for that API function.

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNAUTHORIZED_REQUEST</td>
<td>Unauthorized Request.</td>
<td>The user is not authorized to perform the requested action (e.g. deleting a task).</td>
</tr>
<tr>
<td>INVALID_SESSION_ID</td>
<td>The session has expired or the session ID is not valid.</td>
<td>Session expired or invalid.</td>
</tr>
<tr>
<td>DESERIALIZE_TO_TYPE</td>
<td>Failed to deserialize json to type: {}</td>
<td>Returned when the JSON format is invalid.</td>
</tr>
<tr>
<td>AEM_SERVER_NOT_FOUND</td>
<td>The requested server {server} could not be found.</td>
<td>The requested server cannot be found.</td>
</tr>
<tr>
<td>AEM_SERVER_NOT_MONITORED</td>
<td>The requested server {server} is not monitored.</td>
<td>The requested server is not being monitored and thus the information is not accessible.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>AEM_SERVER_NOT_CONNECTED</td>
<td>The requested server &quot;{server}&quot; cannot be reached at this time.</td>
<td>The desired information cannot be retrieved as the requested server is not connected.</td>
</tr>
<tr>
<td></td>
<td>Message: {message}</td>
<td></td>
</tr>
<tr>
<td>AEM_SERVER_LICENSE_EXPIRED</td>
<td>The license for requested server {server} has expired.</td>
<td>The requested server license has expired.</td>
</tr>
<tr>
<td>AEM_SERVER_INVALID_LICENSE</td>
<td>The license for requested server {server} is not valid.</td>
<td>The requested server license is not valid.</td>
</tr>
<tr>
<td>LICENSE_NOT_FOUND</td>
<td>You need to register a Replication Management license in order to use Qlik Enterprise Manager. To register or obtain a license, open the Qlik Enterprise Manager console and follow the instructions.</td>
<td>Replication Management license was not found. For a user who is permitted to Register Qlik Enterprise Manager license.</td>
</tr>
<tr>
<td>LICENSE_NOT_FOUND_CONTACT_ADMIN</td>
<td>An Enterprise Manager Admin needs to register a Replication Management license before you can use the product. To obtain a license, contact your Qlik Sales Representative with the Enterprise Manager machine name (which is displayed when you open the Enterprise Manager console).</td>
<td>Replication Management license was not found. For a user who is NOT permitted to Register Qlik Enterprise Manager license.</td>
</tr>
<tr>
<td>LICENSE_EVALUATION_EXPIRED</td>
<td>{Module} evaluation license has expired.</td>
<td>{Module} is one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Analytics</td>
</tr>
<tr>
<td>Error Code</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>LICENSE_TERM_EXPIRED</td>
<td>{Module} license has expired.</td>
<td>{Module} is one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Analytics</td>
</tr>
<tr>
<td>LICENSE_INVALID_SIGNATURE</td>
<td>The {Module} license signature is invalid.</td>
<td>{Module} is one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Analytics</td>
</tr>
<tr>
<td>LICENSE_HOST_MISMATCH</td>
<td>The host name in the {Module} license does not match the Enterprise Manager machine name.</td>
<td>{Module} is one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Analytics</td>
</tr>
<tr>
<td>AEM_MISSING_FIELD</td>
<td>The &quot;{fieldName}&quot; field is missing from the request.</td>
<td>When a mandatory field is missing from the request or appears empty</td>
</tr>
</tbody>
</table>

### Login

#### General

<table>
<thead>
<tr>
<th>URL</th>
<th>https://{host}/attunityenterprisemanager/api/v1/login</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Authenticates an API caller with Enterprise Manager using Active Directory or SAML, and acquires a session token to be used with API method calls. The server requests client authentication.</td>
</tr>
<tr>
<td>HTTP Method</td>
<td>GET - Active Directory</td>
</tr>
<tr>
<td></td>
<td>POST - Active Directory and SAML</td>
</tr>
<tr>
<td>Required User Role</td>
<td>See <a href="#">Required Enterprise Manager Permissions</a></td>
</tr>
</tbody>
</table>
Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>URL Parameter Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>Header (Required with Active Directory authentication only)</td>
<td>user@domain:password converted to base 64 [string]</td>
<td>Yes</td>
<td>c27kc2Rmc27k</td>
</tr>
</tbody>
</table>

Response Header

<table>
<thead>
<tr>
<th>URL Param Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EnterpriseManager.APISessionID</td>
<td>Identifier to be used to get authorization to run API functions on Enterprise Manager</td>
</tr>
</tbody>
</table>
cURL Example

Active Directory Request:

curl -i -k --header "Authorization: Basic cWFAcWE6cWE="
https://computer.network.net/attunityenterprisemanager/
api/v1/login

SAML Request:

curl -i -X POST
https://computer.network.net/attunityenterprisemanager/api/v1/login --
data "@saml.txt"

Where @saml.txt is the SAML assertion from a SAML IDP. This must be a URL encoded string containing the SamLRspnse parameter with a base64 encoded SAML assertion as its value. The string may also contain other parameters (e.g. RelayState), but these parameters are ignored.

Response:

HTTP/1.1 200 OK
Content-Length: 0
Content-Type: text/html
Server: Microsoft-HTTPAPI/2.0
EnterpriseManager.APISessionID: J3cKzWbibi_w6Fr1G-t003Q
Date: Mon, 26 Dec 2016 17:02:01 GMT

Error Response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>401</td>
<td>UNAUTHORIZED_REQUEST</td>
<td>Unauthorized Request</td>
<td>The request was not authorized.</td>
</tr>
</tbody>
</table>
Logout

General

**URL**
https://{host}/attunityenterprisemanager/api/v1/logout

**Description**
End a session

**HTTP Method**
GET

**Required User Role**
See Required Enterprise Manager Permissions.

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>URL Param Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvfsF5KGrw</td>
</tr>
</tbody>
</table>

**cURL Example**

**Request**

curl -i -k --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvfsF5KGrw A"
https://computer.network.net/attunityenterprisemanager/api/v1/logout

**Response**

Header:

HTTP/1.1 200 OK
Content-Length: 0
Content-Type: text/html
Server: Microsoft-HTTPAPI/2.0
Date: Tue, 27 Dec 2016 08:00:27 GMT
PutServerLicense

General

**URL**
https://[host]/attunityenterprisemanager/api/v1/servers/[server]/license/def

**Description**
Registers a license on a specific server via Qlik Enterprise Manager.

**HTTP Method**
PUT

**Required User Role**
See Required Enterprise Manager Permissions.

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>Host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>The name of the server in Enterprise Manager: myrepsrv1</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvfHF5KGrw</td>
</tr>
</tbody>
</table>

Request Body

The license to register on the server [stream].

This is the license that was provided by your Qlik Sales Representative.

Expected format: Text or JSON.

Currently refers to the Replicate license only.
cURL Example

Request  
curl -i -k -X PUT --header "EnterpriseManager.APISessionID:wCo0_KvjEUFROvfHF5KGrw" --header "Content-Length: 324" 
"https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1/license/def" -T "C:\license_exp2018-02-07_ser90000319.txt"

Request Body  
(content of "C:\license_exp2018-02-07_ser90000319.txt")

#
# Temporary license for development
#
license_type=evaluation_license
licensed_to=Qlik Internal - Qlik Replicate Development
licensed_by=Miki
serial_no=2333
expiration_date=2018-01-31
source_types=
target_types=
features=manager
version=5.5.0.0
issue_date=2017-11-01
checksum=C2855-R5J8F-JF8RQ-C3K7K

Response  
Header:

HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 38
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 16:31:01 GMT
Error Response

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_PUT_SRV_LIC_INNER_ERR</td>
<td>Failed to put license for server &quot;{server}&quot;. Error: &quot;{message}&quot;</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to register the license on the specified server.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_SRV_LIC_INVALID_FORMAT</td>
<td>The license file format is corrupt.</td>
<td>Returned when the contents of the license file are invalid.</td>
</tr>
</tbody>
</table>

GetServerDetails

General

**URL**
https://{host}/attunityenterprisemanager/api/v1/servers/[server]

**Description**
Retrieves details about the specified server.

**HTTP Method**
GET

**Required User Role**
See Required Enterprise Manager Permissions.

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUNoW5eF5KGrw</td>
</tr>
</tbody>
</table>
Response Body

```
Body
{
    "serverDetails":{
        "$type":"{string}”,
        "name":"{string}”,
        "description":"{string}”,
        "configuration":{
            "host":"{string}”,
            "platform":"{enum server_platform}”,
            "port":"{string}”,
            "username":"{string}”
        },
        "state":"{enum server_state}”,
        "message":"{string}”,
        "version": "{string}”,
        "license":{
            "issue_date":"{string}”,
            "state":"{enum license_state}”,
            "expiration":"{string}”,
            "days_to_expiration":"{int32}”
        },
        "last_connection":"{string}”,
        "task_summary":{
            "total":"{int32}”,
            "running":"{int32}”,
            "stopped":"{int32}”,
            "recovering":"{int32}”,
            "error":"{int32}”
        },
        "resource_utilization":{
            "disk_usage_mb":"{int64}”,
            "memory_mb":"{int64}”,
            "attunity_cpu_percentage":"{int32}”,
            "machine_cpu_percentage":"{int32}”
        }
    }
}
```
## Response Parameters

| Name   | Description                                                                。
|--------|-----------------------------------------------------------------------------。
| $type  | The server’s type, which can either be ReplicateServerDetails or ComposeServerDetails.。
| Name   | The name of the server in Qlik Enterprise Manager.。
| Description | The server description。
| configuration | 
| host   | The host name or IP address of the Replicate/Compose Server machine.。
| platform | The platform on which the Replicate/Compose Server machine is installed.。
| port   | The port through which the Replicate/Compose Server machine is accessed.。
| user name | The user name for connecting to the Replicate/Compose Server machine.。
| State  | The current monitoring state of the Replicate/Compose Server machine.。
| message | The error message if Qlik Enterprise Manager fails to connect to the Replicate/Compose Server machine.。
| version | The Replicate/Compose Server version.。
| license | 
| issue_date | When the license was issued.。
| state   | The current license state (e.g. valid, expired, etc.).。
| expiration | The expiration date of the server license.。
| days_to_expiration | The number of days left before the license expires.。
| last_connection | The date and time of the last successful sync/retrieval of tasks and messages.。
| task_summary | 
| total  | The total number of tasks, regardless of state.。
| running | The number of running tasks.。

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<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>resource_utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>stopped</td>
<td>The number of stopped tasks.</td>
<td>disk_usage_mb: The amount of disk space that the server is currently consuming, in MB. This is the sum of disk usage for all tasks on this server.</td>
</tr>
<tr>
<td>recovering</td>
<td>The number of recovering tasks.</td>
<td>memory_mb: The amount of memory that the server is currently consuming, in MB. This is the sum of memory usage for all active tasks on this server, excluding stopped tasks.</td>
</tr>
<tr>
<td>error</td>
<td>The number of tasks that encountered a fatal error.</td>
<td>attunity_cpu_percentage: The current CPU usage of the Replicate server process + all task processes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>machine_cpu_percentage: The current total CPU usage of all the processes running on the machine.</td>
</tr>
</tbody>
</table>

**Notes**

- The return value -1 means N/A.
- Parameters related to Disk, Memory, Qlik CPU, and Machine CPU usage are not available for Compose servers. For Compose servers, these parameters will be returned as -1.
- Parameters related to Qlik CPU and Machine CPU usage are only available for Replicate 6.2 and above. For earlier Replicate versions, these parameters will be returned as -1.
- For servers that are in an error state or not monitored, parameters related to Disk and Memory usage will be returned as -1.
cURL Example

Request

```bash
curl -i -k --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvfHF5KGrw"
https://computer.network.net/attunityenterprisemanager/api/v1/
servers/myrepsrvl
```
Response

Headers:
HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 1658
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 13:18:27 GMT

Payload:
{
  "serverDetails":{
    "$type": "ReplicateServerDetails",
    "name": "myrepsrv1",
    "description": "My daily replication tasks",
    "configuration":{
      "host": "computer.network.net",
      "platform": "WINDOWS",
      "port": "443",
      "username": "Administrator"
    },
    "state": "MONITORED",
    "message": "",
    "version": "5.2.0.156",
    "license":{
      "issue_date": "2016-12-31",
      "state": "LICENSE_VALID",
      "expiration": "2017-12-31",
      "days_to_expiration": "30"
    },
    "last_connection": "2016-12-18T02:23:30",
    "task_summary":{
      "total": 50,
      "running": 20,
      "stopped": 10,
      "recovering": 12,
      "error": 8
    },
    "resource_utilization":{
      "disk_usage_mb": 500,
      "memory_mb": 112832,
      "attunity_cpu_percentage": 30,
      "machine_cpu_percentage": 50
    }
  }
}
Error Response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_SERVER_NOT_FOUND</td>
<td>Replicate server {server} could not be found.</td>
<td>Server name unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>403</td>
<td>See Error Handling.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>440</td>
<td>See Error Handling.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PutServer

General

URL https://[host]/attunityenterprisemanager/api/v1/servers/[server]/def

Description Adds a new Replicate/Compose Server or updates the server definition (Connection Properties) if the specified server already exists.

This method can be used together with GetServer in order to update the connection properties of an existing server. First call GetServer, then edit the returned properties as required, and finally, call PutServer.

HTTP Method PUT

Required User Role See Required Enterprise Manager Permissions.

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>Host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager/APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvfHF5KGrw</td>
</tr>
</tbody>
</table>
**Request Body**

```json
{
    "$type": "{string}",
    "name": "{string}",
    "description": "{string}",
    "host": "{string}",
    "port": "{string}",
    "username": "{string}",
    "password": "{string}",
    "verify_server_certificate": "{bool}",
    "monitored": "{bool}"
}
```

**Request Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$type</td>
<td>The server's type: Can either be AemReplicateServer or AemComposeServer.</td>
</tr>
<tr>
<td>name</td>
<td>The name of the server. For details of what constitutes a valid server name, see AEM_INVALID_NAME.</td>
</tr>
<tr>
<td>description</td>
<td>The description of the server. For details of what constitutes a valid description, see AEM_INVALID_DESC</td>
</tr>
<tr>
<td>host</td>
<td>The host name or IP address of the server. For details of what constitutes a valid host name, see AEM_INVALID_HOST</td>
</tr>
<tr>
<td>port</td>
<td>The port through which the server is accessed.</td>
</tr>
<tr>
<td>username</td>
<td>The user name to connect to the server. The specified user must be a server administrator. For details of what constitutes a valid user name, see AEM_INVALID_USERNAME.</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>password</td>
<td>The password to connect to the server.</td>
</tr>
</tbody>
</table>

**Note** Within a session, the password identifier (GUID) that is returned by `GetServer` can be used in this request to indicate that the password should remain unchanged.

The password identifier returned by `GetServer` must be used in the same session, otherwise an error will occur.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>verify_server_certificate</td>
<td>Set to &quot;true&quot; to ensure the Server certificate is trusted. As a rule, to reduce the chance of &quot;man-in-the-middle&quot; attacks, this option should always be set to &quot;true&quot;.</td>
</tr>
<tr>
<td></td>
<td>» When connecting directly to a Qlik Replicate replication server (default port 3552) with its automatically generated self-signed certificate, Qlik Enterprise Manager is able to validate the certificate without requiring any additional setup.</td>
</tr>
<tr>
<td></td>
<td>» When connecting to a Replicate Server via the Replicate UI Server (typically using port 443) or to the Replicate replication server with a user-installed certificate, you must make sure that the SSL/TLS certificate used by the server is trusted by the Qlik Enterprise Manager machine. The same applies when connecting to a Compose Server with a user-installed certificate. You can easily verify whether the certificate is trusted by opening a Chrome browser window on the Qlik Enterprise Manager machine and connecting to Replicate. If there are no security warnings, the certificate is trusted.</td>
</tr>
<tr>
<td></td>
<td>For information on the different ways of connecting to Qlik Replicate, see <code>Qlik Replicate Server Requirements</code> in the Qlik Enterprise Manager Help.</td>
</tr>
<tr>
<td>monitored</td>
<td>Whether to retrieve tasks and messages from this server or not. The default is true.</td>
</tr>
</tbody>
</table>
cURL Example

Request

curl -i -k -X PUT --header
"EnterpriseManager.APISessionID: wCo0_KvjEUFROvfHF5KGrw" --header "Content-Length: 242"
hits://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1/def -T "C:\myrepsrv1.json"

Request Body

(content of "C:\myrepsrv1.json")

{
  "$type":"AemReplicateServer",
  "name":"myrepsrv1",
  "description":"replicate for business",
  "host":"rep2018r2gs7.qa.int",
  "port":"443",
  "username":"administrator",
  "password":"pass123",
  "verify_server_certificate":"true",
  "monitored":"true"
}

Response

Headers:

HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 38
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTPPAPI/2.0
Date: Mon, 26 Dec 2016 13:18:27 GMT
### Error Response

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>DESERIALIZE_TO_TYPE</td>
<td>&quot;Failed to deserialize json to type Server: {message}&quot;</td>
<td>Returned when the JSON format is invalid format. For example, such an error will be returned if the JSON contains an unknown role.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_PUT_SERVER INNER ERR</td>
<td>Failed to put server &quot;{server}&quot;. Error: &quot;{message}&quot;.</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to PUT the server.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_INVALID_SERVER_TYPE</td>
<td>Server type {ServerType} for server &quot;{ServerName}&quot; is not valid.</td>
<td>Returned when the an invalid server type is specified.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_NAME_URL_MISMATCH</td>
<td>The name of the server in the request does not match the one that is specified in the URL.</td>
<td>Returned when the name of the server in the request does not match the one that is specified in the URL.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_EMPTY_HOST</td>
<td>The host is missing from the request.</td>
<td>Returned when the host is missing from the request.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_EMPTY_PORT</td>
<td>The port is missing from the request.</td>
<td>Returned when the port is missing from the request.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_EMPTY_USERNAME</td>
<td>The username is missing from the request.</td>
<td>Returned when the user name is missing from the request.</td>
</tr>
<tr>
<td>HTTP Code</td>
<td>Enterprise Manager Code</td>
<td>Text</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>500</td>
<td>AEM_EMPTY_PASSWORD</td>
<td>The password is missing from the request.</td>
<td>Returned when the password is missing from the request.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_INVALID_PORT</td>
<td>The port is invalid.</td>
<td>Returned when the specified port is not valid.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_INVALID_USERNAME</td>
<td>The user name is invalid.</td>
<td>Returned when the specified user name is not valid.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>User names cannot exceed 104 characters and can contain all Unicode characters except for the following characters: Forward slash (/), Left square bracket ([), Right square bracket (]), Colon (:), Semicolon (;), Vertical bar (</td>
<td>), Equal sign (=), Plus sign (+), Asterisk (*), Question mark (?), Left angle bracket (&lt;), Right angle bracket (&gt;) Double quote (&quot;).</td>
</tr>
<tr>
<td>500</td>
<td>AEM_INVALID_DESC</td>
<td>The description is invalid.</td>
<td>Returned when the description exceeds 250 characters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Descriptions cannot exceed 250 characters.</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>AEM_INVALID_HOST</td>
<td>The host is invalid.</td>
<td>Returned when the server host name exceeds 64 characters or contains invalid characters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hosts cannot exceed 64 characters and can only contain letters (a-z or A-Z), digits, spaces, dots (.), dashes (-), and underscores (_).</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>AEM_INVALID_NAME</td>
<td>The name of the server is invalid.</td>
<td>Returned when the server name exceeds 64 characters or contains invalid characters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Server names cannot exceed 64 characters and can only contain letters (a-z or A-Z), digits, spaces, dots (.), dashes (-), and underscores (_).</td>
<td></td>
</tr>
<tr>
<td>HTTP Code</td>
<td>Enterprise Manager Code</td>
<td>Text</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------</td>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>500</td>
<td>AEM_HOST_PORT_ALREADY_EXIST</td>
<td>Host {name/IP} and port {number} are already in use by another server.</td>
<td>Returned when both the server host name/IP address and the server port are already in use by another server.</td>
</tr>
</tbody>
</table>

**PutServerAcl**

**General**

**URL**

https://[host]/attunityenterprisemanager/api/v1/servers/[server]?action=acl
**Description**

Puts an explicit ACL for a specific server in Qlik Enterprise Manager.

The method will replace any existing explicit ACL with the ACL in the request.

The request also includes a Boolean flag for specifying if the server should inherit ACLs from its ancestors (in addition to its explicitly defined ACLs) or not.

The inherited ACLs (i.e. the ACLs of the server's ancestors) are not affected by this method.

The `PutServerAcl` can be used together with the `GetServerAcl` method in order to update an existing server's ACL. First call `GetServerAcl`, then edit the returned roles as required, and finally, call `PutServerAcl`.

**Behavior when putting a partial request:**

When the request body includes only some of the roles (as opposed to all four of them), only the roles specifically defined in the request body will be set on the server; roles that are missing or empty will be inherited, but only if the following are true:

- The `disable_inheritance` flag is set to "True".
- The roles that are missing/empty in the request are defined for the ancestors.

**Behavior on conflicts:**

If the `disable_inheritance` flag is set to "False" and the explicit roles in the request conflict with existing inherited roles, then the explicit roles will take precedence. For example, if the request defines user A as a Viewer on `MyServer` and user A is also defined as an Admin on All Servers, then user A will be defined as an Admin on All Servers but as a Viewer on `MyServer`.

**Note**  The user permissions in Enterprise Manager are
completely independent of the user permissions in Replicate. Consequently, `PutServerAcl` will affect the server's Enterprise Manager user permissions, but will not affect Replicate's user permissions.

Moreover, when performing an operation via Enterprise Manager, the user permissions defined for the server entity in Enterprise Manager apply, whereas when performing an operation directly via the Replicate Console, the user permissions defined in Replicate apply.

**Note** Defining the same user/group in different roles is not allowed. However, if the same user or group is defined in different roles but with a different case (e.g. Mike vs. mike or Analysts vs. ANALYSTS), no error will be returned and the strongest role will take precedence.

<table>
<thead>
<tr>
<th>HTTP Method</th>
<th>PUT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required User Role</strong></td>
<td>See Required Enterprise Manager Permissions.</td>
</tr>
</tbody>
</table>

### Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>Host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_{KvjEUFROvHF5KGwr}</td>
</tr>
</tbody>
</table>
Request Body

```json
{
    "admin_role": {
        "users": [
            { "name": "{string}" },
            { "name": "{string}" }, ...
        ],
        "groups": [
            { "name": "{string}" },
            { "name": "{string}" }, ...
        ],
    },
    "designer_role": {
        "users": [
            { "name": "{string}" },
            { "name": "{string}" }, ...
        ],
        "groups": [
            { "name": "{string}" },
            { "name": "{string}" }, ...
        ],
    },
    "operator_role": {
        "users": [
            { "name": "{string}" },
            { "name": "{string}" }, ...
        ],
        "groups": [
            { "name": "{string}" },
            { "name": "{string}" }, ...
        ],
    },
    "viewer_role": {
        "users": [
            { "name": "{string}" },
            { "name": "{string}" }, ...
        ],
        "groups": [
            { "name": "{string}" },
            { "name": "{string}" }, ...
        ],
    },
    "disable_inheritance": "{bool}"
}
```
## Request Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>admin_role</td>
<td></td>
</tr>
<tr>
<td>users</td>
<td>An array of users assigned as Admins on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Admin user.</td>
</tr>
<tr>
<td>groups</td>
<td>An array of groups assigned as Admins on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Admin group.</td>
</tr>
<tr>
<td>designer_role</td>
<td></td>
</tr>
<tr>
<td>users</td>
<td>An array of users assigned as Designers on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Designer user.</td>
</tr>
<tr>
<td>groups</td>
<td>An array of groups assigned as Designers on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Designer group.</td>
</tr>
<tr>
<td>operator_role</td>
<td></td>
</tr>
<tr>
<td>users</td>
<td>An array of users assigned as Operators on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Operator user.</td>
</tr>
<tr>
<td>groups</td>
<td>An array of groups assigned as Operators on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Operator group.</td>
</tr>
<tr>
<td>viewer_role</td>
<td></td>
</tr>
<tr>
<td>users</td>
<td>An array of users assigned as Viewers on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Viewer user.</td>
</tr>
<tr>
<td>groups</td>
<td>An array of groups assigned as Viewers on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Viewer group.</td>
</tr>
<tr>
<td>disable_inheritance</td>
<td>Set to &quot;true&quot; if you do not want the server to inherit ACLs from its ancestors (in addition to its explicit ACL). If set to &quot;false&quot; (this is also the default when it is not set), ACLs will be inherited from ancestors in addition to any explicit ACLs.</td>
</tr>
</tbody>
</table>
cURL Example

**Request**

```
CURL.EXE -i -k -X PUT --header
"EnterpriseManager.APISessionID: wCo0_KvjEFpOFvHf5KGr"
--header "Content-Length: 638"
https://computer.network.net/attunityenterprisemanager/
api/v1/servers/myrepsrv1?action=acl" -T
"C:\myrepsrv1Acl.json"
```
Request Body

```json
{
    "admin_role": {
        "users": [
            {
                "name": "QLIK\Paul.Clarke",
                "name": "QLIK\testAuth1"
            },
            "groups": [
                {"name": "QLIK\At-
                 tunityEnterpriseManagerAdmins"}
            ]
        },
        "designer_role": {
            "users": [
                {"name": "QLIK\Marisa.Lewis"},
                {"name": "QLIK\testAuth2"}
            ],
            "groups": [
                {"name": "QLIK\At-
                 tunityEnterpriseManagerDesigners"}
            ]
        },
        "operator_role": {
            "users": [
                {"name": "QLIK\David.Foster"},
                {"name": "QLIK\testAuth3"}
            ],
            "groups": [
                {"name": "QLIK\At-
                 tunityEnterpriseManagerOperators"}
            ]
        },
        "viewer_role": {
            "users": [
                {"name": "QLIK\Laura.Todd"},
                {"name": "QLIK\testAuth4"}
            ],
            "groups": [
                {"name": "QLIK\At-
                 tunityEnterpriseManagerViewers"}
            ]
        },
        "disable_inheritance": true
    }
}
```
<table>
<thead>
<tr>
<th>Response</th>
<th>Header:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HTTP/1.1 200 OK</td>
</tr>
<tr>
<td></td>
<td>Cache-Control: no-cache, no-store</td>
</tr>
<tr>
<td></td>
<td>Content-Length: 38</td>
</tr>
<tr>
<td></td>
<td>Content-Type: application/json; charset=utf-8</td>
</tr>
<tr>
<td></td>
<td>Server: Microsoft-HTTPAPI/2.0</td>
</tr>
<tr>
<td></td>
<td>Date: Mon, 26 Dec 2016 16:31:01 GMT</td>
</tr>
</tbody>
</table>
## Error Response

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>DESERIALIZE_TO_TYPE</td>
<td>&quot;Failed to deserialize json to type AemAuthorizationAcl: {message}&quot;</td>
<td>Returned when the JSON format is invalid format. For example, such an error will be returned if the JSON contains an unknown role.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_PUT_SERVER_ACL_INNER_ERR</td>
<td>Failed to put ACL of server &quot;{server}&quot;. Error: &quot;{message}&quot;.</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to put the server's ACL.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_NO_DOMAIN_IN_USER</td>
<td>User &quot;{userName}&quot; must be preceded by a domain name, separated by a backslash. Example: domain_name\user_name.</td>
<td>Returned when the domain is missing from the user name.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_NO_DOMAIN_IN_GROUP</td>
<td>Group &quot;{groupName}&quot; must be preceded by a domain name, separated by a backslash. Example: domain_name\group_name.</td>
<td>Returned when the domain is missing from the group name.</td>
</tr>
<tr>
<td>HTTP Code</td>
<td>Enterprise Manager Code</td>
<td>Text</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------</td>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>500</td>
<td>AEM_NO_ADMIN_ ON_SERVER</td>
<td>Requested server &quot;{serverName}&quot; has no admin user. At least one user or group must be assigned to the &quot;admin&quot; role.</td>
<td>Returned when there is no admin on the server. Possible reasons:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>» The request JSON is set to disable_inheritance=true and the explicit admin role in the JSON is empty.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>» The JSON is set to disable_inheritance=true, the explicit admin role in the JSON is empty, and the parent levels do not have an admin user to inherit.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_USER_ ASSIGNED_TO_ MULTIPLE_ROLES</td>
<td>User &quot;{userName}&quot; is assigned to multiple roles. Users can only be assigned to a single role.</td>
<td>Returned when a user is assigned to multiple roles.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_GROUP_ ASSIGNED_TO_ MULTIPLE_ROLES</td>
<td>Group &quot;{groupName}&quot; is assigned to multiple roles. Groups can only be assigned to a single role.</td>
<td>Returned when a group is assigned to multiple roles.</td>
</tr>
</tbody>
</table>
GetServer

General

**URL**
https://[host]/attunityenterprisemanager/api/v1/servers/[server]/def

**Description**
Retrieves the definition (Connection Properties) of the specified server.

This method can be used together with PutServer in order to update the connection properties of an existing server. First call GetServer, then edit the returned properties as required, and finally, call PutServer.

**HTTP Method**
GET

**Required User Role**
See Required Enterprise Manager Permissions.

**Request Parameters**

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>Host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvfHF5KGrw</td>
</tr>
</tbody>
</table>
Response Body

```json
{  
    "$type": "string",
    "name": "string",
    "description": "string",
    "host": "string",
    "port": "string",
    "username": "string",
    "password": "string",
    "verify_server_certificate": "bool",
    "monitored": "bool"
}
```

Response Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$type</td>
<td>The server's type. Can either be AemReplicateServer or AemComposeServer.</td>
</tr>
<tr>
<td>name</td>
<td>The name of the server.</td>
</tr>
<tr>
<td>description</td>
<td>The description of the server.</td>
</tr>
<tr>
<td>host</td>
<td>The host name or IP address of the server.</td>
</tr>
<tr>
<td>port</td>
<td>The port through which the server is accessed.</td>
</tr>
<tr>
<td>username</td>
<td>The user name to connect to the Replicate/Compose Server.</td>
</tr>
<tr>
<td>password</td>
<td>The password to connect to the Replicate/Compose Server.</td>
</tr>
<tr>
<td>verify_server_certificate</td>
<td>When &quot;true&quot;, Qlik Enterprise Manager verifies that the Server certificate is trusted, thereby reducing the chance of &quot;man-in-the-middle&quot; attacks.</td>
</tr>
<tr>
<td>monitored</td>
<td>Whether to retrieve tasks and messages from this server or not.</td>
</tr>
</tbody>
</table>

**Note** The password identifier (GUID) that is returned by GetServer is valid only for the session in which it was generated.

Using it in another session (for example as input for PutServer) will result in exception.

For details on setting this option, see PutServer.
cURL Example

**Request**
```
CURL.EXE -i -k --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvF5KGr"
https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1/def
```

**Response**
Headers:

HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 224
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 13:18:27 GMT

Payload:

```
{
  "$type":"AemReplicateServer",
  "name":"myrepsrv1",
  "description":"replicate for business",
  "host":"rep2018r2gs7.qa.int",
  "port":"443",
  "username":"administrator",
  "password":"(S:98bdf05-d16e-4af8-ad24-256c4dc6aa9)",
  "verify_server_certificate":"true",
  "monitored":"true"
}
```
Error Response

All of the **general errors** as well as the following error:

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_GET_SERVER_INNER_ERR</td>
<td>Failed to get server &quot;{server}&quot;. Error: &quot;{message}&quot;.</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to get the server details.</td>
</tr>
</tbody>
</table>

GetServerAcl

General

**URL**  
https://[host]/attunityenterprisemanager/api/v1/servers/[server]?action=acl

**Description**  
Retrieves the explicit ACL defined in Qlik Enterprise Manager for the specified server, including a Boolean indication if ACL inheritance is disabled or enabled for the server.

The method returns the explicit ACL only. In other words, it does not return inherited ACLs.

If all of the servers ACLs are inherited (i.e. no ACL was explicitly defined for the server), an error will be returned indicating that no ACL was found.

This method can be used together with **PutServerAcl** in order to update an existing server's ACL. First call **GetServerAcl**, then edit the returned roles as required, and finally, call **PutServerAcl**.

**HTTP Method**  
GET

**Required User Role**  
See **Required Enterprise Manager Permissions**.
## Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td><strong>Host</strong> [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td><strong>ServerName</strong> [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>Header</td>
<td><strong>EnterpriseManager.APISessionID</strong> [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFR0vHF5KGrw</td>
</tr>
</tbody>
</table>
Response Body

```json
{
    "admin_role": { 
        "users": [ { "name": "{string}"}, { "name": "{string}"}, ... ], 
        "groups": [ { "name": "{string}"}, { "name": "{string}"}, ... ]
    },
    "designer_role": { 
        "users": [ { "name": "{string}"}, { "name": "{string}"}, ... ], 
        "groups": [ { "name": "{string}"}, { "name": "{string}"}, ... ]
    },
    "operator_role": { 
        "users": [ { "name": "{string}"}, { "name": "{string}"}, ... ], 
        "groups": [ { "name": "{string}"}, { "name": "{string}"}, ... ]
    },
    "viewer_role": { 
        "users": [ { "name": "{string}"}, { "name": "{string}"}, ... ], 
        "groups": [ { "name": "{string}"}, { "name": "{string}"}, ... ]
    },
    "disable_inheritance": "{bool}"
}
```
## Response Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>admin_role</strong></td>
<td></td>
</tr>
<tr>
<td>users</td>
<td>An array of users assigned as Admins on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Admin user.</td>
</tr>
<tr>
<td>groups</td>
<td>An array of groups assigned as Admins on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Admin group.</td>
</tr>
<tr>
<td><strong>designer_role</strong></td>
<td></td>
</tr>
<tr>
<td>users</td>
<td>An array of users assigned as Designers on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Designer user.</td>
</tr>
<tr>
<td>groups</td>
<td>An array of groups assigned as Designers on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Designer group.</td>
</tr>
<tr>
<td><strong>operator_role</strong></td>
<td></td>
</tr>
<tr>
<td>users</td>
<td>An array of users assigned as Operators on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Operator user.</td>
</tr>
<tr>
<td>groups</td>
<td>An array of groups assigned as Operators on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Operator group.</td>
</tr>
<tr>
<td><strong>viewer_role</strong></td>
<td></td>
</tr>
<tr>
<td>users</td>
<td>An array of users assigned as Viewers on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Viewer user.</td>
</tr>
<tr>
<td>groups</td>
<td>An array of groups assigned as Viewers on the server.</td>
</tr>
<tr>
<td>name</td>
<td>A single Viewer group.</td>
</tr>
<tr>
<td>disable_inheritance</td>
<td>If set to &quot;true&quot;, the server does not inherit ACLs from its ancestors (in addition to its explicit ACLs). If set to &quot;false&quot;, the server inherits ACLs from its ancestors, in addition to any explicit ACLs.</td>
</tr>
</tbody>
</table>
cURL Example

**Request**

```bash
CURL.EXE -i -k --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvFH5KGr"
https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1?action=acl"
```
Response

Headers:
HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 502
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 13:18:27 GMT

Payload:
{
"admin_role": {
  "users": [
  {"name": "QLIK\Paul.Clarke"},
  {"name": "QLIK\testAuth1"}
  ],
  "groups": [
  {"name": "QLIK\At-tunityEnterpriseManagerAdmins"}
  ]
},
"designer_role": {
  "users": [
  {"name": "QLIK\Marisa.Lewis"},
  {"name": "QLIK\testAuth2"}
  ],
  "groups": [
  {"name": "QLIK\At-tunityEnterpriseManagerDesigners"}
  ]
},
"operator_role": {
  "users": [
  {"name": "QLIK\David.Foster"},
  {"name": "QLIK\testAuth3"}
  ],
  "groups": [
  {"name": "QLIK\At-tunityEnterpriseManagerOperators"}
  ]
},
"viewer_role": {
  "users": [
  {"name": "QLIK\Laura.Todd"},
  {"name": "QLIK\testAuth4"}
  ],
  "groups": [
Error Response

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_GET_SERVER_ACL_INNER_ERR</td>
<td>Failed to get ACL of server &quot;{server}&quot;. Error: &quot;{message}&quot;.</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to get the server ACL.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_SERVER_HAS_NO_ACL</td>
<td>ACL for server &quot;{server}&quot; could not be found.</td>
<td>Returned if no explicit ACL is defined for the server.</td>
</tr>
</tbody>
</table>

**Note** A server that does not have its own explicit ACL inherits the ACL from its ancestors. Inherited ACLs are not returned by this method.
GetServerList

General

**URL**
https://[host]/attunityenterprisemanager/api/v1/servers

**Description**
Retrieves a list of servers under Qlik Enterprise Manager management as well as each server’s properties.

**HTTP Method**
GET

**Required User Role**
See Required Enterprise Manager Permissions.

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvfHF5KGrw</td>
</tr>
</tbody>
</table>
Response Body

```json
{  
    "serverList": [  
        {  
            "$type": "{string}",  
            "name": "{string}",  
            "description": "{string}",  
            "host": "{string}",  
            "port": "{string}",  
            "state": "{enum_server_state}",  
            "message": "{string}",  
            "platform": "{enum_server_platform}",  
            "version": "{string}",  
            "last_connection": "{string}"  
        }, ...  
    ]  
}
```

Response Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$type</td>
<td>The server's type, which can either be <code>ReplicateServerInfo</code> or <code>ComposeServerInfo</code>.</td>
</tr>
<tr>
<td>name</td>
<td>The name of the server.</td>
</tr>
<tr>
<td>description</td>
<td>The description of the server.</td>
</tr>
<tr>
<td>host</td>
<td>The host name or IP address of the server.</td>
</tr>
<tr>
<td>port</td>
<td>The port through which the server is accessed.</td>
</tr>
<tr>
<td>state</td>
<td>The current state of the server.</td>
</tr>
<tr>
<td>message</td>
<td>The error message if Qlik Enterprise Manager fails to connect and monitor the server.</td>
</tr>
<tr>
<td>platform</td>
<td>The operating system on which the server is installed.</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>version</td>
<td>The version of the server.</td>
</tr>
<tr>
<td>last_connection</td>
<td>The date and time of the last successful sync/retrieval of tasks and messages.</td>
</tr>
</tbody>
</table>

**cURL Example**

Request  
CURL.EXE -i -k --header "EnterpriseManager.APISessionID: wCo0_KvjEUFR0vHF5KGr  
https://computer.network.net/attunityenterprisemanager/api/v1/servers
Response

Headers:

HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 1658
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 13:18:27 GMT
Payload:

```json
{
  "serverList": [
    {
      "$type": "ReplicateServerInfo",
      "name": "RepBS",
      "description": "replicate for business",
      "host": "rep2008r2gs7.qa.int",
      "port": "443",
      "state": "MONITORED",
      "message": "",
      "platform": "WINDOWS",
      "version": "5.2.0.156",
      "last_connection": "2016-12-18T02:23:30",
    },
    {
      "$type": "ReplicateServerInfo",
      "name": "RepDev",
      "description": "replicate for developers",
      "host": "rep2008r2gs8.qa.int",
      "port": "443",
      "state": "NOT_MONITORED",
      "message": "Server changed status to Not Monitored."
    }
  ]
}
```


```
{
  "platform": "WINDOWS",
  "version": "5.2.0.156",
  "last_connection": "2016-11-16T05:30:00",
}, {
  "$type": "ReplicateServerInfo",
  "name": "RepProd",
  "description": "replicate for production",
  "host": "rep2008r2gs9.qa.int",
  "port": "443",
  "state": "ERROR",
  "message": "REPLICATE-E-REPSRVNFND, Replicate server 'Rep 5003' not found. Last Connection: 12:21 PM",
  "platform": "WINDOWS",
  "version": "5.2.0.156",
  "last_connection": "2016-11-16T05:30:00",
}
```

### DeleteServer

**General**

<table>
<thead>
<tr>
<th>URL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><code>https://[host]/attunityenterprisemanager/api/v1/servers/[server]/def</code></td>
<td></td>
</tr>
</tbody>
</table>
**Description**  When this method is called, Qlik Enterprise Manager will:

- Delete the specified server from Qlik Enterprise Manager
- Stop monitoring any tasks that were defined on the server
- Delete all messages related to the server from the Message Center
- Delete all user roles defined for the server, the server tasks, and the server endpoints

**Note**  The above operations will be performed, regardless of whether the server is currently being monitored or in an error state.

**HTTP Method**  DELETE

**Required User Role**  See Required Enterprise Manager Permissions.

**Request Parameters**

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvHF5KGrw</td>
</tr>
</tbody>
</table>
cURL Example

**Request**
curl -i -k -X DELETE --header
"EnterpriseManager.APISessionID: wCo0_KvjEUFROvfHF5KGrw" --header "Content-Length: 0"
https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1/def

**Response**
Header:
HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 38
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 16:31:01 GMT

**Error Response**
All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_SERVER_NOT_FOUND</td>
<td>Requested server &quot;{server}&quot; could not be found.</td>
<td>The server name is unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_DELETE_SERVER_INNER_ERR</td>
<td>Failed to delete requested server &quot;{server}&quot;.</td>
<td>Qlik Enterprise Manager encountered an error/exception when trying to delete the server.</td>
</tr>
</tbody>
</table>

**DeleteServerAcl**

**General**

| URL | https://[host]/attunityenterprisemanager/api/v1/servers/[server]?action=acl |
Description

Deletes the explicit ACL defined in Qlik Enterprise Manager for the specified server.

Inherited ACLs are not affected by this method.

Once the explicit ACL is deleted from the server, all ACLs will be automatically inherited from the server's ancestors.

HTTP Method

DELETE

Required User Role

See Required Enterprise Manager Permissions.

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>Host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvfHF5KGrw</td>
</tr>
</tbody>
</table>
cURL Example

Request
CURL.EXE -i -k -X DELETE --header
"EnterpriseManager.APISessionID: wCo0_KvUEFROvfHF5KGr" --
header
https://computer.network.net/attunityenterprisemanager/
api/v1/servers/myrepsrv1?action=acl"

Response
Header:
HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 38
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 16:31:01 GMT

Error Response
All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
</table>
| 500       | AEM_DELETE_SERVER_ACL_INNER_ERR | Failed to delete ACL of server "{server}". Error: 
{message}. | Returned if Qlik Enterprise Manager encounters an error/exception when trying to delete the server's ACL. |
| 500       | AEM_SERVER_HAS_NO_ACL | ACL for server "{server}" could not be found. | Returned when the specified server has no explicit ACL defined. |
GetTaskList

General

<table>
<thead>
<tr>
<th>URL</th>
<th>https://{host}/attunityenterprisemanager/api/v1/servers/{ServerName}/tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Receive a list of tasks per selected and authorized server. For each task, the API returns a few parameters.</td>
</tr>
<tr>
<td>Method</td>
<td>GET</td>
</tr>
<tr>
<td>Required User Role</td>
<td>See Required Enterprise Manager Permissions.</td>
</tr>
</tbody>
</table>

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvfHF5KGrw</td>
</tr>
</tbody>
</table>
Response Body

```json
{  
  "taskList": [  
    {  
      "name": "string",  
      "state": "enum_task_state",  
      "stop_reason": "enum_stop_reason",  
      "message": "string",  
      "assigned_tags": ["string", "string", "string", ...]  
    },  
    {  
      "name": "string",  
      "state": "enum_task_state",  
      "stop_reason": "enum_stop_reason",  
      "message": "string",  
      "assigned_tags": ["string", "string", "string", ...]  
    },  
    {  
      "name": "string",  
      "state": "enum_task_state",  
      "stop_reason": "enum_stop_reason",  
      "message": "string",  
      "assigned_tags": ["string", "string", "string", ...]  
    }  
  ]}
```

Response Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>The name of the task.</td>
</tr>
<tr>
<td>state</td>
<td>The current state of the task.</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>stop_reason</td>
<td>The reason the task has stopped. For Compose tasks, this will always be NONE.</td>
</tr>
<tr>
<td>message</td>
<td>The message if the task stopped due to an error.</td>
</tr>
<tr>
<td>assigned_tags</td>
<td>Returns the custom tags assigned to the task. If no tags are assigned to the task, an empty array will be returned.</td>
</tr>
</tbody>
</table>

**cURL Example**

**Request**
curl -i -k --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvfHF5KGrw"
https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1/tasks
Response

Headers:

HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 205
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 11:18:53 GMT

Payload:

{
    "taskList": [
        {
            "name": "Task1",
            "state": "RUNNING",
            "stop_reason": "NONE",
            "message": "NONE",
            "assigned_tags": ["MyTag1", "MyTag2", "MyTag3"]
        },
        {
            "name": "Task2",
            "state": "STOPPED",
            "stop_reason": "FULL_LOAD_ONLY_FINISHED",
            "message": "NONE",
            "assigned_tags": ["MyTag5"]
        },
        {
            "name": "Task3",
            "state": "RUNNING",
            "stop_reason": "NONE",
            "message": "NONE",
            "assigned_tags": []
        }
    ]
}
Errors

See general errors.
GetTaskDetails

General

**URL**  
https://{host}/attunityenterprisemanager/api/v1/servers/{ServerName}/tasks/{TaskName}

**Description**  
Retrieves details about a selected and authorized task. The API returns full monitoring information related to the selected task.

**HTTP Method**  
GET

**Required User Role**  
See Required Enterprise Manager Permissions.

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myserver1</td>
</tr>
<tr>
<td>URL</td>
<td>TaskName [string]</td>
<td>Yes</td>
<td>SalesDBBackup</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFR0vHF5KGrw</td>
</tr>
</tbody>
</table>

Response Body for a Replicate Task

```
{
    "task":{
        "type": "{string}" ,
        "name": "{string}" ,
        "description": "{string}" ,
        "state": "{enum task_state}" ,
        "message": "{string}" ,
        "source_endpoint":{
            "name": "{string}" ,
            "type": "{string}" ,
        },
        "target_endpoint":{
            "name": "{string}" ,
            "type": "{string}" ,
        }
    }
```
"type":"{string}",
"cdc_event_counters":{
  "applied_insert_count":"{int64}",
  "applied_update_count":"{int64}",
  "applied_delete_count":"{int64}",
  "applied_ddl_count":"{int64}"
},
"full_load_counters":{
  "tables_completed_count":"{int64}",
  "tables_loading_count":"{int64}",
  "tables_queued_count":"{int64}",
  "tables_with_error_count":"{int64}",
  "records_completed_count":"{int64}",
  "estimated_records_for_all_tables_count":"{int64}"
},
{ "full_load_completed":"{bool}",
  "full_load_start":"{string}"
},
{ "full_load_throughput":{
  "source_throughput_records_count": "{int32}",
  "source_throughput_volume": "{int32}",
  "target_throughput_records_count": "{int32}",
  "target_throughput_volume": "{int32}"
},
"cdc_throughput":{
  "source_throughput_records_count": "{int32}"
},
"source_throughput_volume":{
  "current": "{int32}"
},
"target_throughput_records_count":{
  "current": "{int32}"
},
"target_throughput_volume":{
  "current": "{int32}"
}
},
{ "cdc_transactions_counters":{

"commit_change_records_count": "{int64}'
"rollback_transaction_count": "{int64}'
"rollback_change_records_count": "{int64}'
"rollback_change_volume_mb": "{int64}'
"applied_transactions_in_progress_count": "{int64}'
"applied_records_in_progress_count": "{int64}'
"applied_comitted_transaction_count": "{int64}'
"applied_records_comitted_count": "{int64}'
"applied_volume_comitted_mb": "{int64}'
"incoming_accumulated_changes_in_memory_count": '{int64}
"incoming_accumulated_changes_on_disk_count": '{int64}
"incoming_applying_changes_in_memory_count": '{int64}
"incoming_applying_changes_on_disk_count": '{int64}
	,
"cdc_latency":{
  "source_latency": '{int32}
  "total_latency": '{int32}
  
  
  ,
"replicate_profile": '{enum replicate_profile'
"task_stop_reason": '{enum task_stop_reason'
"memory_mb": '{int64'
"cpu_percentage": '{int32'
"disk_usage_mb": '{int64'
"data_error_count": '{int64'
"options": "full_load_enabled": '{bool'
"apply_changes_enabled": '{bool'
"store_changes_enabled": '{bool'
"audit_changes_enabled": '{bool'
"log_stream_staging": '{string'
"assigned_tags": ["string", "string", "string", ...]
}

**Response Parameters for Replicate Tasks**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>type</td>
<td>The task type: ReplicateTaskInfoDetailed</td>
</tr>
<tr>
<td>name</td>
<td>The name of the task.</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>description</td>
<td>The task description. If there is no description, an empty string will be returned.</td>
</tr>
<tr>
<td>State</td>
<td>The current state of the task.</td>
</tr>
<tr>
<td>message</td>
<td>The message returned if the task stopped due to error.</td>
</tr>
<tr>
<td>source_endpoint</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td>The name of the source endpoint.</td>
</tr>
<tr>
<td>type</td>
<td>The source endpoint type.</td>
</tr>
<tr>
<td>target_endpoint</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td>The name of the source endpoint.</td>
</tr>
<tr>
<td>type</td>
<td>The source endpoint type.</td>
</tr>
<tr>
<td>cdc_event_counters</td>
<td>All numeric data concerning CDC events</td>
</tr>
<tr>
<td>applied_insert_count</td>
<td>The number of records added in total for all tables</td>
</tr>
<tr>
<td>applied_update_count</td>
<td>The number of records updated in total for all tables</td>
</tr>
<tr>
<td>applied_delete_count</td>
<td>The number of records deleted in total for all tables</td>
</tr>
<tr>
<td>applied_ddl_count</td>
<td>The total number of metadata changes, such as add column</td>
</tr>
<tr>
<td>full_load_counters</td>
<td>All numeric data concerning Full Load events</td>
</tr>
<tr>
<td>tables_completed_count</td>
<td>The number of tables that have been loaded into the target endpoint</td>
</tr>
<tr>
<td>tables_loading_count</td>
<td>The number of tables that are currently being loaded into the target endpoint</td>
</tr>
<tr>
<td>tables_queued_count</td>
<td>The number of tables that are waiting to be loaded due to an error</td>
</tr>
<tr>
<td>tables_with_error_count</td>
<td>The number of tables that could not be loaded due to an error</td>
</tr>
<tr>
<td>records_completed_count</td>
<td>The total number of records that have completed loading into the target endpoint</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>estimated_records_for_all_tables_count</td>
<td>The estimated number of records remaining to be loaded into the target endpoint</td>
</tr>
<tr>
<td>full_load_completed</td>
<td>Indicates whether the full load process has ended</td>
</tr>
<tr>
<td>full_load_start</td>
<td>The start time of the full load process</td>
</tr>
<tr>
<td></td>
<td>Format: YYY MM DD</td>
</tr>
<tr>
<td></td>
<td>Timezone: UTC</td>
</tr>
<tr>
<td>full_load_throughput</td>
<td>Indicates how fast the table records are being replicated to the target endpoint (by number or volume of records)</td>
</tr>
<tr>
<td>source_throughput_records_count</td>
<td>The current source throughput, in rec/sec</td>
</tr>
<tr>
<td>source_throughput_volume</td>
<td>The current source throughput, in kbyte/sec</td>
</tr>
<tr>
<td>target_throughput_records_count</td>
<td>The current target throughput, in rec/sec</td>
</tr>
<tr>
<td>target_throughput_volume</td>
<td>The current target throughput, in kbyte/sec</td>
</tr>
<tr>
<td>cdc_throughput</td>
<td>Indicates how fast the table records are being replicated to the target endpoint (by number or volume of records). Refers only to the current/last CDC.</td>
</tr>
<tr>
<td>source_throughput_records_count</td>
<td>The current source throughput, in rec/sec</td>
</tr>
<tr>
<td>source_throughput_volume</td>
<td>The current source throughput, in kbyte/sec</td>
</tr>
<tr>
<td>target_throughput_records_count</td>
<td>The current target throughput, in rec/sec</td>
</tr>
<tr>
<td>target_throughput_volume</td>
<td>The current target throughput, in kbyte/sec</td>
</tr>
<tr>
<td>cdc_transaction_counters</td>
<td>All numeric data concerning CDC transactions</td>
</tr>
<tr>
<td>commit_change_records_count</td>
<td>The number of COMMIT change records</td>
</tr>
<tr>
<td>rollback_transaction_count</td>
<td>The number of ROLLBACK transactions</td>
</tr>
<tr>
<td>rollback_change_records_count</td>
<td>The number of ROLLBACK change records</td>
</tr>
<tr>
<td>rollback_change_volume_mb</td>
<td>The volume of ROLLBACK change, in MB</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>applied_transactions_in_progress_count</td>
<td>The number of transactions in progress</td>
</tr>
<tr>
<td>applied_records_in_progress_count</td>
<td>The sum of all records/events in all In-Progress transactions</td>
</tr>
<tr>
<td>applied_commited_transaction_count</td>
<td>The number of transactions committed</td>
</tr>
<tr>
<td>applied_records_commited_count</td>
<td>The sum of all records/events in all Completed transactions</td>
</tr>
<tr>
<td>applied_volume_commited_mb</td>
<td>The sum of all volume/events in all Completed transactions, in MB</td>
</tr>
<tr>
<td>incoming_accumulated_changes_in_memory_count</td>
<td>The number of changes accumulated in memory until source commit</td>
</tr>
<tr>
<td>incoming_accumulated_changes_on_disk_count</td>
<td>The number of changes accumulated on disk until source commit</td>
</tr>
<tr>
<td>incoming_applying_changes_in_memory_count</td>
<td>The number of changes in memory during apply and until target commit</td>
</tr>
<tr>
<td>incoming_applying_changes_on_disk_count</td>
<td>The number of changes on disk during apply and until target commit</td>
</tr>
<tr>
<td>cdc_latency</td>
<td>CDC latency information</td>
</tr>
<tr>
<td>source_latency</td>
<td>The time gap between the original change in the source endpoint and capturing it, in hh:mm:ss</td>
</tr>
<tr>
<td>total_latency</td>
<td>The overall latency (source latency + target latency + apply latency), in hh:mm:ss</td>
</tr>
<tr>
<td>replicate_profile</td>
<td>The replication type between endpoints (unidirectional or bidirectional)</td>
</tr>
<tr>
<td>task_stop_reason</td>
<td>The reason the task stopped</td>
</tr>
<tr>
<td>memory_mb</td>
<td>The current utilization of memory, in MB. A task’s memory utilization is sampled every 10 seconds. When the task is not running, the value is set to zero (0).</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>cpu_percentage</td>
<td>The current CPU usage of the Replicate task process.</td>
</tr>
<tr>
<td>Notes</td>
<td>Only available for Replicate tasks running on Replicate 6.2 and above. When not available, this parameter will be returned as -1.</td>
</tr>
<tr>
<td>disk_usage_mb</td>
<td>The current utilization of disk space, in MB. A task’s disk utilization is sampled every minute.</td>
</tr>
<tr>
<td>data_error_count</td>
<td>The total number of data errors in all tables involved in the task. The count is affected by data errors and the <strong>Reset Data Errors</strong> option available when you drill down to a task.</td>
</tr>
<tr>
<td>full_load_enabled</td>
<td>See <a href="#">Task Options</a>.</td>
</tr>
<tr>
<td>apply_changes_enabled</td>
<td>See <a href="#">Task Options</a>.</td>
</tr>
<tr>
<td>store_changes_enabled</td>
<td>See <a href="#">Task Options</a>.</td>
</tr>
<tr>
<td>audit_changes_enabled</td>
<td>See <a href="#">Task Options</a>.</td>
</tr>
<tr>
<td>log_stream_staging</td>
<td>If the task is writing to/reading from the Log Stream staging folder, the name of the associated Log Stream Staging task will be returned. Otherwise, an empty string will be returned.</td>
</tr>
<tr>
<td>assigned_tags</td>
<td>Returns the custom tags assigned to the task. If no tags are assigned to the task, an empty array will be returned.</td>
</tr>
</tbody>
</table>
Response Body for a Compose Task

```
{
    "$type": "{string}" ,
    "project": "{string}" ,
    "loading_completed": "{bool}" ,
    "loading_start": "{string}" ,
    "loading_end": "{string}" ,
    "options": {
        "full_load_enabled": "{bool}" ,
        "apply_changes_enabled": "{bool}" 
    },
    "loading_counters": {
        "tables_total_count": "{int64}" ,
        "tables_completed_count": "{int64}" ,
        "tables_loading_count": "{int64}" ,
        "tables_queued_count": "{int64}" ,
        "tables_with_error_count": "{int64}" ,
        "commands_total_count": "{int64}" ,
        "commands_completed_count": "{int64}" 
    },
    "name": "{string}" ,
    "message": "{string}" ,
    "state": "{enum task_state}" ,
    "description": "{string}" ,
    "source_endpoint": {
        "name": "{string}" ,
        "type": "{string}" 
    },
    "target_endpoint": {
        "name": "{string}" 
        "type": "{string}" 
    },
    "assigned_tags": ["string", "string", "string", ...]
}
```

Response Parameters for Compose Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>type</td>
<td>The task type: ComposeTaskInfoDetailed</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>project</td>
<td>The name of the Compose project</td>
</tr>
<tr>
<td>name</td>
<td>The name of the task</td>
</tr>
<tr>
<td>description</td>
<td>The task description. If there is no description, an empty string will be returned.</td>
</tr>
<tr>
<td>state</td>
<td>The current task state</td>
</tr>
<tr>
<td>message</td>
<td>The message returned if the task stopped due to error.</td>
</tr>
<tr>
<td>options</td>
<td></td>
</tr>
<tr>
<td>full_load_enabled</td>
<td>Indicates whether the Full Load option is enabled. Can be &quot;true&quot; or &quot;false&quot;</td>
</tr>
<tr>
<td>apply_changes_enabled</td>
<td>Indicates whether the Change Processing option is enabled. Can be &quot;true&quot; or &quot;false&quot;</td>
</tr>
<tr>
<td>source_endpoint</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td>The logical name of the landing database.</td>
</tr>
<tr>
<td>type</td>
<td>The landing database type.</td>
</tr>
<tr>
<td>target_endpoint</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td>The logical name of the storage database.</td>
</tr>
<tr>
<td>type</td>
<td>The storage database type.</td>
</tr>
<tr>
<td>loading_completed</td>
<td>Indicates whether the loading process has completed. Can be &quot;true&quot; or &quot;false&quot;</td>
</tr>
<tr>
<td>loading_start</td>
<td>The start time of the loading process</td>
</tr>
<tr>
<td></td>
<td>Format: YYY MM DD</td>
</tr>
<tr>
<td></td>
<td>Timezone: UTC</td>
</tr>
<tr>
<td>loading_end</td>
<td>The end time of the loading process</td>
</tr>
<tr>
<td></td>
<td>Format: YYY MM DD</td>
</tr>
<tr>
<td></td>
<td>Timezone: UTC</td>
</tr>
<tr>
<td>loading_counters</td>
<td></td>
</tr>
<tr>
<td>tables_total_count</td>
<td>The total number of tables.</td>
</tr>
</tbody>
</table>
### Name | Description
--- | ---
tables_completed_count | The number of tables that have been loaded into the target endpoint
tables_loading_count | The number of tables that are currently being loaded into the target endpoint
tablesqueued_count | The number of tables that are waiting to be loaded due to an error
tables_with_error_count | The number of tables that could not be loaded due to an error
commands_total_count | The total number of commands executed
commands_completed_count | The total number of commands completed
assigned_tags | Returns the custom tags assigned to the task. If no tags are assigned to the task, an empty array will be returned.

cURL Example for Replicate Tasks

**Request**
```
CURL.EXE -i -k --header "EnterpriseManager.APISessionID: {SessionID}" https://{host}/attunityservices/api/v1/servers/myrepsrv1/tasks/SalesDBBackup
```
Response

Headers:

HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 1658
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 13:18:27 GMT

Payload:

{
    "task": {
        "name": "SalesDBBackup",
        "description": "Backs up annual sales",
        "state": "RUNNING",
        "message": "NONE",
        "source_endpoint": {
            "name": "Customer Management",
            "type": "Oracle"
        },
        "target_endpoint": {
            "name": "Business Management",
            "type": "Microsoft SQL Server"
        },
        "cdc_event_counters": {
            "applied_insert_count": 0,
            "applied_update_count": 0,
            "applied_delete_count": 0,
            "applied_ddi_count": 0
        },
        "full_load_counters": {

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"tables_completed_count":3,
"tables_loading_count":0,
"tables_queued_count":0,
"tables_with_error_count":0,
"records_completed_count":177446,
"estimated_records_for_all_tables_count":177446,
"full_load_completed":true,
"full_load_start":"2016-12-18T02:23:30",
"full_load_end":"2016-12-18T02:23:35",
},

"full_load_throughput":{
  "source_throughput_records_count":0,
  "source_throughput_volume":0,
  "target_throughput_records_count":0,
  "target_throughput_volume":0,
},

"cdc_throughput":{
  "source_throughput_records_count": {
    "current": 0
  },
  "source_throughput_volume": {
    "current": 0
  },
  "target_throughput_records_count": {
    "current": 0
  },
  "target_throughput_volume": {
    "current": 0
  }
}
{,
  "cdc_transactions_counters":{
    "commit_change_records_count":0,
    "rollback_transaction_count":0,
    "rollback_change_records_count":0,
    "rollback_change_volume_mb":0,
    "applied_transactions_in_progress_count":0,
    "applied_records_in_progress_count":0,
    "applied_committed_transaction_count":0,
    "applied_records_comitted_count":0,
    "applied_volume_comitted_mb":0,
    "incoming_accumulated_changes_in_memory_count":0,
    "incoming_accumulated_changes_on_disk_count":0,
    "incoming_applying_changes_in_memory_count":0,
    "incoming_applying_changes_on_disk_count":0,
  },
  "cdc_latency":{
    "source_latency":"00:00:00",
    "total_latency":"00:00:00"
  },
  "replicate_profile":"UNIDIRECTIONAL",
  "task_stop_reason":"NORMAL",
  "memory_mb":57,
  "cpu_percentage":30,
  "disk_usage_mb":0,
  "data_error_count":0,
  "options":{
    "full_load_enabled":true,
    "apply_changes_enabled":true,
    "store_changes_enabled":false,
    "audit_changes_enabled":false
  }
}
"assigned_tags": ["MyTag1", "MyTag2", "MyTag3"]
}
}

Error Response

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Qlik Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replicate task {task} on server {server} could not be found.</td>
<td>The task name is unknown to Enterprise Manager.</td>
</tr>
</tbody>
</table>

GetTableList

General

<table>
<thead>
<tr>
<th>URL</th>
<th>Description</th>
<th>Method</th>
<th>Required User Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>https://{host}/attunityenterprisemanager/api/v1/servers/{ServerName}/tasks/{TaskName}/tables?schema= {schema}&amp;table= {table}&amp;includequeued= {includequeued}&amp;includeloading= {includeloading}&amp;includecompleted= {includecompleted}&amp;includechangeprocessing= {includechangeprocessing}&amp;includeerror= {includeerror}</td>
<td>Retrieves the list of tables of a specific Replicate task that match the specified state(s), table schema(s), and table name(s). This is useful for automation processes, for example, as it allows you to retrieve tables in a certain state (e.g. suspended) and then perform an operation on them (e.g. ReloadTable).</td>
<td>GET</td>
<td>See Required Enterprise Manager Permissions.</td>
</tr>
</tbody>
</table>
## Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host [string]</td>
<td>Yes</td>
<td>The host name of the Qlik Enterprise Manager server.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong> computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName  [string]</td>
<td>Yes</td>
<td>The Replicate Server name as defined on Qlik Enterprise Manager.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong> myrepsrv1</td>
</tr>
<tr>
<td>URL</td>
<td>SchemaName  [string]</td>
<td>No</td>
<td>The default is all source schemas. Specifying a specific schema name will retrieve all tables from the specified schema. Specifying a pattern or letters included in the schema name will retrieve all tables from schemas that match the pattern or that include the specified letters. For example, specifying &quot;ad&quot; will retrieve tables from the &quot;adventure&quot; and &quot;trademark&quot; schemas.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>TableName [string]</td>
<td>No</td>
<td>The default is all source tables. Specifying a specific table name will retrieve the specified table. Specifying a pattern or letters included in the table name will retrieve all tables that match the pattern or that include the specified letters. For example, specifying &quot;em&quot; will retrieve the &quot;employees&quot; and &quot;temp&quot; tables.</td>
</tr>
<tr>
<td>URL</td>
<td>includequeued [boolean]</td>
<td>No</td>
<td>Whether to retrieve tables in a queued state. Default is false.</td>
</tr>
<tr>
<td>URL</td>
<td>includeloading [boolean]</td>
<td>No</td>
<td>Whether to retrieve tables in a loading state. Default is false.</td>
</tr>
<tr>
<td>URL</td>
<td>includecompleted [boolean]</td>
<td>No</td>
<td>Whether to retrieve tables in a completed state. Default is false.</td>
</tr>
<tr>
<td>URL</td>
<td>includechangeprocessing [boolean]</td>
<td>No</td>
<td>Whether to retrieve tables in a Change Processing state (i.e. that are having changes applied to them). Default is false.</td>
</tr>
<tr>
<td>URL</td>
<td>includeerror [boolean]</td>
<td>No</td>
<td>Whether to retrieve tables in an error state. Default is false.</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvfHF5KGrw</td>
</tr>
</tbody>
</table>

### Response Body

```json
{
    "tablelist":[
```
{  "schema":"{string}'',  "table":"{string}'',  "state":"{enum table_state}'''
},  
{  "schema":"{string}'',  "table":"{string}'',  "state":"{enum table_state}'''
},  
{  "schema":"{string}'',  "table":"{string}'',  "state":"{enum table_state}'''
},  
{  "schema":"{string}'',  "table":"{string}'',  "state":"{enum table_state}'''
}
}

Response Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>schema</td>
<td>The name of the schema.</td>
</tr>
<tr>
<td>table</td>
<td>The name of the table.</td>
</tr>
<tr>
<td>state</td>
<td>The current state of the table.</td>
</tr>
</tbody>
</table>

**cURL Example**

**Request**
curl -i -k --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvHF5KGrw"  
https://computer.network.net/attunityenterprisemanager/api/v1/servers/{server}/tasks/{task}/tables?
**Response Headers:**

HTTP/1.1 200 OK  
Cache-Control: no-cache, no-store  
Content-Length: 205  
Content-Type: application/json; charset=utf-8  
Server: Microsoft-HTTPAPI/2.0  
Date: Mon, 26 Dec 2016 11:18:53 GMT

**Payload:**

```json
{
    "tablelist": [
        {
            "schema": "MYSCHEMA",
            "table": "TABLE1",
            "state": "TABLE_CHANGE_PROCESSING"
        },
        {
            "schema": "MYSCHEMA",
            "table": "TABLE2",
            "state": "TABLE_LOADING"
        },
        {
            "schema": "MYSCHEMA",
            "table": "TABLE3",
            "state": "TABLE_QUEUEED"
        },
        {
            "schema": "MYSCHEMA",
            "table": "TABLE4",
            "state": "TABLE_QUEUEED"
        }
    ]
}
```
Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Qlik Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_TABLE_LIST_INNER_ERR</td>
<td>Failed to retrieve table list for replication task &quot;{task}&quot; on server &quot;{server}&quot;. Error: &quot;{message}&quot;</td>
<td>Returned when the table list cannot be retrieved.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replicate task {task} on server {server} could not be found.</td>
<td>The task name is unknown to Enterprise Manager.</td>
</tr>
</tbody>
</table>
GetTableStatuses

General

| URL | https://{host}/attunityenterprisemanager/api/v1/servers/{server}/tasks/{task}/tables?action=getstatus&schema={schema}&table={table}&includequeued={includequeued}&includeloading={includeloading}&includecompleted={includecompleted}&includechangeprocessing={includechangeprocessing}&includeerror={includeerror} |
| Description | Retrieves the tables statuses of a specific Replicate task for all tables that match the specified state(s), table schema(s), and table name(s). This is useful for automation processes, for example, as it allows you to retrieve tables in a certain state (e.g. suspended) and then perform an operation on them (e.g. ReloadTable). |
| Method | GET |
| Required User Role | See Required Enterprise Manager Permissions. |

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host</td>
<td>Yes</td>
<td>The host name of the Qlik Enterprise Manager server.</td>
</tr>
<tr>
<td>Example:</td>
<td></td>
<td></td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>server</td>
<td>Yes</td>
<td>The Replicate Server name as defined on Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>Example:</td>
<td></td>
<td></td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>URL</td>
<td>task</td>
<td>Yes</td>
<td>The Replicate task name.</td>
</tr>
<tr>
<td>Location</td>
<td>Name</td>
<td>Required</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
<td>----------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>URL</td>
<td>schema [string]</td>
<td>No</td>
<td>The default is all source schemas. Specifying a specific schema name will retrieve all tables from the specified schema. Specifying a pattern or letters included in the schema name will retrieve all tables from schemas that match the pattern or that include the specified letters. For example, specifying &quot;ad&quot; will retrieve tables from the &quot;adventure&quot; and &quot;trademark&quot; schemas.</td>
</tr>
<tr>
<td>URL</td>
<td>table [string]</td>
<td>No</td>
<td>The default is all source tables. Specifying a specific table name will retrieve the specified table. Specifying a pattern or letters included in the table name will retrieve all tables that match the pattern or that include the specified letters. For example, specifying &quot;em&quot; will retrieve the &quot;employees&quot; and &quot;temp&quot; tables.</td>
</tr>
<tr>
<td>URL</td>
<td>includequeued [boolean]</td>
<td>No</td>
<td>Whether to retrieve tables in a queued state. Default is false.</td>
</tr>
<tr>
<td>URL</td>
<td>includeloading [boolean]</td>
<td>No</td>
<td>Whether to retrieve tables in a loading state. Default is false.</td>
</tr>
<tr>
<td>Location</td>
<td>Name</td>
<td>Required</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>URL</td>
<td>includecompleted [boolean]</td>
<td>No</td>
<td>Whether to retrieve tables in a completed state. Default is false.</td>
</tr>
<tr>
<td>URL</td>
<td>includechangeprocessing [boolean]</td>
<td>No</td>
<td>Whether to retrieve tables in a Change Processing state (i.e. that are having changes applied to them). Default is false.</td>
</tr>
<tr>
<td>URL</td>
<td>includeerror [boolean]</td>
<td>No</td>
<td>Whether to retrieve tables in an error state. Default is false.</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID</td>
<td>Yes</td>
<td>wCo0_KvJEUFROvHF5KGrw</td>
</tr>
</tbody>
</table>

Response Body

```
{
    "table_details": [
        {
            "schema_on_source": "{string}",
            "table_on_source": "{string}",
            "schema_on_target": "{string}",
            "table_on_target": "{string}",
            "state": "{enum}",
            "data_errors_count": "{int64}",
            "table_full_load_info": {
                "start_time": "{string}",
                "end_time": "{string}",
                "estimated_row_count": "{int64}",
                "estimated_end_time": "{string}",
                "transferred_row_count": "{int64}",
                "transferred_volume_mb": "{int64}",
            },
            "table_cdc_info": {
                "insert_count": "{int64}",
                "update_count": "{int64}",
                "delete_count": "{int64}",
                "ddl_count": "{int64}",
```
"last_update_time" : "{string}",
"cached_insert_count" : "{int64}",
"cached_update_count" : "{int64}",
"cached_delete_count" : "{int64}"}
## Response Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>schema_on_source</td>
<td>Source schema name.</td>
</tr>
<tr>
<td>table_on_source</td>
<td>Source table name.</td>
</tr>
<tr>
<td>schema_on_target</td>
<td>Target schema name. If this information not available, an empty string will be returned.</td>
</tr>
<tr>
<td>table_on_target</td>
<td>Target table name. If this information not available, an empty string will be returned.</td>
</tr>
<tr>
<td>state</td>
<td>An enum reflecting the table state.</td>
</tr>
<tr>
<td></td>
<td>See <a href="#">Table state</a>.</td>
</tr>
<tr>
<td>data_errors_count</td>
<td>The number of data errors encountered when replicating the table.</td>
</tr>
<tr>
<td>table_full_load_info</td>
<td>Date-time of when the table full load started. Timezone: UTC; Style: ISO8601 (consistent with GetTaskDetails).</td>
</tr>
<tr>
<td>start_time</td>
<td>Date-time of when the table full load started. Timezone: UTC; Style: ISO8601 (consistent with GetTaskDetails).</td>
</tr>
<tr>
<td>end_time</td>
<td>Date-time of when the table full load started. Timezone: UTC; Style: ISO8601 (consistent with GetTaskDetails).</td>
</tr>
<tr>
<td>estimated_row_count</td>
<td>Relevant only if table in certain states (loading/queued).</td>
</tr>
<tr>
<td>estimated_end_time</td>
<td>Relevant only if table in certain states (loading/queued). Timezone: UTC; Style: ISO8601 (consistent with GetTaskDetails).</td>
</tr>
<tr>
<td>transferred_row_count</td>
<td>The number of rows transferred to the target, after the source filtering, but before the target filtering.</td>
</tr>
<tr>
<td>transferred_volume_mb</td>
<td>The amount of bytes transferred to the target, after the source filtering, but before the target filtering.</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>insert_count</td>
<td>The number of records inserted to the target table.</td>
</tr>
<tr>
<td>update_count</td>
<td>The number of records updated in the target table.</td>
</tr>
<tr>
<td>delete_count</td>
<td>The number of records deleted in the target table.</td>
</tr>
<tr>
<td>ddl_count</td>
<td>The number of DDL operations performed on the target table.</td>
</tr>
<tr>
<td>last_update_time</td>
<td>The last time that the table was updated on target. Timezone: UTC ; Style: ISO8601 (consistent with GetTaskDetails).</td>
</tr>
<tr>
<td>cached_insert_count</td>
<td>INSERT operations that were cached during Full Load.</td>
</tr>
<tr>
<td>cached_update_count</td>
<td>UPDATE operations that were cached during Full Load.</td>
</tr>
<tr>
<td>cached_delete_count</td>
<td>DELETE operations that were cached during Full Load.</td>
</tr>
</tbody>
</table>

**End of table cdc_info**

**cURL Example**

```
Request: curl -i -k --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvHF5KGrw"
          https://computer.network.net/attunityenterprisemanager/api/v1/servers/{server}/tasks/{task}/tables
```
Response Headers:

HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 205
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 11:18:53 GMT

Payload:

```json
{
  "table_details": [
    {
      "schema_on_source": "myschema1",
      "table_on_source": "mytable1",
      "schema_on_target": "",
      "table_on_target": "",
      "state": "TABLE_CHANGE_PROCESSING",
      "data_errors_count": 0,
      "table_full_load_info": {
        "start_time": "2019-08-05T01:35:06",
        "end_time": "2019-08-05T01:35:06",
        "estimated_row_count": 0,
        "estimated_end_time": null,
        "transferred_row_count": 4,
        "transferred_volume_mb": 1856
      },
      "table_cdc_info": {
        "insert_count": 2,
        "update_count": 0,
        "delete_count": 0,
        "ddl_count": 0,
        "last_update_time": null,
        "cached_insert_count": 0,
        "cached_update_count": 0,
        "cached_delete_count": 0
      }
    },
    {
      "schema_on_source": "myschema2",
      "table_on_source": "mytable2",
      "schema_on_target": "",
      "table_on_target": ""
    }
  ]
}
```
"state":"TABLE_CHANGE_PROCESSING",
"data_errors_count":0,
"table_full_load_info":{
  "start_time":"2019-08-05T01:35:06",
  "end_time":"2019-08-05T01:35:31",
  "estimated_row_count":0,
  "estimated_end_time":null,
  "transferred_row_count":1000000,
  "transferred_volume_mb":464000000
},
"table_cdc_info":{
  "insert_count":0,
  "update_count":4,
  "delete_count":0,
  "ddl_count":0,
  "last_update_time":null,
  "cached_insert_count":0,
  "cached_update_count":0,
  "cached_delete_count":0
}
}
## Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Qlik Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_SERVER_NOT_FOUND</td>
<td>Replicate server <code>{server}</code> could not be found.</td>
<td>Server name unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> could not be found.</td>
<td>The task name is unknown to Enterprise Manager.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_TABLE_STATUSES_INNER_ERR</td>
<td>Failed to retrieve table statuses for replication task &quot;{task}&quot; on server &quot;{server}&quot;. Error: &quot;{message}&quot;</td>
<td>Returned when the table statuses cannot be retrieved.</td>
</tr>
</tbody>
</table>
DeleteTask

General

**URL**

https://[host]/attunityenterprisemanager/api/v1/servers/[server]/tasks/[task]?action=delete&deletetasklogs=[deletetasklogs]

**Description**

Deletes the specified task. The task's logs will be deleted only if deletetasklogs=true is specified in the URL.

**HTTP Method**

POST

**Required User Role**

See Required Enterprise Manager Permissions.

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepssrv1</td>
</tr>
<tr>
<td>URL</td>
<td>TaskName [string]</td>
<td>Yes</td>
<td>SalesDBBackup</td>
</tr>
<tr>
<td>URL</td>
<td>deletetasklogs [bool]</td>
<td>Optional (default is false)</td>
<td>deletetasklogs=true</td>
</tr>
</tbody>
</table>

| Header   | EnterpriseManager.APISessionID [string] | Yes | wCo0_KvJEUFROvfHF5KGrw |
| Header   | Content-Length: | Yes | "Content-Length: 0" Note: The specified value must be "0". |
cURL Example

Request

curl -i -k -X POST --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvHF5KGrw" --header "Content-Length: 0"
https://computer.network.net/attunityenterprisemanager/api/v1/
servers/myrepsrv1/tasks/
SalesDBBackup?action=delete&deletetasklogs=true

Response

HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 38
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 16:31:01 GMT

Error response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replication task {task} on server {server} could not be found.</td>
<td>Returned if the task name is unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_DELETE_TASK_INNER_ERR</td>
<td>Replication task {task} on server {server} could not be deleted due to an error.</td>
<td>Returned if Enterprise Manager encounters an error/exception when trying to delete the task.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_DELETE_TASK_ERR</td>
<td>Replication task {task} on server {server} could not be deleted due to an error. {2}</td>
<td>Returned if Enterprise Manager encounters an error when trying to delete the task.</td>
</tr>
<tr>
<td>HTTP Code</td>
<td>Enterprise Manager Code</td>
<td>Text</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------</td>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>500</td>
<td>AEM_TASK_NOT_STOPPED</td>
<td>Replication task {task} on server {server} must be stopped before it can be deleted.</td>
<td>Returned if the replication task was running when DeleteTask attempted to delete it.</td>
</tr>
</tbody>
</table>

**ExportTask**

**General**

**URL**

https://{Host}/attunityenterprisemanager/api/v1/servers/{ServerName}/tasks/{TaskName}?action=export&withendpoints={withendpoints}

**Description**

Export definitions from the selected task on the selected server. The definitions always include task settings, tables/table patterns (include/exclude), table settings and global transformations. The endpoint definition is only exported along with the task definition if with endpoints=true is specified in the URL.

Supported only from Replicate 5.2 and later.

**HTTP Method**

GET

**Required User Role**

See Required Enterprise Manager Permissions.

**Request Parameters**

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>Host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>URL</td>
<td>TaskName [string]</td>
<td>Yes</td>
<td>SalesDBBackup</td>
</tr>
<tr>
<td>URL</td>
<td>withendpoints [bool]</td>
<td>Yes</td>
<td>true/false</td>
</tr>
<tr>
<td>Location</td>
<td>Name</td>
<td>Required</td>
<td>Example</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------------</td>
<td>----------</td>
<td>------------------</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvH5KGGrw</td>
</tr>
</tbody>
</table>

**Response**

**JSON File (stream)**

**cURL Example**

**Request**

```
CURL.EXE -i -k --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvH5KGGrw" https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1/tasks/SalesDBBackup?action=export&withendpoints=true
```

**Response**

JSON file (stream)

**Error Response**

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td></td>
<td>ExportTask is only supported on Replicate 5.2 or above.</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>AEM_EXPORT_TASK_NO_PERMISSION_ON_ENDPOINT</td>
<td>Failed to export task <code>{task}</code> from Replicate server <code>{server}</code> as the logged in user does not have permission to access one or both of the task's endpoints.</td>
<td>Export all cannot be carried out because the user does not have permissions on one or more endpoints.</td>
</tr>
</tbody>
</table>
ImportTask

General

**URL**
https://{Host}/attunityenterprisemanager/api/v1/servers/{ServerName}/tasks/{task}?action=import

**Description**
Import a single task’s JSON definitions provided in the request body into the requested server repository on the selected server.

The ImportTask method enables importing all valid JSON definitions provided in the request body. This includes task settings, tables/table patterns (include/exclude), table settings and global transformations. Information about endpoints is included if it was included in the JSON file.

When you import a task, Items that existed in the target server before the import and have no new JSON definition in the request body are not modified and not removed. This means that ImportTask provides no way of removing old definitions that are no longer needed.

Supported only with Replicate 5.2 and later.

**HTTP Method**
POST

**Required User Role**
See Required Enterprise Manager Permissions.

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td><strong>Host</strong> [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td><strong>ServerName</strong> [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>URL</td>
<td><strong>TaskName</strong> [string]</td>
<td>Yes</td>
<td>SalesDBBackup</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvHF5KGrw</td>
</tr>
<tr>
<td>Location</td>
<td>Name</td>
<td>Required</td>
<td>Example</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------</td>
<td>----------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Header</td>
<td>Content-Length:</td>
<td>Yes</td>
<td>&quot;Content-Length: 3986&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>This is the number of bytes in</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>the content body.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Note that the number of bytes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>that you specify must be exactly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>the same as the number of bytes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>in the JSON file. This number</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>can be ascertained by copy-past</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ing the text into a text editor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>such as <strong>Notepad ++</strong> (which</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>shows the number of bytes as &quot;L</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ength&quot; at the bottom of its</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>console).</td>
</tr>
<tr>
<td>Body</td>
<td>A JSON document to</td>
<td>Yes</td>
<td>localServer1.json</td>
</tr>
<tr>
<td></td>
<td>import [stream]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Response**

**JSON File**

**cURL Example**

```bash
cURL.EXE -i -k -X POST --header "EnterpriseManager.APISessionID: wCo0_KvjeUFROvfHF5KGrw" --header "Content-Length: 3986" --header "Content-Type: application/json" "https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1/tasks/SalesDBBackup?action=import" -T "C:\exports\SalesDBBackup.json"
```

**Response**

HTTP/1.1 100 Continue

HTTP/1.1 200 OK

Cache-Control: no-cache, no-store

Content-Length: 0

Content-Type: application/json; charset=utf-8

Server: Microsoft-HTTPAPI/2.0

Date: Tue, 28 Feb 2017 17:45:41 GMT
## Error Response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_IMPORT_TASK_NO_PERMISSION_ON_ENDPOINT</td>
<td>Failed to import task {task} to replication server {server} as the logged in user does not have permission to add or modify endpoints.</td>
<td>The task cannot be imported because it includes endpoint definitions, and the user does not have permissions to insert endpoints.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_IMPORT_TASK_CONTAIN_ALIEN_ITEMS</td>
<td>Failed to import task {task} to replication server {server} as the JSON file contains unsupported objects.</td>
<td>The task cannot be imported because the stream contains items that cannot be imported (such as remote machines).</td>
</tr>
<tr>
<td>500</td>
<td>AEM_IMPORT_TASK_NAME_DIFFER</td>
<td>Failed to import task {task} to replication server {server} as the JSON file contains conflicting tasks.</td>
<td>The task cannot be imported because the stream contains conflicting tasks.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_IMPORT_TASK_CONTAINS_MULTIPLE_TASKS</td>
<td>Failed to import task to replication server {server} as the JSON file contains multiple tasks. To import multiple tasks, use ImportAll instead.</td>
<td>The task cannot be imported since the stream contains multiple tasks, and the method can only import a single task.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_TASK_NOT_IMPORTABLE</td>
<td>Failed to import task {task} as the task is running on server {server}. Stop the task and then try again.</td>
<td>Occurs when trying to import a running task.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_IMPORT_TASK_CONTENT_EMPTY</td>
<td>Failed to import task {task} to replication server {server} as the JSON file is empty.</td>
<td>The task cannot be imported as the specified JSON file is empty.</td>
</tr>
</tbody>
</table>
StopTask

General

**URL**
https://{host}/attunityenterprisemanager/api/v1/servers/{ServerName}/tasks/{TaskName}?action=stop&timeout={timeout}

**Description**
Stop the selected task

**HTTP Method**
POST

**Required User Role**
See [Required Enterprise Manager Permissions](#).

**Request Parameters**

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>URL</td>
<td>TaskName [string]</td>
<td>Yes</td>
<td>SalesDBBackup</td>
</tr>
<tr>
<td>Location</td>
<td>Name</td>
<td>Required</td>
<td>Example</td>
</tr>
<tr>
<td>----------</td>
<td>---------------------------</td>
<td>--------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>URL</td>
<td><strong>Timeout</strong> [int32]</td>
<td>Optional</td>
<td>60 (seconds)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(default is 60 seconds)</td>
<td></td>
</tr>
<tr>
<td>Header</td>
<td><strong>EnterpriseManager.APISessionID</strong> [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFR0vHF5KGrw</td>
</tr>
<tr>
<td>Header</td>
<td><strong>Content-Length</strong></td>
<td>Yes</td>
<td>Content-Length: 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Note that the Content-Length value must be &quot;0&quot;.</td>
</tr>
</tbody>
</table>

**Response Body**

```json
{
    "state": "{enum task_state}"
    "error_message": ""
}
```

**Response Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>state</strong> [enum task_state]</td>
<td>The current state of the task</td>
</tr>
<tr>
<td><strong>error_message</strong></td>
<td>The description of the error</td>
</tr>
</tbody>
</table>

**cURL Example**

```
curl -i -k -X POST --header "EnterpriseManager.APISessionID: wCo0_KvjEUFR0vHF5KGrw" --header "Content-Length: 0" https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1/tasks/SalesDBBackup/?action=stop
```
**Response Header:**

HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 38
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 16:31:01 GMT

**Payload:**

```json
{
  "state":"STOPPED",
  "error_message":"
}
```

---

### Error response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_TASK_ALREADY_STOPPED</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> is already stopped.</td>
<td>Cannot stop a task that is in Stopped state.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_STOP_TASK_INNER_ERR</td>
<td>Failed to stop Replicate task <code>{0}</code> on server <code>{1}</code>: <code>{2}</code></td>
<td>An error occurred while trying to stop the task.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_STOP_TASK_TIMEOUT</td>
<td>A timeout occurred when trying to stop Replicate task <code>{0}</code> on server <code>{1}</code></td>
<td>A timeout occurred while trying to stop the task.</td>
</tr>
</tbody>
</table>
RunTask

General

| Replicate URL | https://{host}/attunityenterprisemanager/api/v1/servers/{ServerName}/tasks/{TaskName}?action=run&option={option}&timeout={timeout} |
| Replicate URL | https://{host}/attunityenterprisemanager/api/v1/servers/{ServerName}/tasks/{TaskName}?action=run&timeout={timeout} |
| Description | Run the selected task according to the specified option. |
| HTTP Method | POST |
| Required User Role | See Required Enterprise Manager Permissions. |

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>URL</td>
<td>TaskName [string]</td>
<td>Yes</td>
<td>SalesDBBackup</td>
</tr>
<tr>
<td>URL</td>
<td>option [enum run_options]</td>
<td>This is required for Replicate tasks, but is not relevant for Compose tasks.</td>
<td>RELOAD_TARGET</td>
</tr>
<tr>
<td>URL</td>
<td>Timeout [int32]</td>
<td>Optional (default is 60 seconds)</td>
<td>60 (seconds)</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvHF5KGw</td>
</tr>
<tr>
<td>Location</td>
<td>Name</td>
<td>Required</td>
<td>Example</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------</td>
<td>---------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Header   | Content-Type: [Type]     | Yes if the run option = RESUME_ | "Content-Type: application/json"
|          |                          | PROCESSING_FROM_TIMESTAMP      | You can either specify the Content-Type payload inline or by referencing a JSON file. The payload format differs slightly according to whether it is specified inline or by referencing a JSON file. For more information, see Body below. |
|          |                          |                                |                                                                          |
|          | Content-Length:          | Yes if the option = RESUME_     | "Content-Length: 37"
|          |                          | PROCESSING_FROM_TIMESTAMP      | For example commands, see cURL Resume Processing from Timestamp Examples. |
| Body     | cdcposition              | Yes                             | The cdcposition parameter can either be specified inline or in an external JSON file. The format for both is described in Request Body Format below. |
Request Body Format

If the task option is RESUME_PROCESSING_FROM_TIMESTAMP, then the format should be:

**JSON File Format:**

\{
    "cdcposition":"timestamp"
\}

**Example:**

\{
    "cdcposition":"2017-03-07T11:19:03"
\}

**Inline Format:**

\{"cdcposition":"timestamp"\}

**Example:**

\{"cdcposition":"2017-03-07T11:19:03"\}

For example commands, see [cURL Resume Processing from Timestamp Examples](#).

If the task option is RECOVER_USING_CHECKPOINT_STORED_ON_TARGET, then the format should be:

**JSON File Format:**

\{
    "cdcposition":"target_checkpoint"
\}

**Example:**

\{
    "cdcposition":"Checkpoint:V1#1#timestamp:2017-02-14T12:34:44#0#0#0#0#0#0#0"\}

**Inline Format:**

\{"cdcposition":"target_checkpoint"\}

**Example:**

\{"cdcposition":"Checkpoint:V1#1#timestamp:2017-02-14T12:34:44#0#0#0#0#0#0#0"\}
Response Body

Body

```
{  
    "state": "{enum task_state}\n    "error_message": "" 
}
```

Response Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>state {enum task_state}</td>
<td>The current state of the task</td>
</tr>
<tr>
<td>error_message</td>
<td>The description of the error</td>
</tr>
</tbody>
</table>

cURL Reload Target Example

```
curl -i -k -X POST --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvfHF5KGrw" --header "Content-Length: 0" https://computer.network.net/attunityenterprisemanager/api/v1/server-s/myrepsrv1/tasks/SalesDBBackup?action=run&option=RELOAD_TARGET
```

Response Headers:

- HTTP/1.1 200 OK
- Cache-Control: no-cache, no-store
- Content-Length: 38
- Content-Type: application/json; charset=utf-8
- Server: Microsoft-HTTPAPI/2.0
- Date: Mon, 26 Dec 2016 16:28:25 GMT

Payload:

```
{  
    "state": "RUNNING",  
    "error_message": "" 
}
```
cURL Resume Processing from Timestamp Examples

cURL When the payload content is in a JSON file:

```bash
curl -i -k -X POST --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvfHF5KGw" --header "Content-Type: application/json" -T "C:\exports\run.json" --header "Content-Length: 37" https://computer.network.net/attunityenterprisemanager/api/v1/servers/rep2008r2gs7.qa.int/tasks/SalesDBBackup?action=run&option=RESUME_PROCESSING_FROM_TIMESTAMP"
```

cURL When the payload content is inline.

```bash
```

Response Headers:

- HTTP/1.1 200 OK
- Cache-Control: no-cache, no-store
- Content-Length: 38
- Content-Type: application/json; charset=utf-8
- Server: Microsoft-HTTPAPI/2.0
- Date: Tue, 07 Mar 2017 16:57:27 GMT

Payload:

```json
{"state":"RUNNING","error_message":"
{"error_code":"INVALID_SESSION_ID","error_message":"Session expired or invalid"}
```
## Error Response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_TASK_ALREADY_RUNNING</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> is already running.</td>
<td>The task cannot be run because it is already running.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_TASK_IN_RECOVERY</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> cannot be run as it is in a recovery state.</td>
<td>The task cannot be run because it is in Recovery state.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_WRONG_OPTION_FOR_CDCPOSITION</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> cannot be run with cdcposition <code>{position}</code> and option <code>{option}</code>. Change the option to RESUME_PROCESSING_FROM_TIMESTAMP or RECOVER USING_CHECKPOINT_STORED_ON_TARGET.</td>
<td>When the option Tables are already loaded. Start processing changes from Timestamp is selected in the Advanced Run Options dialog box for a task, the option sent to the API must be RESUME_PROCESSING_FROM_TIMESTAMP.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_CDC_POSITION_ERR_FORMAT</td>
<td>The cdcposition parameter value for Replicate task <code>{task}</code> on server <code>{server}</code> is not in the correct format (‘YYYY-MM-DDThh:mm:ssZ’).</td>
<td>The cdcPosition parameter must follow this format: YYYY-MM-DDThh:mm:ssZ. Parameters: task name and server name</td>
</tr>
<tr>
<td>500</td>
<td>AEM_RUN_TASK_TIMEOUT</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> timed out when requested to “Run”.</td>
<td>The task does not assume a Running state or any other steady state (error or stopped).</td>
</tr>
<tr>
<td>500</td>
<td>AEM_RUN_TASK_INNER_ERR</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> encountered an error when requested to run.</td>
<td>Replicate experienced an error/exception when trying to run the task.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_RUN_TASK_NO_SRC_NO_TRG</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> has no source or target endpoints.</td>
<td>Task validation revealed that the task is missing a source and a target.</td>
</tr>
<tr>
<td>HTTP Code</td>
<td>Enterprise Manager Code</td>
<td>Text</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------</td>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>500</td>
<td>AEM_RUN_TASK_NO_SRC</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> has no source endpoint.</td>
<td>Task validation revealed that the task is missing a source.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_RUN_TASK_TRG</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> has no target endpoint.</td>
<td>Task validation revealed that the task is missing a target.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_RUN_TASK_NOT_FL_NOR_CDC</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> cannot be run without at least one of the replication options enabled (Full Load, Apply Changes, or Store Changes).</td>
<td>Task validation of a unidirectional task revealed that the replication option definition for the task is missing (Full Load, Apply Changes, or Store Changes).</td>
</tr>
<tr>
<td>500</td>
<td>AEM_RUN_BIDI_TASK_NO_FL_NOR_CDC</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> cannot be run without at least one of the replication options enabled (Full Load or Apply Changes).</td>
<td>Task validation of a unidirectional task revealed that the replication option definition for the task is missing (Full Load, Apply Changes, or Store Changes).</td>
</tr>
</tbody>
</table>

**GetEndpointList**

**General**

| URL | https://[host]/attunityenterprisemanager/api/v1/servers/[server]/endpoints |
| Description | Retrieves a list of endpoints and their properties for the specified server. |
| Method | GET |
| Required User Role | See Required Enterprise Manager Permissions. |
## Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvHF5KGpW</td>
</tr>
</tbody>
</table>

## Response Body

```json
{
    "endpointList": [{
        "name": "{string}\",
        "description": "{string}\",
        "role": "{enum endpoint_role}\",
        "type": "{string}\",
        "is_licensed": "{bool}\"
    },...]
}
```

## Response Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>The endpoint name.</td>
</tr>
<tr>
<td>description</td>
<td>The endpoint description.</td>
</tr>
<tr>
<td>role</td>
<td>The endpoint role: SOURCE or TARGET</td>
</tr>
<tr>
<td>type</td>
<td>The endpoint type - for example, Oracle.</td>
</tr>
<tr>
<td>is_licensed</td>
<td>Indicates whether the endpoint is licensed on this server.</td>
</tr>
</tbody>
</table>
cURL Example

**Request**
curl -i -k --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvHF5KGrw"
https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1/endpoints
Response

Headers:

HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 205
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 11:18:53 GMT

Payload:

{
  "endpointList": [{
    "name": "Shopping",
    "description": "Customers and purchases",
    "role": "SOURCE",
    "type": "ORACLE",
    "is_licensed": true
  }, {
    "name": "Management",
    "description": "Managers and Employees",
    "role": "SOURCE",
    "type": "ORACLE",
    "is_licensed": true
  }, {
    "name": "Business Management",
    "description": "Shopping + Management",
    "role": "TARGET",
    "type": "HADOOP",
    "is_licensed": true
  }]
}
## Error Response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_ENDPOINT_LIST_INNER_ERR</td>
<td>Failed to retrieve endpoints list from Replicate server {name}.</td>
<td>Replicate experienced an error/exception when trying to retrieve the endpoint list.</td>
</tr>
<tr>
<td>403</td>
<td>See Error Handling.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>440</td>
<td>See Error Handling.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## DeleteEndpoint

### General

<table>
<thead>
<tr>
<th>URL</th>
<th>https://[host]/attunityenterprisemanager/api/v1/servers/[server]/endpoints/[endpoint]?action=delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Deletes the specified endpoint. Note than an endpoint can only be deleted if it is not in use by any task.</td>
</tr>
<tr>
<td>HTTP Method</td>
<td>DELETE</td>
</tr>
<tr>
<td>Required User Role</td>
<td>See Required Enterprise Manager Permissions.</td>
</tr>
</tbody>
</table>

### Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>URL</td>
<td>EndpointName [string]</td>
<td>Yes</td>
<td>Shopping</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvfHF5KGrw</td>
</tr>
<tr>
<td>Location</td>
<td>Name</td>
<td>Required</td>
<td>Example</td>
</tr>
<tr>
<td>----------</td>
<td>------------------</td>
<td>----------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Header</td>
<td>Content-Length</td>
<td>Yes</td>
<td>Content-Length: 0 Note that the Content-Length value must be &quot;0&quot;.</td>
</tr>
</tbody>
</table>
cURL Example

Request

curl -i -k -X POST --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvHF5KGrw" --header "Content-Length: 0"

https://computer.network.net/attunityenterprisemanager/api/v1/
servers/myrepsrv1/endpoints/Shopping?action=delete

Response

Header:
HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 38
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Mon, 26 Dec 2016 16:31:01 GMT

Error Response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_ENDPOINT_NOT_FOUND</td>
<td>Replicate endpoint <code>{endpoint}</code> on server <code>{server}</code> could not be found.</td>
<td>Endpoint name unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_DELETE_ENDPOINT_INNER_ERR</td>
<td>Failed to delete Replicate endpoint <code>{endpoint}</code> from server <code>{server}</code>.</td>
<td>Replicate encountered an error/exception when trying to delete the endpoint.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_ENDPOINT_IS_IN_USE</td>
<td>Replicate endpoint <code>{endpoint}</code> on server <code>{server}</code> cannot be deleted as it is currently in use by one or more tasks.</td>
<td>The Replicate endpoint must be removed from its associated tasks before it can be deleted.</td>
</tr>
<tr>
<td>403</td>
<td></td>
<td>See Error Handling.</td>
<td></td>
</tr>
<tr>
<td>440</td>
<td></td>
<td>See Error Handling.</td>
<td></td>
</tr>
</tbody>
</table>
ReconfigureEndpointNoWait

Notes
- Supported with the Oracle source endpoint only.
- Using this method, requires you to set up relevant Qlik Replicate task(s) with three separate source endpoints - two inactive source endpoints defined with the primary and secondary database connection settings, and one active source endpoint (initially defined with the primary database connection settings).

For detailed instructions, see Reconfiguring Endpoints

General

| URL | https://{host}/attunityenterprise/manager/api/v1/servers/ {server}/endpoints/{endpoint}?action=reconfigure&configuration={configuration}&recycle={true|false} |
| Description | Call this method to override the source endpoint settings with settings from another endpoint of the same type. This method also supports automatically stopping and then resuming all tasks that are using the source endpoint (which is required for unplanned switchovers). |
| HTTP Method | PUT |
| Required User Role | See Required Enterprise Manager Permissions. |
### Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>Host [string]</td>
<td>Yes</td>
<td>The host name of the computer on which the Replicate Server is running.</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>The name of the Replicate server (as defined in Qlik Enterprise Manager) on which the task(s) are running.</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>URL</td>
<td>EndpointName [string]</td>
<td>Yes</td>
<td>The name of the source endpoint defined for the Replicate task(s).</td>
<td>MyOracle</td>
</tr>
<tr>
<td>URL</td>
<td>ConfigurationName [string]</td>
<td>Yes</td>
<td>The name of the secondary endpoint (or the primary endpoint when reverting the settings).</td>
<td>SecondaryOracle</td>
</tr>
<tr>
<td>Location</td>
<td>Name</td>
<td>Required</td>
<td>Description</td>
<td>Example</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
<td>-------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>URL</td>
<td>Recycle [bool]</td>
<td>Optional (default is true)</td>
<td>Whether to stop and resume the Replicate task(s) automatically. The default is &quot;true&quot; i.e. when an unanticipated switchover occurs, tasks using the source endpoint will be automatically stopped and then resumed after the source endpoint is updated with the settings from the secondary endpoint. Set to &quot;false&quot; for planned switchovers (such as migrating to a production database or</td>
<td>true</td>
</tr>
<tr>
<td>Location</td>
<td>Name</td>
<td>Required</td>
<td>Description</td>
<td>Example</td>
</tr>
<tr>
<td>----------</td>
<td>---------------------------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>EnterpriseManager.APISession ID [string]</td>
<td>Yes</td>
<td>switching back to the primary database)</td>
<td>wCo0_KvjEUFROvHF5KGrw</td>
</tr>
</tbody>
</table>

**cURL Example**

```
cURL.EXE -i -k --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvHF5KGrw"
"https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1/endpoints/MyOracle?action=reconfigure&configuration=SecondaryOracle&recycle=true"
```

**Response**

HTTP/1.1 200 OK
Cache-Control: no-cache, no-store
Content-Length: 0
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Application-Status: 200
Application-Message: OK
Date: Sun, 19 Feb 2019 16:42:11 GMT
Error Response

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_ENDPOINT_NOT_FOUND</td>
<td>Replicate endpoint &quot;{endpoint}&quot; on server &quot;{server}&quot; could not be found.</td>
<td>The specified endpoint could not be found.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_RECONFIGURE_ENDPOINT_inner_ERR</td>
<td>Failed to reconfigure endpoint &quot;{endpoint}&quot; on server &quot;{server}&quot;. Error: &quot;{message}&quot;</td>
<td>Qlik Enterprise Manager failed to reconfigure the endpoint with the settings of the failover endpoint.</td>
</tr>
</tbody>
</table>

ExportAll

General

**URL**

https://{host}/attunityenterprisemanager/api/v1/servers/{ServerName}?action=export

**Description**

Export all definitions from the requested server repository on the selected server (server settings, tasks, endpoints, and so on). The definitions are exported to a JSON file.

Supported only with Replicate 5.2 and later.

**HTTP Method**

GET

**Required User Role**

See Required Enterprise Manager Permissions.

**Request Parameters**

<table>
<thead>
<tr>
<th>Location</th>
<th>URL Param Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>Host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>Location</td>
<td>URL Param Name</td>
<td>Required</td>
<td>Example</td>
</tr>
<tr>
<td>----------</td>
<td>----------------</td>
<td>----------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_ KvjEUFROvfHF5KGrw</td>
</tr>
</tbody>
</table>

Response

JSON File

cURL Example

Request
CURL.EXE -i -k --header "EnterpriseManager.APISessionID: wCo0_ KvjEUFROvfHF5KGrw"
https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1?action=export

Response
JSON file (stream)

Error Response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_METHOD_NOT_SUPPORTED_VERSION</td>
<td>ExportAll is only supported on Replicate 5.2 or above.</td>
<td>The method requires Replicate 5.2 or above.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_EXPORT_NO_PERMISSION_ON_TASK</td>
<td>Failed to export all tasks from Replicate server {server} as the logged in user does not have permission to export one or more of the defined tasks.</td>
<td>Export all cannot be carried out because the user does not have permissions on one or more tasks.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_EXPORT_NO_PERMISSION_ON_ENDPOINT</td>
<td>Failed to export all tasks from server {server} as the logged in user does not have permission to export one or more of the defined endpoints.</td>
<td>Export all cannot be carried out because the user does not have permissions on one or more endpoints.</td>
</tr>
</tbody>
</table>
ImportAll

General

**URL**

```
https://{Host}/attunityenterprisemanager/api/v1/servers/
{ServerName}?action=import
```

**Description**

Import the JSON definitions provided in the request body into the requested server repository on the selected server.

Supported only with replicate 5.2 and later.

The ApiImportAll method uses "merge" semantics. In particular:

- All valid JSON definitions provided in the request body will be imported. This includes server settings, task settings, endpoints, and other definitions.
- Items that existed in the target server before the import and have no new JSON definition in the request body will not be modified and in particular will not be removed. This means that ApiImportAll provides no way of removing old definitions that are no longer needed.

**HTTP Method**

POST

**Required User Role**

See Required Enterprise Manager Permissions.

**Request Parameters**

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>Host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvfHF5KGrw</td>
</tr>
<tr>
<td>Location</td>
<td>Name</td>
<td>Required</td>
<td>Example</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------</td>
<td>----------</td>
<td>------------------</td>
</tr>
<tr>
<td>Header</td>
<td>Content-Length:</td>
<td>Yes</td>
<td>&quot;Content-Length: 110952&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body</td>
<td>A JSON document to import [stream]</td>
<td>Yes</td>
<td>localServer1.json</td>
</tr>
</tbody>
</table>

### Response

**JSON File (stream)**

### cURL Example

```bash
CURL.EXE -i -k -X POST --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROVfHF5KGrw" --header "Content-Length: 110952" --header "Content-Type: application/json" "https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1?action=import" -T "C:\exports\localServer1.json"
```

**Response**

HTTP/1.1 100 Continue

HTTP/1.1 200 OK

```
Cache-Control: no-cache, no-store
Content-Length: 0
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Tue, 28 Feb 2017 19:05:12 GMT
```
### Error Response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_METHOD_NOT_SUPPORTED VERSION</td>
<td>ImportAll is only supported on Replicate 5.2 or above.</td>
<td>The method requires Replicate 5.2 or above.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_IMPORT_NO_PERMISSION_ON_TASK</td>
<td>Failed to import all tasks to replication server {server} as the logged in user does not have permission to add tasks.</td>
<td>Stream cannot be imported because the user does not have the permissions to add tasks.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_IMPORT_NO_PERMISSION_ON_ENDPOINT</td>
<td>Failed to import all tasks to replication server {server} as the logged in user does not have permission to add endpoints.</td>
<td>Stream cannot be imported because the user does not have the permissions to add endpoints.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_IMPORTCONTENTEMPTY</td>
<td>Failed to import all tasks to replication server {server} as the JSON file is empty.</td>
<td>Stream cannot be imported because it contains no content.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_IMPORTINVALIDCONTENT</td>
<td>Failed to import all tasks to replication server {server} as the JSON file contains invalid content.</td>
<td>Stream cannot be imported because it contains invalid content.</td>
</tr>
</tbody>
</table>

### ReloadTable

#### General

**URL**

```
https://{host}/attenityenterprisemanager/api/v1/servers/\{server\}/tasks/\{task\}/tables?action=reload&schema=\{schema\}&table=\{table\}
```

**Description**

Reload a specific table.
POST

See Required Enterprise Manager Permissions.

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>Host [string]</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>URL</td>
<td>TaskName [string]</td>
<td>Yes</td>
<td>SalesDBBackup</td>
</tr>
<tr>
<td>URL</td>
<td>Schema [string]</td>
<td>Yes</td>
<td>dbo</td>
</tr>
<tr>
<td>URL</td>
<td>Table [string]</td>
<td>Yes</td>
<td>employeelist</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvfHF5KGtw</td>
</tr>
<tr>
<td>Header</td>
<td>Content-Length</td>
<td>Yes</td>
<td>Content-Length: 0</td>
</tr>
</tbody>
</table>

**Note:** The specified value must be "0".

**cURL Example**

```bash
cURL.EXE -i -k -X POST --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvfHF5KGtw" --header "Content-Length: 0" "https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1/tasks/SalesDBBackup/tables?action=reload&schema=dbo&table=employeelist"
```

**Response**

HTTP/1.1 200 OK

Cache-Control: no-cache, no-store

Content-Length: 0

Content-Type: application/json; charset=utf-8

Server: Microsoft-HTTPAPI/2.0

Date: Tue, 24 Jan 2017 13:34:38 GMT
## Error Response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_INVALID_TASK_NOT_FL</td>
<td>Failed to reload table <code>{table}</code> as Full Load is not enabled for task <code>{task}</code>.</td>
<td>The table could not be reloaded because the task's Full Load replication option is not enabled.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_INVALID_TASK_NT_NTSUPPEP</td>
<td>Failed to reload table as this operation is not supported with the File Channel source endpoint.</td>
<td>The table could not be reloaded because the task's source endpoint is File Channel.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_RELOAD_TABLE_ERR</td>
<td>Failed to reload table <code>{schema}</code>. <code>{table}</code> for Replication task <code>{task}</code> on server <code>{server}</code>: <code>{message}</code></td>
<td>An error was encountered while trying to reload the specified table.</td>
</tr>
</tbody>
</table>

## TestEndpoint

### General

**URL**

https://{host}/attunityenterprisemanager/api/v1/servers/{server} endpoints/{endpoint}?action=test&timeout={timeout}

**Description**

Contact an endpoint to test connectivity and configuration (permissions, CDC configuration).

**HTTP Method**

GET

**Required User Role**

See [Required Enterprise Manager Permissions](#).

### Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>Host</td>
<td>Yes</td>
<td>computer.network.net</td>
</tr>
<tr>
<td>Location</td>
<td>Name</td>
<td>Required</td>
<td>Example</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------</td>
<td>----------</td>
<td>------------------</td>
</tr>
<tr>
<td>URL</td>
<td>ServerName [string]</td>
<td>Yes</td>
<td>myrepsrv1</td>
</tr>
<tr>
<td>URL</td>
<td>EndpointName [string]</td>
<td>Yes</td>
<td>TargetSQL1</td>
</tr>
<tr>
<td>URL</td>
<td>Timeout [int32]</td>
<td>Optional</td>
<td>(default is 60 sec)</td>
</tr>
<tr>
<td>Header</td>
<td>EnterpriseManager.APISessionID [string]</td>
<td>Yes</td>
<td>wCo0_KvjEUFROvfHF5KGrw</td>
</tr>
</tbody>
</table>

**Response Body**

```json

{  "requeststate": "{enum requeststate_state}" ,  "message": "" ,  "detailed_message": "" }
```

**Response Parameters**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>state {enum endpoint_state}</td>
<td>The current state of the endpoint</td>
</tr>
<tr>
<td>message</td>
<td>Short description of the error</td>
</tr>
<tr>
<td>detailed message</td>
<td>Elaborate description of the error</td>
</tr>
</tbody>
</table>

**cURL Example**

```
c:\Tools\curl>CURL.EXE -i -k --header "EnterpriseManager.APISessionID: wCo0_KvjEUFROvfHF5KGrw" "https://computer.network.net/attunityenterprisemanager/api/v1/servers/myrepsrv1/endpoints/TargetSQL1?action=test&timeout=60"
```
**Response**

HTTP/1.1 200 OK

Cache-Control: no-cache, no-store
Content-Length: 61
Content-Type: application/json; charset=utf-8
Server: Microsoft-HTTPAPI/2.0
Date: Sun, 19 Feb 2017 16:42:11 GMT

Payload:

```
{
  "state":"CONNECTED",
  "error_message":""
}
```

**Error Response**

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_TEST_ENDPOINT_CONSTRUCTION_TIMEOUT</td>
<td>A timeout occurred while testing the connection for endpoint {endpoint} on Replicate server {server}.</td>
<td>Connection was not established within 60 seconds.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_ENDPOINT_NOT_FOUND</td>
<td>Replicate endpoint {0} on server {1} could not be found.</td>
<td>The specified endpoint could not be found.</td>
</tr>
</tbody>
</table>

**DeleteOldChangeData**

**General**

**Description**

The method can be called on an ad-hoc basis to delete processed Change Data Partitions created on the target database by a Replicate task.

» Partitions will only be deleted if the Change Data Partitioning and Partition Retention options are enabled in the Replicate console.
For more information, refer to the *Qlik Replicate Setup and User Guide*.

» Partitions will only be deleted if the task is running. If the task is not running, the partitions will be deleted the next time the task runs.

» If a retention barrier is set, partitions will only be deleted up to the retention barrier or the earliest of all retention barriers (when set by multiple applications). For example, if Application A sets July 7th, 2020 as a barrier, Application B sets August 7th, 2020 as a barrier, and Application C sets September 7th, 2020 as a barrier, partitions will be deleted up to July 7th, 2020.

**URL**

https://{host:port}/attunityenterprisemanager/api/v1/servers/{server}/tasks/{task}?action=delete_old_change_data

**HTTP Method**

POST

**Required User Role**

See *Required Enterprise Manager Permissions*.

**Request Parameters**

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Description/Example</th>
</tr>
</thead>
</table>
| URL      | host   | Yes      | The host name of the Enterprise Manager machine.  
          | [string] |          |                                       |
|          |        |          | **Example:**  
          |        |          | computer.network.net                   |
| URL      | server | Yes      | The Replicate server name, as defined in Enterprise Manager.  
          | [string] |          |                                       |
|          |        |          | **Example:**  
          |        |          | myrepsrv1                                |
| URL      | task   | Yes      | The Replicate task name.  
          | [string] |          |                                       |
|          |        |          | **Example:**  
          |        |          | TargetAWSEMR                             |
Request Body

The point in time after which partitions can be deleted, which can either be specified as a timestamp or as an offset. If a retention barrier is set, and the specified timestamp/offset is earlier than the barrier, an error will be returned.

Timestamp Format

[Date]
(yyyy'-'MM'-'dd'T'HH':'mm':'ss'Z')

Example:
2020-06-30T16:15:00Z

Offset Format

[Period]
Format ISO 8601 duration

Example:
P1M3DT1H2M

cURL Example

Using timestamp:
curl -i --header "EnterpriseManager.APISessionID: {SessionID}" -X POST https://computer.network.net/attunityenterprisemanager/api/v1/servers/mypsrv1/tasks/SalesDBBackup?action=delete_old_change_data --data "{"timestamp_or_offset":"2020-06-30T16:15:00Z"}"

Using offset from current time:
curl -i --header "EnterpriseManager.APISessionID: {SessionID}" -X POST https://computer.network.net/attunityenterprisemanager/api/v1/servers/mypsrv1/tasks/SalesDBBackup?action=delete_old_change_data --data "{"timestamp_or_offset":"P1M3DT1H2M"}"
## Error Response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replication task {task} on server {server} could not be found.</td>
<td>Returned when an unknown task name is encountered.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_INVALID_TIMESTAMP_ OR_OFFSET_FORMAT</td>
<td>The specified deletion age does not conform to the expected timestamp or offset format.</td>
<td>Returned when the specified deletion age does not conform to the expected timestamp or offset format.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_DELETE_OLD_CHANGE_DATA_INNER_ERR</td>
<td>Failed to request deletion of old change data for task {task} on server {server}. Message: {error_message}</td>
<td>Returned when an error is encountered during partition deletion.</td>
</tr>
</tbody>
</table>

## SetChangeDataRetentionBarrier

### General

**Description**

The method can be used to:

- Set a retention barrier for deleting consumed partitions. Setting a retention barrier will initiate periodic deletion of consumed Change Data Partitions from the target database defined for the specified task. Partitions will be deleted according to the
When deletion is initiated by a consuming application, delete partitions every interval set on Replicate Server, and only up to the retention barrier or the earliest of all retention barriers (when set by multiple applications). For example, if Application A sets July 7th, 2020 as a barrier, Application B sets August 7th, 2020 as a barrier, and Application C sets September 7th, 2020 as a barrier, partitions will be deleted up to July 7th, 2020.

» Remove the retention barrier. Note that if there are multiple consuming applications, periodic deletion of consumed Change Data Partitions will only stop after all retention barriers have been removed.

» Partitions will only be deleted if the Change Data Partitioning and Partition Retention options are enabled in the Replicate console.

» Partitions will only be deleted if the task is running. If the task is not running, the partitions will be deleted the next time it runs.

URL

https://{host:port}/attunityenterprisemanager/api/v1/servers/{server}/tasks/{task}?action=set_change_data_retention_barrier

HTTP Method

PUT

Required Permission

See Required Enterprise Manager Permissions.

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Description/Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host</td>
<td>Yes</td>
<td>The host name of the Enterprise Manager machine.</td>
</tr>
<tr>
<td></td>
<td>[string]</td>
<td></td>
<td><strong>Example:</strong> computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>server</td>
<td>Yes</td>
<td>The Replicate server name, as defined in Enterprise Manager.</td>
</tr>
<tr>
<td></td>
<td>[string]</td>
<td></td>
<td><strong>Example:</strong> myrepsrv1</td>
</tr>
<tr>
<td>Location</td>
<td>Name</td>
<td>Required</td>
<td>Description/Example</td>
</tr>
<tr>
<td>----------</td>
<td>------------</td>
<td>----------</td>
<td>---------------------------------------------------------</td>
</tr>
<tr>
<td>URL</td>
<td>task [string]</td>
<td>Yes</td>
<td>The Replicate task name.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TargetAWSEMRA</td>
</tr>
</tbody>
</table>

**Request Body**

**Body for Setting a Retention Barrier**

retention_point=timestamp

application=application_name

Where:

- `timestamp` is the date up to which partitions can be deleted. The timestamp must be in the following format: (yyyy-'-'MM'-''dd'T'HH':'mm':'ss'Z').
- `application_name` is the name of the consuming application.

Example:

retention_point=2020-06-30T16:15:00Z

application=Compose

**Body for Removing the Retention Barrier**

retention_point=null

application=application_name

Where `application_name` is the name of the consuming application.

**cURL Example for Setting a Retention Barrier**

```bash
curl -i --header "EnterpriseManager.APISessionID: {SessionID}" -X PUT https://computer.network.net/attunityenterprise/api/v1/servers/myr epsrv1/tasks/SalesDBBackup?action=set_change_data_retention_barrier -- data "{"retention_point":":"2020-06-30T16:15:00Z"," application":":"myapp"}"
```
Error Response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replication task <code>{task}</code> on server <code>{server}</code> could not be found.</td>
<td>Returned when an unknown task name is encountered.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_INVALID_TIMESTAMP_FORMAT</td>
<td>The specified partition retention barrier does not conform to the expected timestamp format. Timestamp format should be <code>yyyy'-'MM'-'dd'T'HH':'mm':'ss'Z'</code>.</td>
<td>Returned when the specified partition retention barrier does not conform to the expected timestamp format.</td>
</tr>
<tr>
<td>500</td>
<td>AEM_SET_CHANGE_DATA_RETENTION_BARRIER_INNER_ERR</td>
<td>Failed to set change data retention barrier for task <code>{task}</code> on server <code>{server}</code>. Message: <code>{error_message}</code></td>
<td>Returned when an error is encountered during partition deletion.</td>
</tr>
</tbody>
</table>

GetChangeDataRetentionBarrier

General

Description

Returns the date of the earliest partition retention barrier when multiple partition retention barriers have been set.

When different retention barriers have been set by multiple consuming applications, Replicate will delete old Change Data partitions up to the earliest partition retention barrier.

For information on setting a partition retention barrier, see SetChangeDataRetentionBarrier.

URL

https://{host:port}/attunityenterprisemanager/api/v1/servers/{server}/tasks/{task}?action=get_change_data_retention_barrier
HTTP Method
GET

Required User Role
See Required Enterprise Manager Permissions.

Request Parameters

<table>
<thead>
<tr>
<th>Location</th>
<th>Name</th>
<th>Required</th>
<th>Description/Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>host</td>
<td>Yes</td>
<td>The host name of the Enterprise Manager machine.</td>
</tr>
<tr>
<td></td>
<td>[string]</td>
<td></td>
<td>Example: computer.network.net</td>
</tr>
<tr>
<td>URL</td>
<td>server</td>
<td>Yes</td>
<td>The Replicate server name, as defined in Enterprise Manager.</td>
</tr>
<tr>
<td></td>
<td>[string]</td>
<td></td>
<td>Example: myrepsrv1</td>
</tr>
<tr>
<td>URL</td>
<td>task</td>
<td>Yes</td>
<td>The Replicate task name.</td>
</tr>
<tr>
<td></td>
<td>[string]</td>
<td></td>
<td>Example: TargetAWSEMR</td>
</tr>
</tbody>
</table>

Response Body

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>application</td>
<td>string</td>
<td>The name of the consuming application that set the earliest partition retention barrier.</td>
</tr>
<tr>
<td>retention_point</td>
<td>datetime</td>
<td>The date of the earliest partition retention barrier. Format: yyyy-MM-dd'T'HH:mm:ssZ</td>
</tr>
</tbody>
</table>
cURL Example

curl -i --header "EnterpriseManager.APISessionID: {SessionID}"
https://computer.network.net/attunityenterprisemanager/api/v1/servers/mypsrv1/tasks/SalesDBBackup?action=get_change_data_retention_barrier

Response

{"application":"xxx","retention_point":"2020-06-30T16:15:00Z"}

Error Response

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replication task {task} on server {server} could not be found.</td>
<td>Returned when an unknown task name is encountered.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>AEM_GET_CHANGE_DATA_RETENTION_BARRIER_INNER_ERR</td>
<td>Failed to get change data retention barrier for task {task} on server {server}. Message: {error_message}</td>
<td>Returned when an error is encountered while trying to get the retention barrier.</td>
</tr>
</tbody>
</table>

Parameters

The following table lists all enum parameters used in the response body, along with their values.
<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server State</td>
<td>MONITORED</td>
<td>The server is being monitored, the Qlik Enterprise Manager is connected and synchronized successfully.</td>
</tr>
<tr>
<td></td>
<td>ERROR</td>
<td>Qlik Enterprise Manager fails to connect and monitor the server.</td>
</tr>
<tr>
<td></td>
<td>NOT_MONITORED</td>
<td>The server is not being monitored.</td>
</tr>
<tr>
<td>Server Platform</td>
<td>WINDOWS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LINUX</td>
<td></td>
</tr>
<tr>
<td>License State</td>
<td>LICENSE_VALID</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LICENSE_INVALID_CHECKSUM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LICENSE_EXPIRED NO_LICENSE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MACHINE_NOTLICENSED</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INVALID_LICENSE</td>
<td></td>
</tr>
<tr>
<td>Endpoint Role</td>
<td>SOURCE or TARGET</td>
<td>Specifies whether an endpoint is being used as a source or a target in a Replicate task.</td>
</tr>
<tr>
<td>Task State</td>
<td>RUNNING</td>
<td>The task is running.</td>
</tr>
<tr>
<td></td>
<td>STOPPED</td>
<td>The task has not been run yet or has stopped running at some point during the replication.</td>
</tr>
<tr>
<td></td>
<td>ERROR</td>
<td>The task has stopped due to a fatal error.</td>
</tr>
<tr>
<td></td>
<td>RECOVERING</td>
<td>The task has detected an error and is trying to recover. After a limited number of attempts, the task either recovers and the state returns to RUNNING, or the task fails and the state turns to ERROR.</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Task options</td>
<td>full_load_enabled [bool]</td>
<td>Creates all files or tables at the target endpoint, automatically defines the metadata that is required at the target, and populates the tables with data from the source.</td>
</tr>
<tr>
<td></td>
<td>apply_changes_enabled [bool]</td>
<td>Updates all changes made to files and tables that were created during the full load. Applied changes include inserts, updates, and removal of items.</td>
</tr>
<tr>
<td></td>
<td>store_changes_enabled [bool]</td>
<td>Stores changes in Change tables. This value and the audit_changes_enabled value are mutually exclusive.</td>
</tr>
<tr>
<td></td>
<td>audit_changes_enabled [bool]</td>
<td>Stores changes in a single audit table. This value and the store_changes_enabled_value are mutually exclusive.</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Task Stop reason</td>
<td>NONE</td>
<td>Indicates that a task is running and no Stop reason is prevalent.</td>
</tr>
<tr>
<td></td>
<td>NORMAL</td>
<td>Indicates that the task was stopped by the user.</td>
</tr>
<tr>
<td></td>
<td>RECOVERABLE_ERROR</td>
<td>Indicates that the task is still active, but that there is a temporary problem, such as a missing connection. As soon as the error state is resolved, Replicate restarts the task.</td>
</tr>
<tr>
<td></td>
<td>FATAL ERROR</td>
<td>Indicates that the task stopped and the error must be resolved manually. The task cannot be started again until the error has been resolved.</td>
</tr>
<tr>
<td></td>
<td>FULL_LOAD_ONLY_FINISHED</td>
<td>Indicates that the task only finished full load.</td>
</tr>
<tr>
<td></td>
<td>STOPPED_AFTER_FULL_LOAD</td>
<td>Indicates that the task stopped after full load. Cached changes may or may not have been applied.</td>
</tr>
<tr>
<td></td>
<td>STOPPED_AFTER_CACHED_EVENTS</td>
<td>Indicates that the task stopped after cached changes were applied.</td>
</tr>
<tr>
<td></td>
<td>EXPRESS_LICENSE_LIMITS_REACHED</td>
<td>The task definition includes actions that are not included with Express license privileges.</td>
</tr>
<tr>
<td></td>
<td>STOPPED AFTER DDL_APPLY</td>
<td>Indicates that the task stopped after DDL statements were applied.</td>
</tr>
<tr>
<td></td>
<td>STOPPED_LOW_MEMORY</td>
<td>Indicates that the task stopped due to low memory.</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>STOPPED_LOW_DISK</td>
<td>Indicates that the task stopped due to low disk space.</td>
<td></td>
</tr>
<tr>
<td>Replication profile</td>
<td>UNIDIRECTIONAL</td>
<td>Data is replicated from a source to a target.</td>
</tr>
<tr>
<td></td>
<td>BIDIRECTIONAL</td>
<td>Changes to the source are replicated to the target, and vice versa.</td>
</tr>
<tr>
<td></td>
<td>LOG_STREAM_STAGING</td>
<td>Changes are captured from a single source and stored on Replicate Server for replication to one or more targets.</td>
</tr>
<tr>
<td>Source type</td>
<td>Source and target endpoint types should be specified in the same format that they appear in the Type drop-down list (when adding a new endpoint in Enterprise Manager). For information on how to add an endpoint in Enterprise Manager, refer to the Enterprise Manager Setup and User Guide.</td>
<td></td>
</tr>
<tr>
<td>Target type</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2  Enterprise Manager REST SDK
<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run options</td>
<td>RESUME_PROCESSING</td>
<td>Resumes task execution from the point that it was stopped.</td>
</tr>
<tr>
<td></td>
<td>RELOAD_TARGET</td>
<td>Re-starts the full-load replication process if the task was previously run.</td>
</tr>
<tr>
<td></td>
<td>RESUME_PROCESSING_FROM_TIMESTAMP</td>
<td>Starts the CDC replication task from a specific point.</td>
</tr>
<tr>
<td></td>
<td>RECOVER_USING_LOCALLY_STORED_CHECKPOINT</td>
<td>Recovers a task using the recovery state stored locally in the task folder (located under the Data folder).</td>
</tr>
<tr>
<td></td>
<td>RECOVER_USING_CHECKPOINT_STORED_ON_TARGET</td>
<td>Recovers a task using the CHECKPOINT value from the attrep_txn_state table (created in the target database).</td>
</tr>
<tr>
<td></td>
<td>METADATA_ONLY_RECREATE_ALL_TABLES</td>
<td>Recreates the target tables defined for full load.</td>
</tr>
<tr>
<td></td>
<td>METADATA_ONLY_CREATE_MISSING_TABLES</td>
<td>Creates missing target tables, including Change Tables.</td>
</tr>
<tr>
<td>Request state</td>
<td>SUCCESS</td>
<td>Connection to endpoint is valid</td>
</tr>
<tr>
<td></td>
<td>FAILURE</td>
<td>Connection to endpoint is not valid</td>
</tr>
</tbody>
</table>

**Note**  This option is only available if the Store task recovery data in target database option is enabled in the Changes Processing Tuning tab of the Task Settings dialog box.
<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>state</td>
<td>Represented as enum values:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TABLE_QUEUED</td>
<td>TABLE_QUEUED - A table awaiting loading.</td>
</tr>
<tr>
<td></td>
<td>TABLE_LOADING</td>
<td>TABLE_LOADING - A table being loaded to the target.</td>
</tr>
<tr>
<td></td>
<td>TABLE_COMPLETED</td>
<td>TABLE_COMPLETED - A table that has been loaded to the target.</td>
</tr>
<tr>
<td></td>
<td>TABLE_CHANGE_PROCESSING</td>
<td>TABLE_CHANGE_PROCESSING - A table that has been loaded to the target and is being updated according to changes on the source.</td>
</tr>
<tr>
<td></td>
<td>TABLE_ERROR</td>
<td>TABLE_ERROR - An error occurred while processing the table.</td>
</tr>
</tbody>
</table>
This chapter explains how to use the Enterprise Manager .NET SDK and lists the available methods.

**In this chapter:**
- Prerequisites
- Getting Started - Login
- Authentication and Authorization
- Error Handling
- PutServerLicense
- GetServerDetails
- PutServer
- PutServerAcl
- GetServer
- GetServerAcl
- GetServerList
- DeleteServer
- Syntax
- DeleteServerAcl
- GetTaskList
- GetTaskDetails
- GetTableList
- GetTableStatuses
- DeleteTask
- ExportTask
- ImportTask
- StopTask
- RunTask
- GetEndpointList
- DeleteEndpoint
- ReconfigureEndpointNoWait
- ExportAll
- ImportAll
Prerequisites

General Prerequisites
Before using the Enterprise Manager .NET SDK, make sure that:

» Qlik Enterprise Manager has been installed.
» The Qlik Enterprise Manager service is active.
» The relevant permissions have been granted.

.NET SDK Prerequisites
The `<Enterprise Manager_Installation_Folder>/clients/dotnet/` folder contains the following required files:

» AemRestClient.dll
» Newtonsoft.Json.dll

Getting Started - Login
This section describes how to get started with the Enterprise Manager .NET SDK. To help you better understand how to implement the available methods, a code sample and a readme file that describes the code are located in the `<Enterprise Manager_Installation_Folder>/clients/dotnet` folder.

To be able to use the Enterprise Manager .NET SDK:
1. Create a project which references the AemRestClient.dll and Newtonsoft.Json.dll files
2. Create the AemRestClient object using one of the following constructors:
```csharp
class AemRestClient
{
    public AemRestClient(ICredentials credentials, string url = "https://localhost/attunityenterprisemanager", bool verifyCertificate = true);
    
    public AemRestClient(ICredentials credentials, string host, int port, string urlSuffix = "attunityenterprisemanager", bool verifyCertificate = true);

    credentials – See below.
    url – The URL to the Qlik Enterprise Manager server. The URL must begin with "https".
    verifyCertificate – See below.

    credentials – See below.
    host – The machine on which Enterprise Manager is installed.
    port – The Enterprise Manager server port (usually 443).
    urlSuffix – The part of the Enterprise Manager URL that follows the host and port (usually attunityenterprisemanager).
    verifyCertificate – See below.
}
```

**Note** When verifyCertificate is set to **true** there must be valid certificate on the Enterprise Manager machine. When set to **false**, Enterprise Manager client will not validate the server certificate.

### Connecting to Enterprise Manager using Active Directory

```csharp
var credentials = new NetworkCredential
{
    UserName = "USERNAME",
    Password = "PASSWORD",
    Domain = "DOMAIN"
};

_client = new AemRestClient(credentials, "localhost", 443, false);
```

### Connecting to Enterprise Manager using SAML

This must be specified without a username.

```csharp
var credentials = new NetworkCredential
{
    Password=<saml_assertion>
};

_client = new AemRestClient(credentials, "localhost", 443, false);
```
Where `<saml_assertion>` is the SAML assertion from a SAML IDP. This must be a URL encoded string containing the `SAMLResponse` parameter with a base64 encoded SAML assertion as its value. The string may also contain other parameters (e.g. RelayState), but these parameters are ignored.

**Example:**

```
"SAMLResponse=long_base_64_string"
```

### Using Client Methods to Get/Set Data on Qlik Enterprise Manager

After creating credentials and a client object, you can call the client methods to get/set data from Enterprise Manager using the public APIs.

For example:

```csharp
_client.GetServerList()
_client.GetServerDetails(serverName)
_client.ExportTask(serverName, taskName);
```

### Authentication and Authorization

The AemRestClient user and password need to be the user and password that are defined in users or groups in Qlik Enterprise Manager ACLs in at least one level (e.g. Qlik Enterprise Manager level, All Servers level, etc,) with at least Viewer role.

### Error Handling

When a REST request fails, the HTTP response code is set to an error code. Information about the error is returned in the payload as an error response.

An error response has the following structure:

- **Class:** AemClientException that inherits from Exception class and has the following fields:
  - `ErrorCode`
  - `Message`

This section lists the generic messages that apply to most of the API functions. Errors that are specific to a particular API function appear in the section for that API function.
<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNAUTHORIZED_REQUEST</td>
<td>Unauthorized Request.</td>
<td>The user is not authorized to perform the requested action (e.g. deleting a task).</td>
</tr>
<tr>
<td>INVALID_SESSION_ID</td>
<td>The session has expired or the session ID is not valid.</td>
<td>Session expired or invalid.</td>
</tr>
<tr>
<td>DESERIALIZE_TO_TYPE</td>
<td>Failed to deserialize json to type {type}: {message}</td>
<td>Returned when the JSON format is invalid.</td>
</tr>
<tr>
<td>AEM_SERVER_NOT_FOUND</td>
<td>The requested server {server} could not be found.</td>
<td>The requested server cannot be found.</td>
</tr>
<tr>
<td>AEM_SERVER_NOT_MONITORED</td>
<td>The requested server {server} is not monitored.</td>
<td>The requested server is not being monitored and thus the information is not accessible.</td>
</tr>
<tr>
<td>AEM_SERVER_NOT_CONNECTED</td>
<td>The requested server &quot;{server}&quot; cannot be reached at this time. Message: {message}</td>
<td>The desired information cannot be retrieved as the requested server is not connected.</td>
</tr>
<tr>
<td>AEM_SERVER_LICENSE_EXPIRED</td>
<td>The license for requested server {server} has expired.</td>
<td>The requested server license has expired.</td>
</tr>
<tr>
<td>AEM_SERVER_INVALID_LICENSE</td>
<td>The license for requested server {server} is not valid.</td>
<td>The requested server license is not valid.</td>
</tr>
<tr>
<td>LICENSE_NOT_FOUND</td>
<td>You need to register a Replication Management license in order to use Qlik Enterprise Manager. To register or obtain a license, open the Qlik Enterprise Manager console and follow the instructions.</td>
<td>Replication Management license was not found. For a user who is permitted to Register Qlik Enterprise Manager license.</td>
</tr>
<tr>
<td>Error</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>LICENSE_NOT_FOUND_CONTACT_ADMIN</td>
<td>An Enterprise Manager Admin needs to register a Replication Management license before you can use the product. To obtain a license, contact your Qlik Sales Representative with the Enterprise Manager machine name (which is displayed when you open the Enterprise Manager console).</td>
<td>Replication Management license was not found. For a user who is NOT permitted to Register Qlik Enterprise Manager license.</td>
</tr>
<tr>
<td>LICENSE_EVALUATION_EXPIRED</td>
<td>{Module} evaluation license has expired.</td>
<td>{Module} is one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Analytics</td>
</tr>
<tr>
<td>LICENSE_TERM_EXPIRED</td>
<td>{Module} license has expired.</td>
<td>{Module} is one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Analytics</td>
</tr>
<tr>
<td>LICENSE_INVALID_SIGNATURE</td>
<td>The {Module} license signature is invalid.</td>
<td>{Module} is one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Analytics</td>
</tr>
<tr>
<td>LICENSE_HOST_MISMATCH</td>
<td>The host name in the {Module} license does not match the Enterprise Manager machine name.</td>
<td>{Module} is one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Analytics</td>
</tr>
<tr>
<td>AEM_MISSING_FIELD</td>
<td>The &quot;{fieldName}&quot; field is missing from the request.</td>
<td>When a mandatory field is missing from the request or appears empty</td>
</tr>
</tbody>
</table>

**PutServerLicense**

Registers a license on a specific server via Qlik Enterprise Manager.

**Required User Role:** See [Required Enterprise Manager Permissions](#).
Syntax
public void PutServerLicense(
        string payload,
        string server
    );

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>string</td>
<td>The license to register on the server [stream]. This is the license that was provided by your Qlik Sales Representative. <strong>Expected format:</strong> Text or JSON. Currently refers to the Replicate license only.</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
</tbody>
</table>

Return Values
N/A

Errors
All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_PUT_SRV_LIC_IDERR</td>
<td>Failed to put license for server &quot;{server}&quot;. Error: &quot;{message}&quot;</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to register the license on the specified server.</td>
</tr>
<tr>
<td>AEM_SRV_LIC_INVALID_FMT</td>
<td>The license file format is corrupt.</td>
<td>Returned when the contents of the license file are invalid.</td>
</tr>
</tbody>
</table>
GetServerDetails
Retrieves details about the specified server.

Required User Role: See Required Enterprise Manager Permissions.

Syntax

```csharp
public AemGetServerDetailsResp GetServerDetails(
    string server
);
```

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The specified server name in Qlik Enterprise Manager.</td>
</tr>
</tbody>
</table>

Return Values

AemGetServerDetailsResp

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ServerDetails</td>
<td>AemServerDetails</td>
<td>ReplicateServerDetails or ComposeServerDetails that are inherited from AemServerDetails</td>
</tr>
</tbody>
</table>

Configuration

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host</td>
<td>string</td>
<td>The host name or IP address of the Replicate/Compose Server machine.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Platform</td>
<td>AemPlatform</td>
<td>The platform on which the Replicate/Compose Server machine is installed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>{</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UNKNOWN = 0,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WINDOWS = 1,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LINUX = 2</td>
</tr>
<tr>
<td>Port</td>
<td>string</td>
<td>The port through which the Replicate/Compose Server machine is accessed.</td>
</tr>
<tr>
<td>UserName</td>
<td>string</td>
<td>The user name for connecting to the Replicate/Compose Server machine.</td>
</tr>
<tr>
<td>Description</td>
<td>string</td>
<td>The server description.</td>
</tr>
<tr>
<td>LastConnection</td>
<td>string</td>
<td>The date and time of the last successful sync/retrieval of tasks and messages.</td>
</tr>
<tr>
<td>License</td>
<td>ApiLicense</td>
<td></td>
</tr>
<tr>
<td>DaysToExpiration</td>
<td>int</td>
<td>The number of days left before the license expires.</td>
</tr>
<tr>
<td>Expiration</td>
<td>string</td>
<td>The expiration date of the server license.</td>
</tr>
<tr>
<td>IssueDate</td>
<td>string</td>
<td>When the license was issued.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>State</td>
<td>AemLicenseState</td>
<td>The current license state (e.g. valid, expired, etc.).</td>
</tr>
<tr>
<td></td>
<td>{</td>
<td></td>
</tr>
<tr>
<td></td>
<td>VALID_LICENSE = 0,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INVALID_LICENSE_CHECKSUM = 1,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EXPIRED_LICENSE = 2,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NO_LICENSE = 3,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MACHINE_NOTLICENSED = 4,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INVALID_LICENSE = 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>}</td>
<td></td>
</tr>
<tr>
<td>Message</td>
<td>string</td>
<td>The error message if Qlik Enterprise Manager fails to connect to the Replicate/Compose Server machine.</td>
</tr>
<tr>
<td>Name</td>
<td>string</td>
<td>The name of the server in Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>ResourceUtilization</td>
<td>AemServerUtilization</td>
<td></td>
</tr>
<tr>
<td>AttunityCpuPercentage</td>
<td>int</td>
<td>The sum of CPU percentage of Replicate server and all running tasks processes.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>DiskUsageMb</td>
<td>long</td>
<td>The amount of disk space that the server is currently consuming, in MB. This is the sum of disk usage for all tasks on this server.</td>
</tr>
<tr>
<td>MachineCpuPercentage</td>
<td>int</td>
<td>The CPU percentage of the machine where Replicate is installed.</td>
</tr>
<tr>
<td>MemoryMb</td>
<td>long</td>
<td>The amount of memory that the server is currently consuming, in MB. This is the sum of memory usage for all active tasks on this server, excluding stopped tasks.</td>
</tr>
<tr>
<td>State</td>
<td>AemServerState</td>
<td>The state of the server.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>{</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOT_MONITORED = 0,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MONITORED = 1,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ERROR = 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>}</td>
</tr>
<tr>
<td>AemTasksSummary</td>
<td>TaskSummary</td>
<td>The number of tasks that encountered a fatal error.</td>
</tr>
<tr>
<td>Error</td>
<td>int</td>
<td>The number of tasks that encountered a fatal error.</td>
</tr>
<tr>
<td>Recovering</td>
<td>int</td>
<td>The number of recovering tasks</td>
</tr>
</tbody>
</table>
### Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Running</td>
<td>int</td>
<td>The number of running tasks.</td>
</tr>
<tr>
<td>Stopped</td>
<td>int</td>
<td>The number of stopped tasks.</td>
</tr>
<tr>
<td>Total</td>
<td>int</td>
<td>The total number of tasks, regardless of state.</td>
</tr>
<tr>
<td>Version</td>
<td>string</td>
<td>The Replicate/Compose Server version.</td>
</tr>
</tbody>
</table>

### Notes

- The return value -1 means N/A.
- Parameters related to Disk, Memory, Qlik CPU, and Machine CPU usage are not available for Compose servers. For Compose servers, these parameters will be returned as -1.
- Parameters related to Qlik CPU and Machine CPU usage are only available for Replicate 6.2 and above. For earlier Replicate versions, these parameters will be returned as -1.
- For servers that are in an error state or not monitored, parameters related to Disk and Memory usage will be returned as -1.

### Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_SERVER_NOT_FOUND</td>
<td>Replicate server {server} could not be found.</td>
<td>Server name unknown to Qlik Enterprise Manager.</td>
</tr>
</tbody>
</table>

See Error Handling.

### PutServer

Adds a new Replicate/Compose Server or updates the server definition (Connection Properties) if the specified server already exists. This method can be used together with AemGetServer in order to update the connection properties of an existing server.
First call AemGetServer, then edit the returned properties as required, and finally, call AemPutServer.

**Required User Role:** See Required Enterprise Manager Permissions.

**Syntax**

```csharp
public void PutServer(
    AemServer payload,
    string server
);
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>AemServer</td>
<td>AemReplicateServer or AemComposeServer that is inherited from AemServer.</td>
</tr>
<tr>
<td>Name</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
<tr>
<td>Description</td>
<td>string</td>
<td>The server description.</td>
</tr>
<tr>
<td>Host</td>
<td>string</td>
<td>The host name or IP address of the server.</td>
</tr>
<tr>
<td>Port</td>
<td>string</td>
<td>The port through which the server is accessed.</td>
</tr>
<tr>
<td>Username</td>
<td>string</td>
<td>The user name to connect to the Replicate/Compose Server.</td>
</tr>
<tr>
<td>Password</td>
<td>string</td>
<td>The password to connect to the Replicate/Compose Server. Note The password identifier (GUID) that is returned by GetServer is valid only for the session in which it was generated. Using it in another session (for example as input for PutServer) will result in exception.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>VerifyServerCertificate</td>
<td>bool</td>
<td>Set to &quot;true&quot; to ensure the Server certificate is trusted. As a rule, to reduce the chance of &quot;man-in-the-middle&quot; attacks, this option should always be set to &quot;true&quot;.</td>
</tr>
</tbody>
</table>

» When connecting directly to an Qlik Replicate replication server (default port 3552) with its automatically generated self-signed certificate, Qlik Enterprise Manager is able to validate the certificate without requiring any additional setup.

» When connecting to a Replicate Server via the Replicate UI Server (typically using port 443) or to the Replicate replication server with a user-installed certificate, you must make sure that the SSL/TLS certificate used by the server is trusted by the Qlik Enterprise Manager machine. The same applies when connecting to a Compose Server with a user-installed certificate. You can easily verify whether the certificate is trusted by opening a Chrome browser window on the Qlik Enterprise Manager machine and connecting to Replicate. If there are no security warnings, the certificate is trusted.

For information on the different ways of connecting to Qlik Replicate, see Qlik Replicate Server Requirements in the Qlik Enterprise Manager Help.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitored</td>
<td>bool</td>
<td>Whether to retrieve tasks and messages from this server or not.</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
</tbody>
</table>

### Return Values

N/A

### Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESERIALIZE_TO_TYPE</td>
<td>&quot;Failed to deserialize json to type AemServer: {message}&quot;</td>
<td>Returned when the JSON format is invalid format. For example, such an error will be returned if the JSON contains an unknown role.</td>
</tr>
<tr>
<td>AEM_PUT_SERVER_INNER_ERR</td>
<td>Failed to put server &quot;{server}&quot;. Error: &quot;{message}&quot;.</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to PUT the server.</td>
</tr>
<tr>
<td>AEM_INVALID_SERVER_TYPE</td>
<td>Server type {ServerType} for server &quot;{ServerName}&quot; is not valid.</td>
<td>Returned when the an invalid server type is specified.</td>
</tr>
<tr>
<td>AEM_NAME_URL_MISMATCH</td>
<td>The name of the server in the request does not match the one that is specified in the URL.</td>
<td>Returned when the name of the server in the request does not match the one that is specified in the URL.</td>
</tr>
<tr>
<td>AEM_EMPTY_HOST</td>
<td>The host is missing from the request.</td>
<td>Returned when the host is missing from the request.</td>
</tr>
<tr>
<td>AEM_EMPTY_PORT</td>
<td>The port is missing from the request.</td>
<td>Returned when the port is missing from the request.</td>
</tr>
<tr>
<td>Error</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>AEM_EMPTY_USERNAME</td>
<td>The username is missing from the request.</td>
<td>Returned when the user name is missing from the request.</td>
</tr>
<tr>
<td>AEM_EMPTY_PASSWORD</td>
<td>The password is missing from the request.</td>
<td>Returned when the password is missing from the request.</td>
</tr>
<tr>
<td>AEM_INVALID_PORT</td>
<td>The port is invalid.</td>
<td>Returned when the specified port is not valid.</td>
</tr>
<tr>
<td>AEM_INVALID_USERNAME</td>
<td>The user name is invalid. User names cannot exceed 104 characters and can contain all Unicode characters except for the following characters: Forward slash (/), Left square bracket ([), Right square bracket (]), Colon (:), Semicolon (;), Vertical bar (</td>
<td>), Equal sign (=), Plus sign (+), Asterisk (*), Question mark (?), Left angle bracket (&lt;), Right angle bracket (&gt;) Double quote (&quot;).</td>
</tr>
<tr>
<td>AEM_INVALID_DESC</td>
<td>The description is invalid. Descriptions cannot exceed 250 characters.</td>
<td>Returned when the description exceeds 250 characters.</td>
</tr>
<tr>
<td>AEM_INVALID_HOST</td>
<td>The host is invalid. Hosts cannot exceed 64 characters and can only contain letters (a-z or A-Z), digits, spaces, dots (.), dashes (_), and underscores (_).</td>
<td>Returned when the server host name exceeds 64 characters or contains invalid characters.</td>
</tr>
<tr>
<td>AEM_INVALID_NAME</td>
<td>The name of the server is invalid. Server names cannot exceed 64 characters and can only contain letters (a-z or A-Z), digits, spaces, dots (.), dashes (_), and underscores (_).</td>
<td>Returned when the server name exceeds 64 characters or contains invalid characters.</td>
</tr>
<tr>
<td>Error</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>AEM_HOST_PORT_ALREADY_EXIST</td>
<td>Host {name/IP} and port {number} are already in use by another server.</td>
<td>Returned when both the server host name/IP address and the server port are already in use by another server.</td>
</tr>
</tbody>
</table>

### PutServerAcl

Puts an explicit ACL for a specific server in Qlik Enterprise Manager. The method will replace any existing explicit ACL with the ACL in the request. The request also includes a Boolean flag for specifying whether or not the server should inherit ACLs from its ancestors (in addition to its explicitly defined ACLs).

The inherited ACLs (i.e., the ACLs of the server’s ancestors) are not affected by this method.

The `AemPutServerAcl` can be used together with the `AemGetServerAcl` method in order to update an existing server’s ACL. First call `AemGetServerAcl`, then edit the returned roles as required, and finally, call `AemPutServerAcl`.

### Behavior when putting a partial request:

When the request body includes only some of the roles (as opposed to all four of them), only the roles specifically defined in the request body will be set on the server; roles that are missing or empty will be inherited, but only if the following are true:

- The `disable_inheritance` flag is set to "True".
- The roles that are missing/empty in the request are defined for the ancestors.

### Behavior on conflicts:

If the `disable_inheritance` flag is set to "False" and the explicit roles in the request conflict with existing inherited roles, then the explicit roles will take precedence. For example, if the request defines user A as a Viewer on `MyServer` and user A is also defined as an Admin on All Servers, then user A will be defined as an Admin on All Servers but as a Viewer on `MyServer`. 
**Note** The user permissions in Enterprise Manager are completely independent of the user permissions in Replicate. Consequently, `AemPutServerAcl` will affect the server's Enterprise Manager user permissions, but will *not* affect Replicate's user permissions.

Moreover, when performing an operation via Enterprise Manager, the user permissions defined for the server entity in Enterprise Manager apply, whereas when performing an operation directly via the Replicate Console, the user permissions defined in Replicate apply.

**Note** Defining the same user/group in different roles is not allowed. However, if the same user or group is defined in different roles but with a different case (e.g. Mike vs. mike or Analysts vs. ANALYSTS), no error will be returned and the strongest role will take precedence.

**Required User Role:** See Required Enterprise Manager Permissions.

**Syntax**

```csharp
public void PutServerAcl(
    AemAuthorizationAcl payload,
    string server
);
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>AemAuthorizationAcl</td>
<td></td>
</tr>
<tr>
<td>DisableInheritance</td>
<td>bool</td>
<td>If set to &quot;true&quot;, the server does not inherit ACLs from its ancestors (in addition to its explicit ACLs). If set to &quot;false&quot;, the server inherits ACLs from its ancestors, in addition to any explicit ACLs</td>
</tr>
</tbody>
</table>
### Parameter Description

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AdminRole</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Admin role</td>
</tr>
<tr>
<td>DesignerRole</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Designer role</td>
</tr>
<tr>
<td>OperatorRole</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Operator role</td>
</tr>
<tr>
<td>ViewerRole</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Viewer role</td>
</tr>
<tr>
<td>Groups</td>
<td>List&lt;AemGroupRef&gt;</td>
<td>Groups assigned as the role</td>
</tr>
<tr>
<td>Name</td>
<td>string</td>
<td>The group name</td>
</tr>
<tr>
<td>Users</td>
<td>List&lt;AemUserRef&gt;</td>
<td>Users assigned as the role</td>
</tr>
<tr>
<td>Name</td>
<td>string</td>
<td>The user name</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server</td>
</tr>
</tbody>
</table>

### Return Values

N/A

### Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESEREIALIZE_TO_TYPE</td>
<td>&quot;Failed to deserialize json to type AemAuthorizationAcl: {message}&quot;</td>
<td>Returned when the JSON format is invalid format. For example, such an error will be returned if the JSON contains an unknown role.</td>
</tr>
<tr>
<td>AEM_PUT_SERVER_ACL INNER_ERR</td>
<td>Failed to put ACL of server &quot; {server}&quot;. Error: &quot;{message}&quot;.</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to put the server's ACL.</td>
</tr>
<tr>
<td>Error</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>AEM_NO_DOMAIN_IN_USER</td>
<td>User &quot;{userName}&quot; must be preceded by a domain name, separated by a backslash.</td>
<td>Returned when the domain is missing from the user name.</td>
</tr>
<tr>
<td></td>
<td><strong>Example:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>domain_name\user_name.</td>
<td></td>
</tr>
<tr>
<td>AEM_NO_DOMAIN_IN_GROUP</td>
<td>Group &quot;{groupName}&quot; must be preceded by a domain name, separated by a backslash.</td>
<td>Returned when the domain is missing from the group name.</td>
</tr>
<tr>
<td></td>
<td><strong>Example:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>domain_name\group_name.</td>
<td></td>
</tr>
<tr>
<td>AEM_NO_ADMIN_ON_SERVER</td>
<td>Requested server &quot;{serverName}&quot; has no admin user.</td>
<td>Returned when there is no admin on the server.</td>
</tr>
<tr>
<td></td>
<td>At least one user or group must be assigned to the &quot;admin&quot; role.</td>
<td>Possible reasons:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>➤ The request JSON is set to disable_inheritance=true and the explicit admin role in the JSON is empty.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>➤ The JSON is set to disable_inheritance =true, the explicit admin role in the JSON is empty, and the parent levels do not have an admin user to inherit.</td>
</tr>
<tr>
<td>AEM_USER_ASSIGNED_TO_MULTIPLE_ROLES</td>
<td>User &quot;{userName}&quot; is assigned to multiple roles. Users can only be assigned to a single role.</td>
<td>Returned when a user is assigned to multiple roles.</td>
</tr>
<tr>
<td>AEM_GROUP_ASSIGNED_TO_MULTIPLE_ROLES</td>
<td>Group &quot;{groupName}&quot; is assigned to multiple roles. Groups can only be assigned to a single role.</td>
<td>Returned when a group is assigned to multiple roles.</td>
</tr>
</tbody>
</table>
### Error Messages

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_USER_ GROUP_ MULTIPLE_ ASSIGNED</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

```
AEM_{user} 
```

is assigned to multiple roles or to the same role twice. Users/groups can only be assigned once, and to a single role.

Returned either when the specified user already exists as a group in the same/another role, or the specified group already exists as a user in the same/another role.

### GetServer

Retrieves the definition (Connection Properties) of the specified server. This method can be used together with PutServer in order to update the connection properties of an existing server. First call GetServer, then edit the returned properties as required, and finally, call PutServer.

**Required User Role:** See Required Enterprise Manager Permissions.

#### Syntax

```csharp
public AemServer GetServer(
    string server
);
```

#### Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server to retrieve.</td>
</tr>
</tbody>
</table>

#### Return Values

AemServer (AemReplicateServer or AemComposeServer that inherited from AemServer)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host</td>
<td>string</td>
<td>The host name or IP address of the server.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Port</td>
<td>string</td>
<td>The port through which the server is accessed.</td>
</tr>
<tr>
<td>Name</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
<tr>
<td>Description</td>
<td>string</td>
<td>The server description.</td>
</tr>
<tr>
<td>Username</td>
<td>string</td>
<td>The user name to connect to the Replicate/Compose Server.</td>
</tr>
<tr>
<td>Password</td>
<td>string</td>
<td>The password to connect to the Replicate/Compose Server. Note: The password identifier (GUID) that is returned by GetServer is valid only for the session in which it was generated. Using it in another session (for example as input for PutServer) will result in exception.</td>
</tr>
<tr>
<td>VerifyServerCertificate</td>
<td>bool</td>
<td>When &quot;true&quot;, Qlik Enterprise Manager verifies that the Server certificate is trusted, thereby reducing the chance of &quot;man-in-the-middle&quot; attacks. For details on setting this option, see PutServer.</td>
</tr>
<tr>
<td>Monitored</td>
<td>bool</td>
<td>Whether to retrieve tasks and messages from this server or not.</td>
</tr>
</tbody>
</table>

**Errors**

See general errors.

**GetServerAcl**

Retrieves the explicit ACL defined in Qlik Enterprise Manager for the specified server, including a Boolean indication if ACL inheritance is disabled or enabled for the server.

The method returns the explicit ACL only. In other words, it does not return inherited ACLs.

If all of the servers ACLs are inherited (i.e. no ACL was explicitly defined for the server), an error will be returned indicating that no ACL was found.
This method can be used together with `AemPutServerAcl` in order to update an existing server's ACL. First call `AemGetServerAcl`, then edit the returned roles as required, and finally, call `AemPutServerAcl`.

**Required User Role:** See [Required Enterprise Manager Permissions](#).

### Syntax

```csharp
public AemAuthorizationAcl GetServerAcl(
    string server
);
```

### Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server where the ACL is located.</td>
</tr>
</tbody>
</table>

### Return Values

`AemAuthorizationAcl`

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DisableInheritance</td>
<td>bool</td>
<td>If set to &quot;true&quot;, the server does not inherit ACLs from its ancestors (in addition to its explicit ACLs). If set to &quot;false&quot;, the server inherits ACLs from its ancestors, in addition to any explicit ACLs</td>
</tr>
<tr>
<td>AdminRole</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Admin role</td>
</tr>
<tr>
<td>DesignerRole</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Designer role</td>
</tr>
<tr>
<td>OperatorRole</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Operator role</td>
</tr>
<tr>
<td>ViewerRole</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Viewer role</td>
</tr>
</tbody>
</table>
### Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
<td>List&lt;AemGroupRef&gt;</td>
<td>Groups assigned as the role</td>
</tr>
<tr>
<td>Name</td>
<td>string</td>
<td>The group name</td>
</tr>
<tr>
<td>Users</td>
<td>List&lt;AemUserRef&gt;</td>
<td>Users assigned as the role</td>
</tr>
<tr>
<td>Name</td>
<td>string</td>
<td>The user name</td>
</tr>
</tbody>
</table>

### Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_GET_SERVER_ACL_INNER_ERR</td>
<td>Failed to get ACL of server &quot;{server}&quot;. Error: &quot;{message}&quot;.</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to get the server ACL.</td>
</tr>
<tr>
<td>AEM_SERVER_HAS_NO_ACL</td>
<td>ACL for server &quot;{server}&quot; could not be found.</td>
<td>Returned if no explicit ACL is defined for the server.</td>
</tr>
</tbody>
</table>

**Note** A server that does not have its own explicit ACL inherits the ACL from its ancestors. Inherited ACLs are not returned by this method.

### GetServerList

Retrieves a list of servers under Qlik Enterprise Manager management as well as each server's properties.

**Required User Role:** See Required Enterprise Manager Permissions.

### Syntax

```csharp
public AemGetServerListResp GetServerList();
```
Parameters
N/A

Return Values
AemGetServerListResp

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ServerList</td>
<td>List&lt;AemServerInfo&gt;</td>
<td>ReplicateServerInfo or ComposeServerInfo that inherit from AemServerInfo.</td>
</tr>
<tr>
<td>Description</td>
<td>string</td>
<td>The description of the server.</td>
</tr>
<tr>
<td>Host</td>
<td>string</td>
<td>The host name or IP address of the server.</td>
</tr>
<tr>
<td>LastConnection</td>
<td>string</td>
<td>The date and time of the last successful sync/retrieval of tasks and messages.</td>
</tr>
<tr>
<td>Message</td>
<td>string</td>
<td>The error message if Qlik Enterprise Manager fails to connect to the server.</td>
</tr>
<tr>
<td>Name</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
<tr>
<td>Platform</td>
<td>AemPlatform</td>
<td>AemPlatform</td>
</tr>
<tr>
<td></td>
<td></td>
<td>{</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UNKNOWN = 0,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WINDOWS = 1,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LINUX = 2</td>
</tr>
<tr>
<td></td>
<td>}</td>
<td></td>
</tr>
<tr>
<td>Port</td>
<td>string</td>
<td>The port through which the server is accessed.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>State</td>
<td>AemServerState</td>
<td>AemServerState</td>
</tr>
<tr>
<td></td>
<td>State = {</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NOT_MONITORED = 0,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MONITORED = 1,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ERROR = 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>}</td>
<td></td>
</tr>
<tr>
<td>Version</td>
<td>string</td>
<td>The Replicate/Compose Server version</td>
</tr>
</tbody>
</table>

### Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_SERVER_</td>
<td>Replicate server {server} could not be found.</td>
<td>Server name unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>NOT_FOUND</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### DeleteServer

#### Description

When this method is called, Qlik Enterprise Manager will:

- Delete the specified server from Qlik Enterprise Manager
- Stop monitoring any tasks that were defined on the server
- Delete all messages related to the server from the Message Center
- Delete all user roles defined for the server, the server tasks, and the server endpoints

**Note**  The above operations will be performed, regardless of whether the server is currently being monitored or in an error state.
Required User Role: See Required Enterprise Manager Permissions.

Syntax

```csharp
public void DeleteServer(
    string server
);
```

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server to be deleted.</td>
</tr>
</tbody>
</table>

Return Values

N/A

Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_SERVER_NOT_FOUND</td>
<td>Requested server &quot;{server}&quot; could not be found.</td>
<td>The server name is unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>AEM_DELETE_SERVER_INNER_ERR</td>
<td>Failed to delete requested server &quot;{server}&quot;.</td>
<td>Qlik Enterprise Manager encountered an error/exception when trying to delete the server.</td>
</tr>
</tbody>
</table>

DeleteServerAcl

Deletes the explicit ACL defined in Qlik Enterprise Manager for the specified server. Inherited ACLs are not affected by this method. Once the explicit ACL is deleted from the server, all ACLs will be automatically inherited from the server's ancestors.

Required User Role: See Required Enterprise Manager Permissions.

Syntax

```csharp
public void DeleteServerAcl(
```

Qlik Enterprise Manager Developer's Guide 6.6, July 2020
string server
);

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server whose ACL needs to be deleted.</td>
</tr>
</tbody>
</table>

Return Values

N/A

Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_DELETE_SERVER_ACL_INNER_ERR</td>
<td>Failed to delete ACL of server &quot;{server}&quot;.</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to delete the server's ACL.</td>
</tr>
<tr>
<td></td>
<td>Error: &quot;{message}&quot;.</td>
<td></td>
</tr>
<tr>
<td>AEM_SERVER_HAS_NO_ACL</td>
<td>ACL for server &quot;{server}&quot; could not be found.</td>
<td>Returned when the specified server has no explicit ACL defined.</td>
</tr>
</tbody>
</table>

GetTaskList

Receive a list of tasks per selected and authorized server. For each task, the API returns a few values.

Required User Role: See Required Enterprise Manager Permissions.

Syntax

```csharp
public AemGetTaskListResp GetTaskList(
    string server
);
```
Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which the tasks reside.</td>
</tr>
</tbody>
</table>

Return Values

AemGetTaskListResp

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TaskList</td>
<td>List&lt;AemTaskInfo&gt;</td>
<td>An array of Endpoint objects.</td>
</tr>
<tr>
<td>Name</td>
<td>string</td>
<td>The name of the task</td>
</tr>
<tr>
<td>State</td>
<td>AemTaskState</td>
<td></td>
</tr>
<tr>
<td></td>
<td>{</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STOPPED = 0,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RUNNING = 1,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ERROR = 2,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECOVERY = 3</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>StopReason</td>
<td>AemTaskStopReason</td>
<td>The reason the task stopped. For Compose tasks, this will always be NONE.</td>
</tr>
</tbody>
</table>

```csharp
public enum AemTaskStopReason
{
    NONE = 0,
    NORMAL = 1,
    RECOVERABLE_ERROR = 2,
    FATAL_ERROR = 3,
    FULL_LOAD_ONLY_FINISHED = 4,
    STOPPED_AFTER_FULL_LOAD = 5,
    STOPPED_AFTER_CACHED_EVENTS = 6,
    EXPRESS_LICENSE_LIMITS_REACHED = 7,
    STOPPED_AFTER_DDL_APPLY = 8,
    STOPPED_LOW_MEMORY = 9,
    STOPPED_LOW_DISK_SPACE = 10
}
```

<table>
<thead>
<tr>
<th>Message</th>
<th>string</th>
<th>The message if the task stopped due to an error.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>AssignedTags</td>
<td>array</td>
<td>Returns the custom tags assigned to the task. If no tags are assigned to the task, an empty array will be returned.</td>
</tr>
</tbody>
</table>

**Errors**

See [general errors](#).

**GetTaskDetails**

Retrieves details about a selected and authorized task. The API returns full monitoring information related to the selected task.

**Required User Role:** See [Required Enterprise Manager Permissions](#).

**Syntax**

```csharp
public AemGetTaskDetailsResp GetTaskDetails( 
    string server, 
    string task
);
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The name of the task.</td>
</tr>
</tbody>
</table>

**Return Values for Replicate Tasks**

AemGetTaskDetailsResp
<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task</td>
<td>AemTaskInfoDetailed</td>
<td>The task type: AemTaskInfoDetailed</td>
</tr>
<tr>
<td>Type</td>
<td>string</td>
<td>The task type: AemTaskInfoDetailed</td>
</tr>
<tr>
<td>Name</td>
<td>string</td>
<td>The name of the task.</td>
</tr>
<tr>
<td>Description</td>
<td>string</td>
<td>The task description. If there is no description, an empty string will be returned.</td>
</tr>
<tr>
<td>CdcEventCounters</td>
<td>AemTaskCdcEventCounters</td>
<td>All numeric data concerning CDC events</td>
</tr>
<tr>
<td>AppliedDdlCount</td>
<td>long</td>
<td>The total number of metadata changes, such as add column</td>
</tr>
<tr>
<td>AppliedDeleteCount</td>
<td>long</td>
<td>The number of records deleted in total for all tables</td>
</tr>
<tr>
<td>AppliedInsertCount</td>
<td>long</td>
<td>The number of records added in total for all tables</td>
</tr>
<tr>
<td>AppliedUpdateCount</td>
<td>long</td>
<td>The number of records updated in total for all tables</td>
</tr>
<tr>
<td>CdcLatency</td>
<td>AemCdcLatency</td>
<td>CDC latency information</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>SourceLatency</td>
<td>string</td>
<td>The time gap between the original change in the source endpoint and capturing it, in hh:mm:ss</td>
</tr>
<tr>
<td>TotalLatency</td>
<td>string</td>
<td>The overall latency (source latency + target latency + apply latency), in hh:mm:ss</td>
</tr>
<tr>
<td>CdcThroughput</td>
<td>AemCdcThroughput</td>
<td>Indicates how fast the table records are being replicated to the target endpoint (by number or volume of records). Refers only to the current/last CDC.</td>
</tr>
<tr>
<td>SourceThroughputRecordsCount</td>
<td>AemCdcThroughputItem</td>
<td>The current source throughput, in rec/sec</td>
</tr>
<tr>
<td>SourceThroughputVolume</td>
<td>AemCdcThroughputItem</td>
<td>The current source throughput, in kbyte/sec</td>
</tr>
<tr>
<td>TargetThroughputRecordsCount</td>
<td>AemCdcThroughputItem</td>
<td>The current target throughput, in rec/sec</td>
</tr>
<tr>
<td>TargetThroughputVolume</td>
<td>AemCdcThroughputItem</td>
<td>The current target throughput, in kbyte/sec</td>
</tr>
<tr>
<td>Current</td>
<td>long</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>CdcTransactionsCounters</td>
<td>AemCdcTransactionsCounters</td>
<td>All numeric data concerning CDC transactions</td>
</tr>
<tr>
<td>AppliedComittedTransactionCount</td>
<td>long</td>
<td>The number of transactions committed.</td>
</tr>
<tr>
<td>AppliedRecordsComittedCount</td>
<td>long</td>
<td>The sum of all records/events in all Completed transactions</td>
</tr>
<tr>
<td>AppliedRecordsInProgressCount</td>
<td>long</td>
<td>The sum of all records/events in all In-Progress transactions</td>
</tr>
<tr>
<td>AppliedTransactionsInProgressCount</td>
<td>long</td>
<td>The number of transactions in progress.</td>
</tr>
<tr>
<td>AppliedVolumeComittedMb</td>
<td>long</td>
<td>The sum of all volume/events in all Completed transactions, in MB.</td>
</tr>
<tr>
<td>CommitChangeRecordsCount</td>
<td>long</td>
<td>The number of COMMIT change records.</td>
</tr>
<tr>
<td>IncomingAccumulatedChangesOnDiskCount</td>
<td>long</td>
<td>The number of changes accumulated on disk until source commit</td>
</tr>
<tr>
<td>IncomingAccumulatedChangesInMemoryCount</td>
<td>long</td>
<td>The number of changes accumulated in memory until source commit.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>IncomingApplyingChangesInMemoryCount</td>
<td>long</td>
<td>The number of changes in memory during apply and until target commit.</td>
</tr>
<tr>
<td>IncomingApplyingChangesOnDiskCount</td>
<td>long</td>
<td>The number of changes on disk during apply and until target commit.</td>
</tr>
<tr>
<td>RollbackChangeRecordsCount</td>
<td>long</td>
<td>The number of ROLLBACK change records.</td>
</tr>
<tr>
<td>RollbackChangeVolumeMb</td>
<td>long</td>
<td>The volume of ROLLBACK changes, in MB.</td>
</tr>
<tr>
<td>RollbackTransactionCount</td>
<td>long</td>
<td>The number of changes in memory during apply and until target commit.</td>
</tr>
<tr>
<td>FullLoadCompleted</td>
<td>bool</td>
<td></td>
</tr>
<tr>
<td>FullLoadCounters</td>
<td>AemTaskFullLoadCounters</td>
<td>All numeric data concerning Full Load events.</td>
</tr>
<tr>
<td>EstimatedRecordsForAllTablesCount</td>
<td>long</td>
<td>The estimated number of records remaining to be loaded into the target endpoint.</td>
</tr>
<tr>
<td>RecordsCompletedCount</td>
<td>long</td>
<td>The total number of records that have completed loading into the target endpoint.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>TablesCompletedCount</td>
<td>int</td>
<td>The number of tables that have been loaded into the target endpoint.</td>
</tr>
<tr>
<td>TablesLoadingCount</td>
<td>int</td>
<td>The number of tables that are currently being loaded into the target endpoint.</td>
</tr>
<tr>
<td>TablesQueuedCount</td>
<td>int</td>
<td>The number of tables that are waiting to be loaded due to an error.</td>
</tr>
<tr>
<td>TablesWithErrorCount</td>
<td>int</td>
<td>The number of tables that could not be loaded due to an error.</td>
</tr>
<tr>
<td>FullLoadEnd</td>
<td>string</td>
<td>Indicates whether the full load process has ended.</td>
</tr>
<tr>
<td>FullLoadStart</td>
<td>string</td>
<td>The start time of the full load process.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Format: YYY MM DD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Timezone: UTC</td>
</tr>
<tr>
<td>FullLoadThroughput</td>
<td>AemFullLoadThroughput</td>
<td>The current source throughput, in rec/sec.</td>
</tr>
<tr>
<td>SourceThroughputRecordsCount</td>
<td>int</td>
<td>The current source throughput, in kbyte/sec.</td>
</tr>
<tr>
<td>SourceThroughputVolume</td>
<td>int</td>
<td>The current source throughput, in kbyte/sec.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>TargetThroughputRecordsCount</td>
<td>int</td>
<td>The current target throughput, in rec/sec.</td>
</tr>
<tr>
<td>TargetThroughputVolume</td>
<td>int</td>
<td>The current target throughput, in kbyte/sec.</td>
</tr>
<tr>
<td>MemoryMb</td>
<td>long</td>
<td>The current utilization of memory, in MB. A task’s memory utilization is sampled every 10 seconds. When the task is not running, the value is set to zero (0).</td>
</tr>
<tr>
<td>CpuPercentage</td>
<td></td>
<td>The current CPU usage of the Replicate task process.</td>
</tr>
</tbody>
</table>

**Notes**

Only available for Replicate tasks running on Replicate 6.2 and above. When not available, this parameter will be returned as -1.
<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DiskUsageMb</td>
<td>long</td>
<td>The current utilization of disk space, in MB. A task's disk utilization is sampled every minute.</td>
</tr>
<tr>
<td>DataErrorCount</td>
<td>long</td>
<td>The total number of data errors in all tables involved in the task. The count is affected by data errors and the <strong>Reset Data Errors</strong> option available when you drill down to a task.</td>
</tr>
</tbody>
</table>

**Options**

<table>
<thead>
<tr>
<th>Option</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ApplyChangesEnabled</td>
<td>bool</td>
<td>See <strong>Task Options</strong>.</td>
</tr>
<tr>
<td>AuditChangesEnabled</td>
<td>bool</td>
<td>See <strong>Task Options</strong>.</td>
</tr>
<tr>
<td>FullLoadEnabled</td>
<td>bool</td>
<td>See <strong>Task Options</strong>.</td>
</tr>
<tr>
<td>StoreChangesEnabled</td>
<td>bool</td>
<td>See <strong>Task Options</strong>.</td>
</tr>
</tbody>
</table>
| ReplicateProfile    | AemReplicateTaskProfile | AemReplicateTaskProfile

```csharp
{  
  UNIDIRECTIONAL = 1,
  BIDIRECTIONAL = 2,
  LOGSTREAM = 3
}
```

<table>
<thead>
<tr>
<th>Option</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SourceEndpoint</td>
<td>TaskEndpoint</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Name</td>
<td>string</td>
<td>The name of the source endpoint.</td>
</tr>
<tr>
<td>Type</td>
<td>string</td>
<td>The source endpoint type.</td>
</tr>
<tr>
<td>TargetEndpoint</td>
<td>TaskEndpoint</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>string</td>
<td>The name of the target endpoint.</td>
</tr>
<tr>
<td>Type</td>
<td>string</td>
<td>The target endpoint type.</td>
</tr>
<tr>
<td>State</td>
<td>AemTaskState</td>
<td>The current state of the task.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STOPPED = 0,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RUNNING = 1,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ERROR = 2,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RECOVERY = 3</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>TaskStopReason</td>
<td>AemTaskStopReason</td>
<td>The reason the task stopped.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>{</td>
</tr>
<tr>
<td></td>
<td>NONE = 0,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NORMAL = 1,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECOVERABLE_ERROR = 2,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FATAL_ERROR = 3,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FULL_LOAD_ONLY_FINISHED = 4,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STOPPED_AFTER_FULL_LOAD = 5,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STOPPED_AFTER_CACHED_EVENTS = 6,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EXPRESS_LICENSE_LIMITS_REACHED = 7,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STOPPED_AFTER_DDL_APPLY = 8,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STOPPED_LOW_MEMORY = 9,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STOPPED_LOW_DISK_SPACE = 10,</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>LogStreamStaging</td>
<td>string</td>
<td>If the task is writing to/reading from the Log Stream staging folder, the name of the associated Log Stream Staging task will be returned. Otherwise, an empty string will be returned.</td>
</tr>
<tr>
<td>Message</td>
<td>string</td>
<td>The message if the task stopped due to an error.</td>
</tr>
<tr>
<td>AssignedTags</td>
<td>array</td>
<td>Returns the custom tags assigned to the task. If no tags are assigned to the task, an empty array will be returned.</td>
</tr>
</tbody>
</table>
## Return Values for Compose Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>type</td>
<td>string</td>
<td>The task type: AemComposeTaskInfoDetail</td>
</tr>
<tr>
<td>project</td>
<td>string</td>
<td>The name of the Compose project</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The name of the task</td>
</tr>
<tr>
<td>description</td>
<td>string</td>
<td>The task description. If there is no description, an empty string will be returned.</td>
</tr>
<tr>
<td>state</td>
<td>string</td>
<td>The current task state</td>
</tr>
<tr>
<td>message</td>
<td>string</td>
<td>The message shown in the event that the task ends with an error.</td>
</tr>
<tr>
<td>options</td>
<td>AemCommonSettings</td>
<td>Indicates whether the Full Load option is enabled. Can be &quot;true&quot; or &quot;false&quot;</td>
</tr>
<tr>
<td>FullLoadEnabled</td>
<td>bool</td>
<td>Indicates whether the Full Load option is enabled. Can be &quot;true&quot; or &quot;false&quot;</td>
</tr>
<tr>
<td>ApplyChangesEnabled</td>
<td>bool</td>
<td>Indicates whether the Change Processing option is enabled. Can be &quot;true&quot; or &quot;false&quot;</td>
</tr>
<tr>
<td>source_endpoint</td>
<td>TaskEndpoint</td>
<td>The logical name of the landing database.</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The logical name of the landing database.</td>
</tr>
<tr>
<td>type</td>
<td>string</td>
<td>The landing database type.</td>
</tr>
<tr>
<td>target_endpoint</td>
<td>TaskEndpoint</td>
<td>The logical name of the storage database.</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The logical name of the storage database.</td>
</tr>
<tr>
<td>type</td>
<td>string</td>
<td>The storage database type.</td>
</tr>
<tr>
<td>Name</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>LoadingCompleted</td>
<td>bool</td>
<td>Indicates whether the loading process has completed. Can be &quot;true&quot; or &quot;false&quot;</td>
</tr>
<tr>
<td>LoadingStart</td>
<td>string</td>
<td>The start time of the loading process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Format: YYY MM DD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Timezone: UTC</td>
</tr>
<tr>
<td>LoadingEnd</td>
<td>string</td>
<td>The end time of the loading process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Format: YYY MM DD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Timezone: UTC</td>
</tr>
<tr>
<td><strong>LoadingCounters</strong></td>
<td>AemTaskFullLoadCounters</td>
<td></td>
</tr>
<tr>
<td>TablesTotalCount</td>
<td>int</td>
<td>The total number of tables.</td>
</tr>
<tr>
<td>TablesCompletedCount</td>
<td>int</td>
<td>The number of tables that have been loaded into the target endpoint</td>
</tr>
<tr>
<td>TablesLoadingCount</td>
<td>int</td>
<td>The number of tables that are currently being loaded into the target endpoint</td>
</tr>
<tr>
<td>TablesQueuedCount</td>
<td>int</td>
<td>The number of tables that are waiting to be loaded due to an error</td>
</tr>
<tr>
<td>TablesWithErrCount</td>
<td>int</td>
<td>The number of tables that could not be loaded due to an error</td>
</tr>
<tr>
<td>CommandsTotalCount</td>
<td>int</td>
<td>The total number of commands executed</td>
</tr>
<tr>
<td>CommandsCompletedCount</td>
<td>int</td>
<td>The total number of commands completed</td>
</tr>
<tr>
<td>Name</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>---------------</td>
<td>--------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>AssignedTags</td>
<td>array</td>
<td>Returns the custom tags assigned to the task. If no tags are assigned to the task, an empty array will be returned.</td>
</tr>
</tbody>
</table>

**Errors**

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replication task {task} on server {server} could not be found.</td>
<td>The task name is unknown to Qlik Enterprise Manager.</td>
</tr>
</tbody>
</table>

**GetTableList**

Retrieves the list of tables of a specific Replicate task that match the specified state(s), table schema(s), and table name(s). This is useful for automation processes, for example, as it allows you to retrieve tables in a certain state (e.g. suspended) and then perform an operation on them (e.g. ReloadTable).

**Required User Role:** See Required Enterprise Manager Permissions.

**Syntax**

```csharp
AemGetTableListResp GetTableList(
    string server,
    string task,
    string schema = null,
    string table = null,
    bool includequeued = false,
    bool includeloading = false,
    bool includecompleted = false,
    bool includechangeprocessing = false,
    bool includeerror = false
)
```
## Request Parameters

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The Replicate Server name as defined on Qlik Enterprise Manager.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Example:</strong> myrepsrv1</td>
</tr>
<tr>
<td>schema</td>
<td>string</td>
<td>The default is all source schemas. Specifying a specific schema name will retrieve all tables from the specified schema. Specifying a pattern or letters included in the schema name will retrieve all tables from schemas that match the pattern or that include the specified letters. For example, specifying &quot;ad&quot; will retrieve tables from the &quot;adventure&quot; and &quot;trademark&quot; schemas.</td>
</tr>
<tr>
<td>table</td>
<td>string</td>
<td>The default is all source tables. Specifying a specific table name will retrieve the specified table. Specifying a pattern or letters included in the table name will retrieve all tables that match the pattern or that include the specified letters. For example, specifying &quot;em&quot; will retrieve the &quot;employees&quot; and &quot;temp&quot; tables.</td>
</tr>
<tr>
<td>includequeued</td>
<td>boolean</td>
<td>Whether to retrieve tables in a queued state. Default is false.</td>
</tr>
<tr>
<td>includeloading</td>
<td>boolean</td>
<td>Whether to retrieve tables in a loading state. Default is false.</td>
</tr>
<tr>
<td>includecompleted</td>
<td>boolean</td>
<td>Whether to retrieve tables in a completed state. Default is false.</td>
</tr>
</tbody>
</table>
### Value

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>includechangeprocessing</td>
<td>boolean</td>
<td>Whether to retrieve tables in a Change Processing state (i.e. that are having changes applied to them). Default is false.</td>
</tr>
<tr>
<td>includeerror</td>
<td>boolean</td>
<td>Whether to retrieve tables in an error state. Default is false.</td>
</tr>
</tbody>
</table>

### Return Values

**AemGetTableListResp**

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TableList</td>
<td>List</td>
<td>List of tables that match the specified input parameters.</td>
</tr>
<tr>
<td>schema</td>
<td>string</td>
<td>The name of the schema.</td>
</tr>
<tr>
<td>table</td>
<td>string</td>
<td>The name of the table.</td>
</tr>
<tr>
<td>state</td>
<td>enum</td>
<td>The current state of the table.</td>
</tr>
</tbody>
</table>
Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>HTTP Code</th>
<th>Qlik Enterprise Manager Code</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
</table>
| 500       | AEM_TABLE_LIST_INNER_ERR     | Failed to retrieve table list for replication task "\{task\}" on server "\{server\}".  
Error: "\{message\}" | Returned when the table list cannot be retrieved.                       |
| 500       | AEM_TASK_NOT_FOUND           | Replicate task \{task\} on server \{server\} could not be found.       | The task name is unknown to Enterprise Manager.                             |

GetTableStatuses

Retrieves the tables statuses of a specific Replicate task for all tables that match the specified state(s), table schema(s), and table name(s). This is useful for automation processes, for example, as it allows you to retrieve tables in a certain state (e.g. suspended) and then perform an operation on them (e.g. ReloadTable).

Required User Role: See Required Enterprise Manager Permissions.

Syntax

```csharp
AemGetTableStatusesResp GetTableStatuses(
    string server,
    string task,
    string schema = null,
    string table = null,
    bool includequeued = false,
    bool includeloading = false,
    bool includecompleted = false,
    bool includechangeprocessing = false,
```
bool includeerror = false

### Request Parameters

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server</td>
<td>string</td>
<td>The Replicate Server name as defined on Qlik Enterprise Manager.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Example:</strong> myrepsrv1</td>
</tr>
<tr>
<td>Task</td>
<td>string</td>
<td>The Replicate task name.</td>
</tr>
<tr>
<td>Schema</td>
<td>string</td>
<td>The default is all source schemas. Specifying a specific schema name will retrieve all tables from the specified schema. Specifying a pattern or letters included in the schema name will retrieve all tables from schemas that match the pattern or that include the specified letters. For example, specifying &quot;ad&quot; will retrieve tables from the &quot;adventure&quot; and &quot;trademark&quot; schemas.</td>
</tr>
<tr>
<td>Table</td>
<td>string</td>
<td>The default is all source tables. Specifying a specific table name will retrieve the specified table. Specifying a pattern or letters included in the table name will retrieve all tables that match the pattern or that include the specified letters. For example, specifying &quot;em&quot; will retrieve the &quot;employees&quot; and &quot;temp&quot; tables.</td>
</tr>
<tr>
<td>IncludeQueued</td>
<td>boolean</td>
<td>Whether to retrieve tables in a queued state. Default is false.</td>
</tr>
<tr>
<td>IncludeLoading</td>
<td>boolean</td>
<td>Whether to retrieve tables in a loading state. Default is false.</td>
</tr>
</tbody>
</table>
**Value** | **Type** | **Description**
---|---|---
IncludeCompleted | boolean | Whether to retrieve tables in a completed state. Default is false.
IncludeChangeProcessing | boolean | Whether to retrieve tables in a Change Processing state (i.e. that are having changes applied to them). Default is false.
IncludeError | boolean | Whether to retrieve tables in an error state. Default is false.

**Return Values**

AemGetTableStatusesResp

**Name** | **Type** | **Description**
---|---|---
TableDetails | List | List of table statuses that match the specified request parameters.
SchemaOnSource | string | Source schema name.
TableOnSource | string | Source table name.
SchemaOnTarget | string | Target schema name. If this information not available, an empty string will be returned.
TableOnTarget | string | Target table name. If this information not available, an empty string will be returned.
State | enum | An enum reflecting the table state. See **Table state**.
DataErrorsCount | int64 | The number of data errors encountered when replicating the table.

**table_full_load_info**

<table>
<thead>
<tr>
<th><strong>Name</strong></th>
<th><strong>Type</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>StartTime</td>
<td>string</td>
<td>Date-time of when the table full load started. Timezone: UTC ; Style: ISO8601 (consistent with AemGetTaskDetails).</td>
</tr>
<tr>
<td>EndTime</td>
<td>string</td>
<td>Date-time of when the table full load started. Timezone: UTC ; Style: ISO8601 (consistent with AemGetTaskDetails).</td>
</tr>
<tr>
<td>Name</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>EstimatedRowCount</td>
<td>int64</td>
<td>Relevant only if table in certain states (loading/queued).</td>
</tr>
<tr>
<td>EstimatedEndTime</td>
<td>string</td>
<td>Relevant only if table in certain states (loading/queued). Timezone: UTC ; Style: ISO8601 (consistent with AemGetTaskDetails).</td>
</tr>
<tr>
<td>TransferredRowCount</td>
<td>int64</td>
<td>The number of rows transferred to the target, after the source filtering, but before the target filtering.</td>
</tr>
<tr>
<td>TransferredVolumeMb</td>
<td>int64</td>
<td>The amount of bytes transferred to the target, after the source filtering, but before the target filtering.</td>
</tr>
</tbody>
</table>

**End of TableFullLoadInfo**

**TableCdcInfo**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InsertCount</td>
<td>int64</td>
<td>The number of records inserted to the target table.</td>
</tr>
<tr>
<td>UpdateCount</td>
<td>int64</td>
<td>The number of records updated in the target table.</td>
</tr>
<tr>
<td>DeleteCount</td>
<td>int64</td>
<td>The number of records deleted in the target table.</td>
</tr>
<tr>
<td>DdlCount</td>
<td>int64</td>
<td>The number of DDL operations performed on the target table.</td>
</tr>
<tr>
<td>LastUpdateTime</td>
<td>string</td>
<td>The last time that the table was updated on target. Timezone: UTC ; Style: ISO8601 (consistent with AemGetTaskDetails).</td>
</tr>
<tr>
<td>CachedInsertCount</td>
<td>int64</td>
<td>INSERT operations that were cached during Full Load.</td>
</tr>
<tr>
<td>CachedUpdateCount</td>
<td>int64</td>
<td>UPDATE operations that were cached during Full Load.</td>
</tr>
<tr>
<td>CachedDeleteCount</td>
<td>int64</td>
<td>DELETE operations that were cached during Full Load.</td>
</tr>
</tbody>
</table>

**End of TableCdcInfo**
Errors

All of the **general errors** as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_SERVER_NOT_FOUND</td>
<td>Replicate server <code>{server}</code> could not be found.</td>
<td>Server name unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> could not be found.</td>
<td>The task name is unknown to Enterprise Manager.</td>
</tr>
<tr>
<td>AEM_TABLE_STATUSES_INNER_ERR</td>
<td>Failed to retrieve table statuses for replication task &quot;{task}&quot; on server &quot;{server}&quot;. Error: &quot;{message}&quot;</td>
<td>Returned when the table statuses cannot be retrieved.</td>
</tr>
</tbody>
</table>

DeleteTask

Deletes the specified task. The task's logs will be deleted only if `deletetasklogs=true` is set.

**Required User Role:** See *Required Enterprise Manager Permissions*.

Syntax

```csharp
public void DeleteTask(
    string server,
    string task,
    bool deletetasklogs = false
);
```

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The server where the task is defined.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The task to be deleted.</td>
</tr>
<tr>
<td>deletetasklogs</td>
<td>bool</td>
<td>Whether to delete the task logs or not.</td>
</tr>
</tbody>
</table>
Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replication task {task} on server {server} could not be found.</td>
<td>Returned if the task name is unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>AEM_DELETE_TASK_INNER_ERR</td>
<td>Replication task {task} on server {server} could not be deleted due to an error.</td>
<td>Returned if Enterprise Manager encounters an error/exception when trying to delete the task.</td>
</tr>
<tr>
<td>AEM_DELETE_TASK_ERR</td>
<td>Replication task {task} on server {server} could not be deleted due to an error.</td>
<td>Returned if Enterprise Manager encounters an error when trying to delete the task.</td>
</tr>
<tr>
<td>AEM_TASK_NOT_STOPPED</td>
<td>Replication task {task} on server {server} must be stopped before it can be deleted.</td>
<td>Returned if the replication task was running when AemDeleteTask attempted to delete it.</td>
</tr>
</tbody>
</table>

ExportTask

Export definitions from the selected task on the selected server. The definitions always include task settings, tables/table patterns (include/exclude), table settings and global transformations. The endpoint definition is only exported along with the task definition if with endpoints=true is set.

**Required User Role:** See Required Enterprise Manager Permissions.
Syntax

public string ExportTask(
    string server,
    string task,
    bool withendpoints = false
);

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which the task is defined.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The task to be exported.</td>
</tr>
<tr>
<td>withendpoints</td>
<td>bool</td>
<td>Whether or not to export the endpoint definitions as well.</td>
</tr>
</tbody>
</table>

Return Values

Exported task JSON file as a string

Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_METHOD_NOT_SUPPORTED_VERSION</td>
<td>AemExportTask is only supported on Replicate 5.5 or above.</td>
<td>AemExportTask is only supported on Replicate 5.5 or above.</td>
</tr>
<tr>
<td>AEM_EXPORT_TASK_NO_PERMISSION_ON_ENDPOINT</td>
<td>Failed to export task {task} from Replicate server {server} as the logged in user does not have permission to access one or both of the task's endpoints.</td>
<td>Export all cannot be carried out because the user does not have permissions on one or more endpoints.</td>
</tr>
</tbody>
</table>
ImportTask

Import a single task's JSON definitions provided in the request body into the requested server repository on the selected server.

The ImportTask method enables importing all valid JSON definitions provided in the request body.

This includes task settings, tables/table patterns (include/exclude), table settings and global transformations.

Information about endpoints is included if it was included in the JSON file.

When you import a task, Items that existed in the target server before the import and have no new JSON definition in the request body are not modified and not removed. This means that ImportTask provides no way of removing old definitions that are no longer needed.

**Required User Role:** See [Required Enterprise Manager Permissions](#).

**Syntax**

```csharp
public void ImportTask(
    string payload,
    string server,
    string task
);
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>string</td>
<td>A JSON document to import</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server to import to.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>Name of the task to import</td>
</tr>
</tbody>
</table>

**Return Values**

N/A
## Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_IMPORT_TASK_NO_PERMISSION_ON_ENDPOINT</td>
<td>Failed to import task <code>{task}</code> to replication server <code>{server}</code> as the logged in user does not have permission to add or modify endpoints.</td>
<td>The task cannot be imported because it includes endpoint definitions, and the user does not have permissions to insert endpoints.</td>
</tr>
<tr>
<td>AEM_IMPORT_TASK_CONTAIN_ALIEN_ITEMS</td>
<td>Failed to import task <code>{task}</code> to replication server <code>{server}</code> as the JSON file contains unsupported objects.</td>
<td>The task cannot be imported because the stream contains items that cannot be imported (such as remote machines).</td>
</tr>
<tr>
<td>AEM_IMPORT_TASK_NAME_DIFFER</td>
<td>Failed to import task <code>{task}</code> to replication server <code>{server}</code> as the JSON file contains conflicting tasks.</td>
<td>The task cannot be imported because the stream contains conflicting tasks.</td>
</tr>
<tr>
<td>AEM_IMPORT_TASK_CONTAINS_MULTIPLE_TASKS</td>
<td>Failed to import task to replication server <code>{server}</code> as the JSON file contains multiple tasks. To import multiple tasks, use AemImportAll instead.</td>
<td>The task cannot be imported since the stream contains multiple tasks, and the method can only import a single task.</td>
</tr>
<tr>
<td>AEM_TASK_NOT_IMPORTABLE</td>
<td>Failed to import task <code>{task}</code> as the task is running on server <code>{server}</code>. Stop the task and then try again.</td>
<td>Occurs when trying to import a running task.</td>
</tr>
<tr>
<td>AEM_IMPORT_TASK_CONTENT_EMPTY</td>
<td>Failed to import task <code>{task}</code> to replication server <code>{server}</code> as the JSON file is empty.</td>
<td>The task cannot be imported as the specified JSON file is empty.</td>
</tr>
<tr>
<td>AEM_IMPORT_TASK_ENDPOINT_DIFFER</td>
<td>Failed to import task <code>{task}</code> to server <code>{server}</code> as the endpoint names in the JSON file's “task” and “databases” sections are not the same.</td>
<td>The task cannot be imported as the endpoint names in the specified JSON file's “task” and “databases” sections are different.</td>
</tr>
<tr>
<td>Error</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>AEM_</td>
<td>Failed to import task {task} to replication server {server} as the</td>
<td>The task cannot be imported as one of the endpoints specified in the</td>
</tr>
<tr>
<td>IMPORT_</td>
<td>role} endpoint {endpoint} does not exist on the target server.</td>
<td>exported JSON file does not exist on the target server.</td>
</tr>
<tr>
<td>TASK_NO_</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENDPOINT_IN_SERVER</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**StopTask**

Stop the selected task.

**Required User Role:** See [Required Enterprise Manager Permissions](#).

**Syntax**

```csharp
public AemStopTaskResp StopTask(
    string server,
    string task,
    int timeout = 30
);
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The name of the task.</td>
</tr>
<tr>
<td>timeout</td>
<td>int</td>
<td>Time in seconds to wait until getting a response.</td>
</tr>
</tbody>
</table>

**Return Values**

AemStopTaskResp
### Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>AemTaskState</td>
<td>The current state of the task.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>`{</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STOPPED</td>
</tr>
<tr>
<td></td>
<td></td>
<td>= 0,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RUNNING</td>
</tr>
<tr>
<td></td>
<td></td>
<td>= 1,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ERROR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>= 2,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RECOVERY</td>
</tr>
<tr>
<td></td>
<td></td>
<td>= 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>}</td>
</tr>
<tr>
<td>ErrorMessage</td>
<td>string</td>
<td>The description of the error</td>
</tr>
</tbody>
</table>

### Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_ALREADY_STOPPED</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> is already stopped.</td>
<td>Cannot stop a task that is in Stopped state.</td>
</tr>
<tr>
<td>AEM_STOP_TASK.Inner.ERR</td>
<td>Failed to stop Replicate task <code>{0}</code> on server <code>{1}</code>: <code>{2}</code></td>
<td>An error occurred while trying to stop the task.</td>
</tr>
<tr>
<td>AEM_STOP_TASK.TIMEOUT</td>
<td>A timeout occurred when trying to stop Replicate task <code>{0}</code> on server <code>{1}</code></td>
<td>A timeout occurred while trying to stop the task.</td>
</tr>
</tbody>
</table>

### RunTask

Run the selected task according to the specified option.

**Required User Role:** See Required Enterprise Manager Permissions.

### Syntax

```csharp
public AemRunTaskResp RunTask(
    AemRunTaskReq payload,
    string server,
```
string task,
AemRunTaskOptions option = AemRunTaskOptions.RESUME_PROCESSING,
int timeout = 30
);

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>AemRunTaskReq</td>
<td></td>
</tr>
<tr>
<td>cdcposition</td>
<td>string</td>
<td>The <code>cdcposition</code> parameter can either be specified inline or in an external JSON file. The format for both is described in below. Mandatory for all AemRunTask options.</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which to run the task.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The name of the task to run.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>option</td>
<td>AemRunTaskOptions</td>
<td>For replication tasks, any of the options (except NONE) can be specified.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For Compose tasks, only NONE can be specified.</td>
</tr>
</tbody>
</table>

```csharp
AemRunTaskOptions = new()
{   NONE = 0,
    RESUME_PROCESSING = 1,
    RELOAD_TARGET = 2,
    RESUME_PROCESSING_FROM_TIMESTAMP = 3,
    METADATA_ONLY_RECREATE_ALL_TABLES = 4,
    METADATA_ONLY_CREATE_MISSING_TABLES = 5,
    RECOVER_USING_LOCALLY_STORED_CHECKPOINT = 6,
    RECOVER_USING_CHECKPOINT_STORED_ON_TARGET = 7
}
```
### Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>timeout</td>
<td>int</td>
<td>The time in seconds to wait for a response.</td>
</tr>
</tbody>
</table>

### Return Value

AemRunTaskResp

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ErrorMessage</td>
<td>string</td>
<td>The description of the error.</td>
</tr>
<tr>
<td>State</td>
<td>AemTaskState</td>
<td>The current state of the task.</td>
</tr>
</tbody>
</table>

```csharp
{  
    STOPPED = 0,  
    RUNNING = 1,  
    ERROR = 2,  
    RECOVERY = 3  
}
```

### Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_ALREADY_RUNNING</td>
<td>Replicate task {task} on server {server} is already running.</td>
<td>The task cannot be run because it is already running.</td>
</tr>
<tr>
<td>AEM_TASK_IN_RECOVERY</td>
<td>Replicate task {task} on server {server} cannot be run as it is in a recovery state.</td>
<td>The task cannot be run because it is in Recovery state.</td>
</tr>
<tr>
<td>Error</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>AEM_WRONG_OPTION_FOR_CDCPOSITION</td>
<td>Replicate task {task} on server {server} cannot be run with cdcposition {position} and option {option}. Change the option to RESUME_PROCESSING_FROM_TIMESTAMP or RECOVER_USING_CHECKPOINT_STORED_ON_TARGET.</td>
<td>When the option <strong>Tables are already loaded. Start processing changes from Timestamp</strong> is selected in the <strong>Advanced Run Options</strong> dialog box for a task, the option sent to the API must be <strong>RESUME_PROCESSING_FROM_TIMESTAMP</strong>.</td>
</tr>
<tr>
<td>AEM_CDC_POSITION_ERR_FORMAT</td>
<td>The cdcposition parameter value for Replicate task {task} on server {server} is not in the correct format ('YYYY-MM-DDTh:mm:ssZ').</td>
<td>The cdcPosition parameter must follow this format: <strong>YYYY-MM-DDTh:mm:ssZ</strong>. Parameters: task name and server name</td>
</tr>
<tr>
<td>AEM_RUN_TASK_TIMEOUT</td>
<td>Replicate task {task} on server {server} timed out when requested to “Run”.</td>
<td>The task does not assume a Running state or any other steady state (error o stopped).</td>
</tr>
<tr>
<td>AEM_RUN_TASK_INNER_ERR</td>
<td>Replicate task {task} on server {server} encountered an error when requested to run.</td>
<td>Replicate experienced an error/exception when trying to run the task.</td>
</tr>
<tr>
<td>AEM_RUN_TASK_NO_SRC_NO_TRG</td>
<td>Replicate task {task} on server {server} has no source or target endpoints.</td>
<td>Task validation revealed that the task is missing a source and a target.</td>
</tr>
<tr>
<td>AEM_RUN_TASK_NO_SRC</td>
<td>Replicate task {task} on server {server} has no source endpoint.</td>
<td>Task validation revealed that the task is missing a source.</td>
</tr>
<tr>
<td>AEM_RUN_TASK_TRG</td>
<td>Replicate task {task} on server {server} has no target endpoint.</td>
<td>Task validation revealed that the task is missing a target.</td>
</tr>
<tr>
<td>AEM_RUN_TASK_NOT__FL_NOR_CDC</td>
<td>Replicate task {task} on server {server} cannot be run without at least one of the replication options enabled (Full Load, Apply Changes, or Store Changes).</td>
<td>Task validation of a unidirectional task revealed that the replication option definition for the task is missing (Full Load, Apply Changes, or Store Changes).</td>
</tr>
</tbody>
</table>
### Error Message Description

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_RUN_BIDI_TASK_NO_FL_NOR_CDC</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> cannot be run without at least one of the replication options enabled (Full Load or Apply Changes).</td>
<td>Task validation of a unidirectional task revealed that the replication option definition for the task is missing (Full Load, Apply Changes, or Store Changes).</td>
</tr>
</tbody>
</table>

### GetEndpointList

Retrieves a list of endpoints and their properties for the specified server.

**Required User Role:** See [Required Enterprise Manager Permissions](#).

### Syntax

```csharp
public AemGetEndpointListResp GetEndpointList(
    string server
);
```

### Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which the endpoints are defined.</td>
</tr>
</tbody>
</table>

### Return Values

AemGetEndpointListResp

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EndpointList</td>
<td>List&lt;Endpoint&gt;</td>
<td>An array of Endpoint objects.</td>
</tr>
<tr>
<td>Description</td>
<td>string</td>
<td>The endpoint description</td>
</tr>
<tr>
<td>IsLicensed</td>
<td>bool</td>
<td>Indicates whether the endpoint is licensed on this server.</td>
</tr>
<tr>
<td>Name</td>
<td>string</td>
<td>The endpoint name.</td>
</tr>
</tbody>
</table>
Parameter | Type | Description
--- | --- | ---
Role | EndpointRole | The endpoint role: SOURCE or TARGET.  
   
   ```
   
   ALL = 0, 
   SOURCE = 1, 
   TARGET = 2, 
   BOTH = 3
   ```

Type | string | The endpoint type - for example, Oracle.

## Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_ENDPOINT_LIST_INNER_ERR</td>
<td>Failed to retrieve endpoints list from Replicate server {name}.</td>
<td>Replicate experienced an error/exception when trying to retrieve the endpoint list.</td>
</tr>
</tbody>
</table>

## DeleteEndpoint

### Description

Deletes the specified endpoint. Note that an endpoint can only be deleted if it is not in use by any task.

**Required User Role:** See Required Enterprise Manager Permissions.

### Syntax

```csharp
public void DeleteEndpoint(
    string server,
    string endpoint
);
```
# Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td></td>
<td>The server where the endpoint is defined.</td>
</tr>
<tr>
<td>endpoint</td>
<td></td>
<td>The name of the endpoint to be deleted.</td>
</tr>
</tbody>
</table>
Return Values

N/A

Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_ENDPOINT_NOT_FOUND</td>
<td>Replicate endpoint {endpoint} on server {server} could not be found.</td>
<td>Endpoint name unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>AEM_DELETE_ENDPOINT_INNER_ERR</td>
<td>Failed to delete Replicate endpoint {endpoint} from server {server}.</td>
<td>Replicate encountered an error/exception when trying to delete the endpoint.</td>
</tr>
<tr>
<td>AEM_ENDPOINT_IS_IN_USE</td>
<td>Replicate endpoint {endpoint} on server {server} cannot be deleted as it is currently in use by one or more tasks.</td>
<td>The Replicate endpoint must be removed from its associated tasks before it can be deleted.</td>
</tr>
</tbody>
</table>
**ReconfigureEndpointNoWait**

Call this method to override the source endpoint settings with settings from another endpoint of the same type. This method also supports automatically stopping and then resuming all tasks that are using the source endpoint (which is required for unplanned switchovers).

**Notes**

- Supported with the Oracle source endpoint only.
- Using this method, requires you to set up relevant Qlik Replicate task(s) with three separate source endpoints - two inactive source endpoints defined with the primary and secondary database connection settings, and one active source endpoint (initially defined with the primary database connection settings).

For detailed instructions, see [Reconfiguring Endpoints](#).

**Required User Role:** See [Required Enterprise Manager Permissions](#).

**Syntax**

```csharp
public void ReconfigureEndpointNoWait(
    string server,
    string endpoint,
    string configuration = null,
    bool recycle = true
);
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the Replicate server (as defined in Qlik Enterprise Manager) on which the task(s) are running.</td>
</tr>
<tr>
<td>endpoint</td>
<td>string</td>
<td>The name of the source endpoint defined for the Replicate task(s).</td>
</tr>
<tr>
<td>configuration</td>
<td>string</td>
<td>The name of the secondary endpoint (or the primary endpoint when reverting the settings).</td>
</tr>
<tr>
<td>Parameter</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>recycle</td>
<td>bool</td>
<td>Whether to stop and resume the Replicate task(s) automatically. The default is &quot;true&quot; i.e. when an unanticipated switchover occurs, tasks using the source endpoint will be automatically stopped and then resumed after the source endpoint is updated with the settings from the secondary endpoint. Set to &quot;false&quot; for planned switchovers (such as migrating to a production database or switching back to the primary database).</td>
</tr>
</tbody>
</table>

**Return Values**

N/A

**Errors**

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_ENDPOINT_NOT_FOUND</td>
<td>Replicate endpoint &quot;{endpoint}&quot; on server &quot;{server}&quot; could not be found.</td>
<td>The specified endpoint could not be found.</td>
</tr>
<tr>
<td>AEM_RECONFIGURE_ENDPOINT_INNER_ERR</td>
<td>Failed to reconfigure endpoint &quot;{endpoint}&quot; on server &quot;{server}&quot;. Error: &quot;{message}&quot;</td>
<td>Qlik Enterprise Manager failed to reconfigure the endpoint with the settings of the secondary endpoint.</td>
</tr>
</tbody>
</table>

**ExportAll**

Export all definitions from the requested server repository on the selected server (server settings, tasks, endpoints, and so on). The definitions are exported to a JSON file.

**Required User Role:** See Required Enterprise Manager Permissions.

**Syntax**

```csharp
public string ExportAll(
```
string server

};

## Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server containing the repository to be exported.</td>
</tr>
</tbody>
</table>

## Return Values

Export JSON file as a string.

## Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_METHOD_NOT_SUPPORTED_VERSION</td>
<td>AemExportAll is only supported on Replicate 5.5 or above.</td>
<td>The method requires Replicate 5.5 or above.</td>
</tr>
<tr>
<td>AEM_EXPORT_NO_PERMISSION_ON_TASK</td>
<td>Failed to export all tasks from Replicate server {server} as the logged in user does not have permission to export one or more of the defined tasks.</td>
<td>Export all cannot be carried out because the user does not have permissions on one or more tasks.</td>
</tr>
<tr>
<td>AEM_EXPORT_NO_PERMISSION_ON_ENDPOINT</td>
<td>Failed to export all tasks from server {server} as the logged in user does not have permission to export one or more endpoints.</td>
<td>Export all cannot be carried out because the user does not have permissions on one or more endpoints.</td>
</tr>
</tbody>
</table>

## ImportAll

Import the JSON definitions provided in the request body into the requested server repository on the selected server. The ApiImportAll method uses "merge" semantics. In particular: All valid JSON definitions provided in the request body will be imported. This includes server settings, task settings, endpoints, and other definitions. Items that existed in the target server before the import and have no new JSON definition in the request body will not be modified and in particular will not be removed.
This means that ApiImportAll provides no way of removing old definitions that are no longer needed.

**Required User Role:** See Required Enterprise Manager Permissions.

**Syntax**

```csharp
public void ImportAll(
    string payload,
    string server
);
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>string</td>
<td>A JSON document to import</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server to import to.</td>
</tr>
</tbody>
</table>

**Return Values**

N/A

**Errors**

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_METHOD_NOT_SUPPORTED_VERSION</td>
<td>AemImportAll is only supported on Replicate 5.2 or above.</td>
<td>The method requires Replicate 5.2 or above.</td>
</tr>
<tr>
<td>AEM_IMPORT_NO_PERMISSION_ON_TASK</td>
<td>Failed to import all tasks to replication server <code>{server}</code> as the logged in user does not have permission to add tasks.</td>
<td>Stream cannot be imported because the user does not have the permissions to add tasks.</td>
</tr>
</tbody>
</table>
### Error Messages

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_IMPORT_NO_PERMISSION_ON_ENDPOINT</td>
<td>Failed to import all tasks to replication server <code>{server}</code> as the logged in user does not have permission to add endpoints.</td>
<td>Stream cannot be imported because the user does not have the permissions to add endpoints.</td>
</tr>
<tr>
<td>AEM_IMPORT_CONTENT_EMPTY</td>
<td>Failed to import all tasks to replication server <code>{server}</code> as the JSON file is empty.</td>
<td>Stream cannot be imported because it contains no content.</td>
</tr>
<tr>
<td>AEM_IMPORT_INVALID_CONTENT</td>
<td>Failed to import all tasks to replication server <code>{server}</code> as the JSON file contains invalid content.</td>
<td>Stream cannot be imported because it contains invalid content.</td>
</tr>
</tbody>
</table>

### ReloadTable

Reload a specific table.

**Required User Role:** See Required Enterprise Manager Permissions.

### Syntax

```csharp
public void ReloadTable(
    string server,
    string task,
    string schema = null,
    string table = null
);
```

### Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The name of the task</td>
</tr>
<tr>
<td>schema</td>
<td>string</td>
<td>The name of the table schema to reload</td>
</tr>
<tr>
<td>table</td>
<td>string</td>
<td>The name of the table to reload</td>
</tr>
</tbody>
</table>
Return Values
N/A

Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_INVALID_TASK_NOT_FL</td>
<td>Failed to reload table <code>{table}</code> as Full Load is not enabled for task <code>{task}</code>.</td>
<td>The table could not be reloaded because the task's Full Load replication option is not enabled.</td>
</tr>
<tr>
<td>AEM_INVALID_TASK_NTNTSUPPEP</td>
<td>Failed to reload table as this operation is not supported with the File Channel source endpoint.</td>
<td>The table could not be reloaded because the task's source endpoint is File Channel.</td>
</tr>
<tr>
<td>AEM_RELOAD_TABLE_ERR</td>
<td>Failed to reload table <code>{schema}</code>. <code>{table}</code> for Replication task <code>{task}</code> on server <code>{server}</code>: <code>{message}</code></td>
<td>An error was encountered while trying to reload the specified table.</td>
</tr>
</tbody>
</table>

TestEndpoint

Connect to an endpoint to test connectivity and configuration (permissions, CDC configuration. etc.).

**Required User Role:** See Required Enterprise Manager Permissions.

Syntax

```csharp
public AemTestEndpointResp TestEndpoint(
    string server,
    string endpoint,
    int timeout = 60
);
```
### Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which the endpoint is defined.</td>
</tr>
<tr>
<td>endpoint</td>
<td>string</td>
<td>The name of the endpoint.</td>
</tr>
<tr>
<td>timeout</td>
<td>int</td>
<td>Time in seconds to wait until getting a response.</td>
</tr>
</tbody>
</table>

### Return Values

**AemTestEndpointResp**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>AemEndpointState</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>{</td>
</tr>
<tr>
<td></td>
<td>Unknown = 0,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Connected = 1,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Error = 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>}</td>
<td></td>
</tr>
<tr>
<td>Message</td>
<td>string</td>
<td>Short description of the error.</td>
</tr>
<tr>
<td>DetailedMessage</td>
<td>string</td>
<td>Detailed description of the error.</td>
</tr>
</tbody>
</table>

### Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TEST_ENDPOINT_CONNECTION_TIMEOUT</td>
<td>A timeout occurred while testing the connection for endpoint {endpoint} on Replicate server {server}.</td>
<td>Connection was not established within 60 seconds.</td>
</tr>
<tr>
<td>AEM_ENDPOINT_NOT_FOUND</td>
<td>Replicate endpoint {0} on server {1} could not be found.</td>
<td>The specified endpoint could not be found.</td>
</tr>
</tbody>
</table>
DeleteOldChangeData

The method can be called on an ad-hoc basis to delete processed Change Data Partitions created on the target database by a Replicate task.

- Partitions will only be deleted if the Change Data Partitioning and Partition Retention options are enabled in the Replicate console.
  
  For more information, refer to the Qlik Replicate Setup and User Guide.

- Partitions will only be deleted if the task is running. If the task is not running, the partitions will be deleted the next time the task runs.

- If a retention barrier is set, partitions will only be deleted up to the retention barrier or the earliest of all retention barriers (when set by multiple applications). For example, if Application A sets July 7th, 2020 as a barrier, Application B sets August 7th, 2020 as a barrier, and Application C sets September 7th, 2020 as a barrier, partitions will be deleted up to July 7th, 2020.

Required User Role: See Required Enterprise Manager Permissions.

Syntax

```csharp
public void DeleteOldChangeData(
    AemDeleteOldChangeDataReq payload,
    string server,
    string task
);
```
### Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
</table>
| payload   | AemDeleteOldChangeDataReq | **Payload Parameter for Deleting Old Change Data Partitions:**  
Name: TimestampOrOffset  
Type: String  
The point in time after which partitions can be deleted. The parameter can either be specified as a timestamp or as an offset.  
If a retention barrier is set, partitions will be deleted up to the retention barrier date. If the specified timestamp/offset is earlier than the retention barrier, an error will be returned.  

**Timestamp Format:**  
[Date]  
(yyyymm-dd'T'hh:mm:ss'Z')  
**Example:**  
2020-06-30T16:15:00Z  

**Offset Format:**  
[Period]  
Format ISO 8601 duration  
**Example:**  
P1M3DT1H2M |
| server   | string              | The name of the server on which the task is running.                                                                                           |
| task     | string              | The name of the task.                                                                                                                         |
Error Response

<table>
<thead>
<tr>
<th>Message</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replication task <code>{task}</code> on server <code>{server}</code> could not be found.</td>
<td>Returned when an unknown task name is encountered.</td>
</tr>
<tr>
<td>AEM_INVALID_TIMESTAMP_OR_OFFSET_FORMAT</td>
<td>The specified deletion age does not conform to the expected timestamp or offset format.</td>
<td>Returned when the specified deletion age does not conform to the expected timestamp or offset format.</td>
</tr>
<tr>
<td>AEM_DELETE_OLD_CHANGE_DATA_INNER_ERR</td>
<td>Failed to request deletion of old change data for task <code>{task}</code> on server <code>{server}</code>.</td>
<td>Returned when an error is encountered during partition deletion.</td>
</tr>
</tbody>
</table>

SetChangeDataRetentionBarrier

The method can be used to:

- Set a retention barrier for deleting consumed partitions. Setting a retention barrier will initiate periodic deletion of consumed Change Data Partitions from the target database defined for the specified task. Partitions will be deleted according to the **When deletion is initiated by a consuming application, delete partitions every interval set on Replicate Server, and only up to the retention barrier or the earliest of all retention barriers (when set by multiple applications).** For example, if Application A sets July 7th, 2020 as a barrier, Application B sets August 7th, 2020 as a barrier, and Application C sets September 7th, 2020 as a barrier, partitions will be deleted up to July 7th, 2020.

- Remove the retention barrier. Note that if there are multiple consuming applications, periodic deletion of consumed Change Data Partitions will only stop after all retention barriers have been removed.

- Partitions will only be deleted if the Change Data Partitioning and Partition Retention options are enabled in the Replicate console.
Partitions will only be deleted if the task is running. If the task is not running, the partitions will be deleted the next time it runs.

**Required permission:** See [Required Enterprise Manager Permissions](#).

### Syntax

```csharp
public void SetChangeDataRetentionBarrier(
    AemSetChangeDataRetentionBarrierReq payload,
    string server,
    string task
);
```
## Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>AemSetChangeDataRetentionBarrierReq</code> payload</td>
<td></td>
<td><strong>Payload Parameters for Setting a Retention Barrier:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note</strong> The parameter type must be STRING.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>RetentionPoint=timestamp</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>Application=application_name</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;&gt; <code>timestamp</code> is the date up to which partitions can be deleted. The</td>
</tr>
<tr>
<td></td>
<td></td>
<td>timestamp must be in the following format: <code>yyyy'-'MM'-'dd'T'HH':'mm':'ss'Z')</code>.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;&gt; <code>application_name</code> is the name of the consuming application.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>RetentionPoint=2020-06-30T16:15:00Z</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>Application=Compose</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Payload Parameters for Removing the Retention Barrier (of type STRING):</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>RetentionPoint=null</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>Application=application_name</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Where <code>application_name</code> is the name of the consuming application whose</td>
</tr>
<tr>
<td></td>
<td></td>
<td>barrier you wish to remove.</td>
</tr>
<tr>
<td><code>server</code></td>
<td>string</td>
<td>The name of the server on which the task is running.</td>
</tr>
<tr>
<td><code>task</code></td>
<td>string</td>
<td>The name of the task.</td>
</tr>
</tbody>
</table>
Error Response

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replication task {task} on server {server} could not be found.</td>
<td>Returned when an unknown task name is encountered.</td>
</tr>
<tr>
<td>AEM_INVALID_TIMESTAMP_FORMAT</td>
<td>The specified partition retention barrier does not conform to the expected timestamp format.</td>
<td>Returned when the specified partition retention barrier does not conform to the expected timestamp format.</td>
</tr>
<tr>
<td>AEM_SET_CHANGE_DATA_RETENTION_BARRIER_INNER_ERR</td>
<td>Failed to set change data retention barrier for task {task} on server {server}. Message: {error_message}</td>
<td>Returned when an error is encountered when trying to set the retention barrier.</td>
</tr>
</tbody>
</table>

GetChangeDataRetentionBarrier

Returns the date of the earliest partition retention barrier when multiple partition retention barriers have been set.

When different retention barriers have been set by multiple consuming applications, Replicate will delete old Change Data partitions up to the earliest partition retention barrier.

For information on setting a partition retention barrier, see SetChangeDataRetentionBarrier.

Required User Role: See Required Enterprise Manager Permissions.

Syntax

```csharp
public AemGetChangeDataRetentionBarrierResp GetChangeDataRetentionBarrier
{
    string server,
```
string task
);

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which the task is running.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The name of the task.</td>
</tr>
</tbody>
</table>

Response

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>string</td>
<td>The name of the consuming application that set the earliest partition retention barrier.</td>
</tr>
<tr>
<td>RetentionPoint</td>
<td>string</td>
<td>The date of the earliest partition retention barrier.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Format: yyyy’-'MM'-'dd'T'HH':'mm':'ss'Z'</td>
</tr>
</tbody>
</table>

Error Response

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replication task {task} on server {server} could not be found.</td>
<td>Returned when an unknown task name is encountered.</td>
</tr>
<tr>
<td>Error</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>AEM_GET_CHANGE_DATA_RETENTION_BARRIER_INNER_ERR</td>
<td>Failed to get change data retention barrier for task {task} on server {server}. Message: {error_message}</td>
<td>Returned when an error is encountered while attempting to get the earliest partition retention barrier.</td>
</tr>
</tbody>
</table>

## Parameters

The following table lists all enum parameters that appear in the return values, along with their values.

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server State</td>
<td>MONITORED</td>
<td>The server is being monitored, the Qlik Enterprise Manager is connected and synchronized successfully.</td>
</tr>
<tr>
<td></td>
<td>ERROR</td>
<td>Qlik Enterprise Manager fails to connect and monitor the server.</td>
</tr>
<tr>
<td></td>
<td>NOT_MONITORED</td>
<td>The server is not being monitored.</td>
</tr>
<tr>
<td>Server Platform</td>
<td>» WINDOWS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>» LINUX</td>
<td></td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>License State</td>
<td>LICENSE_VALID</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LICENSE_INVALID_CHECKSUM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LICENSE_EXPIRED NO_LICENSE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MACHINE_NOT_LICENSE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INVALID_LICENSE</td>
<td></td>
</tr>
<tr>
<td>Endpoint Role</td>
<td>SOURCE or TARGET</td>
<td>Specifies whether an endpoint is being used as a source or a target in a Replicate task.</td>
</tr>
<tr>
<td>Task State</td>
<td>RUNNING</td>
<td>The task is running.</td>
</tr>
<tr>
<td></td>
<td>STOPPED</td>
<td>The task has not been run yet or has stopped running at some point during the replication.</td>
</tr>
<tr>
<td></td>
<td>ERROR</td>
<td>The task has stopped due to a fatal error.</td>
</tr>
<tr>
<td></td>
<td>RECOVERING</td>
<td>The task has detected an error and is trying to recover. After a limited number of attempts, the task either recovers and the state returns to RUNNING, or the task fails and the state turns to ERROR.</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>Task options</td>
<td>full_load_enabled [bool]</td>
<td>Creates all files or tables at the target endpoint, automatically defines the metadata that is required at the target, and populates the tables with data from the source.</td>
</tr>
<tr>
<td></td>
<td>apply_changes_enabled [bool]</td>
<td>Updates all changes made to files and tables that were created during the full load. Applied changes include inserts, updates, and removal of items.</td>
</tr>
<tr>
<td></td>
<td>store_changes_enabled [bool]</td>
<td>Stores changes in Change tables. This value and the audit_changes_enabled value are mutually exclusive.</td>
</tr>
<tr>
<td></td>
<td>audit_changes_enabled [bool]</td>
<td>Stores changes in a single audit table. This value and the store_changes_enabled value are mutually exclusive.</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Task Stop reason</td>
<td>NONE</td>
<td>Indicates that a task is running and no Stop reason is prevalent.</td>
</tr>
<tr>
<td></td>
<td>NORMAL</td>
<td>Indicates that the task was stopped by the user.</td>
</tr>
<tr>
<td></td>
<td>RECOVERABLE_ERROR</td>
<td>Indicates that the task is still active, but that there is a temporary problem, such as a missing connection. As soon as the error state is resolved, Replicate restarts the task.</td>
</tr>
<tr>
<td></td>
<td>FATAL_ERROR</td>
<td>Indicates that the task stopped and the error must be resolved manually. The task cannot be started again until the error has been resolved.</td>
</tr>
<tr>
<td></td>
<td>FULL_LOADONLY_FINISHED</td>
<td>Indicates that the task only finished full load.</td>
</tr>
<tr>
<td></td>
<td>STOPPED_AFTERTFULL_LOAD</td>
<td>Indicates that the task stopped after full load. Cached changes may or may not have been applied.</td>
</tr>
<tr>
<td></td>
<td>STOPPED_AFTERCACHED_EVENTS</td>
<td>Indicates that the task stopped after cached changes were applied.</td>
</tr>
<tr>
<td></td>
<td>EXPRESS_LICENSE_LIMITS_REACHED</td>
<td>The task definition includes actions that are not included with Express license privileges.</td>
</tr>
<tr>
<td></td>
<td>STOPPED AFTER DDL APPLY</td>
<td>Indicates that the task stopped after DDL statements were applied.</td>
</tr>
<tr>
<td></td>
<td>STOPPED LOW MEMORY</td>
<td>Indicates that the task stopped due to low memory.</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>STOPPED_LOW_DISK</td>
<td>Indicates that the task stopped due to low disk space.</td>
<td></td>
</tr>
<tr>
<td>Replication profile</td>
<td>UNIDIRECTIONAL</td>
<td>Data is replicated from a source to a target.</td>
</tr>
<tr>
<td></td>
<td>BIDIRECTIONAL</td>
<td>Changes to the source are replicated to the target, and vice versa.</td>
</tr>
<tr>
<td></td>
<td>LOG_STREAM_STAGING</td>
<td>Changes are captured from a single source and stored on Replicate Server for replication to one or more targets.</td>
</tr>
</tbody>
</table>

Source type

Source and target endpoint types should be specified in the same format that they appear in the Type drop-down list (when adding a new endpoint in Enterprise Manager). For information on how to add an endpoint in Enterprise Manager, refer to the Enterprise Manager Setup and User Guide.
<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run options</td>
<td>RESUME_PROCESSING</td>
<td>Resumes task execution from the point that it was stopped.</td>
</tr>
<tr>
<td>RELOAD_TARGET</td>
<td></td>
<td>Re-starts the full-load replication process if the task was previously run.</td>
</tr>
<tr>
<td>RESUME_PROCESSING_FROM_TIMESTAMP</td>
<td></td>
<td>Starts the CDC replication task from a specific point.</td>
</tr>
<tr>
<td>RECOVER USING_LOCALLY_STORED_CHECKPOINT</td>
<td></td>
<td>Recover a task using the recovery state stored locally in the task folder (located under the Data folder).</td>
</tr>
<tr>
<td>RECOVER USING_CHECKPOINT_STORED_ON_TARGET</td>
<td></td>
<td>Recover a task using the CHECKPOINT value from the attrep_txn_state table (created in the target database).</td>
</tr>
<tr>
<td>Note</td>
<td></td>
<td>This option is only available if the Store task recovery data in target database option is enabled in the Changes Processing Tuning tab of the Task Settings dialog box.</td>
</tr>
<tr>
<td>METADATA ONLY RECREATE ALL TABLES</td>
<td></td>
<td>Recreates the target tables defined for full load.</td>
</tr>
<tr>
<td>METADATA ONLY CREATE MISSING TABLES</td>
<td></td>
<td>Creates missing target tables, including Change Tables.</td>
</tr>
<tr>
<td>Request state</td>
<td>SUCCESS</td>
<td>Connection to endpoint is valid</td>
</tr>
<tr>
<td></td>
<td>FAILURE</td>
<td>Connection to endpoint is not valid</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| Table state    | Represented as enum values:  
  » TABLE_QUEUED = 0  
  » TABLE_LOADING = 1  
  » TABLE_COMPLETED = 2  
  » TABLE_CHANGE_PROCESSING = 3  
  » TABLE_ERROR = 4 |  
  **TABLE_QUEUED** - A table awaiting loading.  
  **TABLE_LOADING** - A table being loaded to the target.  
  **TABLE_COMPLETED** - A table that has been loaded to the target.  
  **TABLE_CHANGE_PROCESSING** - A table that has been loaded to the target and is being updated according to changes on the source.  
  **TABLE_ERROR** - An error occurred while processing the table. |
4 Enterprise Manager Python SDK

This chapter explains how to use the Enterprise Manager Python SDK and the lists the available methods.

**In this chapter:**
- Prerequisites
- Getting Started - Login
- Authentication and Authorization
- Error Handling
- put_server_license
- get_server_details
- put_server
- put_server_acl
- get_server
- get_server_acl
- get_server_list
- delete_server
- delete_server_acl
- get_task_list
- get_task_details
- get_table_list
- get_table_statuses
- delete_task
- export_task
- import_task
- stop_task
- run_task
- get_endpoint_list
- delete_endpoint
- reconfigure_endpoint_no_wait
- export_all
- import_all
- reload_table
Prerequisites

General Prerequisites
Before using the Enterprise Manager Python SDK, make sure that:

- Qlik Enterprise Manager has been installed.
- The Qlik Enterprise Manager service is active.
- The relevant permissions have been granted.

Python 2.7 Prerequisites
1. Add the following files to the Environment Variables folder:
   - C:\python27
   - C:\python27\Scripts
2. Open a command prompt and type the following:
   - `pip -v`
   - If an error is returned, it means there is an issue with the "Environment Variables"
   - If the command is successful, type the following:
     - `pip install enum34`

Python 3.7 Prerequisites
Add the following files to Environment Variables:

- ..\appdata\Local\Programs\Python\Python37'
- ..\appdata\Local\Programs\Python\Python37\Scripts
Getting Started - Login

This section describes how to get started with the Enterprise Manager Python SDK. To help you better understand how to implement the available methods, a code sample and a readme file that describes the code are located in the `<Enterprise Manager_Installation_Folder>/clients/python` folder.

To be able to use the Qlik Enterprise Manager.Python API:

1. Import the Qlik Enterprise Manager-Client by adding the following code:
   ```python
   from aem_client import *
   ```

2. Create an `aem_client` object using the following constructors:
   ```python
   (self, b64_username_password, machine_name, port=443, url="https://{0}/attunityenterprisemanager", verify_certificate=True, authentication_method=AuthenticationMethod.ACTIVE_DIRECTORY|SAML):
   ```

   ```
   » b64_username_password
   ```

   **For authentication using Active Directory:**
   
   You need to create a base64 encoding of “domain\user:password”:
   ```python
   » domain_username = '{0}\{1}'.format(domain, username)
   » username_password_str = str.encode('{0}:{1}'.format(username, password))
   » b64_username_password = b64.b64encode(username_password_str).decode('ascii')
   ```

   **For authentication using SAML:**
   ```
   » The SAML assertion from an IDP. This should be a string in the following format:
   'SAMLResponse=<long_base_64_string>'
   ```

   Where `<long_base_64_string>` is the SAML assertion from a SAML IDP. This must be a URL encoded string containing the `SAMLResponse` parameter with a base64 encoded SAML assertion as its value. The string may also contain other parameters (e.g. RelayState), but these parameters are ignored.

   ```
   » machine_name - The machine on which Qlik Enterprise Manager is installed.
   » port - The Qlik Enterprise Manager server port (usually 443).
   » url - The URL to the Qlik Enterprise Manager server. If not set then
https://{0}/attunityenterprisemanager is used where {0} is the machine name.

- **verify_certificate** - When verify_certificate is set to **true**, there must be a valid certificate in the Qlik Enterprise Manager machine. When set to **false**, Qlik Enterprise Manager client will not validate the server certificate. The default is **true**.

**Example:**

```python
aem_client = AemClient(b64_username_password, machine_name, verify_certificate=False)
```

- **authentication_method** - The authentication method used by the Enterprise Manager server.

  For Active Directory, specify `AuthenticationMethod.ACTIVE_DIRECTORY`  
  For SAML, specify `AuthenticationMethod.SAML`

The user can now use the client methods to get/set data from Qlik Enterprise Manager using the public APIs. For example:

```python
aem_client.get_server_list()  
aem_client.get_server_list()  
aem_client.export_task(server_name, task_name)
```

### Authentication and Authorization

The `aem_client` user and password need to be the user and password that are defined in users or groups in Qlik Enterprise Manager ACLs in at least one level (e.g., Qlik Enterprise Manager level, All Servers level, etc.) with at least Viewer role.

### Error Handling

When a REST request fails, the HTTP response code is set to an error code. Information about the error is returned in the payload as an error response.

An error response has the following structure:

**Class:** `AemClientException` that inherits from `Exception` class and has the following fields:

- `error_code`
- `message`
This section lists the generic messages that apply to most of the API functions. Errors that are specific to a particular API function appear in the section for that API function.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNAUTHORIZED_REQUEST</td>
<td>Unauthorized Request.</td>
<td>The user is not authorized to perform the requested action (e.g. deleting a task).</td>
</tr>
<tr>
<td>INVALID_SESSION_ID</td>
<td>The session has expired or the session ID is not valid.</td>
<td>Session expired or invalid.</td>
</tr>
<tr>
<td>DESERIALIZE_TO_TYPE</td>
<td>Failed to deserialize json to type {type}: {message}</td>
<td>Returned when the JSON format is invalid.</td>
</tr>
<tr>
<td>AEM_SERVER_NOT_FOUND</td>
<td>The requested server {server} could not be found.</td>
<td>The requested server cannot be found.</td>
</tr>
<tr>
<td>AEM_SERVER_NOT_MONITORED</td>
<td>The requested server {server} is not monitored.</td>
<td>The requested server is not being monitored and thus the information is not accessible.</td>
</tr>
<tr>
<td>AEM_SERVER_NOT_CONNECTED</td>
<td>The requested server &quot;{server}&quot; cannot be reached at this time. Message: {message}</td>
<td>The desired information cannot be retrieved as the requested server is not connected.</td>
</tr>
<tr>
<td>AEM_SERVER_LICENSE_EXPIRED</td>
<td>The license for requested server {server} has expired.</td>
<td>The requested server license has expired.</td>
</tr>
<tr>
<td>AEM_SERVER_INVALID_LICENSE</td>
<td>The license for requested server {server} is not valid.</td>
<td>The requested server license is not valid.</td>
</tr>
<tr>
<td>LICENSE_NOT_FOUND</td>
<td>You need to register a Replication Management license in order to use Qlik Enterprise Manager. To register or obtain a license, open the Qlik Enterprise Manager console and follow the instructions.</td>
<td>Replication Management license was not found. For a user who is permitted to Register Qlik Enterprise Manager license.</td>
</tr>
<tr>
<td>Error</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>LICENSE_NOT_FOUND_</td>
<td>An Enterprise Manager Admin needs to register a Replication Management</td>
<td>Replication Management license was not found. For a user who is NOT permitted to register Qlik</td>
</tr>
<tr>
<td>CONTACT_ADMIN</td>
<td>license before you can use the product. To obtain a license, contact your</td>
<td>Enterprise Manager license.</td>
</tr>
<tr>
<td></td>
<td>Qlik Sales Representative with the Enterprise Manager machine name</td>
<td>(which is displayed when you open the Enterprise Manager console).</td>
</tr>
<tr>
<td>LICENSE_EVALUATION_EXPIRED</td>
<td>{Module} evaluation license has expired.</td>
<td>{Module} is one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Analytics</td>
</tr>
<tr>
<td>LICENSE_TERM_EXPIRED</td>
<td>{Module} license has expired.</td>
<td>{Module} is one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Analytics</td>
</tr>
<tr>
<td>LICENSE_INVALID_SIGNATURE</td>
<td>The {Module} license signature is invalid.</td>
<td>{Module} is one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Analytics</td>
</tr>
<tr>
<td>LICENSE_HOST_MISMATCH</td>
<td>The host name in the {Module} license does not match the Enterprise</td>
<td>{Module} is one of the following:</td>
</tr>
<tr>
<td></td>
<td>Manager machine name.</td>
<td>» Replication Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Replication Analytics</td>
</tr>
<tr>
<td>AEM_MISSING_FIELD</td>
<td>The &quot;{fieldName}&quot; field is missing from the request.</td>
<td>When a mandatory field is missing from the request or appears empty</td>
</tr>
</tbody>
</table>

**put_server_license**

Registers a license on a specific server via Qlik Enterprise Manager.

**Required User Role:** See Required Enterprise Manager Permissions.
Syntax

def put_server_license(
    self,
    payload,
    server
)

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>string</td>
<td>The license to register on the server [stream].</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This is the license that was provided by your Qlik Sales Representative.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Expected format:</strong> Text or JSON. Currently refers to the Replicate license only.</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
</tbody>
</table>

Return Values

N/A

Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
</table>
| AEM_PUT_SRV_LIC INNER_ERR | Failed to put license for server "{server}".  
Error: "{message}" | Returned if Qlik Enterprise Manager encounters an error/exception when trying to register the license on the specified server. |
| AEM_SRV_LIC INVALID FORMAT | The license file format is corrupt. | Returned when the contents of the license file are invalid. |
get_server_details
Retrieves details about the specified server.

**Required User Role:** See Required Enterprise Manager Permissions.

**Syntax**

def get_server_details(
    self,
    server
)

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The specified server name in Qlik Enterprise Manager.</td>
</tr>
</tbody>
</table>

**Return Values**

AemGetServerDetailsResp

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server_details</td>
<td>AemServerDetails</td>
<td>ReplicateServerDetails or ComposeServerDetails that are inherited from AemServerDetails</td>
</tr>
<tr>
<td>configuration</td>
<td>host</td>
<td>The host name or IP address of the Replicate/Compose Server machine.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>platform</td>
<td>AemPlatform</td>
<td>The platform on which the Replicate/Compose Server machine is installed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>platform</strong> AemPlatform {</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UNKNOWN = 0,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WINDOWS = 1,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LINUX = 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>}</td>
</tr>
<tr>
<td>port</td>
<td>string</td>
<td>The port through which the Replicate/Compose Server machine is accessed.</td>
</tr>
<tr>
<td>user_name</td>
<td>string</td>
<td>The user name for connecting to the Replicate/Compose Server machine.</td>
</tr>
<tr>
<td>description</td>
<td>string</td>
<td>The server description.</td>
</tr>
<tr>
<td>last_connection</td>
<td>string</td>
<td>The date and time of the last successful sync/retrieval of tasks and messages.</td>
</tr>
<tr>
<td>license</td>
<td>ApiLicense</td>
<td>The number of days left before the license expires.</td>
</tr>
<tr>
<td>days_to_expiration</td>
<td>int</td>
<td>The expiration date of the server license.</td>
</tr>
<tr>
<td>issue_date</td>
<td>string</td>
<td>When the license was issued.</td>
</tr>
<tr>
<td>expiration</td>
<td>string</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>state</td>
<td>AemLicenseState</td>
<td>The current license state (e.g. valid, expired, etc.).</td>
</tr>
<tr>
<td></td>
<td>{</td>
<td></td>
</tr>
<tr>
<td></td>
<td>VALID_LICENSE = 0,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INVALID_LICENSE_CHECKSUM = 1,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EXPIRED_LICENSE = 2,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NO_LICENSE = 3,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MACHINE_NOT_LICENSED = 4,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INVALID_LICENSE = 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>}</td>
<td></td>
</tr>
<tr>
<td>message</td>
<td>string</td>
<td>The error message if Qlik Enterprise Manager fails to connect to the Replicate/Compose Server machine.</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The name of the server in Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>resource_utilization</td>
<td>AemServerUtilization</td>
<td></td>
</tr>
<tr>
<td>attunity_cpu_percentage</td>
<td>int</td>
<td>The sum of CPU percentage of Replicate server and all running tasks processes.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>disk_usage_mb</td>
<td>long</td>
<td>The amount of disk space that the server is currently consuming, in MB. This is the sum of disk usage for all tasks on this server.</td>
</tr>
<tr>
<td>machine_cpu_percentage</td>
<td>int</td>
<td>The CPU percentage of the machine where Replicate is installed.</td>
</tr>
<tr>
<td>memory_mb</td>
<td>long</td>
<td>The amount of memory that the server is currently consuming, in MB. This is the sum of memory usage for all active tasks on this server, excluding stopped tasks.</td>
</tr>
<tr>
<td>state</td>
<td>AemServerState</td>
<td>The state of the server.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>{</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOT_</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MONITORED = 0,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MONITORED = 1,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ERROR = 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>}</td>
</tr>
<tr>
<td>aem_tasks_summary</td>
<td>TaskSummary</td>
<td></td>
</tr>
<tr>
<td>error</td>
<td>int</td>
<td>The number of tasks that encountered a fatal error.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>recovering</td>
<td>int</td>
<td>The number of recovering tasks</td>
</tr>
<tr>
<td>running</td>
<td>int</td>
<td>The number of running tasks.</td>
</tr>
<tr>
<td>stopped</td>
<td>int</td>
<td>The number of stopped tasks.</td>
</tr>
<tr>
<td>total</td>
<td>int</td>
<td>The total number of tasks, regardless of state.</td>
</tr>
<tr>
<td>version</td>
<td>string</td>
<td>The Replicate/Compose Server version.</td>
</tr>
</tbody>
</table>

Notes

- The return value -1 means N/A.
- Parameters related to Disk, Memory, Qlik CPU, and Machine CPU usage are not available for Compose servers. For Compose servers, these parameters will be returned as -1.
- Parameters related to Qlik CPU and Machine CPU usage are only available for Replicate 6.2 and above. For earlier Replicate versions, these parameters will be returned as -1.
- For servers that are in an error state or not monitored, parameters related to Disk and Memory usage will be returned as -1.

Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_SERVER_NOT_FOUND</td>
<td>Replicate server {server} could not be found.</td>
<td>Server name unknown to Qlik Enterprise Manager.</td>
</tr>
</tbody>
</table>

See Error Handling.
**put_server**

Adds a new Replicate/Compose Server or updates the server definition (Connection Properties) if the specified server already exists. This method can be used together with AemGetServer in order to update the connection properties of an existing server.

First call AemGetServer, then edit the returned properties as required, and finally, call AemPutServer.

**Required User Role:** See Required Enterprise Manager Permissions.

**Syntax**

```python
def put_server(
    self,
    payload,
    server
)
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>AemServer</td>
<td>AemReplicateServer or AemComposeServer that is inherited from AemServer</td>
</tr>
<tr>
<td>host</td>
<td>string</td>
<td>The host name or IP address of the server.</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
<tr>
<td>description</td>
<td>string</td>
<td>The server description.</td>
</tr>
<tr>
<td>port</td>
<td>string</td>
<td>The port through which the server is accessed.</td>
</tr>
<tr>
<td>username</td>
<td>string</td>
<td>The user name to connect to the Replicate/Compose Server.</td>
</tr>
<tr>
<td>password</td>
<td>string</td>
<td>The password to connect to the Replicate/Compose Server. Note The password identifier (GUID) that is returned by GetServer is valid only for the session in which it was generated. Using it in another session (for example as input for PutServer) will result in exception.</td>
</tr>
</tbody>
</table>
Parameter | Type | Description
--- | --- | ---
verify_server_certificate | bool | Set to "true" to ensure the Server certificate is trusted. As a rule, to reduce the chance of "man-in-the-middle" attacks, this option should always be set to "true".

- When connecting directly to an Qlik Replicate replication server (default port 3552) with its automatically generated self-signed certificate, Qlik Enterprise Manager is able to validate the certificate without requiring any additional setup.
- When connecting to a Replicate Server via the Replicate UI Server (typically using port 443) or to the Replicate replication server with a user-installed certificate, you must make sure that the SSL/TLS certificate used by the server is trusted by the Qlik Enterprise Manager machine. The same applies when connecting to a Compose Server with a user-installed certificate. You can easily verify whether the certificate is trusted by opening a Chrome browser window on the Qlik Enterprise Manager machine and connecting to Replicate. If there are no security warnings, the certificate is trusted.

For information on the different ways of connecting to Qlik Replicate, see *Qlik Replicate Server Requirements* in the Qlik Enterprise Manager Help.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>monitored</td>
<td>bool</td>
<td>Whether to retrieve tasks and messages from this server or not.</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
</tbody>
</table>

**Return Values**

N/A
## Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESERIALIZE_TO_TYPE</td>
<td>&quot;Failed to deserialize json to type AemServer: {message}&quot;</td>
<td>Returned when the JSON format is invalid format. For example, such an error will be returned if the JSON contains an unknown role.</td>
</tr>
<tr>
<td>AEM_PUT_SERVER_INNER_ERR</td>
<td>Failed to put server &quot;{server}&quot;. Error: &quot;{message}&quot;.</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to PUT the server.</td>
</tr>
<tr>
<td>AEM_INVALID_SERVER_TYPE</td>
<td>Server type {ServerType} for server &quot;{ServerName}&quot; is not valid.</td>
<td>Returned when the an invalid server type is specified.</td>
</tr>
<tr>
<td>AEM_NAME_URL_MISMATCH</td>
<td>The name of the server in the request does not match the one that is specified in the URL.</td>
<td>Returned when the name of the server in the request does not match the one that is specified in the URL.</td>
</tr>
<tr>
<td>AEM_EMPTY_HOST</td>
<td>The host is missing from the request.</td>
<td>Returned when the host is missing from the request.</td>
</tr>
<tr>
<td>AEM_EMPTY_PORT</td>
<td>The port is missing from the request.</td>
<td>Returned when the port is missing from the request.</td>
</tr>
<tr>
<td>AEM_EMPTY_USERNAME</td>
<td>The username is missing from the request.</td>
<td>Returned when the user name is missing from the request.</td>
</tr>
<tr>
<td>AEM_EMPTY_PASSWORD</td>
<td>The password is missing from the request.</td>
<td>Returned when the password is missing from the request.</td>
</tr>
<tr>
<td>AEM_INVALID_PORT</td>
<td>The port is invalid.</td>
<td>Returned when the specified port is not valid.</td>
</tr>
<tr>
<td>Error</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>AEM_INVALID_USERNAME</td>
<td>The user name is invalid. User names cannot exceed 104 characters and can contain all Unicode</td>
<td>Returned when the specified user name is not valid.</td>
</tr>
<tr>
<td></td>
<td>characters except for the following characters: Forward slash (/), Left square bracket ([),</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Right square bracket (]), Colon (:), Semicolon (;), Vertical bar (</td>
<td>), Equal sign (=), Plus</td>
</tr>
<tr>
<td></td>
<td>sign (+), Asterisk (*), Question mark (?), Left angle bracket (&lt;), Right angle bracket (&gt;),</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Double quote (&quot;).</td>
<td></td>
</tr>
<tr>
<td>AEM_INVALID_DESC</td>
<td>The description is invalid. Descriptions cannot exceed 250 characters.</td>
<td>Returned when the description exceeds 250 characters.</td>
</tr>
<tr>
<td>AEM_INVALID_HOST</td>
<td>The host is invalid. Hosts cannot exceed 64 characters and can only contain letters (a-z or</td>
<td>Returned when the server host name exceeds 64 characters or contains invalid characters.</td>
</tr>
<tr>
<td></td>
<td>A-Z), digits, spaces, dots (.), dashes (-), and underscores (_).</td>
<td></td>
</tr>
<tr>
<td>AEM_INVALID_NAME</td>
<td>The name of the server is invalid. Server names cannot exceed 64 characters and can only contain</td>
<td>Returned when the server name exceeds 64 characters or contains invalid characters.</td>
</tr>
<tr>
<td></td>
<td>letters (a-z or A-Z), digits, spaces, dots (.), dashes (-), and underscores (_).</td>
<td></td>
</tr>
<tr>
<td>AEM_HOST_PORT_ALREADY_EXIST</td>
<td>Host {name/IP} and port {number} are already in use by another server.</td>
<td>Returned when both the server host name/IP address and the server port are already in use by</td>
</tr>
<tr>
<td></td>
<td></td>
<td>another server.</td>
</tr>
</tbody>
</table>

**put_server_acl**

Puts an explicit ACL for a specific server in Qlik Enterprise Manager. The method will replace any existing explicit ACL with the ACL in the request. The request also includes a
Boolean flag for specifying whether or not the server should inherit ACLs from its ancestors (in addition to its explicitly defined ACLs).

The inherited ACLs (i.e., the ACLs of the server’s ancestors) are not affected by this method.

The `AemPutServerAcl` can be used together with the `AemGetServerAcl` method in order to update an existing server’s ACL. First call `AemGetServerAcl`, then edit the returned roles as required, and finally, call `AemPutServerAcl`.

**Behavior when putting a partial request:**
When the request body includes only some of the roles (as opposed to all four of them), only the roles specifically defined in the request body will be set on the server; roles that are missing or empty will be inherited, but only if the following are true:

- The `disable_inheritance` flag is set to "True".
- The roles that are missing/empty in the request are defined for the ancestors.

**Behavior on conflicts:**
If the `disable_inheritance` flag is set to "False" and the explicit roles in the request conflict with existing inherited roles, then the explicit roles will take precedence. For example, if the request defines user A as a Viewer on `MyServer` and user A is also defined as an Admin on All Servers, then user A will be defined as an Admin on All Servers but as a Viewer on `MyServer`.

**Note**  The user permissions in Enterprise Manager are completely independent of the user permissions in Replicate. Consequently, `AemPutServerAcl` will affect the server’s Enterprise Manager user permissions, but will not affect Replicate’s user permissions.

Moreover, when performing an operation via Enterprise Manager, the user permissions defined for the server entity in Enterprise Manager apply, whereas when performing an operation directly via the Replicate Console, the user permissions defined in Replicate apply.

**Note**  Defining the same user/group in different roles is not allowed. However, if the same user or group is defined in different roles but with a different case (e.g. Mike vs. mike or Analysts vs. ANALYSTS), no error will be returned and the strongest role will take precedence.
Required User Role: See Required Enterprise Manager Permissions.

Syntax

def put_server_acl(
    self,
    payload,
    server
)

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>AemAuthorizationAcl</td>
<td></td>
</tr>
<tr>
<td>disable_inheritance</td>
<td>bool</td>
<td>If set to &quot;true&quot;, the server does not inherit ACLs from its ancestors (in addition to its explicit ACLs). If set to &quot;false&quot;, the server inherits ACLs from its ancestors, in addition to any explicit ACLs.</td>
</tr>
<tr>
<td>admin_role</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Admin role</td>
</tr>
<tr>
<td>designer_role</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Designer role</td>
</tr>
<tr>
<td>operator_role</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Operator role</td>
</tr>
<tr>
<td>viewer_role</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Viewer role</td>
</tr>
<tr>
<td>groups</td>
<td>List&lt;AemGroupRef&gt;</td>
<td>Groups assigned as the role</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The group name</td>
</tr>
<tr>
<td>users</td>
<td>List&lt;AemUserRef&gt;</td>
<td>Users assigned as the role</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The user name</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server</td>
</tr>
</tbody>
</table>
Return Values

N/A

Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESERIALIZE_TO_TYPE</td>
<td>&quot;Failed to deserialize json to type AemAuthorizationAcl: {message}&quot;</td>
<td>Returned when the JSON format is invalid format. For example, such an error will be returned if the JSON contains an unknown role.</td>
</tr>
<tr>
<td>AEM_PUT_SERVER_ACL_INNER_ERR</td>
<td>Failed to put ACL of server &quot;{server}&quot;. Error: &quot;{message}&quot;.</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to put the server's ACL.</td>
</tr>
<tr>
<td>AEM_NO_DOMAIN_IN_USER</td>
<td>User &quot;{userName}&quot; must be preceded by a domain name, separated by a backslash.</td>
<td>Returned when the domain is missing from the user name.</td>
</tr>
<tr>
<td><strong>Example:</strong></td>
<td>domain_name\user_name.</td>
<td></td>
</tr>
<tr>
<td>AEM_NO_DOMAIN_IN_GROUP</td>
<td>Group &quot;{groupName}&quot; must be preceded by a domain name, separated by a backslash.</td>
<td>Returned when the domain is missing from the group name.</td>
</tr>
<tr>
<td><strong>Example:</strong></td>
<td>domain_name\group_name.</td>
<td></td>
</tr>
</tbody>
</table>
### Error Messages

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_NO_ADMIN_ON_SERVER</td>
<td>Requested server &quot;{serverName}&quot; has no admin user.</td>
<td>Returned when there is no admin on the server.</td>
</tr>
<tr>
<td></td>
<td>At least one user or group must be assigned to the &quot;admin&quot; role.</td>
<td>Possible reasons:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» The request JSON is set to <code>disable_inheritance=true</code> and the explicit admin role in the JSON is empty.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» The JSON is set to <code>disable_inheritance=true</code>, the explicit admin role in the JSON is empty, and the parent levels do not have an admin user to inherit.</td>
</tr>
<tr>
<td>AEM_USER_ASSIGNED_TO_MULTIPLE.Roles</td>
<td>User &quot;{userName}&quot; is assigned to multiple roles. Users can only be assigned to a single role.</td>
<td>Returned when a user is assigned to multiple roles.</td>
</tr>
<tr>
<td>AEM_GROUP_ASSIGNED_TO_MULTIPLE.Roles</td>
<td>Group &quot;{groupName}&quot; is assigned to multiple roles. Groups can only be assigned to a single role.</td>
<td>Returned when a group is assigned to multiple roles.</td>
</tr>
<tr>
<td>AEM_USER_GROUP_MULTIPLE_ASSIGNED</td>
<td>&quot;{userName/groupName}&quot; is assigned to multiple roles or to the same role twice. Users/groups can only be assigned once, and to a single role.</td>
<td>Returned either when the specified user already exists as a group in the same/another role, or the specified group already exists as a user in the same/another role.</td>
</tr>
</tbody>
</table>

---

### get_server

Retrieves the definition (Connection Properties) of the specified server. This method can be used together with PutServer in order to update the connection properties of an existing server. First call GetServer, then edit the returned properties as required, and finally, call PutServer.

**Required User Role:** See Required Enterprise Manager Permissions.
Syntax

def get_server(
    self,
    server
)

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server to retrieve.</td>
</tr>
</tbody>
</table>

Return Values

AemServer (AemReplicateServer or AemComposeServer that are inherited from AemServer)

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>host</td>
<td>string</td>
<td>The host name or IP address of the server.</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
<tr>
<td>description</td>
<td>string</td>
<td>The server description.</td>
</tr>
<tr>
<td>port</td>
<td>string</td>
<td>The port through which the server is accessed.</td>
</tr>
<tr>
<td>username</td>
<td>string</td>
<td>The user name to connect to the Replicate/Compose Server.</td>
</tr>
<tr>
<td>password</td>
<td>string</td>
<td>The password to connect to the Replicate/Compose Server. Note The password identifier (GUID) that is returned by GetServer is valid only for the session in which it was generated. Using it in another session (for example as input for PutServer) will result in exception.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>verify_server_certificate</td>
<td>bool</td>
<td>When &quot;true&quot;, Qlik Enterprise Manager verifies that the Server certificate is trusted, thereby reducing the chance of &quot;man-in-the-middle&quot; attacks. For details on setting this option, see put_server.</td>
</tr>
<tr>
<td>monitored</td>
<td>bool</td>
<td>Whether to retrieve tasks and messages from this server or not.</td>
</tr>
</tbody>
</table>

**Errors**

See [general errors](#).

**get_server_acl**

Retrieves the explicit ACL defined in Qlik Enterprise Manager for the specified server, including a Boolean indication if ACL inheritance is disabled or enabled for the server.

The method returns the explicit ACL only. In other words, it does not return inherited ACLs.

If all of the servers ACLs are inherited (i.e. no ACL was explicitly defined for the server), an error will be returned indicating that no ACL was found.

This method can be used together with `AemPutServerAcl` in order to update an existing server's ACL. First call `AemGetServerAcl`, then edit the returned roles as required, and finally, call `AemPutServerAcl`.

**Required User Role:** See [Required Enterprise Manager Permissions](#).

**Syntax**

```python
def get_server_acl(
    self,
    server
)
```
Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server where the ACL is located.</td>
</tr>
</tbody>
</table>

Return Values

AemAuthorizationAcl

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>disable_inheritance</td>
<td>bool</td>
<td>If set to &quot;true&quot;, the server does not inherit ACLs from its ancestors (in addition to its explicit ACLs). If set to &quot;false&quot;, the server inherits ACLs from its ancestors, in addition to any explicit ACLs.</td>
</tr>
<tr>
<td>admin_role</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Admin role.</td>
</tr>
<tr>
<td>designer_role</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Designer role.</td>
</tr>
<tr>
<td>operator_role</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Operator role.</td>
</tr>
<tr>
<td>viewer_role</td>
<td>AemRoleDef</td>
<td>Users and/or groups assigned as Viewer role.</td>
</tr>
<tr>
<td>groups</td>
<td>List&lt;AemGroupRef&gt;</td>
<td>Groups assigned as the role.</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The group name.</td>
</tr>
<tr>
<td>users</td>
<td>List&lt;AemUserRef&gt;</td>
<td>Users assigned as the role.</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The user name.</td>
</tr>
</tbody>
</table>

Errors

All of the general errors as well as the errors listed in the table below.
### Error Messages

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_GET_SERVER_ACL_INNER_ERR</td>
<td>Failed to get ACL of server &quot;{server}&quot;.</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to get the server ACL.</td>
</tr>
<tr>
<td></td>
<td>Error: &quot;{message}&quot;.</td>
<td></td>
</tr>
<tr>
<td>AEM_SERVER_HAS_NO_ACL</td>
<td>ACL for server &quot;{server}&quot; could not be found.</td>
<td>Returned if no explicit ACL is defined for the server.</td>
</tr>
</tbody>
</table>

**Note**  A server that does not have its own explicit ACL inherits the ACL from its ancestors. Inherited ACLs are not returned by this method.

---

### get_server_list

Retrieves a list of servers under Qlik Enterprise Manager management as well as each server's properties.

**Required User Role:** See [Required Enterprise Manager Permissions](#).

**Syntax**

```python
def get_server_list(self)
    pass
```

**Parameters**

N/A

**Return Values**

AemGetServerListResp
<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>serverList</td>
<td>List&lt;AemServerInfo&gt;</td>
<td>ReplicateServerInfo or ComposeServerInfo that inherit from AemServerInfo.</td>
</tr>
<tr>
<td>description</td>
<td>string</td>
<td>The description of the server.</td>
</tr>
<tr>
<td>host</td>
<td>string</td>
<td>The host name or IP address of the server.</td>
</tr>
<tr>
<td>last_connection</td>
<td>string</td>
<td>The date and time of the last successful sync/retrieval of tasks and messages.</td>
</tr>
<tr>
<td>message</td>
<td>string</td>
<td>The error message if Qlik Enterprise Manager fails to connect to the server.</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
<tr>
<td>platform</td>
<td>AemPlatform</td>
<td>AemPlatform</td>
</tr>
<tr>
<td></td>
<td></td>
<td>{</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UNKNOWN = 0,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WINDOWS = 1,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LINUX = 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>}</td>
</tr>
<tr>
<td>port</td>
<td>string</td>
<td>The port through which the server is accessed.</td>
</tr>
</tbody>
</table>
## Value

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>state</td>
<td>AemServerState</td>
<td>AemServerState</td>
</tr>
<tr>
<td></td>
<td>{</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NOT_MONITORED = 0,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MONITORED = 1,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ERROR = 2</td>
<td></td>
</tr>
<tr>
<td>version</td>
<td>string</td>
<td>The Replicate/Compose Server version</td>
</tr>
</tbody>
</table>

## Errors

All of the [general errors](#) as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_SERVER_NOT_FOUND</td>
<td>Replicate server {server} could not be found.</td>
<td>Server name unknown to Qlik Enterprise Manager.</td>
</tr>
</tbody>
</table>

## delete_server

### Description

When this method is called, Qlik Enterprise Manager will:

- Delete the specified server from Qlik Enterprise Manager
- Stop monitoring any tasks that were defined on the server
- Delete all messages related to the server from the Message Center
- Delete all user roles defined for the server, the server tasks, and the server endpoints

**Note** The above operations will be performed, regardless of whether the server is currently being monitored or in an error state.

**Required User Role:** See [Required Enterprise Manager Permissions](#).
Syntax

def delete_server(
    self,
    server
)

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server to be deleted.</td>
</tr>
</tbody>
</table>

Return Values

N/A

Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Text</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_SERVER_NOT_FOUND</td>
<td>Requested server &quot;{server}&quot; could not be found.</td>
<td>The server name is unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>AEM_DELETE_SERVER_INNER_ERR</td>
<td>Failed to delete requested server &quot;{server}&quot;.</td>
<td>Qlik Enterprise Manager encountered an error/exception when trying to delete the server.</td>
</tr>
</tbody>
</table>

delete_server_acl

Deletes the explicit ACL defined in Qlik Enterprise Manager for the specified server. Inherited ACLs are not affected by this method. Once the explicit ACL is deleted from the server, all ACLs will be automatically inherited from the server's ancestors.

Required User Role: See Required Enterprise Manager Permissions.

Syntax

def delete_server_acl()
Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server whose ACL needs to be deleted.</td>
</tr>
</tbody>
</table>

Return Values

N/A

Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_DELETE_SERVER_ACL_INNER_ERR</td>
<td>Failed to delete ACL of server &quot;{server}&quot;. Error: &quot;{message}&quot;.</td>
<td>Returned if Qlik Enterprise Manager encounters an error/exception when trying to delete the server's ACL.</td>
</tr>
<tr>
<td>AEM_SERVER_HAS_NO_ACL</td>
<td>ACL for server &quot;{server}&quot; could not be found.</td>
<td>Returned when the specified server has no explicit ACL defined.</td>
</tr>
</tbody>
</table>

get_task_list

Retrieve a list of tasks per selected and authorized server. For each task, the API returns a few values.

Required User Role: See Required Enterprise Manager Permissions.

Syntax

```python
def get_task_list(
    self,
```
Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which the tasks reside.</td>
</tr>
</tbody>
</table>

Return Values

AemGetTaskListResp

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>taskList</td>
<td>List&lt;AemTaskInfo&gt;</td>
<td>An array of Endpoint objects.</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The name of the task</td>
</tr>
<tr>
<td>state</td>
<td>AemTaskState</td>
<td></td>
</tr>
<tr>
<td></td>
<td>{</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STOPPED = 0,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RUNNING = 1,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ERROR = 2,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECOVERY = 3</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>stop_reason</td>
<td>AemTaskStopReason</td>
<td>The reason the task stopped. For Compose tasks, this will always be NONE.</td>
</tr>
<tr>
<td>message</td>
<td>string</td>
<td>The message if the task stopped due to an error.</td>
</tr>
</tbody>
</table>

```python
AemTaskStopReason = {
    NONE = 0,
    NORMAL = 1,
    RECOVERABLE_ERROR = 2,
    FATAL_ERROR = 3,
    FULL_LOAD_ONLY_FINISHED = 4,
    STOPPED_AFTER_FULL_LOAD = 5,
    STOPPED_AFTER_CACHED_EVENTS = 6,
    EXPRESS_LICENSE_LIMITS_REACHED = 7,
    STOPPED_AFTER_DDL_APPLY = 8,
    STOPPED_LOW_MEMORY = 9,
    STOPPED_LOW_DISK_SPACE = 10
}
```
<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>assigned_tags</td>
<td>array</td>
<td>Returns the custom tags assigned to the task. If no tags are assigned to the task, an empty array will be returned.</td>
</tr>
</tbody>
</table>

Errors
See general errors.

get_task_details
Retrieves details about a selected and authorized task. The API returns full monitoring information related to the selected task.

Required User Role: See Required Enterprise Manager Permissions.

Syntax
```python
def get_task_details(
    self,
    server,
    task
)
```

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The name of the task.</td>
</tr>
</tbody>
</table>

Return Values for Replicate Tasks
AemGetTaskDetailsResp
<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>task</td>
<td>AemTaskInfoDetailed</td>
<td>AemTaskInfoDetailed</td>
</tr>
<tr>
<td>type</td>
<td>string</td>
<td>AemTaskInfoDetailed</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The task name.</td>
</tr>
<tr>
<td>description</td>
<td>string</td>
<td>The task description. If there is no description, an empty string will be returned.</td>
</tr>
<tr>
<td>cdc_event_counters</td>
<td>AemTaskCdcEventCounters</td>
<td>All numeric data concerning CDC events</td>
</tr>
<tr>
<td>applied_ddl_count</td>
<td>long</td>
<td>The total number of metadata changes, such as add column</td>
</tr>
<tr>
<td>applied_delete_count</td>
<td>long</td>
<td>The number of records deleted in total for all tables</td>
</tr>
<tr>
<td>applied_insert_count</td>
<td>long</td>
<td>The number of records added in total for all tables</td>
</tr>
<tr>
<td>applied_update_count</td>
<td>long</td>
<td>The number of records updated in total for all tables</td>
</tr>
<tr>
<td>cdc_latency</td>
<td>AemCdcLatency</td>
<td>CDC latency information</td>
</tr>
<tr>
<td>source_latency</td>
<td>string</td>
<td>The time gap between the original change in the source endpoint and capturing it, in hh:mm:ss</td>
</tr>
<tr>
<td>total_latency</td>
<td>string</td>
<td>The overall latency (source latency + target latency + apply latency), in hh:mm:ss</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>cdc_throughput</td>
<td>AemCdcThroughput</td>
<td>Indicates how fast the table records are being replicated to the target endpoint (by number or volume of records). Refers only to the current/last CDC.</td>
</tr>
<tr>
<td>source_throughput_records_count</td>
<td>AemCdcThroughputItem</td>
<td>The current source throughput, in rec/sec</td>
</tr>
<tr>
<td>source_throughput_volume</td>
<td>AemCdcThroughputItem</td>
<td>The current source throughput, in kbyte/sec</td>
</tr>
<tr>
<td>target_throughput_records_count</td>
<td>AemCdcThroughputItem</td>
<td>The current target throughput, in rec/sec</td>
</tr>
<tr>
<td>target_throughput_volume</td>
<td>AemCdcThroughputItem</td>
<td>The current target throughput, in kbyte/sec</td>
</tr>
<tr>
<td>current</td>
<td>long</td>
<td></td>
</tr>
<tr>
<td>cdc_transactions_counters</td>
<td>AemCdcTransactionsCounters</td>
<td>All numeric data concerning CDC transactions</td>
</tr>
<tr>
<td>applied_comitted_transaction_count</td>
<td>long</td>
<td>The number of transactions committed.</td>
</tr>
<tr>
<td>applied_records_comitted_count</td>
<td>long</td>
<td>The sum of all records/events in all Completed transactions</td>
</tr>
<tr>
<td>applied_records_in_progress_count</td>
<td>long</td>
<td>The sum of all records/events in all In-Progress transactions</td>
</tr>
<tr>
<td>applied_transactions_in_progress_count</td>
<td>long</td>
<td>The number of transactions in progress.</td>
</tr>
<tr>
<td>applied_volume_comitted_mb</td>
<td>long</td>
<td>The sum of all volume/events in all Completed transactions, in MB.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>commit_change_records_count</td>
<td>long</td>
<td>The number of COMMIT change records.</td>
</tr>
<tr>
<td>incoming_accumulated_changes_on_disk_count</td>
<td>long</td>
<td>The number of changes accumulated on disk until source commit.</td>
</tr>
<tr>
<td>incoming_accumulated_changes_in_memory_count</td>
<td>long</td>
<td>The number of changes accumulated in memory until source commit.</td>
</tr>
<tr>
<td>incoming_applying_changes_in_memory_count</td>
<td>long</td>
<td>The number of changes in memory during apply and until target commit.</td>
</tr>
<tr>
<td>incoming_applying_changes_on_disk_count</td>
<td>long</td>
<td>The number of changes on disk during apply and until target commit.</td>
</tr>
<tr>
<td>rollback_change_records_count</td>
<td>long</td>
<td>The number of ROLLBACK change records.</td>
</tr>
<tr>
<td>rollback_change_volume_mb</td>
<td>long</td>
<td>The volume of ROLLBACK changes, in MB.</td>
</tr>
<tr>
<td>rollback_transaction_count</td>
<td>long</td>
<td>The number of changes in memory during apply and until target commit.</td>
</tr>
<tr>
<td>full_load_completed</td>
<td>bool</td>
<td></td>
</tr>
<tr>
<td>full_load_counters</td>
<td>AemTaskFullLoadCounters</td>
<td>All numeric data concerning Full Load events.</td>
</tr>
<tr>
<td>estimated_records_for_all_tables_count</td>
<td>long</td>
<td>The estimated number of records remaining to be loaded into the target endpoint.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>records_completed_count</td>
<td>long</td>
<td>The total number of records that have completed loading into the target endpoint.</td>
</tr>
<tr>
<td>tables_completed_count</td>
<td>int</td>
<td>The number of tables that have been loaded into the target endpoint.</td>
</tr>
<tr>
<td>tables_loading_count</td>
<td>int</td>
<td>The number of tables that are currently being loaded into the target endpoint.</td>
</tr>
<tr>
<td>tables_queued_count</td>
<td>int</td>
<td>The number of tables that are waiting to be loaded due to an error.</td>
</tr>
<tr>
<td>tables_with_error_count</td>
<td>int</td>
<td>The number of tables that could not be loaded due to an error.</td>
</tr>
<tr>
<td>full_load_end</td>
<td>string</td>
<td>Indicates whether the full load process has ended.</td>
</tr>
<tr>
<td>full_load_start</td>
<td>string</td>
<td>The start time of the full load process.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Format: YYYY MM DD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Timezone: UTC</td>
</tr>
<tr>
<td>full_load_throughput</td>
<td>AemFullLoadThroughput</td>
<td></td>
</tr>
<tr>
<td>source_throughput_records_count</td>
<td>int</td>
<td>The current source throughput, in rec/sec.</td>
</tr>
<tr>
<td>source_throughput_volume</td>
<td>int</td>
<td>The current source throughput, in kbyte/sec.</td>
</tr>
<tr>
<td>target_throughput_records_count</td>
<td>int</td>
<td>The current target throughput, in rec/sec.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>target_throughput_volume</td>
<td>int</td>
<td>The current target throughput, in kbyte/sec.</td>
</tr>
<tr>
<td>memory_mb</td>
<td>long</td>
<td>The current utilization of memory, in MB. A task’s memory utilization is sampled every 10 seconds. When the task is not running, the value is set to zero (0).</td>
</tr>
<tr>
<td>cpu_percentage</td>
<td></td>
<td>The current CPU usage of the Replicate task process.</td>
</tr>
<tr>
<td>Notes</td>
<td></td>
<td>Only available for Replicate tasks running on Replicate 6.2 and above. When not available, this parameter will be returned as -1.</td>
</tr>
<tr>
<td>disk_usage_mb</td>
<td>long</td>
<td>The current utilization of disk space, in MB. A task’s disk utilization is sampled every minute.</td>
</tr>
<tr>
<td>data_error_count</td>
<td>long</td>
<td>The total number of data errors in all tables involved in the task. The count is affected by data errors and the Reset Data Errors option available when you drill down to a task.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>options</td>
<td>AemCommonSettings</td>
<td>See Task Options.</td>
</tr>
<tr>
<td>apply_changes_enabled</td>
<td>bool</td>
<td></td>
</tr>
<tr>
<td>audit_changes_enabled</td>
<td>bool</td>
<td></td>
</tr>
<tr>
<td>full_load_enabled</td>
<td>bool</td>
<td></td>
</tr>
<tr>
<td>store_changes_enabled</td>
<td>bool</td>
<td></td>
</tr>
<tr>
<td>replicate_profile</td>
<td>AemReplicateTaskProfile</td>
<td>AemReplicateTaskProfile</td>
</tr>
<tr>
<td></td>
<td>{</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UNIDIRECTIONAL = 1,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIDIRECTIONAL = 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LOGSTREAM = 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>}</td>
<td></td>
</tr>
<tr>
<td>source_endpoint</td>
<td>TaskEndpoint</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The name of the source endpoint.</td>
</tr>
<tr>
<td>type</td>
<td>string</td>
<td>The source endpoint type.</td>
</tr>
<tr>
<td>target_endpoint</td>
<td>TaskEndpoint</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The name of the target endpoint.</td>
</tr>
<tr>
<td>type</td>
<td>string</td>
<td>The target endpoint type.</td>
</tr>
<tr>
<td>state</td>
<td>AemTaskState</td>
<td>The current state of the task.</td>
</tr>
<tr>
<td></td>
<td>{</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STOPPED = 0,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RUNNING = 1,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ERROR = 2,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECOVERY = 3</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>task_stop_reason</td>
<td>AemTaskStopReason</td>
<td>The reason the task stopped.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>{</td>
</tr>
<tr>
<td></td>
<td>NONE = 0,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NORMAL = 1,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RECOVERABLE_ERROR = 2,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FATAL_ERROR = 3,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FULL_LOAD_ONLY_FINISHED =</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STOPPED_AFTER_FULL_LOAD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>= 5,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STOPPED_AFTER_CACHED_EVENTS = 6,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EXPRESS_LICENSE_LIM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TS_REACHED = 7,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STOPPED_AFTER_DDL_APPLY =</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STOPPED_LOW_MEMORY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>= 9,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STOPPED_LOW_DISK_SPACE =</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>log_stream_staging</td>
<td>string</td>
<td>If the task is writing to/reading from the Log Stream staging folder, the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>name of the associated Log Stream Staging task will be returned. Otherwise,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>an empty string will be returned.</td>
</tr>
</tbody>
</table>
### Return Values for Compose Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>type</td>
<td>string</td>
<td>The task type: AemComposeTaskInfoDetailed</td>
</tr>
<tr>
<td>project</td>
<td>string</td>
<td>The name of the Compose project</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The name of the task</td>
</tr>
<tr>
<td>description</td>
<td>string</td>
<td>The task description. If there is no description, an empty string will be returned.</td>
</tr>
<tr>
<td>state</td>
<td>string</td>
<td>The current task state</td>
</tr>
<tr>
<td>message</td>
<td>string</td>
<td>The message shown in the event that the task ends with an error.</td>
</tr>
<tr>
<td>options</td>
<td>AemCommonSettings</td>
<td></td>
</tr>
<tr>
<td>full_load_enabled</td>
<td>bool</td>
<td>Indicates whether the Full Load option is enabled. Can be &quot;true&quot; or &quot;false&quot;</td>
</tr>
<tr>
<td>apply_changes_enabled</td>
<td>bool</td>
<td>Indicates whether the Change Processing option is enabled. Can be &quot;true&quot; or &quot;false&quot;</td>
</tr>
<tr>
<td>source_endpoint</td>
<td>TaskEndpoint</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The logical name of the landing database.</td>
</tr>
<tr>
<td>type</td>
<td>string</td>
<td>The landing database type.</td>
</tr>
<tr>
<td><strong>target_endpoint</strong></td>
<td>TaskEndpoint</td>
<td></td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The logical name of the storage database.</td>
</tr>
<tr>
<td>type</td>
<td>string</td>
<td>The storage database type.</td>
</tr>
<tr>
<td>loading_completed</td>
<td>bool</td>
<td>Indicates whether the loading process has completed. Can be &quot;true&quot; or &quot;false&quot;</td>
</tr>
<tr>
<td>loading_start</td>
<td>string</td>
<td>The start time of the loading process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Format: YYY MM DD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Timezone: UTC</td>
</tr>
<tr>
<td>loading_end</td>
<td>string</td>
<td>The end time of the loading process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Format: YYY MM DD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Timezone: UTC</td>
</tr>
<tr>
<td><strong>loading_counters</strong></td>
<td>AemTaskFullLoadCounters</td>
<td></td>
</tr>
<tr>
<td>tables_total_count</td>
<td>int</td>
<td>The total number of tables.</td>
</tr>
<tr>
<td>tables_completed_count</td>
<td>int</td>
<td>The number of tables that have been loaded into the target endpoint</td>
</tr>
<tr>
<td>tables_loading_count</td>
<td>int</td>
<td>The number of tables that are currently being loaded into the target endpoint</td>
</tr>
<tr>
<td>tablesqueued_count</td>
<td>int</td>
<td>The number of tables that are waiting to be loaded due to an error</td>
</tr>
<tr>
<td>Name</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>tables_with_error_count</td>
<td>int</td>
<td>The number of tables that could not be loaded due to an error</td>
</tr>
<tr>
<td>commands_total_count</td>
<td>int</td>
<td>The total number of commands executed</td>
</tr>
<tr>
<td>commands_completed_count</td>
<td>int</td>
<td>The total number of commands completed</td>
</tr>
<tr>
<td>assigned_tags</td>
<td>array</td>
<td>Returns the custom tags assigned to the task. If no tags are assigned to the task, an empty array will be returned.</td>
</tr>
</tbody>
</table>
Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replication task {task} on server {server} could not be found.</td>
<td>The task name is unknown to Qlik Enterprise Manager.</td>
</tr>
</tbody>
</table>

get_table_list

Retrieves the list of tables of a specific Replicate task that match the specified state(s), table schema(s), and table name(s). This is useful for automation processes, for example, as it allows you to retrieve tables in a certain state (e.g. suspended) and then perform an operation on them (e.g. ReloadTable).

**Required User Role:** See Required Enterprise Manager Permissions.

Syntax

```python
def get_table_list(
    self,
    server,
    task,
    schema = None,
    table = None,
    includequeued = False,
    includeloading = False,
    includecompleted = False,
    includechangeprocessing = False,
    includeerror = False):
    """response payload: AemGetTableListResp
```
## Parameters

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The Replicate Server name as defined on Qlik Enterprise Manager. Example: myrepsrv1</td>
</tr>
<tr>
<td>schema</td>
<td>string</td>
<td>The default is all source schemas. Specifying a specific schema name will retrieve all tables from the specified schema. Specifying a pattern or letters included in the schema name will retrieve all tables from schemas that match the pattern or that include the specified letters. For example, specifying &quot;ad&quot; will retrieve tables from the &quot;adventure&quot; and &quot;trademark&quot; schemas.</td>
</tr>
<tr>
<td>table</td>
<td>string</td>
<td>The default is all source tables. Specifying a specific table name will retrieve the specified table. Specifying a pattern or letters included in the table name will retrieve all tables that match the pattern or that include the specified letters. For example, specifying &quot;em&quot; will retrieve the &quot;employees'' and &quot;temp&quot; tables.</td>
</tr>
<tr>
<td>includequeued</td>
<td>boolean</td>
<td>Whether to retrieve tables in a queued state. Default is false.</td>
</tr>
<tr>
<td>includeloading</td>
<td>boolean</td>
<td>Whether to retrieve tables in a loading state. Default is false.</td>
</tr>
<tr>
<td>includecompleted</td>
<td>boolean</td>
<td>Whether to retrieve tables in a completed state. Default is false.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>includechangeprocessing</td>
<td>boolean</td>
<td>Whether to retrieve tables in a Change Processing state (i.e. that are having changes applied to them). Default is false.</td>
</tr>
<tr>
<td>includeerror</td>
<td>boolean</td>
<td>Whether to retrieve tables in an error state. Default is false.</td>
</tr>
</tbody>
</table>

### Return Values

**AemGetTableListResp**

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TableList</td>
<td>List</td>
<td>List of tables that match the specified input parameters.</td>
</tr>
<tr>
<td>schema</td>
<td>string</td>
<td>The name of the schema.</td>
</tr>
<tr>
<td>table</td>
<td>string</td>
<td>The name of the table.</td>
</tr>
<tr>
<td>state</td>
<td>enum</td>
<td>The current state of the table.</td>
</tr>
</tbody>
</table>
Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
</table>
| AEM_TABLE_LIST_INNER_ERR | Failed to retrieve table list for replication task 
"{task}" on server "{server}". Error: " {message}" | Returned when the table list cannot be retrieved. |
| AEM_TASK_NOT_FOUND | Replicate task {task} on server {server} could not be found. | The task name is unknown to Enterprise Manager. |

get_table_statuses

Retrieves the tables statuses of a specific Replicate task for all tables that match the specified state(s), table schema(s), and table name(s). This is useful for automation processes, for example, as it allows you to retrieve tables in a certain state (e.g. suspended) and then perform an operation on them (e.g. ReloadTable).

Required User Role: See Required Enterprise Manager Permissions.

Syntax

```python
def get_table_statuses(
    self,
    server,
    task,
    schema = None,
    table = None,
    includequeued = False,
    includeloading = False,
    includecompleted = False,
    includechangeprocessing = False,
    includeerror = False):
    ""
```

response payload: AemGetTableStatusesResp
# Request Parameters

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The Replicate Server name as defined on Qlik Enterprise Manager. <strong>Example</strong>: myrepsrv1</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The Replicate task name.</td>
</tr>
<tr>
<td>schema</td>
<td>string</td>
<td>The default is all source schemas. Specifying a specific schema name will retrieve all tables from the specified schema. Specifying a pattern or letters included in the schema name will retrieve all tables from schemas that match the pattern or that include the specified letters. For example, specifying &quot;ad&quot; will retrieve tables from the &quot;adventure&quot; and &quot;trademark&quot; schemas.</td>
</tr>
<tr>
<td>table</td>
<td>string</td>
<td>The default is all source tables. Specifying a specific table name will retrieve the specified table. Specifying a pattern or letters included in the table name will retrieve all tables that match the pattern or that include the specified letters. For example, specifying &quot;em&quot; will retrieve the &quot;employees&quot; and &quot;temp&quot; tables.</td>
</tr>
<tr>
<td>includequeued</td>
<td>boolean</td>
<td>Whether to retrieve tables in a queued state. Default is false.</td>
</tr>
<tr>
<td>includeloading</td>
<td>boolean</td>
<td>Whether to retrieve tables in a loading state. Default is false.</td>
</tr>
<tr>
<td>includecompleted</td>
<td>boolean</td>
<td>Whether to retrieve tables in a completed state. Default is false.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>includechangeProcessing</td>
<td>boolean</td>
<td>Whether to retrieve tables in a Change Processing state (i.e. that are having changes applied to them). Default is false.</td>
</tr>
<tr>
<td>includeerror</td>
<td>boolean</td>
<td>Whether to retrieve tables in an error state. Default is false.</td>
</tr>
</tbody>
</table>

**Return Values**

AemGetTableStatusesResp

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TableDetails</td>
<td>List</td>
<td>List of table statuses that match the specified request parameters.</td>
</tr>
<tr>
<td>schema_on_source</td>
<td>string</td>
<td>Source schema name.</td>
</tr>
<tr>
<td>table_on_source</td>
<td>string</td>
<td>Source table name.</td>
</tr>
<tr>
<td>schema_on_target</td>
<td>string</td>
<td>Target schema name. If this information not available, an empty string will be returned.</td>
</tr>
<tr>
<td>table_on_target</td>
<td>string</td>
<td>Target table name. If this information not available, an empty string will be returned.</td>
</tr>
<tr>
<td>state</td>
<td>enum</td>
<td>An enum reflecting the table state. See Table state.</td>
</tr>
<tr>
<td>data_errors_count</td>
<td>int64</td>
<td>The number of data errors encountered when replicating the table.</td>
</tr>
<tr>
<td>table_full_load_info</td>
<td></td>
<td></td>
</tr>
<tr>
<td>start_time</td>
<td>string</td>
<td>Date-time of when the table full load started. Timezone: UTC; Style: ISO8601 (consistent with AemGetTaskDetails).</td>
</tr>
<tr>
<td>Name</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>end_time</td>
<td>string</td>
<td>Date-time of when the table full load started. Timezone: UTC ; Style: ISO8601 (consistent with AemGetTaskDetails).</td>
</tr>
<tr>
<td>estimated_row_count</td>
<td>int64</td>
<td>Relevant only if table in certain states (loading/queued).</td>
</tr>
<tr>
<td>estimated_end_time</td>
<td>string</td>
<td>Relevant only if table in certain states (loading/queued). Timezone: UTC ; Style: ISO8601 (consistent with AemGetTaskDetails).</td>
</tr>
<tr>
<td>transferred_row_count</td>
<td>int64</td>
<td>The number of rows transferred to the target, after the source filtering, but before the target filtering.</td>
</tr>
<tr>
<td>transferred_volume_mb</td>
<td>int64</td>
<td>The amount of bytes transferred to the target, after the source filtering, but before the target filtering.</td>
</tr>
</tbody>
</table>

End of table_full_load_info

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>insert_count</td>
<td>int64</td>
<td>The number of records inserted to the target table.</td>
</tr>
<tr>
<td>update_count</td>
<td>int64</td>
<td>The number of records updated in the target table.</td>
</tr>
<tr>
<td>delete_count</td>
<td>int64</td>
<td>The number of records deleted in the target table.</td>
</tr>
<tr>
<td>ddl_count</td>
<td>int64</td>
<td>The number of DDL operations performed on the target table.</td>
</tr>
<tr>
<td>last_update_time</td>
<td>string</td>
<td>The last time that the table was updated on target. Timezone: UTC ; Style: ISO8601 (consistent with AemGetTaskDetails).</td>
</tr>
<tr>
<td>cached_insert_count</td>
<td>int64</td>
<td>INSERT operations that were cached during Full Load.</td>
</tr>
<tr>
<td>cached_update_count</td>
<td>int64</td>
<td>UPDATE operations that were cached during Full Load.</td>
</tr>
<tr>
<td>Name</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>cached_delete_count</td>
<td>int64</td>
<td>DELETE operations that were cached during Full Load.</td>
</tr>
</tbody>
</table>

End of table cdc_info
Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM.SERVER_.NOT_FOUND</td>
<td>Replicate server <code>{server}</code> could not be found.</td>
<td>Server name unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>AEM_TASK_.NOT_FOUND</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> could not be found.</td>
<td>The task name is unknown to Enterprise Manager.</td>
</tr>
<tr>
<td>AEM_TABLE_.STATUSES_.INNER_ERR</td>
<td>Failed to retrieve table statuses for replication task &quot;{task}&quot; on server &quot;{server}&quot;. Error: &quot;{message}&quot;</td>
<td>Returned when the table statuses cannot be retrieved.</td>
</tr>
</tbody>
</table>

delete_task

Deletes the specified task. The task's logs will be deleted only if deletetasklogs=true is specified in the URL.

Required User Role: See Required Enterprise Manager Permissions.

Syntax

```python
def delete_task(
    self,
    server,
    task,
    deletetasklogs = False
)
```

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The server where the task is defined.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The task to be deleted.</td>
</tr>
<tr>
<td>deletetasklogs</td>
<td>bool</td>
<td>Whether to delete the task logs or not.</td>
</tr>
</tbody>
</table>
Return Values
N/A

Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replication task {task} on server {server} could not be found.</td>
<td>Returned if the task name is unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>AEM_DELETE_TASK_INNER_ERR</td>
<td>Replication task {task} on server {server} could not be deleted due to an error.</td>
<td>Returned if Enterprise Manager encounters an error/exception when trying to delete the task.</td>
</tr>
<tr>
<td>AEM_DELETE_TASK_ERR</td>
<td>Replication task {task} on server {server} could not be deleted due to an error. {2}</td>
<td>Returned if Enterprise Manager encounters an error when trying to delete the task.</td>
</tr>
<tr>
<td>AEM_TASK_NOT_STOPPED</td>
<td>Replication task {task} on server {server} must be stopped before it can be deleted.</td>
<td>Returned if the replication task was running when AemDeleteTask attempted to delete it.</td>
</tr>
</tbody>
</table>

export_task

Export definitions from the selected task on the selected server. The definitions always include task settings, tables/table patterns (include/exclude), table settings and global transformations. The endpoint definition is only exported along with the task definition if with endpoints=true is set.

**Required User Role:** See Required Enterprise Manager Permissions.

**Syntax**

```python
def export_task(
    self,
    server,
    task,
    withendpoints = False
)```
Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which the task is defined.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The task to be exported.</td>
</tr>
<tr>
<td>withendpoints</td>
<td>bool</td>
<td>Whether or not to export the endpoint definitions as well.</td>
</tr>
</tbody>
</table>

Return Values

Exported task JSON file as a string.

Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_METHOD_NOT_SUPPORTED_VERSION</td>
<td>AemExportTask is only supported on Replicate 5.5 or above.</td>
<td>AemExportTask is only supported on Replicate 5.5 or above.</td>
</tr>
</tbody>
</table>

| AEM_EXPORT_TASK_NO_PERMISSION_ON_ENDPOINT     | Failed to export task {task} from Replicate server {server} as the logged in user does not have permission to access one or both of the task’s endpoints. | Export all cannot be carried out because the user does not have permissions on one or more endpoints. |

import_task

Import a single task's JSON definitions provided in the request body into the requested server repository on the selected server.

The ImportTask method enables importing all valid JSON definitions provided in the request body.

This includes task settings, tables/table patterns (include/exclude), table settings and global transformations.
Information about endpoints is included if it was included in the JSON file.

When you import a task, Items that existed in the target server before the import and have no new JSON definition in the request body are not modified and not removed. This means that ImportTask provides no way of removing old definitions that are no longer needed.

**Required User Role:** See Required Enterprise Manager Permissions.

**Syntax**

```python
def import_task(
    self,
    payload,
    server,
    task
)
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>string</td>
<td>A JSON document to import</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server to import to.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>Name of the task to import</td>
</tr>
</tbody>
</table>

**Return Values**

N/A
## Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_IMPORT_TASK_NO_PERMISSION_ON_ENDPOINT</td>
<td>Failed to import task {task} to replication server {server} as the logged in user does not have permission to add or modify endpoints.</td>
<td>The task cannot be imported because it includes endpoint definitions, and the user does not have permissions to insert endpoints.</td>
</tr>
<tr>
<td>AEM_IMPORT_TASK_CONTAIN_ALIEN_ITEMS</td>
<td>Failed to import task {task} to replication server {server} as the JSON file contains unsupported objects.</td>
<td>The task cannot be imported because the stream contains items that cannot be imported (such as remote machines).</td>
</tr>
<tr>
<td>AEM_IMPORT_TASK_NAME_DIFFER</td>
<td>Failed to import task {task} to replication server {server} as the JSON file contains conflicting tasks.</td>
<td>The task cannot be imported because the stream contains conflicting tasks.</td>
</tr>
<tr>
<td>AEM_IMPORT_TASK_CONTAINS_MULTIPLE_TASKS</td>
<td>Failed to import task to replication server {server} as the JSON file contains multiple tasks. To import multiple tasks, use AemImportAll instead.</td>
<td>The task cannot be imported since the stream contains multiple tasks, and the method can only import a single task.</td>
</tr>
<tr>
<td>AEM_TASK_NOT_IMPORTABLE</td>
<td>Failed to import task {task} as the task is running on server {server}. Stop the task and then try again.</td>
<td>Occurs when trying to import a running task.</td>
</tr>
<tr>
<td>AEM_IMPORT_TASK_CONTENT_EMPTY</td>
<td>Failed to import task {task} to replication server {server} as the JSON file is empty.</td>
<td>The task cannot be imported as the specified JSON file is empty.</td>
</tr>
<tr>
<td>AEM_IMPORT_TASK_ENDPOINT_DIFFER</td>
<td>Failed to import task {task} to server {server} as the endpoint names in the JSON file's “task” and “databases” sections are not the same.</td>
<td>The task cannot be imported as the endpoint names in the specified JSON file's &quot;task&quot; and &quot;databases&quot; sections are different.</td>
</tr>
</tbody>
</table>
## Error Message

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_IMPORT_TASK_NO_ENDPOINT_IN_SERVER</td>
<td>Failed to import task <code>{task}</code> to replication server <code>{server}</code> as the <code>{role}</code> endpoint <code>{endpoint}</code> does not exist on the target server.</td>
<td>The task cannot be imported as one of the endpoints specified in the exported JSON file does not exist on the target server.</td>
</tr>
</tbody>
</table>

### stop_task

Stops the selected task.

**Required User Role:** See [Required Enterprise Manager Permissions](#).

### Syntax

```python
def stop_task(
    self,
    server,
    task,
    int timeout = 30
)
```

### Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The name of the task.</td>
</tr>
<tr>
<td>timeout</td>
<td>int</td>
<td>Time in seconds to wait until getting a response.</td>
</tr>
</tbody>
</table>

### Return Values

AemStopTaskResp
<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>state</td>
<td>AemTaskState</td>
<td>The current state of the task.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>{</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STOPPED = 0,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RUNNING = 1,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ERROR = 2,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RECOVERY = 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>}</td>
</tr>
<tr>
<td>error_message</td>
<td>string</td>
<td>The description of the error</td>
</tr>
</tbody>
</table>

### Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_ALREADY_STOPPED</td>
<td>Replicate task {task} on server {server} is already stopped.</td>
<td>Cannot stop a task that is in Stopped state.</td>
</tr>
<tr>
<td>AEM_STOP_TASK_INNER_ERR</td>
<td>Failed to stop Replicate task {0} on server {1}: (&lt;{2}&gt;</td>
<td>An error occurred while trying to stop the task.</td>
</tr>
<tr>
<td>AEM_STOP_TASK_TIMEOUT</td>
<td>A timeout occurred when trying to stop Replicate task {0} on server {1}</td>
<td>A timeout occurred while trying to stop the task.</td>
</tr>
</tbody>
</table>

### run_task

Run the selected task according to the specified option.

**Required User Role:** See Required Enterprise Manager Permissions.

### Syntax

```python
def run_task(
    self,
```
payload,
server,
task,
option = AemRunTaskOptions.RESUME_PROCESSING,
timeout = 30
)

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>AemRunTaskReq</td>
<td></td>
</tr>
<tr>
<td>cdc_position</td>
<td>string</td>
<td>The cdcposition parameter can either be specified inline or in an external JSON file. The format for both is described in below. Mandatory for all AemRunTask options.</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which to run the task.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The name of the task to run.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>option</td>
<td>AemRunTaskOptions</td>
<td>For replication tasks, any of the options (except NONE) can be specified. For Compose tasks, only NONE can be specified.</td>
</tr>
</tbody>
</table>

```python
AemRunTaskOptions {
    NONE = 0,
    RESUME_PROCESSING = 1,
    RELOAD_TARGET = 2,
    RESUME_PROCESSING_FROM_TIMESTAMP = 3,
    METADATA_ONLY_RECREATE_ALL_TABLES = 4,
    METADATA_ONLY_CREATE_MISSING_TABLES = 5,
    RECOVER_USING_LOCALLY_STORED_CHECKPOINT = 6,
    RECOVER_USING_CHECKPOINT_STORED_ON_TARGET = 7
}
```
### Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>timeout</td>
<td>int</td>
<td>The time in seconds to wait for a response.</td>
</tr>
</tbody>
</table>

### Return Value

**AemRunTaskResp**

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>error_message</td>
<td>string</td>
<td>The description of the error.</td>
</tr>
<tr>
<td>state</td>
<td>AemTaskState</td>
<td>The current state of the task.</td>
</tr>
</tbody>
</table>

```python
{  
  STOPPED = 0,
  RUNNING = 1,
  ERROR = 2,
  RECOVERY = 3
}
```

### Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_ALREADY_RUNNING</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> is already running.</td>
<td>The task cannot be run because it is already running.</td>
</tr>
<tr>
<td>AEM_TASK_IN_RECOVERY</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> cannot be run as it is in a recovery state.</td>
<td>The task cannot be run because it is in Recovery state.</td>
</tr>
<tr>
<td>Error</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>AEM_WRONG_OPTION_FOR_CDCPOSITION</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> cannot be run with cdcposition <code>{position}</code> and option <code>{option}</code>. Change the option to RESUME_PROCESSING_FROM_TIMESTAMP or RECOVER_USING_CHECKPOINT_STORED_ON_TARGET.</td>
<td>When the option Tables are already loaded. Start processing changes from Timestamp is selected in the Advanced Run Options dialog box for a task, the option sent to the API must be RESUME_PROCESSING_FROM_TIMESTAMP.</td>
</tr>
<tr>
<td>AEM_CDCPOSITION_ERR_FORMAT</td>
<td>The cdcposition parameter value for Replicate task <code>{task}</code> on server <code>{server}</code> is not in the correct format ('YYYY-MM-DDThh:mm:ssZ'). The cdcPosition parameter must follow this format: YYYY-MM-DDThh:mm:ssZ Parameters: task name and server name</td>
<td></td>
</tr>
<tr>
<td>AEM_RUN_TASK_TIMEOUT</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> timed out when requested to “Run”.</td>
<td>The task does not assume a Running state or any other steady state (error stopped).</td>
</tr>
<tr>
<td>AEM_RUN_TASK.Inner.ERR</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> encountered an error when requested to run.</td>
<td>Replicate experienced an error/exception when trying to run the task.</td>
</tr>
<tr>
<td>AEM_RUN_TASK_SRC_NO_TRG</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> has no source or target endpoints.</td>
<td>Task validation revealed that the task is missing a source and a target.</td>
</tr>
<tr>
<td>AEM_RUN_TASK_SRC_NO_SRC</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> has no source endpoint.</td>
<td>Task validation revealed that the task is missing a source.</td>
</tr>
<tr>
<td>AEM_RUN_TASK_TRG</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> has no target endpoint.</td>
<td>Task validation revealed that the task is missing a target.</td>
</tr>
<tr>
<td>AEM_RUN_TASK_NOT_FL_NOR_CDC</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> cannot be run without at least one of the replication options enabled (Full Load, Apply Changes, or Store Changes).</td>
<td>Task validation of a unidirectional task revealed that the replication option definition for the task is missing (Full Load, Apply Changes, or Store Changes).</td>
</tr>
<tr>
<td>Error</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>AEM_RUN_BIDI_TASK_NO_FL_NOR_CDC</td>
<td>Replicate task <code>{task}</code> on server <code>{server}</code> cannot be run without at least one of the replication options enabled (Full Load or Apply Changes).</td>
<td>Task validation of a unidirectional task revealed that the replication option definition for the task is missing (Full Load, Apply Changes, or Store Changes).</td>
</tr>
</tbody>
</table>

**get_endpoint_list**

Retrieves a list of endpoints and their properties for the specified server.

**Required User Role:** See [Required Enterprise Manager Permissions](#).

**Syntax**

```python
def get_endpoint_list(
    self,
    server
)
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which the endpoints are defined.</td>
</tr>
</tbody>
</table>

**Return Values**

**AemGetEndpointListResp**

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>endpointList</td>
<td>List&lt;Endpoint&gt;</td>
<td>An array of Endpoint objects.</td>
</tr>
<tr>
<td>description</td>
<td>string</td>
<td>The endpoint description</td>
</tr>
<tr>
<td>isLicensed</td>
<td>bool</td>
<td>Indicates whether the endpoint is licensed on this server.</td>
</tr>
<tr>
<td>name</td>
<td>string</td>
<td>The endpoint name.</td>
</tr>
<tr>
<td>Value</td>
<td>Type</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>--------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>role</td>
<td>EndpointRole</td>
<td>The endpoint role: SOURCE or TARGET.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>{</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ALL = 0,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SOURCE = 1,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TARGET = 2,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOTH = 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>}</td>
</tr>
</tbody>
</table>

| type  | string       | The endpoint type - for example, Oracle.                |

**Errors**

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_ENDPOINT_LIST_INNER_ERR</td>
<td>Failed to retrieve endpoints list from Replicate server</td>
<td>Replicate experienced an error/exception when trying to retrieve the endpoint list.</td>
</tr>
</tbody>
</table>

**delete_endpoint**

**Description**

Deletes the specified endpoint. Note that an endpoint can only be deleted if it is not in use by any task.

**Required User Role:** See Required Enterprise Manager Permissions.

**Syntax**

```python
def delete_endpoint(
    self,
    server,
    endpoint
)
```
Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The server where the endpoint is defined.</td>
</tr>
<tr>
<td>endpoint</td>
<td>string</td>
<td>The name of the endpoint to be deleted.</td>
</tr>
</tbody>
</table>

Return Values

N/A

Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_ENDPOINT_NOT_FOUND</td>
<td>Replicate endpoint {endpoint} on server {server} could not be found.</td>
<td>Endpoint name unknown to Qlik Enterprise Manager.</td>
</tr>
<tr>
<td>AEM_DELETE_ENDPOINT_INNER_ERR</td>
<td>Failed to delete Replicate endpoint {endpoint} from server {server}.</td>
<td>Replicate encountered an error/exception when trying to delete the endpoint.</td>
</tr>
<tr>
<td>AEM_ENDPOINT_IS_IN_USE</td>
<td>Replicate endpoint {endpoint} on server {server} cannot be deleted as it is currently in use by one or more tasks.</td>
<td>The Replicate endpoint must be removed from its associated tasks before it can be deleted.</td>
</tr>
</tbody>
</table>
reconfigure_endpoint_no_wait

Call this method to override the source endpoint settings with settings from another endpoint of the same type. This method also supports automatically stopping and then resuming all tasks that are using the source endpoint (which is required for unplanned switchovers).

Notes

- Supported with the Oracle source endpoint only.
- Using this method, requires you to set up relevant Qlik Replicate task(s) with three separate source endpoints - two inactive source endpoints defined with the primary and secondary database connection settings, and one active source endpoint (initially defined with the primary database connection settings).

For detailed instructions, see Reconfiguring Endpoints

Required User Role

- See Required Enterprise Manager Permissions.

Syntax

```python
def reconfigure_endpoint_no_wait(
    self,
    server,
    endpoint,
    configuration = None,
    recycle = True
)
```

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the Replicate server (as defined in Qlik Enterprise Manager) on which the task(s) are running.</td>
</tr>
</tbody>
</table>
### Parameter Table

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>endpoint</td>
<td>string</td>
<td>The name of the source endpoint defined for the Replicate task(s).</td>
</tr>
<tr>
<td>configuration</td>
<td>string</td>
<td>The name of the secondary endpoint (or the primary endpoint when reverting the settings).</td>
</tr>
<tr>
<td>recycle</td>
<td>bool</td>
<td>Whether to stop and resume the Replicate task(s) automatically. The default is &quot;true&quot; i.e. when an unanticipated switchover occurs, tasks using the source endpoint will be automatically stopped and then resumed after the source endpoint is updated with the settings from the secondary endpoint. Set to &quot;false&quot; for planned switchovers (such as migrating to a production database or switching back to the primary database).</td>
</tr>
</tbody>
</table>

### Return Values

N/A

### Errors

All of the general errors as well as the errors listed in the table below.

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_ENDPOINT_NOT_FOUND</td>
<td>Replicate endpoint &quot;{endpoint}&quot; on server &quot;{server}&quot; could not be found.</td>
</tr>
<tr>
<td></td>
<td>The specified endpoint could not be found.</td>
</tr>
<tr>
<td>AEM_RECONFIGURE_ENDPOINT_INNER_ERR</td>
<td>Failed to reconfigure endpoint &quot;{endpoint}&quot; on server &quot;{server}&quot;. Error: &quot;{message}&quot;</td>
</tr>
<tr>
<td></td>
<td>Qlik Enterprise Manager failed to reconfigure the endpoint with the settings of the failover endpoint.</td>
</tr>
</tbody>
</table>
export_all

Export all definitions from the requested server repository on the selected server (server settings, tasks, endpoints, and so on). The definitions are exported to a JSON file.

Required User Role: See Required Enterprise Manager Permissions.

Syntax

def export_all(
    self,
    server
)

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server containing the repository to be exported.</td>
</tr>
</tbody>
</table>

Return Values

Export JSON file as a string.

Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_METHOD_NOT_SUPPORTED_VERSION</td>
<td>AemExportAll is only supported on Replicate 5.5 or above.</td>
<td>The method requires Replicate 5.5 or above.</td>
</tr>
<tr>
<td>AEM_EXPORT_NO_PERMISSION_ON_TASK</td>
<td>Failed to export all tasks from Replicate server {server} as the logged in user does not have permission to export one or more of the defined tasks.</td>
<td>Export all cannot be carried out because the user does not have permissions on one or more tasks.</td>
</tr>
<tr>
<td>Error</td>
<td>Message</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>AEM_EXPORT_NO_PERMISSION_ON_ENDPOINT</td>
<td>Failed to export all tasks from server {server} as the logged in user does not have permission to export one or more of the defined endpoints.</td>
<td>Export all cannot be carried out because the user does not have permissions on one or more endpoints.</td>
</tr>
</tbody>
</table>

**import_all**

Import the JSON definitions provided in the request body into the requested server repository on the selected server. The ApiImportAll method uses "merge" semantics. In particular: All valid JSON definitions provided in the request body will be imported. This includes server settings, task settings, endpoints, and other definitions. Items that existed in the target server before the import and have no new JSON definition in the request body will not be modified and in particular will not be removed. This means that ApiImportAll provides no way of removing old definitions that are no longer needed.

**Required User Role:** See Required Enterprise Manager Permissions.

**Syntax**

```python
def import_all(
    self,
    payload,
    server
)
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>string</td>
<td>A JSON document to import</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server to import to.</td>
</tr>
</tbody>
</table>

**Return Values**

N/A
Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_METHOD_NOT_SUPPORTED_VERSION</td>
<td>AemImportAll is only supported on Replicate 5.2 or above.</td>
<td>The method requires Replicate 5.2 or above.</td>
</tr>
<tr>
<td>AEM_IMPORT_NO_PERMISSION_ON_TASK</td>
<td>Failed to import all tasks to replication server {server} as the logged in user does not have permission to add tasks.</td>
<td>Stream cannot be imported because the user does not have the permissions to add tasks.</td>
</tr>
<tr>
<td>AEM_IMPORT_NO_PERMISSION_ON_ENDPOINT</td>
<td>Failed to import all tasks to replication server {server} as the logged in user does not have permission to add endpoints.</td>
<td>Stream cannot be imported because the user does not have the permissions to add endpoints.</td>
</tr>
<tr>
<td>AEM_IMPORT_CONTENT_EMPTY</td>
<td>Failed to import all tasks to replication server {server} as the JSON file is empty.</td>
<td>Stream cannot be imported because it contains no content.</td>
</tr>
<tr>
<td>AEM_IMPORT_INVALID_CONTENT</td>
<td>Failed to import all tasks to replication server {server} as the JSON file contains invalid content.</td>
<td>Stream cannot be imported because it contains invalid content.</td>
</tr>
</tbody>
</table>

reload_table

Reload a specific table.

**Required User Role:** See Required Enterprise Manager Permissions.

**Syntax**

```python
def reload_table(
    self,
    server,
    task,
    schema = None,
    table = None
)
```
Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The name of the task</td>
</tr>
<tr>
<td>schema</td>
<td>string</td>
<td>The name of the table schema to reload</td>
</tr>
<tr>
<td>table</td>
<td>string</td>
<td>The name of the table to reload</td>
</tr>
</tbody>
</table>

Return Values

N/A

Errors

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_INVALID_TASK_NOT_FL</td>
<td>Failed to reload table <code>{table}</code> as Full Load is not enabled for task <code>{task}</code>.</td>
<td>The table could not be reloaded because the task's Full Load replication option is not enabled.</td>
</tr>
<tr>
<td>AEM_INVALID_TASK_NTSUPPEP</td>
<td>Failed to reload table as this operation is not supported with the File Channel source endpoint.</td>
<td>The table could not be reloaded because the task's source endpoint is File Channel.</td>
</tr>
<tr>
<td>AEM_RELOAD_TABLE_ERR</td>
<td>Failed to reload table <code>{schema}</code>. <code>{table}</code> for Replication task <code>{task}</code> on server <code>{server}</code>: <code>{message}</code></td>
<td>An error was encountered while trying to reload the specified table.</td>
</tr>
</tbody>
</table>

**test_endpoint**

Connect to an endpoint to test connectivity and configuration (permissions, CDC configuration. etc.).

**Required User Role:** See Required Enterprise Manager Permissions.

**Syntax**

```python
def test_endpoint()
```
```python
self,
server,
endpoint,
timeout = 60
}

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which the endpoint is defined.</td>
</tr>
<tr>
<td>endpoint</td>
<td>string</td>
<td>The name of the endpoint.</td>
</tr>
<tr>
<td>timeout</td>
<td>int</td>
<td>Time in seconds to wait until getting a response.</td>
</tr>
</tbody>
</table>

Return Values

AemTestEndpointResp

<table>
<thead>
<tr>
<th>Value</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>status</td>
<td>AemEndpointState</td>
<td></td>
</tr>
<tr>
<td></td>
<td>{</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UNKNOWN = 0,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CONNECTED = 1,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ERROR = 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>}</td>
<td></td>
</tr>
<tr>
<td>message</td>
<td>string</td>
<td>Short description of the error.</td>
</tr>
<tr>
<td>detailed_message</td>
<td>string</td>
<td>Detailed description of the error.</td>
</tr>
</tbody>
</table>

Errors

All of the general errors as well as the errors listed in the table below.
<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TEST_ENDPOINT_CONNECTION_TIMEOUT</td>
<td>A timeout occurred while testing the connection for endpoint {endpoint} on Replicate server {server}.</td>
<td>Connection was not established within 60 seconds.</td>
</tr>
<tr>
<td>AEM_ENDPOINT_NOT_FOUND</td>
<td>Replicate endpoint {0} on server {1} could not be found.</td>
<td>The specified endpoint could not be found.</td>
</tr>
</tbody>
</table>

**delete_old_change_data**

The method can be called on an ad-hoc basis to delete processed Change Data Partitions created on the target database by a Replicate task.

- Partitions will only be deleted if the Change Data Partitioning and Partition Retention options are enabled in the Replicate console.
  
  For more information, refer to the *Qlik Replicate Setup and User Guide*.

- Partitions will only be deleted if the task is running. If the task is not running, the partitions will be deleted the next time the task runs.

- If a retention barrier is set, partitions will only be deleted up to the retention barrier or the earliest of all retention barriers (when set by multiple applications). For example, if Application A sets July 7th, 2020 as a barrier, Application B sets August 7th, 2020 as a barrier, and Application C sets September 7th, 2020 as a barrier, partitions will be deleted up to July 7th, 2020.

Required User Role: See Required Enterprise Manager Permissions.

**Syntax**

```python
def delete_old_change_data(
    self,
    payload,
    server,
    task
)
```
## Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>AemDeleteOldChangeDataReq</td>
<td><strong>Payload Parameter for Deleting Old Change Data Partitions:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Name:</strong> timestamp_or_offset</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Type:</strong> string</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The point in time after which partitions can be deleted. The parameter can</td>
</tr>
<tr>
<td></td>
<td></td>
<td>either be specified as a timestamp or as an offset.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If a retention barrier is set, partitions will be deleted up to the retention</td>
</tr>
<tr>
<td></td>
<td></td>
<td>barrier date. If the specified timestamp/offset is earlier than the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>retention barrier, an error will be returned.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Timestamp Format:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Date]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(yyyy'y-MM'-dd'T'HH:mm:ss'Z')</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2020-06-30T16:15:00Z</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Offset Format:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Period]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Format ISO 8601 duration</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Example:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>P1M3DT1H2M</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which the task is running.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The name of the task.</td>
</tr>
</tbody>
</table>
**Error Response**

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_NOT FOUND</td>
<td>Replication task {task} on server {server} could not be found.</td>
<td>Returned when an unknown task name is encountered.</td>
</tr>
<tr>
<td>AEM_INVALID_TIMESTAMP_OR_OFFSET_FORMAT</td>
<td>The specified deletion age does not conform to the expected timestamp or offset format. Timestamp format should be yyyy'-MM'-dd'T'HH':'mm':'ss'Z'. Offset format should conform to ISO 8601 duration.</td>
<td>Returned when the specified deletion age does not conform to the expected timestamp or offset format.</td>
</tr>
<tr>
<td>AEM_DELETE_OLD_CHANGE_DATA_INNER_ERR</td>
<td>Failed to request deletion of old change data for task {task} on server {server}. Message: {error_message}</td>
<td>Returned when an error is encountered during partition deletion.</td>
</tr>
</tbody>
</table>

**set_change_data_retention_barrier**

The method can be used to:

- Set a retention barrier for deleting consumed partitions. Setting a retention barrier will initiate periodic deletion of consumed Change Data Partitions from the target database defined for the specified task. Partitions will be deleted according to the **When deletion is initiated by a consuming application, delete partitions every** interval set on Replicate Server, and only up to the retention barrier or the earliest of all retention barriers (when set by multiple applications). For example, if Application A sets July 7th, 2020 as a barrier, Application B sets August 7th, 2020 as a barrier, and Application C sets September 7th, 2020 as a barrier, partitions will be deleted up to July 7th, 2020.

- Remove the retention barrier. Note that if there are multiple consuming applications, periodic deletion of consumed Change Data Partitions will only stop after all retention barriers have been removed.

- Partitions will only be deleted if the Change Data Partitioning and Partition Retention options are enabled in the Replicate console.
Partitions will only be deleted if the task is running. If the task is not running, the partitions will be deleted the next time it runs.

**Required permission:** See Required Enterprise Manager Permissions.

### Syntax

def set_change_data_retention_barrier(
    self,
    payload,
    server,
    task
)
Parameters
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>payload</td>
<td>AemSetChangeDataRetentionBarrierReq</td>
<td>Payload Parameters for Setting a Retention Barrier:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note: The parameter type must be STRING.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>retention_point=timestamp</td>
</tr>
<tr>
<td></td>
<td></td>
<td>application=application_name</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Where:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; timestamp is the date up to which partitions can be deleted. The timestamp must be in the following format: (yyyy'-'MM'-'dd'T'HH':'mm':'ss'Z').</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; application_name is the name of the consuming application.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Example:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>retention_point=2020-06-30T16:15:00Z</td>
</tr>
<tr>
<td></td>
<td></td>
<td>application=Compose</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Payload Parameters for Removing the Retention Barrier:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>retention_point=null</td>
</tr>
<tr>
<td></td>
<td></td>
<td>application=application_name</td>
</tr>
</tbody>
</table>
|                 |                                           | Where application_name is the name of the consuming application.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>application whose barrier you wish to remove.</td>
</tr>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which the task is running.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The name of the task.</td>
</tr>
</tbody>
</table>

### Error Response

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replication task {task} on server {server} could not be found.</td>
<td>Returned when an unknown task name is encountered.</td>
</tr>
<tr>
<td>AEM_INVALID_TIMESTAMP_FORMAT</td>
<td>The specified partition retention barrier does not conform to the expected timestamp format. Timestamp format should be yyyy'-'MM'-'dd'T'HH':'mm':'ss'Z'.</td>
<td>Returned when the specified partition retention barrier does not conform to the expected timestamp format.</td>
</tr>
<tr>
<td>AEM_SET_CHANGE_DATA_RETENTION_BARRIER_INNER_ERR</td>
<td>Failed to set change data retention barrier for task {task} on server {server}. Message: {error_message}</td>
<td>Returned when an error is encountered when trying to set the retention barrier.</td>
</tr>
</tbody>
</table>

### `get_change_data_retention_barrier`

Returns the date of the earliest partition retention barrier when multiple partition retention barriers have been set.

When different retention barriers have been set by multiple consuming applications, Replicate will delete old Change Data partitions up to the earliest partition retention barrier.
For information on setting a partition retention barrier, see `set_change_data_retention_barrier`.

Required User Role: See `Required Enterprise Manager Permissions`.

**Syntax**

```python
def get_change_data_retention_barrier(
    self,
    server,
    task
)
```

**Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>server</td>
<td>string</td>
<td>The name of the server on which the task is running.</td>
</tr>
<tr>
<td>task</td>
<td>string</td>
<td>The name of the task.</td>
</tr>
</tbody>
</table>

**Response**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>application</td>
<td>string</td>
<td>The name of the consuming application that set the earliest partition retention barrier.</td>
</tr>
<tr>
<td>retention_point</td>
<td>string</td>
<td>The date of the earliest partition retention barrier.</td>
</tr>
</tbody>
</table>

Format: `yyyy'-'MM'-'dd'T'HH':'mm':'ss'Z'`
## Error Response

<table>
<thead>
<tr>
<th>Error</th>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEM_TASK_NOT_FOUND</td>
<td>Replication task <code>{task}</code> on server <code>{server}</code> could not be found.</td>
<td>Returned when an unknown task name is encountered.</td>
</tr>
<tr>
<td>AEM_GET_CHANGE_DATA_RETENTION_BARRIER.Inner_ERR</td>
<td>Failed to get change data retention barrier for task <code>{task}</code> on server <code>{server}</code>.</td>
<td>Returned when an error is encountered while attempting to get the earliest partition retention barrier.</td>
</tr>
</tbody>
</table>

## Parameters

The following table lists all enum parameters that appear in the return values, along with their values.

<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server State</td>
<td>MONITORED</td>
<td>The server is being monitored, the Qlik Enterprise Manager is connected and synchronized successfully.</td>
</tr>
<tr>
<td></td>
<td>ERROR</td>
<td>Qlik Enterprise Manager fails to connect and monitor the server.</td>
</tr>
<tr>
<td></td>
<td>NOT_MONITORED</td>
<td>The server is not being monitored.</td>
</tr>
<tr>
<td>Server Platform</td>
<td>» WINDOWS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>» LINUX</td>
<td></td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>License State</td>
<td>LICENSE_VALID</td>
<td>Specifies whether an endpoint is being used as a source or a target in a Replicate task.</td>
</tr>
<tr>
<td></td>
<td>LICENSE_INVALID_CHECKSUM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LICENSE_EXPIRED NO_LICENSE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MACHINE_NOT_LICENSED</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INVALID_LICENSE</td>
<td></td>
</tr>
<tr>
<td>Endpoint Role</td>
<td>SOURCE or TARGET</td>
<td></td>
</tr>
<tr>
<td>Task State</td>
<td>RUNNING</td>
<td>The task is running.</td>
</tr>
<tr>
<td></td>
<td>STOPPED</td>
<td>The task has not been run yet or has stopped running at some point during the replication.</td>
</tr>
<tr>
<td></td>
<td>ERROR</td>
<td>The task has stopped due to a fatal error.</td>
</tr>
<tr>
<td></td>
<td>RECOVERING</td>
<td>The task has detected an error and is trying to recover. After a limited number of attempts, the task either recovers and the state returns to RUNNING, or the task fails and the state turns to ERROR.</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>Task options</td>
<td>full_load_enabled [bool]</td>
<td>Creates all files or tables at the target endpoint, automatically defines the metadata that is required at the target, and populates the tables with data from the source.</td>
</tr>
<tr>
<td></td>
<td>apply_changes_enabled [bool]</td>
<td>Updates all changes made to files and tables that were created during the full load. Applied changes include inserts, updates, and removal of items.</td>
</tr>
<tr>
<td></td>
<td>store_changes_enabled [bool]</td>
<td>Stores changes in Change tables. This value and the audit_changes_enabled value are mutually exclusive.</td>
</tr>
<tr>
<td></td>
<td>audit_changes_enabled [bool]</td>
<td>Stores changes in a single audit table. This value and the store_changes_enabled_value are mutually exclusive.</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Task Stop reason</td>
<td>NONE</td>
<td>Indicates that a task is running and no Stop reason is prevalent.</td>
</tr>
<tr>
<td></td>
<td>NORMAL</td>
<td>Indicates that the task was stopped by the user.</td>
</tr>
<tr>
<td></td>
<td>RECOVERABLE_ERROR</td>
<td>Indicates that the task is still active, but that there is a temporary problem, such as a missing connection. As soon as the error state is resolved, Replicate restarts the task.</td>
</tr>
<tr>
<td></td>
<td>FATAL_ERROR</td>
<td>Indicates that the task stopped and the error must be resolved manually. The task cannot be started again until the error has been resolved.</td>
</tr>
<tr>
<td></td>
<td>FULL_LOAD_ONLY_FINISHED</td>
<td>Indicates that the task only finished full load.</td>
</tr>
<tr>
<td></td>
<td>STOPPED_AFTER_FULL_LOAD</td>
<td>Indicates that the task stopped after full load. Cached changes may or may not have been applied.</td>
</tr>
<tr>
<td></td>
<td>STOPPED_AFTER_CACHED_EVENTS</td>
<td>Indicates that the task stopped after cached changes were applied.</td>
</tr>
<tr>
<td></td>
<td>EXPRESS_LICENSE_LIMITS_REACHED</td>
<td>The task definition includes actions that are not included with Express license privileges.</td>
</tr>
<tr>
<td></td>
<td>STOPPED AFTER DDL APPLY</td>
<td>Indicates that the task stopped after DDL statements were applied.</td>
</tr>
<tr>
<td></td>
<td>STOPPED_LOW_MEMORY</td>
<td>Indicates that the task stopped due to low memory.</td>
</tr>
<tr>
<td>Parameter Name</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>STOPPED_LOW_DISK</td>
<td>Indicates that the task stopped due to low disk space.</td>
<td></td>
</tr>
<tr>
<td>Replication profile</td>
<td>UNIDIRECTIONAL</td>
<td>Data is replicated from a source to a target.</td>
</tr>
<tr>
<td></td>
<td>BIDIRECTIONAL</td>
<td>Changes to the source are replicated to the target, and vice versa.</td>
</tr>
<tr>
<td></td>
<td>LOG_STREAM_STAGING</td>
<td>Changes are captured from a single source and stored on Replicate Server for replication to one or more targets.</td>
</tr>
</tbody>
</table>

**Source type**

Source and target endpoint types should be specified in the same format that they appear in the **Type** drop-down list (when adding a new endpoint) in Enterprise Manager. For information on how to add an endpoint in Enterprise Manager, refer to the *Enterprise Manager Setup and User Guide*.
<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run options</td>
<td>RESUME_PROCESSING</td>
<td>Resumes task execution from the point that it was stopped.</td>
</tr>
<tr>
<td></td>
<td>RELOAD_TARGET</td>
<td>Re-starts the full-load replication process if the task was previously run.</td>
</tr>
<tr>
<td></td>
<td>RESUME_PROCESSING_FROM_TIMESTAMP</td>
<td>Starts the CDC replication task from a specific point.</td>
</tr>
<tr>
<td></td>
<td>RECOVER_USING_LOCALLY_STORED_CHECKPOINT</td>
<td>Recover a task using the recovery state stored locally in the task folder (located under the Data folder).</td>
</tr>
<tr>
<td></td>
<td>RECOVER_USING_CHECKPOINT_STORED_ON_TARGET</td>
<td>Recover a task using the CHECKPOINT value from the attrep_txn_state table (created in the target database).</td>
</tr>
<tr>
<td></td>
<td>METADATA_ONLY_RECREATE_ALL_TABLES</td>
<td>Recreates the target tables defined for full load.</td>
</tr>
<tr>
<td></td>
<td>METADATA_ONLY_CREATE_MISSING_TABLES</td>
<td>Creates missing target tables, including Change Tables.</td>
</tr>
<tr>
<td>Request state</td>
<td>SUCCESS</td>
<td>Connection to endpoint is valid</td>
</tr>
<tr>
<td></td>
<td>FAILURE</td>
<td>Connection to endpoint is not valid</td>
</tr>
</tbody>
</table>

**Note** This option is only available if the *Store task recovery data in target database* option is enabled in the *Changes Processing Tuning* tab of the *Task Settings* dialog box.
<table>
<thead>
<tr>
<th>Parameter Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table state</td>
<td>Represented as enum values:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>» TABLE_QUEUE = 0</td>
<td>TABLE_QUEUE - A table awaiting loading.</td>
</tr>
<tr>
<td></td>
<td>» TABLE_LOADING = 1</td>
<td>TABLE_LOADING - A table being loaded to the target.</td>
</tr>
<tr>
<td></td>
<td>» TABLE_COMPLETED = 2</td>
<td>TABLE_COMPLETED - A table that has been loaded to the target.</td>
</tr>
<tr>
<td></td>
<td>» TABLE_CHANGE_PROCESSING = 3</td>
<td>TABLE_CHANGE_PROCESSING - A table that has been loaded to the target and is being updated according to changes on the source.</td>
</tr>
<tr>
<td></td>
<td>» TABLE_ERROR = 4</td>
<td>TABLE_ERROR - An error occurred while processing the table.</td>
</tr>
</tbody>
</table>
The Qlik Enterprise Manager SDK provides a method for overriding the source endpoint settings in a Replicate task with settings from another endpoint of the same type. Such functionality may be useful in the event of database failover or when migrating to a different environment, for example.

Using this method requires you to set up relevant Qlik Replicate task(s) with three separate source endpoints - two inactive source endpoints defined with the primary and secondary database connection settings, and one active source endpoint (initially defined with the primary database connection settings).

Full instructions are provided in Setting Up the Replicate Task and Switching to the Secondary Replicate Endpoint below.

In this appendix, the term "Primary" denotes the database in use before the switchover, whereas the term "Secondary" denotes the database in use after the switchover.

**Note** Supported with the Oracle source endpoint only.

The method name differs according to the SDK type:

- **REST SDK**: `AEMReconfigureEndpointNoWait`
- **.NET SDK**: `ReconfigureEndpointNoWait`
- **Python SDK**: `reconfigure_endpoint_no_wait`
Setting Up the Replicate Task

To use this method, you need to define three separate endpoints:

- **Endpoint 1**: Points to the primary database
- **Endpoint 2**: Points to the secondary database
- **Endpoint 3**: This is a duplicate of Endpoint 1. Endpoint 3 serves as the source endpoint for the Replicate task(s) and will be updated with the settings of Endpoint 2 or Endpoint 1 (when reverting to the primary database) when the method is called.

To set up the Replicate task:

**Note** Before starting the procedure, you need to allocate a name for the source endpoint (referred to as **Endpoint 3** above). This is because the source endpoint name forms part of the primary and secondary endpoint names (referred to above as **Endpoint 1** and **Endpoint 2** respectively), which are defined before the source endpoint.

1. Define a new endpoint pointing to the primary database and name it using the following format:

   \[ \text{EndpointName}_\text{ConfigurationName} \]\n
   *e.g. MyOracle__PrimaryOracle.*

   where **EndpointName** is the name of the source endpoint and **ConfigurationName** is the name of this endpoint.

2. Set the internal parameter `supportResetLog` in the Advanced tab of the endpoint connection settings.

3. Define another endpoint pointing to the secondary database and name it using the following format:

   \[ \text{EndpointName}_\text{ConfigurationName} \]\n
   *e.g MyOracle__SecondaryOracle.*

   where **EndpointName** is the name of the source endpoint and **ConfigurationName** is the name of this endpoint.

4. Set the internal parameter `supportResetLog` in the Advanced tab of the endpoint connection settings.

5. Define the source endpoint by duplicating the endpoint pointing to the primary database (defined in Step 1). Give it the name that you allocated for it before starting this procedure, *e.g. MyOracle*.

6. Set up and run the Replicate task(s) using the source endpoint defined in Step 5 above.
Switching to the Secondary Replicate Endpoint

The procedures below explain how to switch to the secondary Replicate endpoint. The first procedure is suitable for most use cases, although you may want to perform the second procedure should you desire to manually stop and resume the Replicate tasks.

Procedure 1: Failover or Planned Switchover

Make sure that the secondary database has fully taken over and then call the method - using a script (recommended) or manually - with the appropriate parameters.

Procedure 2: Planned Switchover with Manual Control

1. Stop the task(s) using the source endpoint.
2. Switch over to the secondary database.
3. Make sure that the secondary database has fully taken over and then call the method with the appropriate parameters.
4. If the method completes successfully, resume the task(s) manually.

For a description of the parameters, see the section for the SDK you are working with.

Reverting to the Primary Replicate Endpoint

To revert to the primary endpoint, you simply need to perform one of the procedures described in Switching to the Secondary Replicate Endpoint described above. However, when calling the method, specify the name of the primary endpoint (instead of the secondary endpoint) as the configuration parameter.
B  Required Enterprise Manager Permissions

This appendix lists the permission(s) required to call each of the documented SDK methods. Note that the method names listed below are in Python format; the actual method name may differ slightly according to the specific SDK (REST, .NET, or Python) you are using.

- **login**: Viewer on Qlik Enterprise Manager level
- **logout**: Viewer on Qlik Enterprise Manager level
- **put_server_license**: Admin on the specified server
- **get_server_details**: Viewer on server
- **put_server**:
  - For adding a new server - Admin on all servers.
  - For updating an existing server - Admin on the specified server.
- **put_server_acl**: Admin on the specified server
- **get_server**: Operator on the specified server
- **get_server_acl**: Operator on the specified server
- **get_server_list**: Viewer on All Servers
- **delete_server**: Admin on the specified server
- **delete_server_acl**: Admin on the specified server
- **get_task_list**: Viewer on All Tasks
- **get_task_details**: Viewer on the specified task
- **get_table_list**: Viewer on the specific task
- **get_table_status**: Viewer on the specific task
- **delete_task**: Designer on the specified task
- **export_task**: Operator on the specified task and on All Endpoints.
- **import_task**: Designer on All Tasks. If endpoints are also included, then Designer on All Endpoints as well.
- **stop_task**: Operator on the specified task
- **run_task**: Operator on the specified task
- **get_endpoint_list**: Viewer on All Endpoints
- **delete_endpoint**: Designer on the specified endpoint
- **reconfigure_endpoint_no_wait**: Operator on All Endpoints
» **export_all**: Admin on Enterprise Manager and on the specified server, Designer on All Tasks, and Operator on All Endpoints

» **import_all**: Admin on Enterprise Manager and on the specified server, Designer on All Tasks, and Designer on All Endpoints

» **reload_table**: Operator on the specified task

» **test_endpoint**: Operator on the specified endpoint

» **delete_old_change_data**: Operator on the specified task

» **set_change_data_retention_barrier**: Operator on the specified task

» **get_change_data_retention_barrier**: Operator on the specified task