



# **Cloud Manager platform API documentation**

## **Cloud Manager Automation**

NetApp

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# Cloud Manager platform API documentation

# Get started

## Overview of the Cloud Manager platform

Cloud Manager is a NetApp offering you can use to administer resources in the public cloud. It is composed of several distinct internal services, each of which exposes an associated REST API. Collectively these services and APIs form a flexible and extensible development platform. In addition to the Cloud Manager web user interface, you can directly access the platform functionality through the REST APIs.



The Cloud Volumes ONTAP API is the typical starting place for automation specialists using the Cloud Manager platform.

### Related information

[Cloud Volumes ONTAP API](#)

## Common REST implementation

### Basic concepts

Representational State Transfer (REST) is a style for creating distributed web applications. When applied to the design of a web services API, it establishes a set of technologies and best practices for exposing server-based resources and managing their states. The Cloud Manager platform REST APIs use mainstream protocols and standards to provide a flexible foundation for deploying and administering your cloud-based resources.



While REST establishes a common set of technologies and best practices, the details of each API can vary based on the design choices of the development team. See the reference for the API you plan to use.

### Overview of the API resources

The REST style of application development begins by identifying the set of server-based resources. Considering the Cloud Volumes ONTAP API as an example, the resources are broadly categorized as follows:

- Administrative resources

Used to set up and configure Cloud Manager

- Auditing resources

Used to view details about Cloud Manager activities and operations

- Authentication resources

Used to authenticate to Cloud Manager so you can make API calls

- Working environment resources

Used to deploy and manage working environments, including: single Cloud Volumes ONTAP systems, Cloud Volumes ONTAP HA configurations, and ONTAP clusters

## REST endpoints

REST resources are accessed through endpoints identified in the URL path. Each endpoint provides access to one of the following:

- Resource instance
- Collection of resource instances

## Types of input parameters

There are several types of parameters available with the Cloud Manager platform APIs with each request.

Type	Description
Path parameter	Identifiers or names for resource instances that are included in the URL path.
Query parameter	One or more key-value pairs at the end of the URL which qualify and extend the base call.
Request header	Key-value pairs in the request which carry additional information available to the server.
Body parameter	Data which is optionally included with a request and formatted using JSON.

## HTTP details

The Cloud Manager platform REST APIs are based on the HTTP protocol as well as JSON for content exchange. This section describes the details of how HTTP is used.

## Request

### HTTP methods

The HTTP methods supported by the Cloud Manager platform REST APIs are shown in the following table. Not all HTTP methods are available at each of the REST endpoints. For more information, see the reference documentation for the specific API you are using.

HTTP method	Description
GET	Retrieves object properties for a resource instance or collection of resources.
POST	Creates a new resource instance based on the supplied input values.
PUT	Updates an existing resource instance based on the supplied input values.
PATCH	Updates specific fields of an existing resource instance based on the supplied input values.
DELETE	Deletes an existing resource instance.

## Request headers

The common HTTP request headers are described below.

Request header	Description
Authorization	This header contains a bearer token used to access the server.
x-agent-id	The agent identifier is based on the client ID and is used to identify the user agent.
Content-Type	This representation header is used to indicate the original media type of the resource.
Accept	The server automatically returns content in JSON format if Accept header is not specified.

## Response

### HTTP status codes

The common HTTP status codes are described below.

Status code	Reason Phrase	Description
200	OK	The request was completed successfully.
202	Accepted	The request was accepted and is currently in process. Cloud Manager returns this code when the API call operates asynchronously. For example, the <code>/vsa/working-environments</code> call returns with 202 but the Cloud Volumes ONTAP instance launches up to 25 minutes later.
204	No Content	The operation was completed successfully and the server did not send a response message.
400	Bad Request	The request input is not recognized or is inappropriate. An error response explains the reason.
401	Unauthorized	The user has not authenticated.
403	Forbidden	This operation is not allowed for the current authenticated user.
409	Conflict	The operation failed because another operation is already in progress.
420	---	Cloud Manager has not been set up. You must set up Cloud Manager using the API call <code>/occm/setup/init</code>
5xx	---	An unexpected error occurred within the Cloud Manager server which has prevented it from fulfilling the request.

## Additional considerations

There are several additional characteristics of the Cloud Manager REST APIs affecting their operation and use. You should be aware of these considerations before issuing an API call.

### Public identifiers

All resources exposed through the Cloud Volumes ONTAP API (for example, working environments) are

assigned a public ID. Whenever a resource is created or returned, the public ID is displayed in the response. You must specify a resource's public ID when performing operations on the resource. For example, you must specify the public ID for a working environment when you create a volume.

### Asynchronous processing

For most of the Cloud Manager platform REST APIs, all HTTP request methods except GET are processed asynchronously. If needed, you can check the status of an active task based on the `request_id` returned in the original HTTP response. Each task has a status value as described in the following table.

Status	Description
1	The asynchronous task completed successfully.
0	The background task is still running and has not completed.
-1	The asynchronous task completed but failed.

For more information about how to retrieve the status of a background task for an asynchronous request see [Get active task](#).

## Workflow processes and tasks

The Cloud Manager platform REST APIs support many different workflows and tasks. You should be familiar with their common characteristics before reviewing a specific API.

- [Workflows](#)
- [Tasks](#)

### Workflows

A *workflow* is most typically a sequence of one or more steps needed to accomplish a specific administrative task or goal. For the Cloud Manager platform, each of the workflow steps can be one of the following:

- REST API call
- Invocation of another workflow
- Miscellaneous task or decision, such as deciding on the size of a new volume

The workflows provided with this documentation include the minimum steps and parameters needed to accomplish each task. You can use these workflows as a starting point and customize them for your environment as needed.

### Base URLs and REST endpoint paths

The REST API calls in the workflows use different URLs and URL formats depending on the desired service and resource.



Every API call used in the workflows includes the resource path to the REST endpoint. The path is relative and appended to the appropriate **base** URL. Unless otherwise indicated for a specific API call, the base URL addresses the NetApp Cloud Manager service. You should always carefully review the examples provided in the workflows before using them with a live deployment.

## Cloud Manager endpoints

The majority of the workflow REST API calls are made to the **NetApp Cloud Manager** service. The base URL of the SaaS interface is:

<https://cloudmanager.netapp.com/>

## Auth0 authentication service

Some of the REST API calls used in the identity workflows are made to the **Auth0** token authentication service. The base URL is:

<https://netapp-cloud-account.auth0.com/>

## Common parameters and variables

There are several parameters or variables common among the workflows.

## Request headers

Most of the REST API calls used in the workflows require the following request headers. Rather than cite these headers as a prerequisite in every REST API call, they are considered a universal requirement. If a workflow does not use these headers or has different prerequisites, they are indicated as appropriate.

### Authorization request header

To get a bearer token for this header, perform the appropriate workflow at [Create a user token](#) and extract the `access_token` value.

### x-agent-id request header

This header contains the agent ID which is based on the client ID. See [Get client and account identifiers](#) for information about creating this value.

## Presentation of common tokens and identifiers

Most of the variable tokens, identifiers, and other variables used in the sample REST API calls consist of long strings of letters, numbers, and special characters. They are considered *opaque* with no easily discernible content or meaning. Therefore, rather than including the actual original strings, smaller reserved keywords are used instead. For example, **<ACCESS\_TOKEN>** is a shorthand notation for a temporary string used to establish identity based on the OAuth2 standard.

This approach has several benefits:

- The cURL and JSON samples are simpler and easier to understand.
- Because all keywords use a common format, you can quickly identify the content to insert or extract.
- No value is lost because the original values cannot be copied and used with an actual deployment.

## JSON input for curl command

In many cases, a workflow step accepts JSON input in the request body of the REST API call. This input is indicated in the curl command through the `-d` option, with the corresponding sample typically included in the **JSON input example** section.



## Tasks

A *task* is a sequence of one or more steps needed to accomplish a specific administrative task or goal. Tasks typically differ from workflow processes in several ways:

- Limited to using the Cloud Manager web user interface
- Do not make REST API calls
- If invocation of a workflow is required, it is included as a prerequisite

# Common workflows and tasks

## Generate an NSS user ID

You can create a NetApp Support Site (NSS) user ID through the Cloud Manager web user interface. This ID is included when creating a Cloud Manager working environment.

### About this task

Registering NSS credentials with Cloud Manager and creating an NSS user ID enables subscription to the Cloud Volumes ONTAP system, product support and analytics. For information about related NSS administrative tasks, see [Manage NSS credentials](#).

### Before you begin

You must have a NetApp account (formerly Cloud Central account). You normally create this account when first signing in to Cloud Manager and it's displayed at the top of the web user interface. See [Learn about NetApp accounts](#) for more information.

### Steps

1. Navigate to the Cloud Manager web site using a browser:

<https://cloudmanager.netapp.com>

2. Sign in using your NetApp account (formerly Cloud Central account) credentials.
3. Click on the **?** icon at the top right of the page and select **Support**.
4. Navigate to the **NSS Management** tab and click **Add NSS Account**.
5. When prompted, click **Continue** which redirects you to a Microsoft login page.

NetApp uses Microsoft Azure Active Directory as the identity provider for authentication services specific to support and licensing.

6. Provide the NSS email address and password. After successful authentication, you will be redirected to the Cloud Manager page and an NSS user ID will be automatically generated.

### After you finish

You can use the generated NSS user ID when creating a working environment with your preferred licensing model and cloud provider. The NSS user ID is required with BYOL licensing and optional for the PAYGO subscription.

## Get the client and account identifiers

You can sign into the Cloud Manager web user interface to retrieve the client and account identifiers to use with the workflows. You can use these identifiers to access the metadata, authentication, and security related information.



This page includes two tasks describing how to use the Cloud Manager web user interface to retrieve the ID values. You can also use the Cloud Manager REST API to get the ID values. See [Get supported services](#) for more information.

## Get the client identifier

You can retrieve the client ID and use it with the x-agent-id HTTP request header.

### About this task

You need to access the client ID which is unique for each Cloud Manager Connector and then use it as the agent identifier.

### Before you begin

You must have a NetApp account (formerly Cloud Central account). You created this account when you first logged in to Cloud Manager and it was displayed at the top of the Cloud Manager user interface. See [Learn more about NetApp accounts](#) for more information.

### Steps

1. Navigate to the Cloud Manager web site using a browser:

<https://cloudmanager.netapp.com>

2. Sign in using your NetApp account (formerly Cloud Central account) credentials.
3. Click **Connector** at the top right of the page and select **Manage Connectors**.
4. On the **Manage Connectors** page, click the ellipses (...) icon.
5. Select the **Connector ID**. This value is based on the client ID.

You can use the Connector ID in the x-agent-id HTTP request header as shown in the workflow curl examples, `uzJbMFKEnuzi2ryLaENbCP52KBTXx0aIclients`.

## Get the account identifier

You can also retrieve the account ID.

### About this task

You can create multiple accounts and access the unique identifier for each account.

### Before you begin

You must have a NetApp account (formerly Cloud Central account). You created this account when you first logged in to Cloud Manager and it's displayed at the top of the Cloud Manager user interface. [Learn more about NetApp accounts](#).

### Steps

1. Navigate to the Cloud Manager web site using a browser:

<https://cloudmanager.netapp.com>

2. Sign in using your NetApp account (formerly Cloud Central account) credentials.
3. Click the **Account** drop-down and click **Manage Account** for the selected account.
4. In the **Overview** section copy the **Account ID** value.

# Create user token

You must generate a bearer token to authenticate and access the Cloud Manager REST API. There are two workflows available depending on the type of authentication. You need to select the correct workflow:

- [Federated](#)
- [Nonfederated](#)

## Create a user token with federated authentication

This workflow describes how to create an access token when using federated authentication.

### Before you begin

Review the parameters in the **JSON input example** for the second workflow step. In particular, you must have the client identifier.

### 1. Generate a NetApp refresh token

Navigate to [Refresh Token Generator](#) and generate a long-lived token. You need to provide this in the `refresh_token` JSON input parameter in the next step.

### 2. Generate the user token

This API call uses the *Auth0* authentication service and not the NetApp Cloud Manager service. See the URL in the curl example below and adjust for your environment as needed.

HTTP method	Resource path
POST	/oauth/token

### curl example

```
curl --location --request POST 'https://netapp-cloud-account.auth0.com/oauth/token' --header 'Content-Type: application/json' --d @JSONinput
```

### Input parameters

The JSON input example includes the list of input parameters.

### JSON input example

```
{
  "grant_type": "refresh_token",
  "refresh_token": "<REFRESH_TOKEN>",
  "client_id": "<CLIENT_ID>"
}
```

## Output

The JSON output example includes the list of returned values. The `expires_in` value is expressed in seconds.

### JSON output example

```
{
  "access_token": "<USER_TOKEN>",
  "id_token": "<ID_TOKEN>",
  "scope": "openid profile cc:update-password",
  "expires_in": 86400,
  "token_type": "Bearer"
}
```

## Create a user token with nonfederated authentication

This workflow describes how to create an access token when using non-federated authentication.

### Before you begin

Review the parameters in the **JSON input example** for the first workflow step. In particular, you must have the account credentials and the client identifier.

### 1. Generate the user token

This API call uses the *Auth0* authentication service and not the NetApp Cloud Manager service. See the URL in the curl example below and adjust for your environment as needed.

HTTP method	Resource path
POST	/oauth/token

### curl example

```
curl --location --request POST 'https://netapp-cloud-account.auth0.com/oauth/token' --header 'Content-Type: application/json' --d @JSONinput
```

### Input parameters

The JSON input example includes the list of input parameters.

### JSON input example

```
{
  "username": "user@my-company-demo.com",
  "scope": "openid profile",
  "audience": "https://api.cloud.netapp.com",
  "client_id": "<CLIENT_ID>",
  "grant_type": "password",
  "password": "userpassword",
  "Realm": "Username-Password-Authentication"
}
```

## Output

The JSON output example includes the list of returned values. The `expires_in` value is expressed in seconds.

## JSON output example

```
{
  "access_token": "<USER_TOKEN>",
  "id_token": "<ID_TOKEN>",
  "scope": "openid profile cc:update-password",
  "expires_in": 86400,
  "token_type": "Bearer"
}
```

# Cloud Volumes ONTAP

## Overview of the Cloud Volumes ONTAP REST API

The NetApp Cloud Manager service includes a REST API, Cloud Volumes ONTAP API, you can use programmatically to administer your cloud-based resources. The Cloud Volumes ONTAP REST API provides access to a subset of the functionality available in the Cloud Manager platform with a focus on Cloud Volumes ONTAP deployments.

There are several benefits to using the Cloud Volumes ONTAP REST API.

### **Built on REST technology and design principles**

The Cloud Volumes ONTAP API has been designed based on REST technology and current best practices. The core technologies include Hypertext Transfer Protocol (HTTP) and JavaScript Object Notation (JSON).

### **Anchors the Cloud Manager development platform**

The Cloud Volumes ONTAP REST API provides the primary external interface to the Cloud Manager platform. There are additional REST APIs which support the various platform services.

### **Access to NetApp cloud token-based security**

Cloud Manager authentication and authorization is based on the *OAuth2* standard. NetApp relies on the *Auth0* service implementation.

### **Alignment with the Cloud Manager web UI**

The Cloud Manager web user interface uses the same core REST API and therefore there is consistency between the two access paths.

## Get started

### **Prepare to use the API**

There are several things you should do to prepare before using the Cloud Volumes ONTAP REST API and associated workflows.

### **Review REST concepts and implementation**

Make sure to review [REST implementation details](#) for information about REST concepts and the details of how the Cloud Volumes ONTAP REST API is designed.

### **Decide on the cloud provider and have credentials**

Cloud Volumes ONTAP can be deployed in Amazon Web Services, Microsoft Azure, and Google Cloud Platform. You need to decide which of these providers you'll use and have the appropriate credentials.

## Have Cloud Central credentials

You'll need a NetApp account (formerly NetApp Cloud Central) login to acquire an access token required for the workflow processes. See [Signing up to NetApp Cloud Central](#) for more information.

## Be familiar with Cloud Volumes ONTAP concepts

If you intend to perform Cloud Volumes ONTAP administration tasks, you should be familiar with Cloud Volumes ONTAP concepts, terminology, and procedures. See [Learn about Cloud Volumes ONTAP](#) for more information.

## Decide on the licensing model

You can create and manage Cloud Volumes ONTAP instances using a subscription PAYGO ("pay as you go") model or apply your own licenses with BYOL ("bring your own license"). You need to decide which licensing model you'll use and be ready to adjust the workflows as needed.

## Prepare to use the workflow processes

Review [Workflow processes](#) for more information about the organization and content of the workflows. Also see [Typical Cloud Manager deployment](#).



This documentation does not describe or use the Local UI.

## Locate the client identifier

You'll need the `client_id` value for several of the workflows. For more information see [Get the client and account identifiers](#).

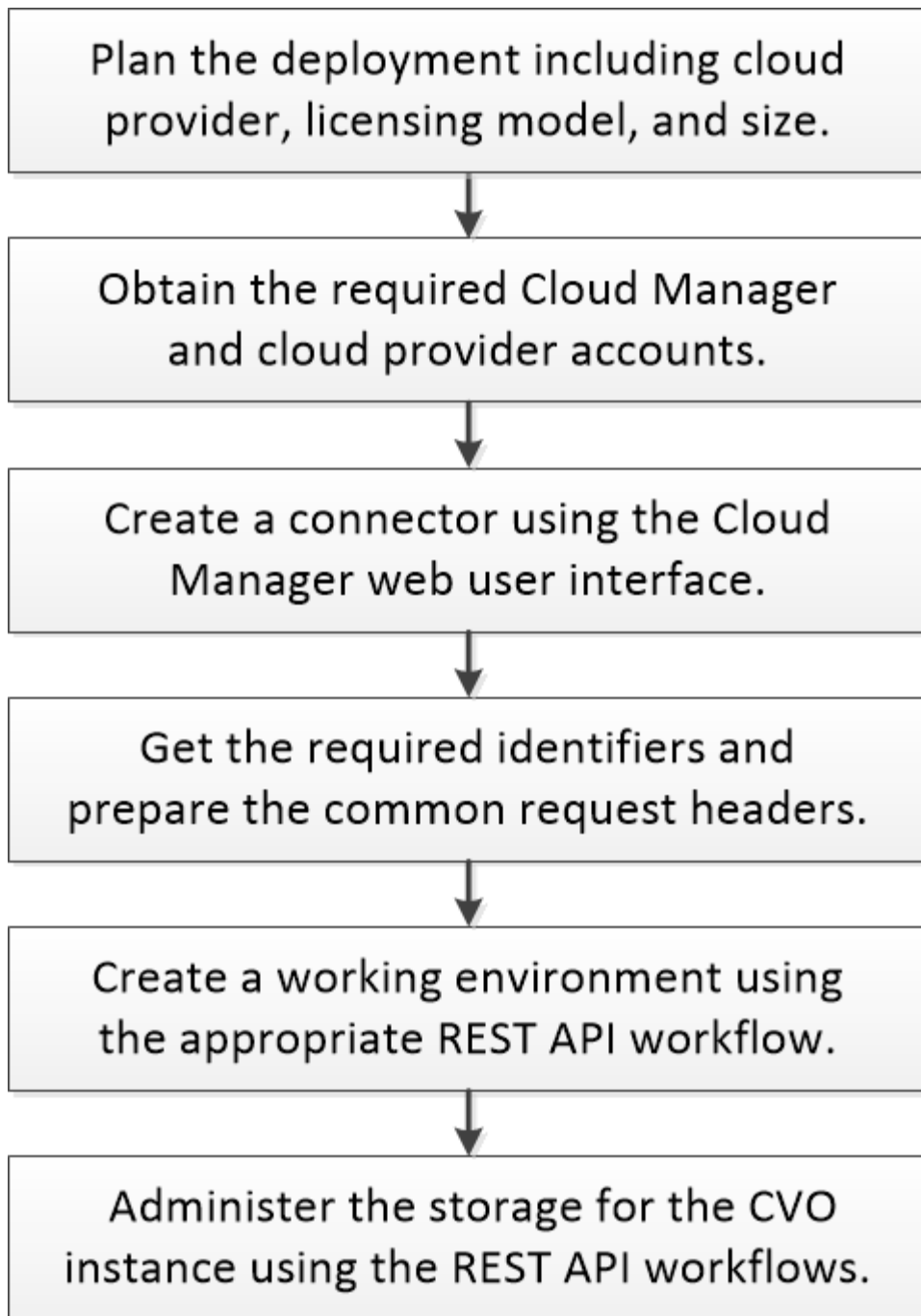
## Get more information

You should be aware of the additional resources available as suggested in [Additional resources](#).

## Typical Cloud Volumes ONTAP deployment

A summary of the major steps needed to deploy and administer a Cloud Volumes ONTAP instance using the associated REST API is presented below.





## Hello world

You can issue a curl command to get started using the Cloud Volumes ONTAP REST API and confirm its availability.



The example provided below is very simple. The workflow samples later in this guide use a more robust format. As a start, see [Workflow processes](#).

### Before you begin

You must do the following:

- Determine the identifier to use for the `x-agent-id` request header as well as the related client ID. See

Get the client and account identifiers.

- Acquire an access token for the Authorization request header. See [Create user token](#).

### Curl example

The following curl command retrieves information about the Cloud Manager server.

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/occm/system/about'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

### Output example

Information about the system is provided in the following format.

```
{
  "version": "string",
  "build": "string",
  "buildTimestamp": "integer",
  "systemId": "string",
  "environment": "string",
  "siteIdentifier": {
    "company": "string",
    "host": "string",
    "site": "string"
  },
  "serverTimeZone": {
    "timeZoneName": "string",
    "formattedTimeZone": "string"
  },
  "beta": "boolean",
  "releaseNumber": "integer",
  "simplicatorUrl": "string",
  "migrationPerformed": "boolean",
  "demoMode": "boolean",
  "usingDockerInfra": "boolean",
  "privateIp": "string"
}
```

## Cloud Volumes ONTAP workflow processes

You should be familiar with the organization and format of the Cloud Volumes ONTAP workflow processes before using them with a live deployment.



Before getting started with the Cloud Volumes ONTAP workflows, see [Workflow processes and tasks](#) for an introduction to how workflows and tasks are generally used with the Cloud Manager platform.

## High level organization of the workflows

At a high level, the Cloud Volumes ONTAP workflows are organized based on three primary attributes. The organization is reflected in the navigation sidebar.

### 1. Cloud provider

Most of the workflows can be performed with one cloud provider. The supported cloud platforms include:

- Amazon Web Services
- Microsoft Azure
- Google Cloud Platform

### 2. Functional category

The workflows for each cloud provider (AWS, Azure, GCP) are placed in a specific functional category. The major categories as reflected in the navigation sidebar are presented below.



In addition to the workflows used with the specific cloud providers, there is also a set of common workflows that can be used with any cloud provider. See [Common workflows for all cloud providers](#) for more information about these workflows and how they are organized.

## Working environments

A working environment is the context within which a Cloud Volumes ONTAP instance is deployed and run. These workflows allow you to create working environments and perform related administrative tasks. You can perform specific workflows to create a working environment based on your preferred licensing model (PAYGO or BYOL), remove a working environment, and retrieve the details of a working environment. In addition, you can configure the CIFS server when creating a volume that uses the CIFS protocol as part of creating a working environment.

## Aggregates

An aggregate is the low-level structure for Cloud Volumes ONTAP storage. These workflows allow you to create aggregates and perform related administrative tasks.

## Volumes

You can expose the storage volumes for use by your applications. You can perform these workflows to create a volume (using NFS, CIFS, or iSCSI protocol) as well as delete, retrieve, and modify an existing volume based on your storage requirements.

## Metadata

The metadata workflows allow you to view and administer the basic configuration of your cloud environment.

## Miscellaneous

A workflow that is not assigned to an existing functional category is considered *Miscellaneous*. For example, there is a workflow to create a cloud provider account. The cloud provider account securely stores and manages your cloud provider credentials and establishes an identity for users (such as InstanceProfile with AWS and ManagedIdentity with Azure). This account provides fine-grained authorization of the

services and resources based on multiple critical conditions.

### 3. Single node and High availability workflows

Many of the workflows vary based on the type of the deployment.

#### Single node

The cluster consists of a single Cloud Volumes ONTAP instance or ONTAP node.

#### HA pair

The cluster consists of two linked Cloud Volumes ONTAP instances which together provide the ONTAP high availability (HA) feature.



If both versions of a workflow exist for an administrative task, they are included on the same page.

#### Presentation of common tokens and identifiers

Most of the variable tokens, identifiers, and other variables used in the sample REST API calls consist of long strings of letters, numbers, and special characters. They are considered *opaque* with no easily discernible content or meaning. Therefore, rather than including the actual original strings, smaller reserved keywords are used instead. This has several benefits:

- The curl and JSON samples are simpler and easier to understand.
- Because all keywords use the same format (including capital letters), you can quickly identify the content to insert or extract.
- No value is lost because the original values cannot be copied and used with an actual deployment.

A list of the keywords used in the workflow curl examples is presented in the table below.

Keyword	Description
<ACCESS_TOKEN>	An access token is a temporary string which establishes identity and access based on the OAuth2 standard.
<ID_TOKEN>	The ID token contains additional identity information for the user based on OpenID Connect (OIDC).
<CLIENT_ID>	This value uniquely identifies the user within a specific authorization domain.
<AGENT_ID>	The agent identifier is based on the client ID and is used to identify the user agent.
<ACCOUNT_ID>	This value identifies your NetApp account.
<NSS_KEY_ID>	This value identifies an entitlement key and is used by NetApp support.
<WORKING_ENV_ID>	This value identifies a working environment for the ONTAP runtime and so is synonymous with a Cloud Volumes ONTAP instance.
<SVM_NAME>	The name used for an ONTAP storage virtual machine.
<VOLUME_NAME>	The name used for an ONTAP storage volume.
<AGGR_NAME>	The aggregate name for a disk operation.

Keyword	Description
<REQUEST_ID>	This value is returned to the caller in the HTTP response and uniquely identifies the request.
<PROVIDER>	Abbreviation for the cloud provider.
<CLOUD_ACC_ID>	Account ID for the cloud provider.
<REFRESH_TOKEN>	NetApp refresh token used for federated authentication.

### Working environment status requirements

Many of the workflows require the working environment to have a specific status (such as ON or DEGRADED) before the REST API call can be performed. Review the [API reference content](#) for details about the requirements for each API call.

## REST implementation details

### HTTP methods

Method	Description
POST	Create an object instance
GET	Retrieve an object instance or collection
PATCH	Update an existing object
DELETE	Remove an existing object

### Request headers

Request Header	Description
Authorization	Contains the user JWT access token and is required
x-agent-id	Contains the Cloud Manager Connector ID and can be included depending on the call

### Query parameters

You can use query parameters with endpoints in the following component:

Component	Query Parameter
Resource	account (required) resourceType workspace resourceClass resourceId

## Response headers

This API uses the standard HTTP response headers common with all the Cloud Manager platform REST APIs. See [REST implementation](#) for more information.

## HTTP status codes

HTTP Status Code	Reason phrase	Description
200	OK	Returned for successful operation completion
400	Bad Request	Returned if the input is malformed and could not be parsed
401	Unauthorized	Returned if user authentication failed or the token has expired
403	Forbidden	Returned for authorization errors depending on the resource and token

# AWS workflows

## Before you begin

There are several workflows you can use with the Amazon Web Services public cloud.



Review the [Get started](#) section before using any of the Cloud Manager REST API workflows.

## Workflow categories

The AWS workflows are organized into the following functional categories:

- Working environments
- Aggregates
- Volumes
- Metadata
- Miscellaneous

See [Understanding the workflow processes](#) for more information on these categories.

## Connector setup

You must have a **Connector** for the cloud environment before creating a working environment and performing other activities using the workflows. You can create a Connector using the Cloud Manager web UI. When you create a Connector, Cloud Manager adds the AWS cloud provider account that you deployed the Connector in to your list of available accounts. Your AWS account needs to have the right permissions in order to create a Connector.

Review [Learn about AWS Connectors](#) to know how to create and deploy an AWS Connector.

## Working environments

### Create a working environment with PAYGO

You can create a new Cloud Volumes ONTAP working environment using pay-as-you-go (PAYGO) subscription. You can add new volumes when creating the working environment.

#### Note the following when using PAYGO:

- A marketplace subscription is required.
- A NetApp Support Site (NSS) key is recommended to register the system for support, but it's not required.
- You can add more volumes after creating the working environment. You can add volumes using the [NFS](#), [CIFS](#) or the [iSCSI](#) protocol.

Choose the correct workflow depending on the type of the Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

#### Create working environment for single node

You can use this workflow to create an single node Cloud Volumes ONTAP working environment.

##### 1. Select the region

Perform the workflow [Get regions](#) and choose the `code` value for the `region` parameter in step 9.

##### 2. Select the workspace

Perform the workflow [Get tenants](#) and choose the `workspacePublicId` value for the `tenantId` parameter in step 9.

##### 3. Select the permutations configuration

Perform the workflow [Get permutations](#) and choose the `ontapVersion` and `license: type` and `instanceType` values for the `vsaMetadata` parameter in step 9.

##### 4. Select the VPC

Perform the workflow [Get VPCs](#) and do the following:

- Choose the `vpcId` value for the `vpcId` parameter in step 9.
- Choose the `cidrBlock` values for the `ips` value of the `volume` parameter in step 9.

##### 5. Select the EBS volume configuration

Perform the workflow [Get EBS volume types](#) and choose the `size` and `supportedVolumeTypes` values for

the `ebsVolumeSize` and `ebsVolumeType` parameters in step 9.



You need to choose one of the allowed values for the required `ebsVolumeType` parameter. We have used `gp2` value for this parameter in step 9.

## 6. Attach a marketplace subscription

Perform the workflow [Attach SaaS subscription](#).

## 7. (Optional) Obtain an NSS key

An NSS key is optional when using PAYGO licensing. If needed, you can create a key or select an existing key, and include the NSS key in the `nssAccount` parameter in step 9.

- To create a new NSS key using the Cloud Manager web user interface, perform the task [Generate NSS user ID](#) and choose the NSS ID.
- To select an existing NSS key, perform the workflow [Get NSS keys](#) and choose the `id` of the required NSS user.

## 8. (Optional) Create a new volume

You can optionally add a new volume while creating a working environment.

- Choose the `name` and `size` values for the corresponding `name` and `size:size` input parameters in step 9. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.
- Choose the `policyType`, `ips`, and the `nfsVersion` parameters in the `exportPolicyInfo` input parameter in step 9 if you choose to create a volume using the NFS protocol. The `ips` parameter signifies the client IP address (could be multiple addresses) that can access the volume over the network. The `nfsVersion` parameter signifies the version of the NFS protocol that a client will use for data transmission over a network.



If you choose to create a volume using CIFS protocol, you will need to set the `shareInfo` parameter. If you choose to create a volume using iSCSI protocol, you will need to set the `iscsiInfo` parameter accordingly.

## 9. Create the working environment

HTTP method	Path
POST	/occm/api/vsa/working-environments

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/working-environments'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>' --header 'Content-Type: application/json' --d @JSONinput
```



## Input

The JSON input example includes the minimum list of parameters.



This request uses PAYGO subscription as indicated in the `licenseType` parameter.

## JSON input example

```

{
  "name": "ziv01we02",
  "svmPassword": "user_password",
  "vpcId": "vpc-b16c90d4",
  "region": "us-east-1",
  "tenantId": "tenantIDgoeshere",
  "subnetId": "subnet-f4da95ac",
  "dataEncryptionType": "AWS",
  "vsaMetadata": {
    "ontapVersion": "ONTAP-9.9.0.T1",
    "licenseType": "cot-explore-paygo",
    "instanceType": "m5.xlarge"
  },
  "ebsVolumeSize": {
    "size": 100,
    "unit": "GB"
  },
  "ebsVolumeType": "gp2",
  "volume": {
    "name": "ziv02vol01",
    "size": {
      "size": 200,
      "unit": "GB"
    }
  },
  "exportPolicyInfo": {
    "policyType": "custom",
    "ips": [
      "172.31.0.0/16"
    ],
    "nfsVersion": [
      "nfs3",
      "nfs4"
    ]
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true
},
"writingSpeedState": "NORMAL"
}

```

## Output

The JSON output example includes an example of the VsaWorkingEnvironmentResponse.

## JSON output example

```
{
  "publicId": "VsaWorkingEnvironment-0NWSb1aX",
  "name": "ziv01we02",
  "tenantId": "tenantIDgoeshere",
  "svmName": "svm_ziv01we02",
  "creatorUserEmail": "user_email",
  "status": null,
  "awsProperties": null,
  "reservedSize": null,
  "encryptionProperties": null,
  "clusterProperties": null,
  "ontapClusterProperties": null,
  "actionsRequired": null,
  "interClusterLifs": null,
  "cronJobSchedules": null,
  "snapshotPolicies": null,
  "svms": null,
  "activeActions": null,
  "replicationProperties": null,
  "schedules": null,
  "cloudProviderName": "Amazon",
  "isHA": false,
  "workingEnvironmentType": "VSA",
  "supportRegistrationProperties": null,
  "supportRegistrationInformation": null,
  "haProperties": null,
  "capacityFeatures": null,
  "cloudSyncProperties": null,
  "supportedFeatures": null,
  "k8sProperties": null,
  "fpolicyProperties": null,
  "saasProperties": null,
  "cbsProperties": null,
  "complianceProperties": null,
  "monitoringProperties": null
}
```

### Create working environment for high availability pair

You can use this workflow to create an HA Cloud Volumes ONTAP working environment.

#### 1. Select the region

Perform the workflow [Get regions](#) and choose the code value for the region parameter in step 11.

## 2. Select the cloud provider account

Perform the workflow [Get cloud provider accounts](#) and choose the `publicId` value of the required account for the `cloudProviderAccount` parameter.

## 3. Select the workspace

Perform the workflow [Get tenants](#) and choose the `workspacePublicId` value for the `tenantId` parameter in step 12.

## 4. Select the permutations configuration

Perform the workflow [Get permutations](#) and choose the `ontapVersion` and `license: type` and `instanceType` values for the `vsaMetadata` parameter in step 12.

## 5. Select the packages configuration

Perform the [Get Packages](#) and choose the `packageName`, `instanceTenancy` and `writingSpeedState` values for the corresponding parameters in step 12.

## 6. Select the VPC

Perform the workflow [Get VPCs](#) and do the following:

- Choose the `vpcId` value for the `vpcId` parameter in step 12.
- Choose three subnets and choose the `subnetId` value for the `haParams:mediatorSubnetId`, `haParams:node1SubnetId`, `haParams:node2SubnetId` in step 12.
- Select the IPs for the `clusterFloatingIP`, `dataFloatingIP`, `dataFloatingIP2` values for the corresponding parameters in step 12.

## 7. Select route table

Perform the workflow [Get route tables](#) and choose the `id` value of the required route table for `haParams:routeTableIds` parameter in step 12.

## 8. Select the EBS volume configuration

Perform the workflow [Get EBS volume types](#) and choose the `size` and `supportedVolumeTypes` values for the `ebsVolumeSize` and `ebsVolumeType` parameters in step 12.



You need to choose one of the allowed values for the required `ebsVolumeType` parameter. We have used `gp2` value for this parameter in step 12.

## 9. Attach a marketplace subscription

Perform the workflow [Attach SaaS subscription](#).

## 10. (Optional) Obtain an NSS key

An NSS key is optional when using PAYGO licensing. If needed, you can create a key or select an existing key, and include the NSS key in the `nssAccount` parameter in step 12.

- To create a new NSS key using the Cloud Manager web user interface, perform the task [Generate NSS user ID](#) and choose the NSS ID.
- To select an existing NSS key, perform the workflow [Get NSS keys](#) and choose the `id` of the required NSS user.

## 11. (Optional) Create a new volume

You can optionally add a new volume while creating a working environment.

- Choose the `name` and `size` values for the corresponding `name` and `size:size` input parameters in step 12. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.
- Choose the `policyType`, `ips`, and the `nfsVersion` parameters in the `exportPolicyInfo` input parameter in step 12 if you choose to create a volume using the NFS protocol. The `ips` parameter signifies the client IP address (could be multiple addresses) that can access the volume over the network. The `nfsVersion` parameter signifies the version of the NFS protocol that a client will use for data transmission over a network.



If you choose to create a volume using CIFS protocol, you will need to set the `shareInfo` parameter. If you choose to create a volume using iSCSI protocol, you will need to set the `iscsiInfo` parameter accordingly.

## 12. Create the working environment

HTTP method	Path
POST	/occm/api/aws/ha/working-environments

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/working-
environments' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization:
Bearer <ACCESS_TOKEN>' --header 'Content-Type: application/json' --d
@JSONinput
```

### Input

The JSON input example includes the minimum list of parameters.



This request uses PAYGO licensing as indicated in the `licenseType` parameter.

### JSON input example

```
{
  "name": "ziv04we02ha",
  "svmPassword": "password",
  "vpcId": "vpc-b16c90d4",
  "region": "us-east-1",
  "tenantId": "tenantIDgoeshere",
```

```

"ebsVolumeSize": {
  "size": 100,
  "unit": "GB"
},
"ebsVolumeType": "gp2",
"vsaMetadata": {
  "ontapVersion": "ONTAP-9.9.0X6.T1.ha",
  "licenseType": "ha-cot-explore-paygo",
  "instanceType": "m5.xlarge"
},
"dataEncryptionType": "AWS",
"ontapEncryptionParameters": null,
"haParams": {
  "node1SubnetId": "subnet-f4da95ac",
  "node2SubnetId": "subnet-b4387a9e",
  "mediatorSubnetId": "subnet-76e6d400",
  "clusterFloatingIP": "4.4.4.4",
  "dataFloatingIP": "5.5.5.5",
  "dataFloatingIP2": "6.6.6.6",
  "mediatorKeyPairName": "Developers_Virginia",
  "routeTableIds": [
    "rtb-02a45467"
  ],
  "failoverMode": "FloatingIP",
  "mediatorAssignPublicIP": true
},
"volume": {
  "name": "ziv02vol01",
  "size": {
    "size": 200,
    "unit": "GB"
  },
  "exportPolicyInfo": {
    "policyType": "custom",
    "ips": [
      "172.31.0.0/16"
    ],
    "nfsVersion": [
      "nfs3",
      "nfs4"
    ]
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true
}

```

```
},  
  "optimizedNetworkUtilization": false,  
  "instanceTenancy": "default",  
  "packageName": "aws_ha_poc",  
  "cloudProviderAccount": "InstanceProfile",  
  "backupVolumesToCbs": false,  
  "enableMonitoring": "false",  
  "writingSpeedState": "NORMAL"  
}
```

## Output

The JSON output example includes an example of the HA working environment details.

## JSON output example

```

{
  "publicId": "VsaWorkingEnvironment-sQ9AELDS",
  "name": "ziv04we02ha",
  "tenantId": "tenantIDshownhere",
  "svmName": "svm_ziv04we02ha",
  "creatorUserEmail": "user_email",
  "status": null,
  "awsProperties": null,
  "reservedSize": null,
  "encryptionProperties": null,
  "clusterProperties": null,
  "ontapClusterProperties": null,
  "actionsRequired": null,
  "interClusterLifs": null,
  "cronJobSchedules": null,
  "snapshotPolicies": null,
  "svms": null,
  "activeActions": null,
  "replicationProperties": null,
  "schedules": null,
  "cloudProviderName": "Amazon",
  "isHA": true,
  "workingEnvironmentType": "VSA",
  "supportRegistrationProperties": null,
  "supportRegistrationInformation": null,
  "haProperties": null,
  "capacityFeatures": null,
  "cloudSyncProperties": null,
  "supportedFeatures": null,
  "k8sProperties": null,
  "fpolicyProperties": null,
  "saasProperties": null,
  "cbsProperties": null,
  "complianceProperties": null,
  "monitoringProperties": null
}

```

### Create a working environment with BYOL licensing

You can use this workflow to create a new Cloud Volumes ONTAP working environment using bring-your-own-license (BYOL) licensing.



**Note the following when using BYOL licensing:**

- A marketplace subscription is not required.
- A NetApp Support Site (NSS) key is required to register the system for support.
- You can add a volume after creating the working environment.

To optionally create a new volume with the working environment, you must modify the JSON input provided on the REST API call. See [Create a working environment with PAYGO licensing](#) for an example.

Choose the correct workflow depending on the type of the Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

**Create working environment for single node**

You can use this workflow to create a single node Cloud Volumes ONTAP working environment.

**1. Select the region**

Perform the workflow [Get regions](#) and choose the `code` value for the `region` parameter in step 7.

**2. Select the workspace**

Perform the workflow [Get tenants](#) and choose the `workspacePublicId` value for the `tenantId` parameter in step 7.

**3. Select the permutations configuration**

Perform the workflow [Get permutations](#) and choose the `ontapVersion` and `license: type` and `instanceType` values for the `vsaMetadata` parameter in step 7.

You will also need to include the `platformSerialNumber` value in `vsaMetadata` parameter in the REST API call.

**4. Select the VPC**

Perform the workflow [Get VPCs](#) and choose the `vpcId` value for the `vpcId` parameter in step 7.

**5. Select the EBS volume configuration**

Perform the workflow [Get EBS volume types](#) and choose the `size` and `supportedVolumeTypes` values for the `ebsVolumeSize` and `ebsVolumeType` parameters in step 7.



You need to choose one of the allowed values for the required `ebsVolumeType` parameter. We have used `gp2` value for this parameter in step 7.

## 6. Obtain the required NSS key

An NSS key is required when using BYOL licensing. You can create a key or select an existing key, and include the NSS key in the `nssAccount` parameter in step 7.

- To create a new NSS key using the Cloud Manager web user interface, perform the task [Generate NSS user ID](#) and choose the NSS ID.
- To select an existing NSS key, perform the workflow [Get NSS keys](#) and choose the `id` of the required NSS user.

## 7. Create the working environment

HTTP method	Path
POST	/occm/api/vsa/working-environments

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/working-environments'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>' --header 'Content-Type: application/json' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of parameters. This request uses BYOL licensing as indicated in the `licenseType` parameter. The `platformSerialNumber` is required.

### JSON input example

```
{
  "name": "ziv02we03",
  "svmPassword": "password",
  "vpcId": "vpc-b16c90d4",
  "region": "us-east-1",
  "tenantId": "workspace-cxxx123",
  "subnetId": "subnet-f4da95ac",
  "dataEncryptionType": "AWS",
  "nssAccount": "xxx332ce3-xxxx-4000-xx00-000a0601c682",
  "vsaMetadata": {
    "ontapVersion": "ONTAP-9.9.0.T1",
    "licenseType": "cot-premium-byol",
    "instanceType": "m5.xlarge",
    "platformSerialNumber": "001001000000000000020"
  },
  "ebsVolumeSize": {
    "size": 100,
    "unit": "GB"
  },
  "ebsVolumeType": "gp2"
}
```

## Output

The JSON output example includes an example of the `VsaWorkingEnvironmentResponse` response.

JSON output example

```

{
  "publicId": "VsaWorkingEnvironment-wL2MaBJs",
  "name": "username",
  "tenantId": "tenantIDgoeshere",
  "svmName": "svm_ziv02we03",
  "creatorUserEmail": "user_email",
  "status": null,
  "awsProperties": null,
  "reservedSize": null,
  "encryptionProperties": null,
  "clusterProperties": null,
  "ontapClusterProperties": null,
  "actionsRequired": null,
  "interClusterLifs": null,
  "cronJobSchedules": null,
  "snapshotPolicies": null,
  "svms": null,
  "activeActions": null,
  "replicationProperties": null,
  "schedules": null,
  "cloudProviderName": "Amazon",
  "isHA": false,
  "workingEnvironmentType": "VSA",
  "supportRegistrationProperties": null,
  "supportRegistrationInformation": null,
  "haProperties": null,
  "capacityFeatures": null,
  "cloudSyncProperties": null,
  "supportedFeatures": null,
  "k8sProperties": null,
  "fpolicyProperties": null,
  "saasProperties": null,
  "cbsProperties": null,
  "complianceProperties": null,
  "monitoringProperties": null
}

```

### Create working environment for high availability pair

You can use this workflow to create an HA Cloud Volumes ONTAP working environment.

#### 1. Select the region

Perform the workflow [Get regions](#) and choose the code value for the `region` parameter in step 11.

## 2. Select the cloud provider account

Perform the workflow [Get cloud provider accounts](#) and choose the `publicId` value of the required account for the `cloudProviderAccount` parameter.

## 3. Select the workspace

Perform the workflow [Get tenants](#) and choose the `workspacePublicId` value for the `tenantId` parameter in step 11.

## 4. Select the permutations configuration

Perform the workflow [Get permutations](#) and choose the `ontapVersion` and `license: type` and `instanceType` values for the `vsaMetadata` parameter in step 11.

## 5. Select the packages configuration

Perform the [Get Packages](#) and choose the `packageName`, `instanceTenancy` and `writingSpeedState` values for the corresponding parameters in step 11.

## 6. Select the VPC

Perform the workflow [Get VPCs](#) and do the following:

- Choose the `vpcId` value for the `vpcId` parameter in step 11.
- Choose three subnets and choose the `subnetId` value for the `haParams:mediatorSubnetId`, `haParams:node1SubnetId`, `haParams:node2SubnetId`.
- Attach the licenses serial number to `platformSerialNumberNode1` and `platformSerialNumberNode2` parameters.
- Select the IPs for the `clusterFloatingIP`, `dataFloatingIP`, `dataFloatingIP2` values for the corresponding parameters in step 11.

## 7. Select the route table

Perform the workflow [Get route tables](#) and choose the `id` value of the required route table for `haParams:routeTableIds` parameter in step 11.

## 8. Select the EBS volume configuration

Perform the workflow [Get EBS volume types](#) and choose the `size` and `supportedVolumeTypes` values for the `ebsVolumeSize` and `ebsVolumeType` parameters in step 11.



You need to choose one of the allowed values for the required `ebsVolumeType` parameter. We have used `gp2` value for this parameter in step 11.

## 9. Get key pairs

Perform the [Get key pairs](#) workflow and select the required key for `haParam: mediatorKeyPairName` parameter in step 11.

## 10. Obtain the required NSS key

An NSS key is required when using BYOL licensing. You can create a key or select an existing key, and include the NSS key in the `nssAccount` parameter.

- To create a new NSS key using the Cloud Manager web user interface, perform the task [Generate NSS user ID](#) and choose the NSS ID.
- To select an existing NSS key, perform the workflow [Get NSS keys](#) and choose the `id` of the required NSS user.

## 11. Create the working environment

HTTP method	Path
POST	/occm/api/aws/ha/working-environments

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/working-
environments' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization:
Bearer <ACCESS_TOKEN>' --header 'Content-Type: application/json' --d
@JSONinput
```

### Input

The JSON input example includes the minimum list of parameters. This request uses BYOL licensing as indicated in the `licenseType` parameter. The `platformSerialNumberNode1` and `platformSerialNumberNode2` parameters are required.

### JSON input example

```

{
  "name": "ziv04we02ha",
  "svmPassword": "password",
  "vpcId": "vpc-b16c90d4",
  "region": "us-east-1",
  "tenantId": "tenantIDgoeshere",
  "ebsVolumeSize": {
    "size": 100,
    "unit": "GB"
  },
  "ebsVolumeType": "gp2",
  "vsaMetadata": {
    "ontapVersion": "ONTAP-9.9.0.T1.ha",
    "licenseType": "ha-cot-premium-byol",
    "instanceType": "m5.xlarge"
  },
  "dataEncryptionType": "AWS",
  "ontapEncryptionParameters": null,
  "haParams": {
    "node1SubnetId": "subnet-f4da95ac",
    "node2SubnetId": "subnet-b4387a9e",
    "mediatorSubnetId": "subnet-76e6d400",
    "clusterFloatingIP": "4.4.4.4",
    "dataFloatingIP": "5.5.5.5",
    "dataFloatingIP2": "6.6.6.6",
    "platformSerialNumberNode1": "901201400000000000023",
    "platformSerialNumberNode2": "901201400000000000024",
    "mediatorKeyPairName": "Developers_Virginia",
    "routeTableIds": [
      "rtb-02a45467"
    ],
    "failoverMode": "FloatingIP",
    "mediatorAssignPublicIP": true
  },
  "nssAccount": "54ab5c0d-xx23-xxxd-bcef-6eeda79e747d",
  "optimizedNetworkUtilization": false,
  "instanceTenancy": "default",
  "packageName": "aws_ha_poc",
  "cloudProviderAccount": "InstanceProfile",
  "backupVolumesToCbs": false,
  "enableMonitoring": "false",
  "writingSpeedState": "NORMAL"
}

```

## Output

The JSON output example includes an example of the HA working environment details.

### JSON output example

```
{
  "publicId": "VsaWorkingEnvironment-XxCZibxz",
  "name": "ziv04we02ha",
  "tenantId": "tenantIDshownhere",
  "svmName": "svm_ziv04we02ha",
  "creatorUserEmail": "user_email",
  "status": null,
  "awsProperties": null,
  "reservedSize": null,
  "encryptionProperties": null,
  "clusterProperties": null,
  "ontapClusterProperties": null,
  "actionsRequired": null,
  "interClusterLifs": null,
  "cronJobSchedules": null,
  "snapshotPolicies": null,
  "svms": null,
  "activeActions": null,
  "replicationProperties": null,
  "schedules": null,
  "cloudProviderName": "Amazon",
  "isHA": true,
  "workingEnvironmentType": "VSA",
  "supportRegistrationProperties": null,
  "supportRegistrationInformation": null,
  "haProperties": null,
  "capacityFeatures": null,
  "cloudSyncProperties": null,
  "supportedFeatures": null,
  "k8sProperties": null,
  "fpolicyProperties": null,
  "saasProperties": null,
  "cbsProperties": null,
  "complianceProperties": null,
  "monitoringProperties": null
}
```

### Get working environments

You can retrieve the public identifier, working environment identifier and the storage virtual machine name for Cloud Volumes ONTAP working environments (visible to



currently logged in user) which would be used in other workflows.

Choose the correct workflow depending on the type of the Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

#### Get working environments for single node

You can use this workflow to retrieve the working environments' details for a single node system.

#### 1. Get the working environments

HTTP method	Path
GET	occm/api/vsa/working-environments

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/working-environments'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

Optional query parameters:

- fields
- tenantId

#### Output

The JSON output example includes an array of VSA working environments and their details.

#### JSON output example

```
[
  {
    "publicId": "VsaWorkingEnvironment-79VKenHW",
    "name": "ziv01we02",
    "tenantId": "tenantIDshownhere",
    "svmName": "svm_ziv01we02",
    "creatorUserEmail": "user_email",
    "status": null,
    "awsProperties": null,
    "reservedSize": null,
    "encryptionProperties": null,
    "clusterProperties": null,
    "ontapClusterProperties": null,
    "actionsRequired": null,
```

```

    "interClusterLifs": null,
    "cronJobSchedules": null,
    "snapshotPolicies": null,
    "svms": null,
    "activeActions": null,
    "replicationProperties": null,
    "schedules": null,
    "cloudProviderName": "Amazon",
    "isHA": false,
    "workingEnvironmentType": "VSA",
    "supportRegistrationProperties": null,
    "supportRegistrationInformation": [],
    "haProperties": null,
    "capacityFeatures": null,
    "cloudSyncProperties": null,
    "supportedFeatures": null,
    "k8sProperties": null,
    "fpolicyProperties": null,
    "saasProperties": null,
    "cbsProperties": null,
    "complianceProperties": null,
    "monitoringProperties": null
  },
  {
    "publicId": "VsaWorkingEnvironment-61kN4p5P",
    "name": "ziv01we03",
    "tenantId": "tenantIDshownhere",
    "svmName": "svm_ziv01we03",
    "creatorUserEmail": "user_email",
    "status": null,
    "awsProperties": null,
    "reservedSize": null,
    "encryptionProperties": null,
    "clusterProperties": null,
    "ontapClusterProperties": null,
    "actionsRequired": null,
    "interClusterLifs": null,
    "cronJobSchedules": null,
    "snapshotPolicies": null,
    "svms": null,
    "activeActions": null,
    "replicationProperties": null,
    "schedules": null,
    "cloudProviderName": "Amazon",
    "isHA": false,
    "workingEnvironmentType": "VSA",
  }

```

```

    "supportRegistrationProperties": null,
    "supportRegistrationInformation": [],
    "haProperties": null,
    "capacityFeatures": null,
    "cloudSyncProperties": null,
    "supportedFeatures": null,
    "k8sProperties": null,
    "fpolicyProperties": null,
    "saasProperties": null,
    "cbsProperties": null,
    "complianceProperties": null,
    "monitoringProperties": null
  },
  {
    "publicId": "VsaWorkingEnvironment-E9WanX81",
    "name": "ziv01we04",
    "tenantId": "tenantIDshownhere",
    "svmName": "svm_ziv01we04",
    "creatorUserEmail": "user_email",
    "status": null,
    "awsProperties": null,
    "reservedSize": null,
    "encryptionProperties": null,
    "clusterProperties": null,
    "ontapClusterProperties": null,
    "actionsRequired": null,
    "interClusterLifs": null,
    "cronJobSchedules": null,
    "snapshotPolicies": null,
    "svms": null,
    "activeActions": null,
    "replicationProperties": null,
    "schedules": null,
    "cloudProviderName": "Amazon",
    "isHA": false,
    "workingEnvironmentType": "VSA",
    "supportRegistrationProperties": null,
    "supportRegistrationInformation": [],
    "haProperties": null,
    "capacityFeatures": null,
    "cloudSyncProperties": null,
    "supportedFeatures": null,
    "k8sProperties": null,
    "fpolicyProperties": null,
    "saasProperties": null,
    "cbsProperties": null,
  }

```

```
    "complianceProperties": null,  
    "monitoringProperties": null  
  }  
]
```

### Get working environment for high availability pair

You can use this workflow to get the working environment details for an HA pair.

#### 1. Select the working environment to use

Perform the workflow [Get working environments for single node](#) and choose the `publicId` of the required working environment for the `workingEnvironmentId` path parameter.

#### 2. Get the working environment

HTTP method	Path
GET	<code>occm/api/aws/ha/working-environments/&lt;WORKING_ENV_ID&gt;</code>

#### curl example

```
curl --location --request GET  
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/working-  
environments/<WORKING_ENV_ID>' --header 'Content-Type: application/json'  
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer  
<ACCESS_TOKEN>'
```

#### Input

Path parameter:

`<WORKING_ENV_ID>` `workingEnvironmentId`

Optional query parameter:

`fields`

#### Output

The JSON output example includes an HA Cloud Volumes ONTAP working environment.

#### JSON output example

```
[
{
  "publicId": "VsaWorkingEnvironment-N6BPfglr",
  "name": "ziv04we01ha",
  "tenantId": "tenantIDshownhere",
  "svmName": "svm_ziv04we01ha",
  "creatorUserEmail": "user_email",
  "status": null,
  "awsProperties": null,
  "reservedSize": null,
  "encryptionProperties": null,
  "clusterProperties": null,
  "ontapClusterProperties": null,
  "actionsRequired": null,
  "interClusterLifs": null,
  "cronJobSchedules": null,
  "snapshotPolicies": null,
  "svms": null,
  "activeActions": null,
  "replicationProperties": null,
  "schedules": null,
  "cloudProviderName": "Amazon",
  "isHA": true,
  "workingEnvironmentType": "VSA",
  "supportRegistrationProperties": null,
  "supportRegistrationInformation": [],
  "haProperties": null,
  "capacityFeatures": null,
  "cloudSyncProperties": null,
  "supportedFeatures": null,
  "k8sProperties": null,
  "fpolicyProperties": null,
  "saasProperties": null,
  "cbsProperties": null,
  "complianceProperties": null,
  "monitoringProperties": null
}
```

## Delete a working environment

You can delete an existing Cloud Volumes ONTAP working environment.

Choose the correct workflow depending on the type of the Cloud Volumes ONTAP deployment:

- [Single Node](#)

- [HA pair](#)

### Delete working environment for single node

You can use this workflow to delete a working environment for a single node system.

#### 1. Select the working environment to use

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

#### 2. Delete the working environment

HTTP method	Path
DELETE	/occm/api/vsa/working-environments/{workingEnvironmentId}

#### curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/working-
environments/<WORKING_ENV_ID>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>'
```

#### Input

Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId`

Optional query parameters:

- `localDelete`

If `true` the Cloud Volumes ONTAP instance in the cloud is not terminated, but Cloud Manager no longer manages it (default is `false`).

- `forceDelete`

If `true` the working environment is deleted even if it is part of one or more SnapMirror relationships (default is `false`).

#### Output

None

### Delete working environment for high availability pair

You can use this workflow to delete a working environment for an HA pair.

#### 1. Select the working environment to use

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

## 2. Delete the working environment

HTTP method	Path
DELETE	/occm/api/aws/ha/working-environments/{workingEnvironmentId}

### curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/working-
environments/<WORKING_ENV_ID>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>'
```

### Input

Path parameter <WORKING\_ENV\_ID> `workingEnvironmentId`

Optional query parameters:

- `localDelete`

If `true` the Cloud Volumes ONTAP instance in the cloud is not terminated, but Cloud Manager no longer manages it (default is `false`).

- `forceDelete`

If `true` the working environment is deleted even if it is part of one or more SnapMirror relationships (default is `false`).

### Output

None

## Create CIFS server configuration

If you want to create CIFS volumes on your Cloud Volumes ONTAP system, you first need to configure the CIFS server. You can choose to set up the CIFS server in a workgroup or in an Active Directory domain. Review the [NetApp docs](#) for more information.

Choose the correct workflow depending on the type of the Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Create CIFS server configuration for single node

You can use this workflow to create a CIFS server configuration for a single node system.

Choose the workflow that is specific to your goal:

- [Set up a CIFS server in a workgroup](#)
- [Set up a CIFS server in an Active Directory domain](#)

## Set up a CIFS server in a workgroup

You can configure a CIFS server in a workgroup when the Microsoft Active Directory domain infrastructure is not available.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

### 2. Create the CIFS configuration

Create the CIFS server configuration.

HTTP method	Path
POST	/occm/api/vsa/working-environments/{workingEnvironmentId}/cifs-workgroup

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/working-
environments/<WORKING_ENV_ID>/cifs-workgroup' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

#### Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId`

#### JSON input example

```
{
  "serverName": "SMB_SERVER02",
  "workgroupName": "workgroup02",
  "svmName": "svm_ziv01we01"
}
```

#### Output

None.

## Set up a CIFS server in an Active Directory domain

You can create a CIFS server on the SVM and specify the Active Directory (AD) domain to which it belongs.



## 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

## 2. Determine the Active Directory configuration

You need the following configuration parameters for an Active Directory server.

Input parameter	Description
<code>dnsDomain</code>	Use the Active Directory domain as the DNS name.
<code>ipAddresses</code>	Define the primary DNS IP address and optionally add a secondary IP address.
<code>netBIOS</code>	Use the CIFS server NetBIOS name.
<code>organizationalUnit</code>	Include the organizational unit as appropriate.
<code>activeDirectoryDomain</code>	Set the Active Directory domain to join.
<code>activeDirectoryUsername</code>	A username with authorization to join the domain.
<code>activeDirectoryPassword</code>	The password for the authorized username.

## 3. Create the CIFS configuration

Create the CIFS server configuration.

HTTP method	Path
POST	<code>/occm/api/vsa/working-environments/{workingEnvironmentId}/cifs</code>

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/working-
environments/<WORKING_ENV_ID>/cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId`

### JSON input example

```
{
  "dnsDomain": "zivh.netapp.com",
  "ipAddresses": [
    "172.31.5.241"
  ],
  "netBIOS": "zivaws02we03",
  "organizationalUnit": "CN=Computers",
  "activeDirectoryDomain": "zivh.netapp.com",
  "activeDirectoryUsername": "administrator",
  "activeDirectoryPassword": "password"
}
```

## Output

None.

## Create CIFS server configuration for high availability pair

You can use this workflow to create a CIFS server configuration for an HA working environment.

Choose the workflow that is specific to your goal:

- [Set up a CIFS server in a workgroup](#)
- [Set up a CIFS server in an Active Directory domain](#)

## Set up a CIFS server in a workgroup

You can configure a CIFS server in a workgroup when the Microsoft Active Directory domain infrastructure is not available.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

### 2. Create the CIFS configuration

Create the CIFS server configuration.

HTTP method	Path
POST	/occm/api/aws/ha/working-environments/{workingEnvironmentId}/cifs-workgroup

## curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/working-
environments/<WORKING_ENV_ID>/cifs-workgroup' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

- Path parameter <WORKING\_ENV\_ID> workingEnvironmentId

## JSON input example

```
{
  "serverName": "SMB_SERVER02",
  "workgroupName": "workgroup02",
  "svmName": "svm_ziv01we01"
}
```

## Output

None.

## Set up a CIFS server in an Active Directory domain

You can create a CIFS server on the SVM and specify the Active Directory (AD) domain to which it belongs.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

### 2. Determine the Active Directory configuration

You need the following configuration parameters for an Active Directory server.

Input parameter	Description
dnsDomain	Use the Active Directory domain as the DNS name.
ipAddresses	Define the primary DNS IP address and optionally add a secondary IP address.
netBIOS	Use the CIFS server NetBIOS name.
organizationalUnit	Include the organizational unit as appropriate.
activeDirectoryDomain	Set the Active Directory domain to join.
activeDirectoryUsername	A username with authorization to join the domain.
activeDirectoryPassword	The password for the authorized username.

### 3. Create the CIFS configuration

Create the CIFS server configuration.

HTTP method	Path
POST	/occm/api/aws/ha/working-environments/{workingEnvironmentId}/cifs

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/working-
environments/<WORKING_ENV_ID>/cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

#### Input

- Path parameter <WORKING\_ENV\_ID> workingEnvironmentId

#### JSON input example

```
{
  "dnsDomain": "zivh.netapp.com",
  "ipAddresses": [
    "172.31.5.241"
  ],
  "netBIOS": "zivaws02we03",
  "organizationalUnit": "CN=Computers",
  "activeDirectoryDomain": "zivh.netapp.com",
  "activeDirectoryUsername": "administrator",
  "activeDirectoryPassword": "password"
}
```

#### Output

None.

#### Get CIFS server configurations

You can use this workflow to retrieve the CIFS server configurations for an existing Cloud Volumes ONTAP working environment.

Choose the correct workflow depending on the type of the Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

## Get CIFS server configuration for single node

You can use this workflow to retrieve a CIFS server configuration for a single node system.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

### 2. Get the CIFS configurations

HTTP method	Path
GET	/occm/api/vsa/working-environments/{workingEnvironmentId}/cifs

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/working-
environments/<WORKING_ENV_ID>/cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId`
- Optional query parameter `svm`

#### Output

The JSON output example includes the CIFS configurations for an existing Cloud Volumes ONTAP working environment.

#### JSON output example

```
[
  {
    "dnsDomain": "zivh.netapp.com",
    "activeDirectoryDomain": "zivh.netapp.com",
    "ipAddresses": [
      "172.31.5.241"
    ],
    "netBIOS": "zivaws02we01",
    "organizationalUnit": "CN=Computers",
    "authenticationType": "domain"
  }
]
```

## Get CIFS server configuration for high availability pair

You can use this workflow to retrieve a CIFS server configuration for an HA working environment.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

### 2. Get the CIFS configurations

HTTP method	Path
GET	/occm/api/aws/ha/working-environments/{workingEnvironmentId}/cifs

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/working-
environments/<WORKING_ENV_ID>/cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId`
- Optional query parameter `svm`

#### Output

The JSON output example includes the CIFS configurations for an existing Cloud Volumes ONTAP working environment.

#### JSON output example

```
[
  {
    "dnsDomain": "zivh.netapp.com",
    "activeDirectoryDomain": "zivh.netapp.com",
    "ipAddresses": [
      "172.31.5.241"
    ],
    "netBIOS": "zivaws02we01",
    "organizationalUnit": "CN=Computers",
    "authenticationType": "domain"
  }
]
```

## Delete CIFS server configuration

You can use this workflow to delete a CIFS server configuration for an existing Cloud Volumes ONTAP working environment.

Choose the correct workflow depending on the type of the Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Delete CIFS server configuration for single node

You can use this workflow to delete a CIFS server configuration for a single node system.

#### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

#### 2. Delete the CIFS configurations

HTTP method	Path
POST	/occm/api/vsa/working-environments/{workingEnvironmentId}/delete-cifs

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/working-
environments/<WORKING_ENV_ID>/delete-cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId`
- Optional JSON body

```
{
  "activeDirectoryUsername": "string",
  "activeDirectoryPassword": "string",
  "svmName": "string"
}
```

#### Output

None.

## Delete CIFS server configuration for high availability pair

You can use this workflow to delete a CIFS server configuration for an HA working environment.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

### 2. Delete the CIFS configurations

HTTP method	Path
POST	/occm/api/aws/ha/working-environments/{workingEnvironmentId}/delete-cifs

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/working-
environments/<WORKING_ENV_ID>/delete-cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId`
- Optional JSON body

```
{
  "activeDirectoryUsername": "string",
  "activeDirectoryPassword": "string",
  "svmName": "string"
}
```

#### Output

None.

## Aggregates

### Get aggregates

You can retrieve a list of available disk aggregates.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)



## Get aggregates for single node

You can use this workflow to retrieve the aggregates for a single node working environment.

### 1. Select the working environment to use

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

### 2. Get the list of aggregates

HTTP method	Path
GET	/occm/api/vsa/aggregates/{workingEnvironmentId}

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/aggregates/<WORKING_EN
V_ID>' --header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

Path parameter `<WORKING_ENV_ID>` (`workingEnvironmentId`)

#### Output

An array of aggregates for the indicated working environment is returned as shown in the JSON output example.

#### JSON output example

```
[
  {
    "name": "aggr1",
    "availableCapacity": {
      "size": 87.55,
      "unit": "GB"
    },
    "totalCapacity": {
      "size": 88.57,
      "unit": "GB"
    },
    "usedCapacity": {
      "size": 1.02,
      "unit": "GB"
    },
    "volumes": [
      {
        "name": "svm_ziv01we01_root",
```

```

        "totalSize": {
            "size": 1.0,
            "unit": "GB"
        },
        "usedSize": {
            "size": 0.00115203857421875,
            "unit": "GB"
        },
        "thinProvisioned": false,
        "isClone": false,
        "rootVolume": true
    }
],
"providerVolumes": [
    {
        "id": "vol-066fea889cbc6a65c",
        "name": "vol-066fea889cbc6a65c",
        "size": {
            "size": 100.0,
            "unit": "GB"
        },
        "state": "in-use",
        "device": "/dev/xvdg",
        "instanceId": "i-0fa9a2879e67a8829",
        "diskType": "gp2",
        "encrypted": true,
        "iops": null
    }
],
"disks": [
    {
        "name": "NET-1.3",
        "position": "data",
        "ownerNode": "ziv01we01-01",
        "device": "xvdg vol066fea889cbc6a65c",
        "vmDiskProperties": null
    }
],
"state": "online",
"encryptionType": "cloudEncrypted",
"encryptionKeyId": null,
"isRoot": false,
"homeNode": "ziv01we01-01",
"ownerNode": "ziv01we01-01",
"capacityTier": null,
"capacityTierUsed": null,

```

```

        "sidlEnabled": true,
        "snaplockType": "non_snaplock"
    }
]

```

## Get aggregates for high availability pair

You can use this workflow to retrieve the aggregates for an HA working environment.

### 1. Select the working environment to use

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

### 2. Get the list of aggregates

HTTP method	Path
GET	/occm/api/aws/ha/aggregates/{workingEnvironmentId}

#### curl example

```

curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/aggregates/<WORKING_ENV_ID>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'

```

#### Input

Path parameter `<WORKING_ENV_ID>` (`workingEnvironmentId`)

#### Output

An array of aggregates for the indicated working environment is returned as shown in the JSON output example.

#### JSON output example

```

[
  {
    "name": "aggr1",
    "availableCapacity": {
      "size": 83.13,
      "unit": "GB"
    },
    "totalCapacity": {
      "size": 84.14,
      "unit": "GB"
    },
    "usedCapacity": {

```

```

    "size": 1.02,
    "unit": "GB"
  },
  "volumes": [
    {
      "name": "svm_ziv04we0lha_root",
      "totalSize": {
        "size": 1.0,
        "unit": "GB"
      },
      "usedSize": {
        "size": 7.0953369140625E-4,
        "unit": "GB"
      },
      "thinProvisioned": false,
      "isClone": false,
      "rootVolume": true
    }
  ],
  "providerVolumes": [
    {
      "id": "vol-0d5d1983432218cec",
      "name": "vol-0d5d1983432218cec",
      "size": {
        "size": 100.0,
        "unit": "GB"
      },
      "state": "in-use",
      "device": "/dev/xvdh",
      "instanceId": "i-053d9d1bce8121c43",
      "diskType": "gp2",
      "encrypted": true,
      "iops": null
    },
    {
      "id": "vol-0a3fe8eaed2af69de",
      "name": "vol-0a3fe8eaed2af69de",
      "size": {
        "size": 100.0,
        "unit": "GB"
      },
      "state": "in-use",
      "device": "/dev/xvdh",
      "instanceId": "i-0392f55ca4bc06322",
      "diskType": "gp2",
      "encrypted": true,

```

```

        "iops": null
    },
    ],
    "disks": [
        {
            "name": "NET-1.4",
            "position": "data",
            "ownerNode": "ziv04we01ha-01",
            "device": "xvdh vol0d5d1983432218cec",
            "vmDiskProperties": null
        },
        {
            "name": "NET-2.4",
            "position": "data",
            "ownerNode": "ziv04we01ha-01",
            "device": "xvdh vol0a3fe8eaed2af69de",
            "vmDiskProperties": null
        }
    ],
    "state": "online",
    "encryptionType": "cloudEncrypted",
    "encryptionKeyId": null,
    "isRoot": false,
    "homeNode": "ziv04we01ha-01",
    "ownerNode": "ziv04we01ha-01",
    "capacityTier": null,
    "capacityTierUsed": null,
    "sidlEnabled": true,
    "snaplockType": "non_snaplock"
},
{
    "name": "ziv04we01haagg01",
    "availableCapacity": {
        "size": 84.14,
        "unit": "GB"
    },
    "totalCapacity": {
        "size": 84.14,
        "unit": "GB"
    },
    "usedCapacity": {
        "size": 156.0,
        "unit": "KB"
    },
    "volumes": [],
    "providerVolumes": [

```

```

    {
      "id": "vol-0149ffa06bb4e92ad",
      "name": "vol-0149ffa06bb4e92ad",
      "size": {
        "size": 100.0,
        "unit": "GB"
      },
      "state": "in-use",
      "device": "/dev/xvdi",
      "instanceId": "i-0392f55ca4bc06322",
      "diskType": "gp2",
      "encrypted": true,
      "iops": null
    },
    {
      "id": "vol-03e6ada9e893b1196",
      "name": "vol-03e6ada9e893b1196",
      "size": {
        "size": 100.0,
        "unit": "GB"
      },
      "state": "in-use",
      "device": "/dev/xvdi",
      "instanceId": "i-053d9d1bce8121c43",
      "diskType": "gp2",
      "encrypted": true,
      "iops": null
    }
  ],
  "disks": [
    {
      "name": "NET-2.5",
      "position": "data",
      "ownerNode": "ziv04we01ha-01",
      "device": "xvdi vol0149ffa06bb4e92ad",
      "vmDiskProperties": null
    },
    {
      "name": "NET-1.5",
      "position": "data",
      "ownerNode": "ziv04we01ha-01",
      "device": "xvdi vol03e6ada9e893b1196",
      "vmDiskProperties": null
    }
  ],
  "state": "online",

```

```

    "encryptionType": "cloudEncrypted",
    "encryptionKeyId": null,
    "isRoot": false,
    "homeNode": "ziv04we01ha-01",
    "ownerNode": "ziv04we01ha-01",
    "capacityTier": null,
    "capacityTierUsed": null,
    "sidlEnabled": true,
    "snaplockType": "non_snaplock"
  }
]

```

## Create aggregate

You can create a new aggregate within a working environment using this workflow. Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Create aggregate for single node

You can use this workflow to create an aggregate for a single node working environment.

#### 1. Select the working environment to use

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter.

#### 2. Create the aggregate

HTTP method	Path
POST	occm/api/vsa/aggregates

#### curl example

```

curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/aggregates' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput

```

#### Input

The JSON input example includes the minimum list of input parameters.

#### JSON input example

```
{
  "name": "ziv01agg04",
  "workingEnvironmentId": "VsaWorkingEnvironment-9e6p8LuF",
  "numberOfDisks": 1,
  "diskSize": {
    "size": 100,
    "unit": "GB"
  },
  "providerVolumeType": "gp2"
}
```

## Output

None

## Create aggregate for high availability pair

You can use this workflow to create an aggregate for an HA working environment.

### 1. Select the working environment to use

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter.

### 2. Create the aggregate

HTTP method	Path
POST	<code>occm/api/aws/ha/aggregates</code>

## curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/aggregates'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

The JSON input example includes the minimum list of input parameters.

## JSON input example



```
{
  "name": "ziv01agg04",
  "workingEnvironmentId": "VsaWorkingEnvironment-9e6p8LuF",
  "numberOfDisks": 1,
  "diskSize": {
    "size": 100,
    "unit": "GB"
  },
  "providerVolumeType": "gp2"
}
```

## Output

None

## Add disks to aggregate

You can add disks to an existing aggregate.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Add disks to an aggregate for single node

You can use this workflow to add disks to an aggregate for a single node working environment.

#### 1. Select the working environment to use

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` path parameter.

#### 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the `name` value for the `aggregateName` path parameter.

#### 3. Add the disks

HTTP method	Path
POST	<code>/occm/api/vsa/aggregates/{workingEnvironmentId}/{aggregateName}/disks</code>

## curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/aggregates/<WORKING_ENV_ID>/<AGGR_NAME>/disks' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

You must include the following path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId)
- <AGGR\_NAME> (aggregateName)

Also, the JSON input example includes an input parameter as shown.

## JSON input example

```
{
  "numberOfDisks": "1"
}
```

## Output

None

### Add disks to an aggregate for high availability pair

You can use this workflow to add disks to an aggregate for HA working environment.

#### 1. Select the working environment to use

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` path parameter.

#### 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the `name` value for the `aggregateName` path parameter.

#### 3. Add the disks

HTTP method	Path
POST	/occm/api/aws/ha/aggregates/{workingEnvironmentId}/{aggregateName}/disks

## curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/aggregates/<WORKING_ENV_ID>/<AGGR_NAME>/disks' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

You must include the following path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId)
- <AGGR\_NAME> (aggregateName)

Also, the JSON input example includes an input parameter as shown.

## JSON input example

```
{
  "numberOfDisks": "1"
}
```

## Output

None

## Delete aggregate

You can delete an existing disk aggregate. Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Delete aggregate for single node

You can use this workflow to delete an aggregate for a single node working environment.

#### 1. Select the working environment to use

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` path parameter.

#### 2. Select the aggregate to delete

Perform the workflow [Get aggregates](#) and choose the `name` value of the required for the `aggregateName` path parameter.

#### 3. Delete the aggregate

HTTP method	Path
DELETE	/occm/api/vsa/aggregates/{workingEnvironmentId}/{aggregateName}

#### curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/aggregates/<WORKING_ENV_ID>/<AGGR_NAME>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

Path parameters:

<WORKING\_ENV\_ID> (workingEnvironmentId)  
<AGGR\_NAME> (aggregateName)

#### Output

None

#### Delete aggregate for high availability pair

You can use this workflow to delete an aggregate for an HA working environment.

##### 1. Select the working environment to use

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` path parameter.

##### 2. Select the aggregate to delete

Perform the workflow [Get aggregates](#) and choose the `name` value of the required for the `aggregateName` path parameter.

##### 3. Delete the aggregate

HTTP method	Path
DELETE	/occm/api/aws/ha/aggregates/{workingEnvironmentId}/{aggregateName}

#### curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/aggregates/<WORKING_ENV_ID>/<AGGR_NAME>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

Path parameters:

<WORKING\_ENV\_ID> (workingEnvironmentId)

<AGGR\_NAME> (aggregateName)

## Output

None

## Volumes

### Create volume using NFS

You can use this workflow to create a volume accessed through NFS protocol.



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Create volume using NFS for single node

You can use this workflow to create volume using NFS for a single node system.

#### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` and the `svmName` values for the `workingEnvironmentId` and the `svmName` parameters.

#### 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the `name` value of the aggregate for the `name` parameter.



If aggregate name does not exist and the `createAggregateIfNotFound` query parameter is set `true`, the create volume request is allowed if the named aggregate is not found.

#### 3. Select the virtual private cloud

Perform the workflow [Get virtual private clouds](#) and choose the `cidrBlock` value of the required VPC for the `ips` parameter or fill in the desired `exportPolicyInfo` value manually.

#### 4. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

#### 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

## 6. Create the volume

HTTP method	Path
POST	/occm/api/vsa/volumes

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters, including:

- <WORKING\_ENV\_ID> (workingEnvironmentId)
- <SVM\_NAME> (svmName)
- <AGGR\_NAME> (aggregateName)

If aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-5dZfyKS5",
  "svmName": "svm_ziv01we01",
  "aggregateName": "ziv01agg01",
  "name": "ziv01vol04",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "exportPolicyInfo": {
    "policyType": "custom",
    "ips": [
      "172.31.0.0/16"
    ],
    "nfsVersion": [
      "nfs3",
      "nfs4"
    ]
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

## Output

None

## Create volume using NFS for high availability pair

You can use this workflow to create volume using NFS for an HA working environment.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` and the `svmName` values for the `workingEnvironmentId` and the `svmName` parameters.

### 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the `name` value of the aggregate for the `name` parameter.



If aggregate name does not exist and the `createAggregateIfNotFound` query parameter is set `true`, the create volume request is allowed if the named aggregate is not found.

### 3. Select the virtual private cloud

Perform the workflow [Get virtual private clouds](#) and choose the `cidrBlock` value of the required VPC for the `ips` parameter or fill in the desired `exportPolicyInfo` value manually.

### 4. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

### 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

### 6. Create the volume

HTTP method	Path
POST	/occm/api/aws/ha/volumes

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

#### Input

The JSON input example includes the minimum list of input parameters, including:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`)
- `<SVM_NAME>` (`svmName`)
- `<AGGR_NAME>` (`aggregateName`)

If aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

#### JSON input example



```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-5dZfyKS5",
  "svmName": "svm_ziv01we01",
  "aggregateName": "ziv01agg01",
  "name": "ziv01vol04",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "exportPolicyInfo": {
    "policyType": "custom",
    "ips": [
      "172.31.0.0/16"
    ],
    "nfsVersion": [
      "nfs3",
      "nfs4"
    ]
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

## Output

None

## Create volume using CIFS

You can use this workflow to create a volume accessed through CIFS.



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Create volume using CIFS for single node

You can use this workflow to create volume using CIFS protocol for a single node system.

## 1. Choose the CIFS configuration

A CIFS server configuration must be defined for your working environment. You can do one of the following:

- If a CIFS configuration already exists, perform the workflow [Get CIFS server configurations](#) to access the configuration parameters.
- If a CIFS configuration does not exist, perform the workflow [Create CIFS server configuration](#) to create one.

## 2. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` and the `svmName` values for the `workingEnvironmentId` (working environment) and the `svmName` (SVM name) parameters.

## 3. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the name for the `aggregateName` value.



If aggregate name does not exist and the `createAggregateIfNotFound` query parameter is set `true`, the create volume request is allowed if the named aggregate is not found.

## 4. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

## 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

## 6. Create the volume

HTTP method	Path
POST	/occm/api/vsa/volumes

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters, including:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`)
- `<SVM_NAME>` (`svmName`)
- `<AGGR_NAME>` (`aggregateName`)

If an aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-SfpVUZSc",
  "svmName": "svm_zivaws02we01",
  "aggregateName": "aggr1",
  "name": "zivaws02we02vol02Cifs",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "shareInfo": {
    "accessControl": {
      "permission": "full_control",
      "users": [
        "Everyone"
      ],
      "users": "Everyone;"
    },
    "shareName": "zivaws02we01vol02Cifs_share"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

### Output

None

### Create volume using CIFS for high availability pair

You can use this workflow to create volume using CIFS for an HA working environment.

#### 1. Choose the CIFS configuration

A CIFS server configuration must be defined for your working environment. You can do one of the following:

- If a CIFS configuration already exists, perform the workflow [Get CIFS server configurations](#) to access the configuration parameters.
- If a CIFS configuration does not exist, perform the workflow [Create CIFS server configuration](#) to create one.

## 2. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` and the `svmName` values for the `workingEnvironmentId` (working environment) and the `svmName` (SVM name) parameters.

## 3. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the name for the `aggregateName` value.



If aggregate name does not exist and the `createAggregateIfNotFound` query parameter is set `true`, the create volume request is allowed if the named aggregate is not found.

## 4. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

## 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

## 6. Create the volume

HTTP method	Path
POST	/occm/api/aws/ha/volumes

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters, including:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`)
- `<SVM_NAME>` (`svmName`)
- `<AGGR_NAME>` (`aggregateName`)

If an aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-SfpVUZSc",
  "svmName": "svm_zivaws02we01",
  "aggregateName": "aggr1",
  "name": "zivaws02we02vol02Cifs",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "shareInfo": {
    "accessControl": {
      "permission": "full_control",
      "users": [
        "Everyone"
      ],
      "users": "Everyone;"
    },
    "shareName": "zivaws02we01vol02Cifs_share"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

## Output

None

## Create volume using iSCSI

You can use this workflow to create a volume accessed through iSCSI protocol.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Create volume using iSCSI for single node

You can use this workflow to create volume using iSCSI for a single node system.

There are two workflows available depending on whether a new or existing iGroup is used. You need to select the correct workflow:

- [Create volume using iSCSI with a new iGroup](#)
- [Create volume using iSCSI with an existing iGroup](#)

## Create volume using iSCSI with a new iGroup



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter and the `svmName` value for the `svmName` parameter.

### 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the name for the `aggregateName` value.

### 3. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

### 4. Choose the iscasilInfo parameters

You must choose the following values for the REST API call:

- A unique igroup name for `igroupCreationRequest` → `igroupName` parameter
- The required iqn's to `igroupCreationRequest` → `initiators` parameter.
- The required operating system for the `osName` parameter from one of the following:
  - windows
  - linux
  - vmware
  - windows\_2008
  - windows\_gpt

### 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

### 6. Create the volume

HTTP method	Path
POST	/occm/api/vsa/volumes

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

The JSON input example includes the minimum list of input parameters, including:

- <WORKING\_ENV\_ID> (workingEnvironmentId)
- <SVM\_NAME> (svmName)
- <AGGR\_NAME> (aggregateName)

If aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

## JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-SfpVUZSc",
  "svmName": "svm_zivaws02we01",
  "aggregateName": "aggr1",
  "name": "zivaws02we01vol01Iscsi",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "iscsiInfo": {
    "igroupCreationRequest": {
      "igroupName": "zivIgroup",
      "initiators": [
        "iqn.1994-05.com.redhat:96de86825216",
        "iqn.1994-05.com.redhat:96de86823426"
      ]
    },
    "osName": "linux"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

## Output

None

## Create volume using iSCSI with an existing iGroup



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter and the `svmName` value for the `svmName` parameter.

### 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the name for the `aggregateName` parameter.

### 3. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

### 4. Choose the iGroup

Perform the workflow [Get iGroups](#) and choose the `igroups` for the `iscasiInfo → igroups` value. Also select the `osType` value for the `iscasiInfo → osName`.

### 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

### 6. Create the volume

HTTP method	Path
POST	/occm/api/vsa/volumes

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

The JSON input example includes the minimum list of input parameters, including:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`)
- `<SVM_NAME>` (`svmName`)



- <AGGR\_NAME> (aggregateName)

If an aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-UvFmWXoD",
  "svmName": "svm_zivaws01we01",
  "aggregateName": "aggr1",
  "name": "zivaws01we01vol05Iscsi",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "iscsiInfo": {
    "igroups": ["zivIgroup1"],
    "osName": "linux"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

### Output

None

### Create volume using iSCSI for high availability pair

You can use this workflow to create volume using iSCSI for an HA working environment.

There are two workflows available depending on whether a new or existing iGroup is used. You need to select the correct workflow:

- [Create volume using iSCSI with a new iGroup](#)
- [Create volume using iSCSI with an existing iGroup](#)

### Create volume using iSCSI with a new iGroup



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

## 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter and the `svmName` value for the `svmName` parameter.

## 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the `name` for the `aggregateName` parameter.

## 3. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

## 4. Choose the iscsiInfo parameters

You must choose the following values for the REST API call:

- A unique igroup name for `igroupCreationRequest` → `igroupName` parameter
- The required iqns to `igroupCreationRequest` → `initiators` parameter.
- The required operating system for the `osName` parameter from one of the following:
  - windows
  - linux
  - vmware
  - windows\_2008
  - windows\_gpt

## 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

## 6. Create the volume

HTTP method	Path
POST	/occm/api/aws/ha/volumes

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters, including:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`)

- <SVM\_NAME> (svmName)
- <AGGR\_NAME> (aggregateName)

If aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-SfpVUZSc",
  "svmName": "svm_zivaws02we01",
  "aggregateName": "aggr1",
  "name": "zivaws02we01vol01Iscsi",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "iscsiInfo": {
    "igroupCreationRequest": {
      "igroupName": "zivIgroup",
      "initiators": [
        "iqn.1994-05.com.redhat:96de86825216",
        "iqn.1994-05.com.redhat:96de86823426"
      ]
    },
    "osName": "linux"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

### Output

None

### Create volume using iSCSI with an existing iGroup



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

#### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter and the `svmName` value for the `svmName` parameter.

## 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the name for the `aggregateName` parameter.

## 3. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

## 4. Choose the iGroup

Perform the workflow [Get iGroups](#) and choose the igroups for the `iscasiInfo → igroups` value. Also select the `osType` value for the `iscasiInfo → osName`.

## 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

## 6. Create the volume

HTTP method	Path
POST	/occm/api/vsa/volumes

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters, including:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`)
- `<SVM_NAME>` (`svmName`)
- `<AGGR_NAME>` (`aggregateName`)

If an aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-UvFmWXoD",
  "svmName": "svm_zivaws01we01",
  "aggregateName": "aggr1",
  "name": "zivaws01we01vol05Iscsi",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "iscsiInfo": {
    "igroups": ["zivIgroup1"],
    "osName": "linux"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

## Output

None

## Get volumes

You can retrieve the list of volumes.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get volumes for single node

You can use this workflow to retrieve a list of volumes for a single node working environment.

#### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` query parameter.

#### 2. Get the volumes

HTTP method	Path
GET	/occm/api/vsa/volumes

## curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/volumes?workingEnvironmentId=<WORKING_ENV_ID>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

Query parameter <WORKING\_ENV\_ID> (workingEnvironmentId)

## Output

The JSON output example includes the list of volumes for the working environment.

## JSON output example

```
[
  {
    "name": "ziv02vol01",
    "uuid": "cb488216-5bd1-11eb-8a9b-615eb82c79d8",
    "svmName": "svm_ziv01we02",
    "size": {
      "size": 100.0,
      "unit": "GB"
    },
    "usedSize": {
      "size": 5.18798828125E-4,
      "unit": "GB"
    },
    "junctionPath": "/ziv02vol01",
    "volumeTotalInodes": 3112959,
    "volumeUsedInodes": 96,
    "mountPoint": "172.31.1.199:/ziv02vol01",
    "compressionSpaceSaved": {
      "size": 0.0,
      "unit": "GB"
    },
    "deduplicationSpaceSaved": {
      "size": 0.0,
      "unit": "GB"
    },
    "thinProvisioning": true,
    "compression": true,
    "deduplication": true,
    "snapshotPolicy": "default",
    "securityStyle": "unix",
    "exportPolicyInfo": {
```

```

    "name": "export-svm_ziv01we02-ziv02vol01",
    "policyType": "custom",
    "ips": [
        "172.31.0.0/16"
    ],
    "nfsVersion": [
        "nfs3"
    ]
},
"shareNames": [],
"shareInfo": [],
"parentVolumeName": "",
"rootVolume": false,
"state": "online",
"volumeType": "rw",
"aggregateName": "aggr1",
"parentSnapshot": null,
"autoSizeMode": "grow",
"maxGrowSize": {
    "size": 1100.0,
    "unit": "GB"
},
"providerVolumeType": "gp2",
"cloneNames": [],
"moving": false,
"primaryNoFailoverMountPoint": null,
"secondaryNoFailoverMountPoint": null,
"capacityTier": null,
"capacityTierUsedSize": null,
"cifsShareAccessPoint": null,
"primaryCifsShareAccessPoint": null,
"secondaryCifsShareAccessPoint": null,
"tieringPolicy": "none",
"tierInactiveUserData": {
    "size": 0.0,
    "unit": "GB"
},
"tierInactiveUserDataPercent": 0,
"comment": null,
"qosPolicyGroupName": null,
"snaplockType": "non_snaplock",
"constituentsAggregates": [],
"snapshotsUsedSize": {
    "size": 1597440.0,
    "unit": "Byte"
},
},

```

```

    "cbsBackupsInfo": null,
    "minimumCoolingDays": null,
    "targetName": "iqn.1992-
08.com.netapp:sn.7d147b755bd011ebb076ef46475a0933:vs.2",
    "iscsiEnabled": false,
    "isFlexGroupVolume": false
  }
]

```

## Get volumes for high availability pair

You can use this workflow to retrieve a list of volumes for an HA working environment.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` query parameter.

### 2. Get the volumes

HTTP method	Path
GET	/occm/api/aws/ha/volumes

#### curl example

```

curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/volumes?workingEnvi
ronmentId=<WORKING_ENV_ID>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>'

```

#### Input

Query parameter `<WORKING_ENV_ID>` (`workingEnvironmentId`)

#### Output

The JSON output example includes the list of volumes for the working environment.

```

[
{
  "name": "ziv04we01haagg01vol01",
  "uuid": "728ad225-61ca-11eb-81ba-637783e50391",
  "svmName": "svm_ziv04we01ha",
  "size": {
    "size": 100.0,
    "unit": "GB"
  },

```



```

"usedSize": {
  "size": 2.93731689453125E-4,
  "unit": "GB"
},
"junctionPath": "/ziv04we01haagg01vol01",
"volumeTotalInodes": 3112959,
"volumeUsedInodes": 96,
"mountPoint": "2.2.2.2:/ziv04we01haagg01vol01",
"compressionSpaceSaved": {
  "size": 0.0,
  "unit": "GB"
},
"deduplicationSpaceSaved": {
  "size": 0.0,
  "unit": "GB"
},
"thinProvisioning": true,
"compression": true,
"deduplication": true,
"snapshotPolicy": "default",
"securityStyle": "unix",
"exportPolicyInfo": {
  "name": "export-svm_ziv04we01ha-ziv04we01haagg01vol01",
  "policyType": "custom",
  "ips": [
    "172.31.0.0/16"
  ],
  "nfsVersion": [
    "nfs3",
    "nfs4"
  ]
},
"shareNames": [],
"shareInfo": [],
"parentVolumeName": "",
"rootVolume": false,
"state": "online",
"volumeType": "rw",
"aggregateName": "aggr1",
"parentSnapshot": null,
"autoSizeMode": "grow",
"maxGrowSize": {
  "size": 1100.0,
  "unit": "GB"
},
"providerVolumeType": "gp2",

```

```

    "cloneNames": [],
    "moving": false,
    "primaryNoFailoverMountPoint":
"172.31.1.36:/ziv04we01haagg01vol01",
    "secondaryNoFailoverMountPoint":
"172.31.2.210:/ziv04we01haagg01vol01",
    "capacityTier": null,
    "capacityTierUsedSize": null,
    "cifsShareAccessPoint": null,
    "primaryCifsShareAccessPoint": null,
    "secondaryCifsShareAccessPoint": null,
    "tieringPolicy": "none",
    "tierInactiveUserData": {
        "size": 0.0,
        "unit": "GB"
    },
    "tierInactiveUserDataPercent": 0,
    "comment": null,
    "qosPolicyGroupName": null,
    "snaplockType": "non_snaplock",
    "constituentsAggregates": [],
    "snapshotsUsedSize": {
        "size": 0.0,
        "unit": "Byte"
    },
    "cbsBackupsInfo": null,
    "minimumCoolingDays": null,
    "targetName": "iqn.1992-
08.com.netapp:sn.c4a88d8c618511eba2c7672081bef253:vs.3",
    "iscsiEnabled": false,
    "isFlexGroupVolume": false
}
]

```

## Modify volume

You can modify the configuration of an existing volume.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Modify volume for single node

You can use this workflow to modify the configuration of an existing volume for a single node working environment.

## 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` and `svmName` values for the `workingEnvironmentId` and `svmName` path parameters.

## 2. Select the volume

Perform the workflow [Get volumes](#) and choose the `name` for the `volumeName` path parameter.

## 3. Modify the volume

HTTP method	Path
PUT	/occm/api/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}

### curl example

```
curl --location --request PUT
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/volumes/<WORKING_ENV_ID>/<SVM_NAME>/<VOLUME_NAME>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

Path parameters:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`)
- `<SVM_NAME>` (`svmName`)
- `<VOLUME_NAME>` (`volumeName`)

The JSON input example includes the minimum list of input parameters.

### JSON input example

```
{
  "exportPolicyInfo": {
    "policyType": "custom",
    "ips": [
      "172.31.0.0/16"
    ],
    "nfsVersion": [
      "nfs3"
    ]
  }
}
```

## Output

None

### Modify volume for high availability pair

You can use this workflow to modify the configuration of an existing volume for an HA working environment.

#### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` and `svmName` values for the `workingEnvironmentId` and `svmName` path parameters.

#### 2. Select the volume

Perform the workflow [Get volumes](#) and choose the `name` for the `volumeName` path parameter.

#### 3. Modify the volume

HTTP method	Path
PUT	/occm/api/aws/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}

#### curl example

```
curl --location --request PUT
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/volumes/<WORKING_ENV_ID>/<SVM_NAME>/<VOLUME_NAME>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

Path parameters:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`)
- `<SVM_NAME>` (`svmName`)
- `<VOLUME_NAME>` (`volumeName`)

The JSON input example includes the minimum list of input parameters.

#### JSON input example

```
{
  "exportPolicyInfo": {
    "policyType": "custom",
    "ips": [
      "172.31.0.0/16"
    ],
    "nfsVersion": [
      "nfs3"
    ]
  }
}
```

## Output

None

## Delete volume

You can delete an existing volume.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Delete volume for single node

You can use this workflow to delete a volume for a single node working environment.

#### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` and `svmName` values of the working environment for the `workingEnvironmentId` and `svmName` path parameters.

#### 2. Select the volume

Perform the workflow [Get volumes](#) and choose the `name` of the required volume for the `volumeName` path parameter.

#### 3. Delete the volume

HTTP method	Path
DELETE	/occm/api/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}

## curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/volumes/<WORKING_ENV_ID>/<SVM_NAME>/<VOLUME_NAME>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>'
```

## Input

Path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId)
- <SVM\_NAME> (svmName)
- <VOLUME\_NAME> (volumeName)

## Output

None

### Delete volume for high availability pair

You can use this workflow to delete a volume for an HA working environment.

#### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` and `svmName` values of the working environment for the `workingEnvironmentId` and `svmName` path parameters.

#### 2. Select the volume

Perform the workflow [Get volumes](#) and choose the `name` of the required volume for `volumeName` path parameter.

#### 3. Delete the volume

HTTP method	Path
DELETE	/occm/api/aws/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}

### curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/volumes/<WORKING_ENV_ID>/<SVM_NAME>/<VOLUME_NAME>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>'
```

## Input

Path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId)

- <SVM\_NAME> (svmName)
- <VOLUME\_NAME> (volumeName)

## Output

None

## Create quote

You can create a quote for a new volume which returns a resource quote needed to satisfy the request. The resource quote contains aggregate information where the volume will be created and confirms if the space is available. This is a recommended step but is not mandatory.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Create quote for single node

You can use this workflow to retrieve quote details for a single node working environment.

#### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` and `svmName` values of the working environment for the `workingEnvironmentId` and `svmName` parameters.

#### 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the `name` value for the `name` parameter.

#### 3. Select the permutations configuration

Perform the workflow [Get permutations](#) and choose the `size` and `diskType` values for step 4.

#### 4. Generate the volume quote

HTTP method	Path
POST	/occm/api/vsa/quote

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/volumes/quote'
--header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

The JSON input example includes the list of input parameters.

### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-5dZfyKS5",
  "svmName": "svm_ziv01we01",
  "aggregateName": "ziv01agg01",
  "name": "ziv1vol02",
  "size": {
    "size": "100",
    "unit": "GB"
  },
  "enableThinProvisioning": "true",
  "providerVolumeType": "gp2",
  "verifyNameUniqueness": "true"
}
```

## Output

The JSON output example includes an example of the quote details.

### JSON output example

```
{
  "numOfDisks": 0,
  "diskSize": {
    "size": 100.0,
    "unit": "GB"
  },
  "aggregateName": "ziv01agg01",
  "newAggregate": false,
  "autoVsaCapacityManagement": true
}
```

## Create quote for high availability pair

You can use this workflow to retrieve quote details for an HA working environment.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` and `svmName` values of the working environment for the `workingEnvironmentId` and `svmName` parameters.

### 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the `name` value for step 4.



### 3. Select the package

Perform the [Get packages](#) workflow and select the size and diskType values of the required package for diskSize and providerVolumeType values.

### 4. Generate the volume quote

HTTP method	Path
POST	/occm/api/aws/ha/quote

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/volumes/quote'
--header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

#### Input

The JSON input example includes the list of input parameters.

#### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-N6BPfglr",
  "svmName": "svm_ziv04we01ha",
  "aggregateName": "aggr1",
  "name": "ziv04we01haagg01vol01",
  "size": {
    "size": "100",
    "unit": "GB"
  },
  "enableThinProvisioning": "true",
  "providerVolumeType": "gp2",
  "verifyNameUniqueness": "true"
}
```

#### Output

The JSON output example includes an example of the quote details.

#### JSON output example

```
{
  "numOfDisks": 0,
  "diskSize": {
    "size": 100.0,
    "unit": "GB"
  },
  "aggregateName": "ziv04we01haagg01",
  "newAggregate": false,
  "autoVsaCapacityManagement": true
}
```

## Get iGroups

You can use this workflow to retrieve all the initiator groups (iGroups).

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get iGroups for single node

You can use this workflow to retrieve the iGroups for a single node system.

#### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` and `svmName` values of the working environment for the `workingEnvironmentId` and `svmName` path parameters.

#### 2. Get the CIFS configurations

HTTP method	Path
GET	/occm/api/vsa/volumes/igroups/{workingEnvironmentId}/{svmName}

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/volumes/igroups/<WORKING_ENV_ID>/<SVM_NAME>' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type:
application/json'
```

### Input

- Path parameter `<WORKING_ENV_ID>`
- Path parameter `<SVM_NAME>`

## Output

The JSON output example includes a list of iGroups.

### JSON output example

```
[
  {
    "igroupName": "zivIgroup1",
    "osType": "linux",
    "portsetName": "",
    "igroupType": "iscsi",
    "initiators": [
      "iqn.1994-05.com.redhat:1d9ac633937c"
    ]
  },
  {
    "igroupName": "zivIgroup2",
    "osType": "linux",
    "portsetName": "",
    "igroupType": "iscsi",
    "initiators": [
      "iqn.1994-05.com.redhat:96de86825216"
    ]
  }
]
```

### Get iGroups for high availability pair

You can use this workflow to retrieve the iGroups for an HA working environment.

#### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` and `svmName` values of the working environment for the `workingEnvironmentId` and `svmName` path parameters.

#### 2. Get the CIFS configurations

HTTP method	Path
GET	/occm/api/aws/ha/volumes/igroups/{workingEnvironmentId}/{svmName}

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/volumes/igroups/<WORKING_ENV_ID>/<SVM_NAME>' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type:
application/json'
```

## Input

- Path parameter <WORKING\_ENV\_ID>
- Path parameter <SVM\_NAME>

## Output

The JSON output example includes a list of iGroups.

### JSON output example

```
[
  {
    "igroupName": "zivIgroup1",
    "osType": "linux",
    "portsetName": "",
    "igroupType": "iscsi",
    "initiators": [
      "iqn.1994-05.com.redhat:1d9ac633937c"
    ]
  },
  {
    "igroupName": "zivIgroup2",
    "osType": "linux",
    "portsetName": "",
    "igroupType": "iscsi",
    "initiators": [
      "iqn.1994-05.com.redhat:96de86825216"
    ]
  }
]
```

## Metadata

### Get regions

This workflow retrieves the AWS regions in which an Cloud Volumes ONTAP working environment may be created.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get regions for single node

You can use this workflow to retrieve the regions for a single node system.

## 1. Get the list of regions

HTTP method	Path
GET	/occm/api/vsa/metadata/regions

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/metadata/regions'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

### Input

None

### Output

The JSON output provides an example of a list of AWS regions.

### JSON output example

```
[
  {
    "name": "US East",
    "code": "us-east-1",
    "location": "N. Virginia",
    "s3Region": "US"
  },
  {
    "name": "US West",
    "code": "us-west-1",
    "location": "N. California",
    "s3Region": "us-west-1"
  },
  {
    "name": "EU",
    "code": "eu-central-1",
    "location": "Frankfurt",
    "s3Region": "eu-central-1"
  },
  {
    "name": "Asia Pacific",
    "code": "ap-south-1",
    "location": "Mumbai",
    "s3Region": "ap-south-1"
  },
]
```

## Get regions for high availability pair

You can use this workflow to retrieve the regions for an HA pair.

### 1. Get the list of regions

HTTP method	Path
GET	/occm/api/aws/ha/metadata/regions

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/metadata/regions'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

None

#### Output

The JSON output provides an example of a list of AWS regions.

#### JSON output example

```
[
  {
    "name": "US East",
    "code": "us-east-1",
    "location": "N. Virginia",
    "s3Region": "US"
  },
  {
    "name": "US East",
    "code": "us-east-2",
    "location": "Ohio",
    "s3Region": "us-east-2"
  },
  {
    "name": "US West",
    "code": "us-west-1",
    "location": "N. California",
    "s3Region": "us-west-1"
  }
]
```

## Get permutations

You can use the permutations endpoint to retrieve the Cloud Volumes ONTAP configuration information.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get permutations for single node

You can use this workflow to retrieve the configuration information for a single node working environment.

#### 1. Get the permutations

HTTP method	Path
GET	/occm/api/vsa/metadata/permutations

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/metadata/permutations'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>' --header 'Content-Type: application/json'
```

#### Input

There are several optional query parameters you can use:

- region
- version
- license
- instance\_type
- default\_instance\_type
- feature
- latest\_only
- ami

#### Output

The JSON output example includes the list of Cloud Volumes ONTAP configurations.

#### JSON output example

```
[
  {
    "ontapVersion": "ONTAP-9.9.0X4.T1",
    "license": {
      "type": "cot-explore-paygo",
      "name": "Cloud Volumes ONTAP Explore",
      "description": "Suitable for smaller capacity applications.
Supports up to 2 TB of underlying AWS storage.",
      "subName": "",
      "subDescription": "Support of tiering to object storage is not
included.",
      "capacity_limit": "2TB",
      "platformLicenseRequired": false,
      "default": false,
      "capacityLimit": {"size": 2.0, "unit": "TB"}
    },
    "instanceType": "m5.xlarge",
    "region": {
      "name": "EU",
      "code": "eu-central-1",
      "location": "Frankfurt",
      "s3Region": "eu-central-1"
    },
    "defaultInstance": true,
    "features": ["ena", "kvm", "network-utilization"],
    "upgradeableFrom": ["9.8", "9.9.0"]
  }
]
```

## Get permutations for high availability pair

You can use this workflow to retrieve the configuration information for an HA working environment.

### 1. Get the permutations

HTTP method	Path
GET	/occm/api/aws/ha/metadata/permutations

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/metadata/permutatio
ns?latest_only=true' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type:
application/json'
```



## Input

There are several optional query parameters you can use:

- region
- version
- license
- instance\_type
- default\_instance\_type
- feature
- latest\_only
- ami

## Output

The JSON output example includes the list of Cloud Volumes ONTAP configurations.

### JSON output example

```
[
  {
    "ontapVersion": "ONTAP-9.9.0X6.T1.ha",
    "license": {
      "type": "ha-cot-explore-paygo",
      "name": "Cloud Volumes ONTAP Explore",
      "description": "Suitable for smaller capacity applications. Supports up to 2 TB of underlying AWS storage.",
      "subName": "",
      "subDescription": "Support of tiering to object storage is not included.",
      "capacity_limit": "2TB",
      "platformLicenseRequired": false,
      "default": false,
      "capacityLimit": {
        "size": 2.0,
        "unit": "TB"
      }
    },
    "instanceType": "m5.xlarge",
    "region": {
      "name": "EU",
      "code": "eu-central-1",
      "location": "Frankfurt",
      "s3Region": "eu-central-1"
    },
    "defaultInstance": true,
    "features": [
      "ena",
```

```

        "kvm",
        "network-utilization"
    ],
    "upgradeableFrom": [
        "9.8",
        "9.9.0"
    ]
},
{
    "ontapVersion": "ONTAP-9.9.0X6.T1.ha",
    "license": {
        "type": "ha-cot-explore-paygo",
        "name": "Cloud Volumes ONTAP Explore",
        "description": "Suitable for smaller capacity applications.
Supports up to 2 TB of underlying AWS storage.",
        "subName": "",
        "subDescription": "Support of tiering to object storage is not
included.",
        "capacity_limit": "2TB",
        "platformLicenseRequired": false,
        "default": false,
        "capacityLimit": {
            "size": 2.0,
            "unit": "TB"
        }
    },
    "instanceType": "m5.xlarge",
    "region": {
        "name": "EU",
        "code": "eu-west-1",
        "location": "Ireland",
        "s3Region": "eu-west-1"
    },
    "defaultInstance": true,
    "features": [
        "ena",
        "kvm",
        "network-utilization"
    ],
    "upgradeableFrom": [
        "9.8",
        "9.9.0"
    ]
}
]

```

## Get list of virtual private clouds

You can use this workflow to retrieve a list of the available virtual private clouds (VPCs).

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get VPCs for single node

You can use this workflow to retrieve the VPCs for a single node working environment.

#### 1. Select the region to use

Perform the workflow [Get regions](#) and choose the `code` value for the `region` query parameter.

#### 2. Get the VPCs

HTTP method	Path
GET	/occm/api/vsa/metadata/vpcs?region=<REGION>

#### Curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/metadata/vpcs?region=<
REGION>' --header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

Query parameters:

- <REGION> region

#### Output

The JSON output example includes the list of virtual private clouds.

#### JSON output example

```
[
  {
    "vpcId": "vpc-b16c90d4",
    "state": "available",
    "cidrBlock": "172.31.0.0/16",
    "tags": [
      {
        "key": "Name",
        "value": "VPC for VSA"
      },
    ],
  },
]
```

```

        {
            "key": "last",
            "value": "ioio"
        }
    ],
    "default": true,
    "subnets": [
        {
            "subnetId": "subnet-c1d99699",
            "cidr": "172.31.5.0/24",
            "subnetName": "subnet5",
            "availabilityZone": "us-east-1a",
            "availableIps": 247,
            "minimumRequiredIps": 8,
            "outpostArn": null
        },
        {
            "subnetId": "subnet-deebdbe3",
            "cidr": "172.31.6.0/24",
            "subnetName": "Proxy Subnet",
            "availabilityZone": "us-east-1e",
            "availableIps": 248,
            "minimumRequiredIps": 8,
            "outpostArn": null
        }
    ],
    "securityGroups": [
        {
            "securityGroupId": "xx-xxxa1ne9xxx67xcvf",
            "description": "NetApp OCCM Instance External Security
Group",
            "name": "hguyiuukOCCM1590415972561-OCCMSecurityGroup-
yryrytt"
        },
        {
            "securityGroupId": "xx-xxxa1ne9xxx67xcvf",
            "description": "Enable HTTP and NFS for Cloud Restore
Instance",
            "name": "Cloud-Restore-Instance-account-xxxxxx-
CloudRestoreInstanceSecurityGroup-sdwerettttrrt"
        }
    ],
    "tenancy": "default"
},
{
    "vpcId": "vpc-fe5c1f98",

```

```

"state": "available",
"cidrBlock": "140.30.0.0/16",
"tags": [
  {
    "key": "Name",
    "value": "VPCWithNOS3"
  }
],
"default": false,
"subnets": [
  {
    "subnetId": "subnet-e84722d4",
    "cidr": "140.30.5.0/24",
    "subnetName": "subnet1",
    "availabilityZone": "us-east-1e",
    "availableIps": 250,
    "minimumRequiredIps": 8,
    "outpostArn": null
  }
],
"securityGroups": [
  {
    "securityGroupId": "xx-xxxa1ne9xxx67xcvf",
    "description": "ONTAP Cloud firewall rules for management
and data interface",
    "name": "xx-Version10-duahpJbS-
NetAppExternalSecurityGroup-rtyunht"
  },
  {
    "securityGroupId": "xx-xxxa1ne9xxx67xcvf",
    "description": "default VPC security group",
    "name": "default"
  }
],
"tenancy": "default"
}
]

```

### Get VPCs for high availability pair

You can use this workflow to retrieve the VPCs for an HA working environment.

#### 1. Select the region to use

Perform the workflow [Get regions](#) and choose the code value for the region query parameter.

## 2. Get the VPCs

HTTP method	Path
GET	/occm/api/aws/ha/metadata/vpcs?region=<REGION>

### Curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/metadata/vpcs?region=<REGION>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

### Input

Query parameters:

- <REGION> region

### Output

The JSON output example includes the list of virtual private clouds.

### JSON output example

```
[
  {
    "vpcId": "vpc-b16c90d4",
    "state": "available",
    "cidrBlock": "172.31.0.0/16",
    "tags": [
      {
        "key": "Name",
        "value": "VPC for VSA"
      },
      {
        "key": "last",
        "value": "ioio"
      }
    ],
    "default": true,
    "subnets": [
      {
        "subnetId": "subnet-c1d99699",
        "cidr": "172.31.5.0/24",
        "subnetName": "subnet5",
        "availabilityZone": "us-east-1a",
        "availableIps": 247,
        "minimumRequiredIps": 8,
        "outpostArn": null
      }
    ]
  }
]
```

```

    },
    {
      "subnetId": "subnet-deebdbe3",
      "cidr": "172.31.6.0/24",
      "subnetName": "Proxy Subnet",
      "availabilityZone": "us-east-1e",
      "availableIps": 248,
      "minimumRequiredIps": 8,
      "outpostArn": null
    }
  ],
  "securityGroups": [
    {
      "securityGroupId": "xx-xxxa1ne9xxx67xcvf",
      "description": "NetApp OCCM Instance External Security
Group",
      "name": "lilush2000OCCM1590415972561-OCCMSecurityGroup-
JDB72N6W90UG"
    },
    {
      "securityGroupId": "xx-xxxa1ne9xxx67xcvf",
      "description": "Enable HTTP and NFS for Cloud Restore
Instance",
      "name": "Cloud-Restore-Instance-account-xxxxxx-
CloudRestoreInstanceSecurityGroup-sdweretttrrt"
    }
  ],
  "tenancy": "default"
},
{
  "vpcId": "vpc-fe5c1f98",
  "state": "available",
  "cidrBlock": "140.30.0.0/16",
  "tags": [
    {
      "key": "Name",
      "value": "VPCWithNOS3"
    }
  ],
  "default": false,
  "subnets": [
    {
      "subnetId": "subnet-e84722d4",
      "cidr": "140.30.5.0/24",
      "subnetName": "subnet1",
      "availabilityZone": "us-east-1e",

```

```

        "availableIps": 250,
        "minimumRequiredIps": 8,
        "outpostArn": null
    },
    ],
    "securityGroups": [
        {
            "securityGroupId": "xx-xxxa1ne9xxx67xcvf",
            "description": "ONTAP Cloud firewall rules for management
and data interface",
            "name": "XX-Version10-yuiloJbS-
NetAppExternalSecurityGroup-TYUOPR"
        },
        {
            "securityGroupId": "xx-xxxa1ne9xxx67xcvf",
            "description": "default VPC security group",
            "name": "default"
        }
    ],
    "tenancy": "default"
}
]

```

## Get EBS volume types

You can use this workflow to retrieve the supported EBS volume types.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get EBS volume types for single node

You can use this workflow to get the EBS volume types for a single node working environment.

#### 1. Get the EBS volume types

HTTP method	Path
GET	/occm/api/vsa/metadata/ebs-volume-types

#### curl example



```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/metadata/ebs-volume-
types' --header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

None

## Output

The JSON output example includes the list of EBS volume types.

## JSON output example

```
[
  {
    "description": "",
    "size": {
      "size": 100.0,
      "unit": "GB"
    },
    "supportedVolumeTypes": [
      "standard",
      "io1",
      "io2",
      "gp2"
    ],
    "supportedOccmLicenses": [
      "Explore (hourly)",
      "Standard (hourly)",
      "Standard (BYOL)",
      "Cloud Volumes ONTAP Explore",
      "Cloud Volumes ONTAP Standard",
      "Cloud Volumes ONTAP Premium",
      "Cloud Volumes ONTAP BYOL",
      "Cloud Volumes ONTAP Explore",
      "Cloud Volumes ONTAP Standard",
      "Cloud Volumes ONTAP Premium",
      "Cloud Volumes ONTAP BYOL"
    ],
    "isDefault": false
  },
  {
    "description": "",
    "size": {
      "size": 500.0,
      "unit": "GB"
    }
  }
]
```

```

    },
    "supportedVolumeTypes": [
        "standard",
        "io1",
        "io2",
        "gp2",
        "st1"
    ],
    "supportedOccmLicenses": [
        "Explore (hourly)",
        "Standard (hourly)",
        "Standard (BYOL)",
        "Cloud Volumes ONTAP Explore",
        "Cloud Volumes ONTAP Standard",
        "Cloud Volumes ONTAP Premium",
        "Cloud Volumes ONTAP BYOL",
        "Cloud Volumes ONTAP Explore",
        "Cloud Volumes ONTAP Standard",
        "Cloud Volumes ONTAP Premium",
        "Cloud Volumes ONTAP BYOL"
    ],
    "isDefault": false
}
]

```

### Get EBS volume types for high availability pair

You can use this workflow to get the EBS volume types for an HA working environment.

#### 1. Get the EBS volume types

HTTP method	Path
GET	/occm/api/aws/ha/metadata/ebs-volume-types

#### curl example

```

curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/metadata/ebs-
volume-types' --header 'Content-Type: application/json' --header 'x-agent-
id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'

```

#### Input

None

#### Output

The JSON output example includes the list of EBS volume types.

## JSON output example

```
[
  {
    "description": "",
    "size": {
      "size": 100.0,
      "unit": "GB"
    },
    "supportedVolumeTypes": [
      "standard",
      "io1",
      "io2",
      "gp2",
      "gp3"
    ],
    "supportedOccmLicenses": [
      "Explore (hourly)",
      "Standard (hourly)",
      "Standard (BYOL)",
      "Cloud Volumes ONTAP Explore",
      "Cloud Volumes ONTAP Standard",
      "Cloud Volumes ONTAP Premium",
      "Cloud Volumes ONTAP BYOL",
      "Cloud Volumes ONTAP Explore",
      "Cloud Volumes ONTAP Standard",
      "Cloud Volumes ONTAP Premium",
      "Cloud Volumes ONTAP BYOL",
      "Cloud Volumes ONTAP Explore",
      "Cloud Volumes ONTAP Standard",
      "Cloud Volumes ONTAP Premium",
      "Cloud Volumes ONTAP BYOL",
      "Cloud Volumes ONTAP Explore",
      "Cloud Volumes ONTAP Standard",
      "Cloud Volumes ONTAP Premium",
      "Cloud Volumes ONTAP BYOL",
      "Cloud Volumes ONTAP Explore",
      "Cloud Volumes ONTAP Standard",
      "Cloud Volumes ONTAP Premium",
      "Cloud Volumes ONTAP BYOL"
    ],
    "isDefault": false
  },
]
```

```

{
  "description": "",
  "size": {
    "size": 500.0,
    "unit": "GB"
  },
  "supportedVolumeTypes": [
    "standard",
    "io1",
    "io2",
    "gp2",
    "gp3",
    "st1"
  ],
  "supportedOccmLicenses": [
    "Explore (hourly)",
    "Standard (hourly)",
    "Standard (BYOL)",
    "Cloud Volumes ONTAP Explore",
    "Cloud Volumes ONTAP Standard",
    "Cloud Volumes ONTAP Premium",
    "Cloud Volumes ONTAP BYOL",
    "Cloud Volumes ONTAP Explore",
    "Cloud Volumes ONTAP Standard",
    "Cloud Volumes ONTAP Premium",
    "Cloud Volumes ONTAP BYOL",
    "Cloud Volumes ONTAP Explore",
    "Cloud Volumes ONTAP Standard",
    "Cloud Volumes ONTAP Premium",
    "Cloud Volumes ONTAP BYOL",
    "Cloud Volumes ONTAP Explore",
    "Cloud Volumes ONTAP Standard",
    "Cloud Volumes ONTAP Premium",
    "Cloud Volumes ONTAP BYOL",
    "Cloud Volumes ONTAP Explore",
    "Cloud Volumes ONTAP Standard",
    "Cloud Volumes ONTAP Premium",
    "Cloud Volumes ONTAP BYOL"
  ],
  "isDefault": false
}
]

```

## Get packages

You can use the packages endpoint to retrieve the Cloud Volumes ONTAP packages configuration information.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get packages for single node

You can use this workflow to retrieve the packages information for a single node system.

#### 1. Get the packages

HTTP method	Path
GET	/occm/api/vsa/metadata/packages

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/metadata/packages'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>' --header 'Content-Type: application/json'
```

#### Input

None

#### Output

The JSON output example includes the list of Cloud Volumes ONTAP packages.

#### JSON output example

```
[
  {
    "name": "aws_ha_poc",
    "displayName": "POC and small workloads",
    "description": "No description yet",
    "licenseType": "ha-cot-explore-paygo",
    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "m5.xlarge"
      }
    ],
    "diskType": "gp2",
    "diskSize": {
      "size": 100.0,
      "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": "default",
    "writingSpeedState": "NORMAL"
  },
  {
    "name": "aws_ha_standard",
    "displayName": "Database and application data production
workloads",
    "description": "No description yet",
    "licenseType": "ha-cot-standard-paygo",
    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "m5.2xlarge"
      }
    ],
    "diskType": "gp2",
    "diskSize": {
      "size": 100.0,
      "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": "default",
    "writingSpeedState": "NORMAL"
  }
]
```

## Get packages for high availability pair

You can use this workflow to retrieve the packages information for an HA working environment.

### 1. Get the packages

HTTP method	Path
GET	/occm/api/aws/ha/metadata/packages

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/metadata/packages'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>' --header 'Content-Type: application/json'
```

#### Input

None

#### Output

The JSON output example includes the list of Cloud Volumes ONTAP packages.

#### JSON output example

```
[
  {
    "name": "aws_ha_poc",
    "displayName": "POC and small workloads",
    "description": "No description yet",
    "licenseType": "ha-cot-explore-paygo",
    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "m5.xlarge"
      }
    ],
    "diskType": "gp2",
    "diskSize": {
      "size": 100.0,
      "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": "default",
    "writingSpeedState": "NORMAL"
  },
  {
    "name": "aws_ha_standard",
    "displayName": "Database and application data production
workloads",
    "description": "No description yet",
    "licenseType": "ha-cot-standard-paygo",
    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "m5.2xlarge"
      }
    ],
    "diskType": "gp2",
    "diskSize": {
      "size": 100.0,
      "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": "default",
    "writingSpeedState": "NORMAL"
  }
]
```



## Get route tables

You can use the route tables endpoint to retrieve the route tables labels for each VPC and their subnet association information.



We use the Get route tables workflow only for the high availability pair.

### 1. Get the region

Perform the workflow [Get regions](#) and choose the `code` value of the required region for the `region` query parameter.

### 2. Get the VPC

Perform the workflow [Get VPCs](#) and choose the `vpcId` value of the required VPC for the `vpcId` query parameter.

### 3. Get the route tables

HTTP method	Path
GET	/occm/api/aws/ha/metadata/route-tables

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/metadata/route-
tables?region=<REGION>&vpcId=<VPC_ID>' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type:
application/json'
```

#### Input

Query parameters:

- `<REGION>` region
- `<VPCID>` vpcId

Optional parameters:

- `roleArn`: String
- `cloudProviderAccountId`: String

#### Output

The output includes an array of route tables.

#### JSON output example

```
[
  {
```

```

    "id": "rtb-3338784b",
    "main": false,
    "subnets": [],
    "tags": [
      {
        "key": "Name",
        "value": "route3"
      }
    ]
  },
  {
    "id": "rtb-e13a7a99",
    "main": false,
    "subnets": [],
    "tags": [
      {
        "key": "Name",
        "value": "route2"
      }
    ]
  },
  {
    "id": "rtb-7a3b7b02",
    "main": false,
    "subnets": [],
    "tags": [
      {
        "key": "Name",
        "value": "route4"
      }
    ]
  },
  {
    "id": "rtb-0a41155f5c924872e",
    "main": false,
    "subnets": [],
    "tags": [
      {
        "key": "Name",
        "value": "long"
      }
    ]
  },
  {
    "id": "rtb-d0e847b6",
    "main": false,

```

```

    "subnets": [],
    "tags": [
      {
        "key": "Name",
        "value": "IC Route"
      }
    ]
  },
  {
    "id": "rtb-3333734b",
    "main": false,
    "subnets": [],
    "tags": [
      {
        "key": "Name",
        "value": "route1"
      }
    ]
  },
  {
    "id": "rtb-02a45467",
    "main": true,
    "subnets": [],
    "tags": [
      {
        "key": "Name",
        "value": "main"
      }
    ]
  }
]

```

## Get key pairs

You can use the key pairs endpoint to retrieve the AWS key pairs for specific regions.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get key pairs for single node

You can use this workflow to retrieve the key pairs for a single node working environment.

## 1. Get the region

Perform the workflow [Get regions](#) and choose the `code` value of the required region for the `region` query parameter.

## 2. Get the key pairs

HTTP method	Path
GET	/occm/api/vsa/metadata/key-pairs

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/metadata/key-
pairs?region=<REGION>' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type:
application/json'
```

### Input

Query parameter:

- `<REGION>` region

Optional parameters for filter:

- `roleArn`: String
- `cloudProviderAccountId`: String

### Output

The output shows the AWS user key pairs for a specific region.

### JSON output example

```
[
  "Developers_Virginia",
  "gfcqa",
  "kubernetes-net6vbp8sd",
  "kubernetes-netpn77b32",
  "occm_qa"
]
```

### Get key pairs for high availability pair

You can use this workflow to retrieve the key pairs for an HA working environment.

## 1. Get the region

Perform the workflow [Get regions](#) and choose the `code` value of the required region for the `region` query

parameter.



Ensure that you choose the path value for the HA pair while performing the Get Regions workflow.

## 2. Get the key pairs

HTTP method	Path
GET	/occm/api/aws/ha/metadata/key-pairs

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/aws/ha/metadata/key-
pairs?region=<REGION>' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type:
application/json'
```

### Input

Query parameter:

- <REGION> region

Optional parameters for filter:

- roleArn: String
- cloudProviderAccountId: String

### Output

The output shows the AWS user key pairs for a specific region.

### JSON output example

```
[
  "Developers_Virginia",
  "gfcqa",
  "kubernetes-net6vbp8sd",
  "kubernetes-netpn77b32",
  "occm_qa"
]
```

## Miscellaneous

### Create AWS cloud provider account

You can use this workflow to create an AWS cloud provider account.

## Before you begin

You must have AWS credentials.

### 1. Get the SaaS marketplace account

Perform the workflow [Get SaaS marketplace account](#) and choose the `id` value for the required subscription for `subscriptionId` parameter.

### 2. Create the account

HTTP method	Path
POST	/occm/api/accounts/aws

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/accounts/aws' --header 'x-
agent-id: <AGENT_ID>' --header 'Authorization: Bearer <TOKEN>' --header
'Content-Type: application/json' --d JSONinput
```

#### Input

The JSON input example includes the list of parameters.

#### JSON input example

```
{
  "accountName": "zivAccountTest2",
  "providerKeys": {
    "awsAccessKeys": {
      "accessKey": "accesskeystring",
      "secretKey": "secretkeystring"
    }
  },
  "subscriptionId": "subscriptionIDgoeshere"
}
```

#### Output

The JSON output provides an example of the cloud provider details.

#### JSON output example

```
{
  "publicId": "CloudProviderAccount-LCwgVOy7",
  "accountName": "zivAccountTest2",
  "accountType": "AWS_KEYS",
  "accountId": "accountIDshownhere",
  "accessKey": " accesskeyshownhere",
  "assumeRole": null,
  "occmRole": null,
  "vsaList": [],
  "subscriptionId": "subscriptionIDshownhere"
}
```

## Azure workflows

### Before you begin

There are several workflows you can use with the Azure public cloud.



Review the [Get started](#) section before using any of the Cloud Manager REST API workflows.

### Workflow categories

The Azure workflows are organized into the following categories:

- Working environments
- Aggregates
- Volumes
- Metadata
- Miscellaneous

See [Understanding the workflow processes](#) for more information on these categories.

### Azure credentials

Before beginning to use the Azure workflows, you will need to create an Azure account through the Microsoft Azure portal and obtain the Azure credentials and the subscription ID.

### Connector setup

You must have a **Connector** for the cloud environment before creating a working environment and performing other activities using the workflows. You can create a Connector using the Cloud Manager web UI. When you create a Connector, Cloud Manager adds the Azure cloud provider account that you deployed the Connector in to your list of available accounts. Your Azure account needs to have the right permissions in order to create a Connector.

Review [Learn about Azure Connectors](#) to know how to create and deploy an Azure Connector.

## Working environments

### Create a working environment with PAYGO

You can use this workflow to create a new Azure Cloud Volumes ONTAP working environment using pay-as-you-go (PAYGO) subscription.

#### Note the following when using PAYGO:

- A marketplace subscription is required.
- A NetApp Support Site (NSS) key is recommended to register the system for support, but it's not required.
- You can add more volumes after creating the working environment. You can choose to create a volume using either [NFS](#), [CIFS](#), or [iSCSI](#) protocol.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

#### Create working environment for single node

You can use this workflow to create single node working environment with PAYGO.

#### 1. Select the region

Perform the workflow [Get regions](#) and choose the `name` value of the required region for the `region` parameter in step 11.

#### 2. Select the workspace

Perform the workflow [Get tenants](#) and choose the `workspacePublicId` value for the `tenantId` parameter in step 11.

#### 3. Select the VNets

Perform the workflow [Get VNets](#) and do the following:

- Choose the `id` value of the desired vnet from the `virtualNetworks` for the `vnetId` parameter in step 11.
- Choose the `cidr` value of the desired cidr from the `virtualNetworks` for the `cidr` parameter in step 11.
- Choose the `id` of the desired subnet from the `virtualNetworks→cidrs→subnets` for the `subnetId` parameter in step 11.
- Choose the `id` of the desired security group from the `securityGroups` field for the `securityGroupId` parameter in step 11.

#### 4. Select the Azure availability zone

Perform the workflow [Get Azure Availability Zones](#) and choose the number from `zones` for the



`availabilityZone` parameter in step 11.

## 5. Get the Azure packages configuration

Perform the [Get Azure Packages](#) workflow and choose the `name` of the desired package item for the `packageName` parameter.

## 6. Attach a marketplace subscription

Perform the workflow [Attach SaaS subscription](#).

## 7. (Optional) Obtain an NSS key

An NSS key is **optional** when using PAYGO licensing. If needed, you can create a key or select an existing key, and include the NSS key in the `nssAccount` parameter in step 11.

- To create a new NSS key using the Cloud Manager web user interface, perform the task [Generate NSS user ID](#) and choose the `id`.
- To select an existing NSS key, perform the workflow [Get NSS keys](#) and choose the `id` of the required NSS user.

## 8. Select the Azure cloud provider accounts

Perform the [Create Azure cloud provider accounts](#) workflow and choose the `publicId` of the desired cloud provider account item from the `azureAccounts` for the `cloudProviderAccount` parameter.

## 9. Select the Azure permutations

Perform the [Get Azure Permutations](#) workflow and pick the desired permutation:

- Choose the `ontapVersion` of the desired permutation for the `ontapVersion` field inside the `vsaMetadata` parameter in step 11.
- Choose the `type` of the desired license item from the `license` parameter for the `licenseType` field inside the `vsaMetadata` parameter in step 11.
- Choose the `instanceType` of the desired permutation for the `instanceType` field inside the `vsaMetadata` parameter in step 11.

## 10. Select the Azure storage account types

Perform the [Get Azure Storage Account Types](#) workflow and pick the desired storage type.

- Choose the `diskType` of the desired storage type item for the `storageType` parameter in step 11.
- Choose the `size` of the desired disk size from the `sizes` → `size` field for the `size` field inside the `diskSize` parameter in step 11.
- Choose the `unit` of the desired disk size from the `sizes` → `size` field for the `unit` field inside the `diskSize` parameter in step 11.

## 11. Create the working environment

HTTP method	Path
POST	/occm/api/azure/vsa/working-environments

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/working-
environments' --header 'x-agent-id: <AGENT_ID>' //<1> --header
'Authorization: Bearer <ACCESS_TOKEN>' //<2> ---header 'Content-Type:
application/json' --d @JSONinput
```

- (1) Replace <AGENT\_ID> with your agent ID.
- (2) Replace <ACCESS\_TOKEN> with your obtained access bearer token.

### Input

The JSON input example includes the minimum list of parameters.



This request uses PAYGO licensing as indicated in the `licenseType` parameter.

### JSON input example

```

{
  "name": "Azure123",
  "tenantId": "tenantID",
  "region": "westeurope",
  "packageName": "azure_poc",
  "dataEncryptionType": "AZURE",
  "vsaMetadata": {
    "ontapVersion": "ONTAP-9.10.0.T1.azure",
    "licenseType": "azure-cot-explore-paygo",
    "instanceType": "Standard_DS3_v2"
  },
  "writingSpeedState": "NORMAL",
  "subnetId": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/occm_group_westeurope/providers/Microsoft.Network/virtualNetworks/Vnet1/subnets/Subnet2",
  "svmPassword": "Netappl23",
  "vnetId": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/occm_group_westeurope/providers/Microsoft.Network/virtualNetworks/Vnet1",
  "cidr": "10.0.0.0/16",
  "ontapEncryptionParameters": null,
  "securityGroupId": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/Cloud-Compliance-1nThiJkG05ZgcyucIJvCSbtBdpVnK-2020894989899/providers/Microsoft.Network/networkSecurityGroups/Cloud-Compliance-1nTxxxtkG05ZgcxxxxxxXXXXXX-2000000000000000",
  "skipSnapshots": false,
  "diskSize": {
    "size": 500,
    "unit": "GB",
    "_identifier": "500 GB"
  },
  "storageType": "Premium_LRS",
  "azureTags": [],
  "subscriptionId": "x000xx00-0x00-0000-000x",
  "cloudProviderAccount": "ManagedServiceIdentity",
  "backupVolumesToCbs": false,
  "enableCompliance": false,
  "enableMonitoring": false,
  "availabilityZone": 1,
  "allowDeployInExistingRg": true,
  "resourceGroup": "occm_group_westeurope"
}

```

## Output

The JSON output example includes an example of the `VsaWorkingEnvironmentResponse`.

### JSON output example

```
{
  "publicId": "VsaWorkingEnvironment-uFPaNkrv",
  "name": "Azure123",
  "tenantId": "tenantID",
  "svmName": "svm_Azure123",
  "creatorUserEmail": "user_mail",
  "status": null,
  "providerProperties": null,
  "reservedSize": null,
  "clusterProperties": null,
  "ontapClusterProperties": null,
  "cloudProviderName": "Azure",
  "snapshotPolicies": null,
  "actionsRequired": null,
  "activeActions": null,
  "replicationProperties": null,
  "schedules": null,
  "svms": null,
  "workingEnvironmentType": "VSA",
  "supportRegistrationProperties": null,
  "supportRegistrationInformation": null,
  "capacityFeatures": null,
  "encryptionProperties": null,
  "supportedFeatures": null,
  "isHA": false,
  "haProperties": null,
  "k8sProperties": null,
  "fpolicyProperties": null,
  "saasProperties": null,
  "cbsProperties": null,
  "complianceProperties": null,
  "monitoringProperties": null
}
```

### Create working environment for high availability pair

You can use this workflow to create an HA working environment with PAYGO.

#### 1. Select the region

Perform the workflow [Get regions](#) and choose the `name` value of the required region for the `region` parameter in step 11.

## 2. Select the workspace

Perform the workflow [Get tenants](#) and choose the `workspacePublicId` value for the `tenantId` parameter in step 11.

## 3. Select the VNets

Perform the workflow [Get VNets](#) and do the following:

- Choose the `id` value of the desired vnet from the `virtualNetworks` for the `vnetId` parameter in step 11.
- Choose the `cidr` value of the desired cidr from the `virtualNetworks` for the `cidr` parameter in step 11.
- Choose the `id` of the desired subnet from the `virtualNetworks→cidrs→subnets` for the `subnetId` parameter in step 11.
- Choose the `id` of the desired security group from the `securityGroups` field for the `securityGroupId` parameter in step 11.

## 4. Select the Azure availability zone

Perform the workflow [Get Azure Availability Zones](#) and choose the number from `zones` for the `availabilityZone` parameter in step 11.

## 5. Get Azure packages configuration

Perform the [Get Azure Packages](#) workflow and choose the `name` of the desired package item for the `packageName` parameter.

## 6. Attach a marketplace subscription

Perform the workflow [Attach SaaS subscription](#).

## 7. (Optional) Obtain an NSS key

An NSS key is **optional** when using PAYGO licensing. If needed, you can create a key or select an existing key, and include the NSS key in the `nssAccount` parameter in step 11.

- To create a new NSS key using the Cloud Manager web user interface, perform the task [Generate NSS user ID](#) and choose the `id`.
- To select an existing NSS key, perform the workflow [Get NSS keys](#) and choose the `id` of the required NSS user.

## 8. Select Azure cloud provider accounts

Perform the [Create Azure Cloud Provider Accounts](#) workflow and choose the `publicId` of the desired cloud provider account item from the `azureAccounts` for the `cloudProviderAccount` parameter.

## 9. Select Azure permutations

Perform the [Get Azure Permutations](#) workflow and pick the desired permutation:

- Choose the `ontapVersion` of the desired permutation for the `ontapVersion` field inside the

`vsaMetadata` parameter in step 11.

- Choose the `type` of the desired license item from the `license` parameter for the `licenseType` field inside the `vsaMetadata` parameter in step 11.
- Choose the `instanceType` of the desired permutation for the `instanceType` field inside the `vsaMetadata` parameter in step 11.

## 10. Select Azure storage account types

Perform the [Get Azure Storage Account Types](#) workflow and pick the desired storage type.

- Choose the `diskType` of the desired storage type item for the `storageType` parameter in step 11.
- Choose the `size` of the desired disk size from the `sizes` → `size` field for the `size` field inside the `diskSize` parameter in step 11.
- Choose the `unit` of the desired disk size from the `sizes` → `size` field for the `unit` field inside the `diskSize` parameter in step 11.

## 11. Create the working environment

HTTP method	Path
POST	/occm/api/azure/ha/working-environments

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/working-
environments' --header 'x-agent-id: <AGENT_ID>' //<1> --header
'Authorization: Bearer <ACCESS_TOKEN>' //<2> ---header 'Content-Type:
application/json' --d @JSONinput
```

- (1) Replace `<AGENT_ID>` with your agent ID.
- (2) Replace `<ACCESS_TOKEN>` with your obtained access bearer token.

### Input

The JSON input example includes the minimum list of parameters.



This request uses PAYGO licensing as indicated in the `licenseType` parameter.

### JSON input example

```
{
  "name": "ranukazure12",
  "volume": {
    "exportPolicyInfo": {
      "policyType": "custom",
      "ips": [
```

```

        "10.0.0.0/16"
    ],
    "nfsVersion": [
        "nfs3",
        "nfs4"
    ]
},
"snapshotPolicyName": "default",
"name": "ranukvoll12",
"enableThinProvisioning": true,
"enableDeduplication": true,
"enableCompression": true,
"size": {
    "size": 100,
    "unit": "GB"
},
"tieringPolicy": "auto"
},
"tenantId": "tenantIDgoeshere",
"region": "westeurope",
"packageName": "azure_ha_standard",
"dataEncryptionType": "AZURE",
"capacityTier": "Blob",
"vsaMetadata": {
    "ontapVersion": "ONTAP-9.10.1X7.T1.azureha",
    "licenseType": "azure-ha-cot-standard-paygo",
    "instanceType": "Standard_DS4_v2"
},
"writingSpeedState": "NORMAL",
"subnetId": "/subscriptions/x000xx00-0x00-0000-000x
/resourceGroups/occm_group_westeurope/providers/Microsoft.Network/virtualN
etworks/Vnet1/subnets/Subnet2",
"svmPassword": "password",
"vnetId": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups
/occm_group_westeurope/providers/Microsoft.Network/virtualNetworks/Vnet1",
"cidr": "10.0.0.0/16",
"ontapEncryptionParameters": null,
"skipSnapshots": false,
"diskSize": {
    "size": 1,
    "unit": "TB",
    "_identifier": "1 TB"
},
"storageType": "Premium_LRS",
"azureTags": [],
"subscriptionId": "x000xx00-0x00-0000-000x",

```

```
"cloudProviderAccount": "ManagedServiceIdentity",  
"backupVolumesToCbs": true,  
"enableCompliance": true,  
"enableMonitoring": true,  
"availabilityZone": null,  
"resourceGroup": "ranukazure12-rg"  
}
```

## Output

The JSON output example includes an example of the `VsaWorkingEnvironmentResponse`.

## JSON output example



```

{
  "publicId": "VsaWorkingEnvironment-1m76JaRt",
  "name": "ranukazure12",
  "tenantId": "tenantID",
  "svmName": "svm_ranukazure12",
  "creatorUserEmail": "user_email",
  "status": null,
  "providerProperties": null,
  "reservedSize": null,
  "clusterProperties": null,
  "ontapClusterProperties": null,
  "cloudProviderName": "Azure",
  "snapshotPolicies": null,
  "actionsRequired": null,
  "activeActions": null,
  "replicationProperties": null,
  "schedules": null,
  "svms": null,
  "workingEnvironmentType": "VSA",
  "supportRegistrationProperties": null,
  "supportRegistrationInformation": null,
  "capacityFeatures": null,
  "encryptionProperties": null,
  "supportedFeatures": null,
  "isHA": true,
  "haProperties": null,
  "fpolicyProperties": null,
  "saasProperties": null,
  "cbsProperties": null,
  "complianceProperties": null,
  "monitoringProperties": null,
  "licensesInformation": null
}

```

### Create a working environment with BYOL licensing

You can use this workflow to create a new Cloud Volumes ONTAP working environment using bring-your-own-license (BYOL) licensing.

**Note the following when using BYOL licensing:**

- A marketplace subscription is not required.
- A NetApp Support Site (NSS) key is required to register the system for support.
- You can add more volumes after creating the working environment. You can choose to create a volume using either [NFS](#), [CIFS](#), or [iSCSI](#) protocol.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

**Create working environment for single node**

You can use this workflow to create single node working environment with BYOL licensing.

**1. Select the region**

Perform the workflow [Get regions](#) and choose the `name` value of the required region for the `region` parameter in step 10.

**2. Select the workspace**

Perform the workflow [Get tenants](#) and choose the `workspacePublicId` value for the `tenantId` parameter in step 10.

**3. Select the VNets**

Perform the workflow [Get VNets](#) and do the following:

- Choose the `id` value of the desired vnet from the `virtualNetworks` for the `vnetId` parameter in step 10.
- Choose the `cidr` value of the desired cidr from the `virtualNetworks` for the `cidr` parameter in step 10.
- Choose the `id` of the desired subnet from the `virtualNetworks→cidrs→subnets` for the `subnetId` parameter in step 10.
- Choose the `id` of the desired security group from the `securityGroups` field for the `securityGroupId` parameter in step 10.

**4. Select the Azure availability zone**

Perform the workflow [Get Availability Zones](#) and choose the number from `zones` for the `availabilityZone` parameter in step 10.

**5. Select Azure packages configuration**

Perform the [Get Azure Packages](#) workflow and choose the `name` of the desired package item for the `packageName` parameter.

## 6. Obtain the required NSS key

An NSS key is **required** when using BYOL licensing. You can create a key or select an existing key, and include the NSS key in the `nssAccount` parameter in step 10.

- To create a new NSS key using the Cloud Manager web user interface, perform the task [Generate NSS user ID](#) and choose the `id`.
- To select an existing NSS key, perform the workflow [Get NSS keys](#) and choose the `id` of the required NSS user.

## 7. Select the Azure cloud provider accounts

Perform the [Get Azure Cloud Provider Accounts](#) workflow and choose the `publicId` of the desired cloud provider account item from the `azureAccounts` for the `cloudProviderAccount` parameter.

## 8. Select the Azure permutations

Perform the [Get Azure Permutations](#) workflow and pick the desired permutation:

- Choose the `ontapVersion` of the desired permutation for the `ontapVersion` field inside the `vsaMetadata` parameter in step 10.
- Choose the `type` of the desired license item from the `license` parameter for the `licenseType` field inside the `vsaMetadata` parameter in step 10.
- Choose the `instanceType` of the desired permutation for the `instanceType` field inside the `vsaMetadata` parameter in step 10.

You will also need to include the `serialNumber` value in the REST API call.

## === 9. Select the Azure storage account types

Perform the [Get Azure Storage Account Types](#) workflow and pick the desired storage type.

- Choose the `diskType` of the desired storage type item for the `storageType` parameter in step 10.
- Choose the `size` of the desired disk size from the `sizes` → `size` field for the `size` field inside the `diskSize` parameter in step 10.
- Choose the `unit` of the desired disk size from the `sizes` → `size` field for the `unit` field inside the `diskSize` parameter in step 10.

## 10. Create the working environment

HTTP method	Path
POST	/occm/api/azure/vsa/working-environments

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/working-
environments' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization:
Bearer <ACCESS_TOKEN>' --header 'Content-Type: application/json' --d
@JSONinput
```

## Input

The JSON input example includes the minimum list of parameters. This request uses BYOL licensing as indicated in the `licenseType` parameter. The `serialNumber` is required.

## JSON input example

```
{
  "name": "Azure123",
  "tenantId": "tenantID",
  "region": "eastus2",
  "packageName": "azure_custom",
  "dataEncryptionType": "AZURE",
  "vsaMetadata": {
    "ontapVersion": "ONTAP-9.9.0X5.T1.azure",
    "licenseType": "azure-cot-premium-byol",
    "instanceType": "Standard_DS3_v2"
  },
  "nssAccount": "x0x0x000-0000-000x-00xx-x0000cx0000xx",
  "subnetId": "/subscriptions/x000xx00-0x00-0000-
000x/resourceGroups/occm_group_eastus2/providers/Microsoft.Network/virtual
Networks/Vnet1/subnets/ProxySubnet",
  "svmPassword": "password",
  "vnetId": "/subscriptions/x000xx00-0x00-0000-
000x/resourceGroups/occm_group_eastus2/providers/Microsoft.Network/virtual
Networks/Vnet1",
  "cidr": "10.0.0.0/16",
  "diskSize": {
    "size": 1,
    "unit": "TB"
  },
  "storageType": "Premium_LRS",
  "resourceGroup": "Azure000-xx",
  "serialNumber": "00000110000000000001",
  "subscriptionId": "x000xx00-0x00-0000-000x",
  "cloudProviderAccount": "ManagedServiceIdentity",
  "availabilityZone": 2
}
```

## Output

The JSON output example includes an example of the `VsaWorkingEnvironmentResponse` response.

### JSON output example

```
{
  "publicId": "VsaWorkingEnvironment-uFPaNkrv",
  "name": "Azure123",
  "tenantId": "tenantID",
  "svmName": "svm_Azure123",
  "creatorUserEmail": "user_mail",
  "status": null,
  "providerProperties": null,
  "reservedSize": null,
  "clusterProperties": null,
  "ontapClusterProperties": null,
  "cloudProviderName": "Azure",
  "snapshotPolicies": null,
  "actionsRequired": null,
  "activeActions": null,
  "replicationProperties": null,
  "schedules": null,
  "svms": null,
  "workingEnvironmentType": "VSA",
  "supportRegistrationProperties": null,
  "supportRegistrationInformation": null,
  "capacityFeatures": null,
  "encryptionProperties": null,
  "supportedFeatures": null,
  "isHA": false,
  "haProperties": null,
  "k8sProperties": null,
  "fpolicyProperties": null,
  "saasProperties": null,
  "cbsProperties": null,
  "complianceProperties": null,
  "monitoringProperties": null
}
```

### Create working environment for high availability pair

You can use this workflow to create an HA working environment with BYOL licensing.

#### 1. Select the region

Perform the workflow [Get regions](#) and choose the `name` value of the required region for the `region` parameter in step 10.

## 2. Select the workspace

Perform the workflow [Get tenants](#) and choose the `workspacePublicId` value for the `tenantId` parameter in step 10.

## 3. Select the VNets

Perform the workflow [Get VNets](#) and do the following:

- Choose the `id` value of the desired vnet from the `virtualNetworks` for the `vnetId` parameter in step 10.
- Choose the `cidr` value of the desired cidr from the `virtualNetworks` for the `cidr` parameter in step 10.
- Choose the `id` of the desired subnet from the `virtualNetworks→cidrs→subnets` for the `subnetId` parameter in step 10.
- Choose the `id` of the desired security group from the `securityGroups` field for the `securityGroupId` parameter in step 10.

## 4. Select the Azure availability zone

Perform the workflow [Get Availability Zones](#) and choose the number from `zones` for the `availabilityZone` parameter in step 10.

## 5. Select Azure packages configuration

Perform the [Get Azure Packages](#) workflow and choose the name of the desired package item for the `packageName` parameter.

## 6. Obtain the required NSS key

An NSS key is **required** when using BYOL licensing. You can create a key or select an existing key, and include the NSS key in the `nssAccount` parameter in step 10.

- To create a new NSS key using the Cloud Manager web user interface, perform the task [Generate NSS user ID](#) and choose the `id`.
- To select an existing NSS key, perform the workflow [Get NSS keys](#) and choose the `id` of the required NSS user.

## 7. Select Azure cloud provider accounts

Perform the [Get Azure Cloud Provider Accounts](#) workflow and choose the `publicId` of the desired cloud provider account item from the `azureAccounts` for the `cloudProviderAccount` parameter.

## 8. Select the Azure permutations

Perform the [Get Azure Permutations](#) workflow and pick the desired permutation:

- Choose the `ontapVersion` of the desired permutation for the `ontapVersion` field inside the `vsaMetadata` parameter in step 10.
- Choose the `type` of the desired license item from the `license` parameter for the `licenseType` field inside the `vsaMetadata` parameter in step 10.

- Choose the `instanceType` of the desired permutation for the `instanceType` field inside the `vsaMetadata` parameter in step 10.

You will also need to include the `serialNumber` value in the REST API call.

=== 9. Select the Azure storage account types

Perform the [Get Azure Storage Account Types](#) workflow and pick the desired storage type.

- Choose the `diskType` of the desired storage type item for the `storageType` parameter in step 10.
- Choose the `size` of the desired disk size from the `sizes → size` field for the `size` field inside the `diskSize` parameter in step 10.
- Choose the `unit` of the desired disk size from the `sizes → size` field for the `unit` field inside the `diskSize` parameter in step 10.

## 10. Create the working environment

HTTP method	Path
POST	/occm/api/azure/ha/working-environments

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/working-
environments' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization:
Bearer <ACCESS_TOKEN>' --header 'Content-Type: application/json' --d
@JSONinput
```

### Input

The JSON input example includes the minimum list of parameters. This request uses BYOL licensing as indicated in the `licenseType` parameter. The `platformSerialNumberNode1` and `platformSerialNumberNode2` parameters are required.

### JSON input example

```

{
  "name": "ShirleyHa2701",
  "tenantId": "tenantID",
  "region": "eastus2",
  "packageName": "azure_ha_standard",
  "dataEncryptionType": "AZURE",
  "capacityTier": "Blob",
  "vsaMetadata": {
    "ontapVersion": "ONTAP-9.9.0X5.T1.azureha",
    "licenseType": "azure-ha-cot-premium-byol",
    "instanceType": "Standard_DS4_v2"
  },
  "nssAccount": "x0x0x000-0000-000x-00xx-x0000cx0000xx",
  "writingSpeedState": "NORMAL",
  "subnetId": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/occm_group_eastus2/providers/Microsoft.Network/virtualNetworks/Vnet1/subnets/Subnet1",
  "svmPassword": "password",
  "vnetId": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/occm_group_eastus2/providers/Microsoft.Network/virtualNetworks/Vnet1",
  "cidr": "10.0.0.0/16",
  "ontapEncryptionParameters": null,
  "skipSnapshots": false,
  "diskSize": {
    "size": 500,
    "unit": "GB",
    "_identifier": "500 GB"
  },
  "storageType": "Premium_LRS",
  "azureTags": [],
  "resourceGroup": "ShirleyHa2701-rg",
  "subscriptionId": "x000xx00-0x00-0000-000x",
  "cloudProviderAccount": "ManagedServiceIdentity",
  "backupVolumesToCbs": false,
  "enableCompliance": false,
  "enableMonitoring": false,
  "availabilityZone": null,
  "haParams": {
    "platformSerialNumberNode1": "00000110000000000001",
    "platformSerialNumberNode2": "00000110000000000002"
  }
}

```



## Output

The JSON output example includes an example of the `VsaWorkingEnvironmentResponse` response.

### JSON output example

```
{
  "publicId": "VsaWorkingEnvironment-Kms14Nkv",
  "name": "ShirleyHa2701",
  "tenantId": "tenantID",
  "svmName": "svm_ShirleyHa2701",
  "creatorUserEmail": "user_email",
  "status": null,
  "providerProperties": null,
  "reservedSize": null,
  "clusterProperties": null,
  "ontapClusterProperties": null,
  "cloudProviderName": "Azure",
  "snapshotPolicies": null,
  "actionsRequired": null,
  "activeActions": null,
  "replicationProperties": null,
  "schedules": null,
  "svms": null,
  "workingEnvironmentType": "VSA",
  "supportRegistrationProperties": null,
  "supportRegistrationInformation": null,
  "capacityFeatures": null,
  "encryptionProperties": null,
  "supportedFeatures": null,
  "isHA": true,
  "haProperties": null,
  "k8sProperties": null,
  "fpolicyProperties": null,
  "saasProperties": null,
  "cbsProperties": null,
  "complianceProperties": null,
  "monitoringProperties": null
}
```

### Get working environment

You can retrieve the public identifier, working environment ID, the storage virtual machine name for Cloud Volumes ONTAP working environments and other Cloud Volumes ONTAP related details (visible to currently logged in user) which would be used in other workflows.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

#### Get working environment for single node

You can use this workflow to retrieve the working environments' details of a single node system.

### 1. Create the working environment

Perform the [Create Azure single node working environment](#) workflow and select the `publicId` from the output for the `workingEnvironmentId` path parameter.

### 2. Get the working environment

HTTP method	Path
GET	/occm/api/azure/vsa/working-environments/{workingEnvironmentId}

#### curl

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/working-
environments/<WORKING_ENV_ID>?fields=status,ontapClusterProperties.fields(
upgradeVersions,nodes),reservedSize,saasProperties,complianceProperties,mo
nitoringProperties,providerProperties' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

Path parameters:

- `<WORKING_ENV_ID>` `workingEnvironmentId` string
- (Optional) `fields` string

#### Output

The JSON output example includes details of a single node Azure working environment.

#### JSON output example

```
{
  "publicId": "VsaWorkingEnvironment-zGQWVOyo",
  "name": "pradipm",
  "tenantId": "tenantID",
  "svmName": "svm_pradipm",
  "creatorUserEmail": "user_email",
  "status": {
    "status": "OFF",
```

```

    "message": "",
    "failureCauses": {
      "invalidOntapCredentials": false,
      "noCloudProviderConnection": false,
      "invalidCloudProviderCredentials": false
    },
    "extendedFailureReason": null
  },
  "providerProperties": {
    "regionName": "westeurope",
    "resourceGroup": {
      "name": "occm_group_westeurope",
      "location": "westeurope",
      "tags": {
        "KeepMe": "true"
      }
    },
    "vnetCidr": "10.0.0.0/16",
    "tags": {
      "KeepMe": "true"
    },
    "subscriptionId": "x000xx00-0x00-0000-000x",
    "deploymentId": "",
    "creationTime": 1631783479373,
    "instanceType": "Standard_DS3_v2",
    "numOfNics": 3,
    "singleNetworkInterface": true,
    "subscriptionName": "OCCM Dev",
    "cloudProviderAccountId": null,
    "availabilityZone": null,
    "dataDisks": [
      {
        "name": "pradipm-disk-root",
        "diskSizeGB": 0,
        "lun": 0,
        "id": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/OCCM_GROUP_WESTEUROPE/providers/Microsoft.Compute/disk
s/pradipm-disk-root",
        "caching": "ReadOnly",
        "accountType": "NA",
        "managed": true,
        "encryptionSet": null
      },
      {
        "name": "pradipm-disk-nvram",
        "diskSizeGB": 0,

```

```

        "lun": 1,
        "id": "/subscriptions/dx000xx00-0x00-0000-000x/resourceGroups/occm_group_westeurope/providers/Microsoft.Compute/disk
s/pradipm-disk-nvram",
        "caching": "None",
        "accountType": "NA",
        "managed": true,
        "encryptionSet": null
    },
    {
        "name": "pradipm-disk-core",
        "diskSizeGB": 0,
        "lun": 2,
        "id": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/occm_group_westeurope/providers/Microsoft.Compute/disk
s/pradipm-disk-core",
        "caching": "ReadOnly",
        "accountType": "NA",
        "managed": true,
        "encryptionSet": null
    },
    {
        "name": "pradipmdatadisk3",
        "diskSizeGB": 0,
        "lun": 3,
        "id": "/subscriptions/x000xx00-0x00-0000-000xfbbcelb18/resourceGroups/OCCM_GROUP_WESTEUROPE/providers/Microsoft.Com
pute/disks/pradipmdatadisk3",
        "caching": "None",
        "accountType": "NA",
        "managed": true,
        "encryptionSet": null
    }
]
},
"reservedSize": {
    "size": 0.0,
    "unit": "GB"
},
"clusterProperties": null,
"ontapClusterProperties": {
    "nodes": [],
    "clusterName": "",
    "clusterUuid": "xxxxx0000000000x00x0x00x0x0x0",
    "ontapVersion": "",
    "systemManagerUrl": "https://10.0.1.5/sysmgr/SysMgr.html",

```

```

    "creationTime": 1631783479373,
    "licenseType": {
      "name": "Cloud Volumes ONTAP Capacity Based Charging",
      "capacityLimit": {
        "size": 500.0,
        "unit": "GB"
      }
    },
    "licensePackageName": null,
    "lastModifiedOffbox": 1632392140549,
    "offboxTarget": false,
    "upgradeVersions": null,
    "writingSpeedState": null,
    "broadcastDomainInfos": [],
    "evaluation": false,
    "capacityTierInfo": null,
    "canConfigureCapacityTier": false,
    "usedCapacity": {
      "size": 0.0,
      "unit": "GB"
    },
    "userName": "admin",
    "wormEnabled": false,
    "isSpaceReportingLogical": false
  },
  "cloudProviderName": "Azure",
  "snapshotPolicies": null,
  "actionsRequired": null,
  "activeActions": null,
  "replicationProperties": null,
  "schedules": null,
  "svms": null,
  "workingEnvironmentType": "VSA",
  "supportRegistrationProperties": null,
  "supportRegistrationInformation": [],
  "capacityFeatures": null,
  "encryptionProperties": null,
  "supportedFeatures": null,
  "isHA": false,
  "haProperties": null,
  "fpolicyProperties": null,
  "saasProperties": {
    "subscription": null,
    "freeTrialExpiry": null,
    "saasEnabled": null,
    "capacityLicensePackage": null
  }
}

```

```

    },
    "cbsProperties": null,
    "complianceProperties": {
      "scanStatus": "SCAN_DISABLED",
      "complianceStatus": null,
      "lastDeploymentError": null,
      "complianceBackupStatus": null
    },
    "monitoringProperties": {
      "monitoringStatus": "MONITORING_DISABLED",
      "monitoringInfo": null,
      "tenantUrl": null
    },
    "licensesInformation": null
  }
}

```

### Get working environment for high availability pair

You can use this workflow to retrieve the working environments' details of an HA working environment.

#### 1. Create an Azure HA working environment

Perform the [Create Azure dual node working environment](#) workflow and select the `publicId` from the output for the `workingEnvironmentId` path parameter.

#### 2. Get the working environment

HTTP method	Path
GET	/occm/api/azure/ha/working-environments/{workingEnvironmentId}

#### curl

```

curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/working-
environments/<WORKING_ENV_ID>?fields=status,ontapClusterProperties.fields(
upgradeVersions,nodes),reservedSize,saasProperties,complianceProperties,mo
nitoringProperties,providerProperties' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'

```

#### Input

Path parameters:

- `<WORKING_ENV_ID>` `workingEnvironmentId` string
- (Optional) `fields` string

## Output

The JSON output example includes details of a single node Azure working environment.

### JSON output example

```
{
  "publicId": "VsaWorkingEnvironment-Kms14Nkv",
  "name": "ShirleyHa2701",
  "tenantId": "Tenant-c6wmZaze",
  "svmName": "svm_ShirleyHa2701",
  "creatorUserEmail": "useremail",
  "status": {
    "status": "ON",
    "message": "",
    "failureCauses": {
      "invalidOntapCredentials": false,
      "noCloudProviderConnection": false,
      "invalidCloudProviderCredentials": false
    },
    "extendedFailureReason": null
  },
  "providerProperties": {
    "regionName": "eastus2",
    "resourceGroup": {
      "name": "ShirleyHa2701-rg",
      "location": "eastus2",
      "tags": {}
    },
    "vnetCidr": "10.0.0.0/16",
    "tags": {},
    "subscriptionId": "x000xx00-0x00-0000-000x",
    "deploymentId": "",
    "creationTime": 1611698774849,
    "instanceType": "Standard_DS4_v2",
    "numOfNics": 8,
    "singleNetworkInterface": false,
    "subscriptionName": "OCCM Dev",
    "cloudProviderAccountId": null,
    "availabilityZone": null,
    "dataDisks": [
      {
        "name": "ShirleyHa2701-vm1-disk-nvram",
        "diskSizeGB": 128,
        "lun": 1,
        "id": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/ShirleyHa2701-rg/providers/Microsoft.Compute/disks/ShirleyHa2701-vm1-disk-nvram",

```

```

        "caching": "None",
        "accountType": "Premium_LRS",
        "managed": true,
        "encryptionSet": null
    },
    {
        "name": "ShirleyHa2701-vm1-disk-core",
        "diskSizeGB": 1024,
        "lun": 2,
        "id": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/ShirleyHa2701-rg/providers/Microsoft.Compute/disks/ShirleyHa2701-vm1-disk-core",
        "caching": "ReadOnly",
        "accountType": "Standard_LRS",
        "managed": true,
        "encryptionSet": null
    },
    {
        "name": "ShirleyHa2701-vm2-disk-nvram",
        "diskSizeGB": 128,
        "lun": 1,
        "id": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/ShirleyHa2701-rg/providers/Microsoft.Compute/disks/ShirleyHa2701-vm2-disk-nvram",
        "caching": "None",
        "accountType": "Premium_LRS",
        "managed": true,
        "encryptionSet": null
    },
    {
        "name": "ShirleyHa2701-vm2-disk-core",
        "diskSizeGB": 1024,
        "lun": 2,
        "id": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/ShirleyHa2701-rg/providers/Microsoft.Compute/disks/ShirleyHa2701-vm2-disk-core",
        "caching": "ReadOnly",
        "accountType": "Standard_LRS",
        "managed": true,
        "encryptionSet": null
    }
}

"reservedSize": {
    "size": 1.0,
    "unit": "GB"
}

```



```

},
"clusterProperties": {
  "lifs": [],
  "serialNumber": "",
  "systemId": "",
  "clusterName": "",
  "ontapVersion": "",
  "accountId": "",
  "productCode": "",
  "amiId": "",
  "systemManagerUrl": "",
  "creationTime": 0,
  "instanceId": "",
  "platformLicense": "",
  "licenseExpiryDate": 0,
  "instanceType": "",
  "publicIp": null,
  "publicDnsName": null,
  "licenseType": {
    "name": "",
    "capacityLimit": {
      "size": 0.0,
      "unit": "GB"
    }
  },
},
"lastModifiedOffbox": null,
"offboxTarget": false,
"upgradeVersions": null,
"writingSpeedState": null
},
"ontapClusterProperties": {
  "nodes": [
    {
      "name": "ShirleyHa2701-01",
      "lifs": [
        {
          "ip": "10.0.0.29",
          "netmask": "255.255.255.0",
          "lifType": "Cluster",
          "dataProtocols": [],
          "nodeName": "ShirleyHa2701-01",
          "privateIp": true
        },
        {
          "ip": "10.0.0.26",
          "netmask": "255.255.255.0",

```

```

        "lifType": "Node Management",
        "dataProtocols": [],
        "nodeName": "ShirleyHa2701-01",
        "privateIp": true
    },
    {
        "ip": "10.0.0.13",
        "netmask": "255.255.255.0",
        "lifType": "Cluster Management",
        "dataProtocols": [],
        "nodeName": "ShirleyHa2701-01",
        "privateIp": true
    },
    {
        "ip": "10.0.0.27",
        "netmask": "255.255.255.0",
        "lifType": "Intercluster",
        "dataProtocols": [],
        "nodeName": "ShirleyHa2701-01",
        "privateIp": true
    },
    {
        "ip": "10.0.0.14",
        "netmask": "255.255.255.0",
        "lifType": "Data",
        "dataProtocols": [
            "nfs",
            "cifs"
        ],
        "nodeName": "ShirleyHa2701-01",
        "privateIp": true
    },
    {
        "ip": "10.0.0.28",
        "netmask": "255.255.255.0",
        "lifType": "Data",
        "dataProtocols": [
            "iscsi"
        ],
        "nodeName": "ShirleyHa2701-01",
        "privateIp": true
    },
    {
        "ip": "10.0.0.16",
        "netmask": "255.255.255.0",
        "lifType": "SVM Management",

```

```

        "dataProtocols": [],
        "nodeName": "ShirleyHa2701-01",
        "privateIp": true
    },
    ],
    "serialNumber": "0000000000000000",
    "systemId": "2315255834",
    "platformLicense": null,
    "platformSerialNumber": null,
    "cloudProviderId": "",
    "healthy": true,
    "inTakeover": false
},
{
    "name": "ShirleyHa2701-02",
    "lifs": [
        {
            "ip": "10.0.0.24",
            "netmask": "255.255.255.0",
            "lifType": "Cluster",
            "dataProtocols": [],
            "nodeName": "ShirleyHa2701-02",
            "privateIp": true
        },
        {
            "ip": "10.0.0.18",
            "netmask": "255.255.255.0",
            "lifType": "Node Management",
            "dataProtocols": [],
            "nodeName": "ShirleyHa2701-02",
            "privateIp": true
        },
        {
            "ip": "10.0.0.19",
            "netmask": "255.255.255.0",
            "lifType": "Intercluster",
            "dataProtocols": [],
            "nodeName": "ShirleyHa2701-02",
            "privateIp": true
        },
        {
            "ip": "10.0.0.15",
            "netmask": "255.255.255.0",
            "lifType": "Data",
            "dataProtocols": [
                "nfs",

```

```

        "cifs"
    ],
    "nodeName": "ShirleyHa2701-02",
    "privateIp": true
},
{
    "ip": "10.0.0.20",
    "netmask": "255.255.255.0",
    "lifType": "Data",
    "dataProtocols": [
        "iscsi"
    ],
    "nodeName": "ShirleyHa2701-02",
    "privateIp": true
}
],
"serialNumber": "0000000000000000",
"systemId": "2315255826",
"platformLicense": null,
"platformSerialNumber": null,
"cloudProviderId": "",
"healthy": true,
"inTakeover": false
}
],
"clusterName": "ShirleyHa2701",
"clusterUuid": "xxx000000e-xxx00-xxx00-xxx00-xxx00xxx00",
"ontapVersion": "9.9.0X5",
"systemManagerUrl": "https://10.0.0.13/sysmgr/SysMgr.html",
"creationTime": 1611698774849,
"licenseType": {
    "name": "Cloud Volumes ONTAP BYOL",
    "capacityLimit": {
        "size": 368.0,
        "unit": "TB"
    }
},
"lastModifiedOffbox": null,
"offboxTarget": true,
"upgradeVersions": null,
"writingSpeedState": null,
"broadcastDomainInfos": [
    {
        "broadcastDomain": "Cluster",
        "ipSpace": "Cluster",
        "mtu": 1500
    }
]

```

```

    },
    {
        "broadcastDomain": "Default",
        "ipSpace": "Default",
        "mtu": 1500
    }
],
"evaluation": false,
"capacityTierInfo": {
    "capacityTierUsedSize": {
        "size": 0.0,
        "unit": "GB"
    },
    "s3BucketName": "qxtjl1b4zpsieeen.blob.core.windows.net",
    "tierLevel": "normal"
},
"canConfigureCapacityTier": false,
"usedCapacity": {
    "size": 9.863281247817213E-4,
    "unit": "TB"
},
"userName": "admin",
"wormEnabled": false
},
"cloudProviderName": "Azure",
"snapshotPolicies": [
    {
        "name": "default",
        "schedules": [
            {
                "frequency": "hourly",
                "retention": 6
            },
            {
                "frequency": "daily",
                "retention": 2
            },
            {
                "frequency": "weekly",
                "retention": 2
            }
        ],
        "description": "Default policy with hourly, daily & weekly
schedules."
    },
    {

```

```

    "name": "default-1weekly",
    "schedules": [
      {
        "frequency": "hourly",
        "retention": 6
      },
      {
        "frequency": "daily",
        "retention": 2
      },
      {
        "frequency": "weekly",
        "retention": 1
      }
    ],
    "description": "Default policy with 6 hourly, 2 daily & 1
weekly schedule."
  },
  {
    "name": "none",
    "schedules": [],
    "description": "Policy for no automatic snapshots."
  }
],
"actionsRequired": [
  {
    "actionType": "licenseGracePeriod",
    "parameters": {
      "aggregateName": "",
      "numOfDisks": 0,
      "diskSize": null,
      "volumeNames": null,
      "maxCapacity": null,
      "licenseExpiryDate": 1611698969000,
      "serialNumber": "000000000000000000",
      "volumeMoveParameters": null,
      "workingEnvironmentId": "",
      "licenseParameters": null,
      "resourcesToDelete": null,
      "instances": [],
      "moreInfo": null,
      "providerVolumeType": null,
      "volumeInfo": null,
      "currentInstanceType": null
    },
    "severity": "error"
  }
]

```

```

    },
    {
      "actionType": "licenseGracePeriod",
      "parameters": {
        "aggregateName": "",
        "numOfDisks": 0,
        "diskSize": null,
        "volumeNames": null,
        "maxCapacity": null,
        "licenseExpiryDate": 1611699072000,
        "serialNumber": "00000000000000000000",
        "volumeMoveParameters": null,
        "workingEnvironmentId": "",
        "licenseParameters": null,
        "resourcesToDelete": null,
        "instances": [],
        "moreInfo": null,
        "providerVolumeType": null,
        "volumeInfo": null,
        "currentInstanceType": null
      },
      "severity": "error"
    }
  ],
  "activeActions": [],
  "replicationProperties": {
    "peers": [],
    "replicationTargets": []
  },
  "schedules": [
    {
      "name": "day",
      "schedule": [
        {
          "stop": {
            "day": 0,
            "hour": 20,
            "minute": 0
          },
          "start": {
            "day": 1,
            "hour": 8,
            "minute": 0
          }
        }
      ]
    }
  ]
}

```

```

        "stop": {
            "day": 1,
            "hour": 20,
            "minute": 0
        },
        "start": {
            "day": 2,
            "hour": 8,
            "minute": 0
        }
    },
    {
        "stop": {
            "day": 2,
            "hour": 20,
            "minute": 0
        },
        "start": {
            "day": 3,
            "hour": 8,
            "minute": 0
        }
    },
    {
        "stop": {
            "day": 3,
            "hour": 20,
            "minute": 0
        },
        "start": {
            "day": 4,
            "hour": 8,
            "minute": 0
        }
    },
    {
        "stop": {
            "day": 4,
            "hour": 20,
            "minute": 0
        },
        "start": {
            "day": 5,
            "hour": 8,
            "minute": 0
        }
    }
}

```



```

    },
    {
        "stop": {
            "day": 5,
            "hour": 20,
            "minute": 0
        },
        "start": {
            "day": 6,
            "hour": 8,
            "minute": 0
        }
    },
    {
        "stop": {
            "day": 6,
            "hour": 20,
            "minute": 0
        },
        "start": {
            "day": 0,
            "hour": 8,
            "minute": 0
        }
    }
],
"enabled": false
},
{
    "name": "Weekend",
    "schedule": [
        {
            "stop": {
                "day": 6,
                "hour": 8,
                "minute": 0
            },
            "start": {
                "day": 1,
                "hour": 8,
                "minute": 0
            }
        }
    ],
    "enabled": false
},

```

```

{
  "name": "Weekdays",
  "schedule": [
    {
      "stop": {
        "day": 1,
        "hour": 20,
        "minute": 0
      },
      "start": {
        "day": 2,
        "hour": 8,
        "minute": 0
      }
    },
    {
      "stop": {
        "day": 2,
        "hour": 20,
        "minute": 0
      },
      "start": {
        "day": 3,
        "hour": 8,
        "minute": 0
      }
    },
    {
      "stop": {
        "day": 3,
        "hour": 20,
        "minute": 0
      },
      "start": {
        "day": 4,
        "hour": 8,
        "minute": 0
      }
    },
    {
      "stop": {
        "day": 4,
        "hour": 20,
        "minute": 0
      },
      "start": {

```

```

        "day": 5,
        "hour": 8,
        "minute": 0
    },
    },
    {
        "stop": {
            "day": 5,
            "hour": 20,
            "minute": 0
        },
        "start": {
            "day": 6,
            "hour": 8,
            "minute": 0
        }
    }
],
    "enabled": false
}
],
    "svms": [
        {
            "name": "svm_ShirleyHa2701",
            "state": "running",
            "language": "c.utf_8",
            "allowedAggregates": [
                "aggr1"
            ],
            "ver3Enabled": true,
            "ver4Enabled": true
        }
    ],
    "workingEnvironmentType": "VSA",
    "supportRegistrationProperties": {
        "supportRegistrationStatus": "registered",
        "licenseExpiryDate": 1604102400000
    },
    "supportRegistrationInformation": [
        {
            "supportRegistrationStatus": "registered",
            "serialNumber": "00000000000000",
            "licenseExpiryDate": 1611698969000,
            "cloudLicenseExists": true,
            "nssAccountId": "x0x0x000-0000-0000x-00de-x000xxxx00000"
        }
    ],

```

```

    {
      "supportRegistrationStatus": "registered",
      "serialNumber": "0000000001111",
      "licenseExpiryDate": 1611699072000,
      "cloudLicenseExists": true,
      "nssAccountId": "x0x0x000-0000-0000x-00de-x000xxxx00000"
    }
  ],
  "capacityFeatures": {
    "providerVolumesType": [
      {
        "size": {
          "size": 500.0,
          "unit": "GB"
        },
        "supportedVolumeTypes": [
          "Premium_LRS"
        ],
        "maxDisksAllow": {
          "numOfDisks": 12,
          "reason": null
        }
      },
      {
        "size": {
          "size": 1.0,
          "unit": "TB"
        },
        "supportedVolumeTypes": [
          "Premium_LRS"
        ],
        "maxDisksAllow": {
          "numOfDisks": 12,
          "reason": null
        }
      },
      {
        "size": {
          "size": 2.0,
          "unit": "TB"
        },
        "supportedVolumeTypes": [
          "Premium_LRS"
        ],
        "maxDisksAllow": {
          "numOfDisks": 12,

```

```

        "reason": null
    },
    },
    {
        "size": {
            "size": 4.0,
            "unit": "TB"
        },
        "supportedVolumeTypes": [
            "Premium_LRS"
        ],
        "maxDisksAllow": {
            "numOfDisks": 12,
            "reason": null
        }
    },
    },
    {
        "size": {
            "size": 8.0,
            "unit": "TB"
        },
        "supportedVolumeTypes": [
            "Premium_LRS"
        ],
        "maxDisksAllow": {
            "numOfDisks": 12,
            "reason": null
        }
    }
},
],
"defaultProviderVolumeType": {
    "size": {
        "size": 500.0,
        "unit": "GB"
    },
    "diskType": "Premium_LRS",
    "capacityTier": "Blob",
    "iops": null
},
"supportedCapacityTiers": {
    "supportedCapacityTiersPerVolumeType": [
        {
            "volumeType": "Premium_LRS",
            "supportedCapacityTiers": [
                "Blob"
            ],
        },
    ],
}

```

```

        "availableTieringPolicies": [
            "none",
            "snapshot_only",
            "auto",
            "all"
        ]
    },
    ],
    "capacityTiersDisableReasons": [],
    "compositeSupported": true,
    "forceCompositeVersion": true
},
"maxDisksPerAggregate": 12,
"existingIops": []
},
"encryptionProperties": {
    "ontapEncryption": false,
    "awsVolumeEncryption": false,
    "azureVolumeEncryption": true,
    "gcpVolumeEncryption": false,
    "keyManagers": [],
    "encryptionCertificates": [],
    "awsEncryptionKey": null
},
"supportedFeatures": {
    "supportsMixedAggregates": false,
    "supportsTieringWithServiceAccount": false
},
"isHA": true,
"haProperties": {
    "loadBalancerName": "ShirleyHa2701-rg-lb",
    "node1Info": {
        "instanceName": "ShirleyHa2701-vm1",
        "instanceId": null,
        "primaryIp": "10.0.0.26",
        "state": "running",
        "serialNumber": "0000000000000000",
        "availabilitySet": {
            "faultDomain": 0,
            "updateDomain": 0
        }
    },
    "node2Info": {
        "instanceName": "ShirleyHa2701-vm2",
        "instanceId": null,
        "primaryIp": "10.0.0.18",

```

```

        "state": "running",
        "serialNumber": "000000000000000000000000",
        "availabilitySet": {
            "faultDomain": 1,
            "updateDomain": 1
        }
    },
    "k8sProperties": {
        "isConnected": false,
        "mainClusterIds": [],
        "connectedClusterIds": []
    },
    "fpolicyProperties": {
        "status": 0,
        "fPolicyProtocolStatus": {
            "nfsv3": 0,
            "nfsv4": 0,
            "cifs": -1
        },
        "fileExtensions": [
            "micro",
            "encrypted",
            "locked",
            "crypto",
            "crypt",
            "crinf",
            "r5a",
            "XRNT",
            "XTBL",
            "R16M01D05",
            "pzdc",
            "good",
            "LOL!",
            "OMG!",
            "RDM",
            "RRK",
            "encryptedRS",
            "crjoker",
            "EnCiPhErEd",
            "LeChiffre"
        ]
    },
    "saasProperties": {
        "subscription": null,
        "freeTrialExpiry": null,
    }
}

```

```

    "saasEnabled": false
  },
  "cbsProperties": {
    "cbsBackupStatus": "off",
    "cbsRules": [],
    "numberOfBackedUpVolumes": 0,
    "objectStoreName": null,
    "providerSpecific": null,
    "cbsPolicyName": null,
    "usedCapacity": null,
    "ipSpace": null,
    "region": null,
    "providerAccountName": null,
    "exclusionReason": null
  },
  "complianceProperties": {
    "scanStatus": "SCAN_DISABLED",
    "complianceStatus": null,
    "lastDeploymentError": null,
    "complianceBackupStatus": null
  },
  "monitoringProperties": {
    "monitoringStatus": "MONITORING_DISABLED",
    "monitoringInfo": null,
    "tenantUrl": null
  }
}

```

## Delete a working environment

You can delete an existing Azure Cloud Volumes ONTAP working environment.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Delete working environment for single node

You can use this workflow to delete a single node working environment.

#### 1. Create the working environment to use

Perform the workflow [Create Azure single node working environment](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.



## 2. Delete the working environment

HTTP method	Path
DELETE	/occm/api/azure/vsa/working-environments/{workingEnvironmentId}

### curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/working-
environments/<WORKING_ENV_ID>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>'
```

### Input

Path parameter <WORKING\_ENV\_ID> (workingEnvironmentId) string

(Optional) Query parameters:

- localDelete boolean

If `true` the Cloud Volumes ONTAP instance in the cloud is not terminated, but Cloud Manager no longer manages it (default is `false`).

- forceDelete boolean

If `true` the working environment is deleted even if it is part of one or more SnapMirror relationships (default is `false`).

### Output

None

### Delete working environment for high availability pair

You can use this workflow to delete an HA working environment.

## 1. Create the working environment to use

Perform the workflow [Create Azure HA working environment](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

## 2. Delete the working environment

HTTP method	Path
DELETE	/occm/api/azure/ha/working-environments/{workingEnvironmentId}

### curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/working-
environments/<WORKING_ENV_ID>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>'
```

## Input

Path parameter <WORKING\_ENV\_ID> (workingEnvironmentId) string

(Optional) Query parameters:

- localDelete boolean

If `true` the Cloud Volumes ONTAP instance in the cloud is not terminated, but Cloud Manager no longer manages it (default is `false`).

- forceDelete boolean

If `true` the working environment is deleted even if it is part of one or more SnapMirror relationships (default is `false`).

## Output

None

## Create CIFS server configuration

If you want to create CIFS volumes on your Cloud Volumes ONTAP system, you first need to configure the CIFS server. You can choose to set up the CIFS server in a workgroup or in an Active Directory domain. Review the [ONTAP documentation](#) for more information.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Create CIFS server configuration for single node

You can use this workflow to create CIFS server configuration for single node system.

Choose the workflow that is specific to your goal:

- [Set up a CIFS server in a workgroup](#)
- [Set up a CIFS server in an Active Directory domain](#)

### Set up a CIFS server in a workgroup

You can configure a CIFS server in a workgroup when the Microsoft Active Directory domain infrastructure is not available.

## 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the working environment used in the `workingEnvironmentId` path parameter.

## 2. Create the CIFS configuration

Create the CIFS server configuration.

HTTP method	Path
POST	/occm/api/azure/vsa/working-environments/{workingEnvironmentId}/cifs-workgroup

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/working-
environments/<WORKING_ENV_ID>/cifs-workgroup' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId` string

### JSON input example

```
{
  "serverName": "SMB_SERVER02",
  "workgroupName": "workgroup02",
  "svmName": "svm_ziv01we01"
}
```

### Output

None.

## Set up a CIFS server in an Active Directory domain

You can create a CIFS server on the SVM and specify the Active Directory (AD) domain to which it belongs.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the working environment used in the `workingEnvironmentId` path parameter.

### 2. Determine the Active Directory configuration

You need the following configuration parameters for an Active Directory server.

Input parameter	Description
dnsDomain	Use the Active Directory domain as the DNS name.
ipAddresses	Define the primary DNS IP address and optionally add a secondary IP address.
netBIOS	Use the CIFS server NetBIOS name.
organizationalUnit	Include the organizational unit as appropriate.
activeDirectoryDomain	Set the Active Directory domain to join.
activeDirectoryUsername	A username with authorization to join the domain.
activeDirectoryPassword	The password for the authorized username.

### 3. Create the CIFS configuration

Create the CIFS server configuration.

HTTP method	Path
POST	/occm/api/azure/vsa/working-environments/{workingEnvironmentId}/cifs

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/working-
environments/<WORKING_ENV_ID>/cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

#### Input

- Path parameter <WORKING\_ENV\_ID> workingEnvironmentId string

#### JSON input example

```
{
  "dnsDomain": "zivh.netapp.com",
  "ipAddresses": [
    "172.31.5.241"
  ],
  "netBIOS": "zivaws02we03",
  "organizationalUnit": "CN=Computers",
  "activeDirectoryDomain": "zivh.netapp.com",
  "activeDirectoryUsername": "administrator",
  "activeDirectoryPassword": "password"
}
```

## Output

None.

### Create CIFS server configuration for high availability pair

You can use this workflow to create CIFS server configuration for an HA working environment.

Choose the workflow that is specific to your goal:

- [Set up a CIFS server in a workgroup](#)
- [Set up a CIFS server in an Active Directory domain](#)

### Set up a CIFS server in a workgroup

You can configure a CIFS server in a workgroup when the Microsoft Active Directory domain infrastructure is not available.

#### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the working environment used in the `workingEnvironmentId` path parameter.

#### 2. Create the CIFS configuration

Create the CIFS server configuration.

HTTP method	Path
POST	/occm/api/azure/ha/working-environments/{workingEnvironmentId}/cifs-workgroup

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/working-
environments/<WORKING_ENV_ID>/cifs-workgroup' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId` string

#### JSON input example

```
{
  "serverName": "SMB_SERVER02",
  "workgroupName": "workgroup02",
  "svmName": "svm_ziv01we01"
}
```

## Output

None.

## Set up a CIFS server in an Active Directory domain

You can create a CIFS server on the SVM and specify the Active Directory (AD) domain to which it belongs.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the working environment used in the `workingEnvironmentId` path parameter.

### 2. Determine the Active Directory configuration

You need the following configuration parameters for an Active Directory server.

Input parameter	Description
<code>dnsDomain</code>	Use the Active Directory domain as the DNS name.
<code>ipAddresses</code>	Define the primary DNS IP address and optionally add a secondary IP address.
<code>netBIOS</code>	Use the CIFS server NetBIOS name.
<code>organizationalUnit</code>	Include the organizational unit as appropriate.
<code>activeDirectoryDomain</code>	Set the Active Directory domain to join.
<code>activeDirectoryUsername</code>	A username with authorization to join the domain.
<code>activeDirectoryPassword</code>	The password for the authorized username.

### 3. Create the CIFS configuration

Create the CIFS server configuration.

HTTP method	Path
POST	<code>/occm/api/azure/ha/working-environments/{workingEnvironmentId}/cifs</code>

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/working-
environments/<WORKING_ENV_ID>/cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId` string

## JSON input example

```
{
  "dnsDomain": "mydomain.com",
  "activeDirectoryDomain": "mydomain.com",
  "ipAddresses": ["10.10.10.20", "172.xx.yy.xx"],
  "netBIOS": "azureHAPayGo",
  "organizationalUnit": "CN=Computers",
  "activeDirectoryUsername": "administrator",
  "activeDirectoryPassword": "password",
  "svmName": "svm_azureHAPayGo"
}
```

## Output

None.

## Get CIFS server configurations

You can use this workflow to retrieve the CIFS server configurations for an existing Cloud Volumes ONTAP working environment.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get CIFS server configuration for single node

You can use this workflow to retrieve CIFS server configuration for a single node system.

#### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the working environment used in the `workingEnvironmentId` path parameter.

#### 2. Get the CIFS configurations

HTTP method	Path
GET	/occm/api/azure/vsa/working-environments/{workingEnvironmentId}/cifs

## curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/working-
environments/<WORKING_ENV_ID>/cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

- Path parameter <WORKING\_ENV\_ID> `workingEnvironmentId` string
- (Optional) Query parameter `svm` string

## Output

The JSON output example includes the CIFS configurations for an existing Cloud Volumes ONTAP ONTAP working environment.

## JSON output example

```
[
  {
    "dnsDomain": "zivh.netapp.com",
    "activeDirectoryDomain": "zivh.netapp.com",
    "ipAddresses": [
      "172.31.5.241"
    ],
    "netBIOS": "zivaws02we01",
    "organizationalUnit": "CN=Computers",
    "authenticationType": "domain"
  }
]
```

## Get CIFS server configuration for high availability pair

You can use this workflow to retrieve CIFS server configuration for an HA working environment.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the working environment used in the `workingEnvironmentId` path parameter.

### 2. Get the CIFS configurations

HTTP method	Path
GET	/occm/api/azure/ha/working-environments/{workingEnvironmentId}/cifs

## curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/working-
environments/<WORKING_ENV_ID>/cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```



## Input

- Path parameter <WORKING\_ENV\_ID> `workingEnvironmentId` string
- (Optional) Query parameter `svm` string

## Output

The JSON output example includes the CIFS configurations for an existing Cloud Volumes ONTAP working environment.

## JSON output example

```
[
  {
    "dnsDomain": "mydomain.com",
    "activeDirectoryDomain": "mydomain.com",
    "ipAddresses": ["10.10.10.20", "172.xx.yy.xx"],
    "netBIOS": "azureHAPayGo",
    "organizationalUnit": "CN=Computers",
    "activeDirectoryUsername": "administrator",
    "activeDirectoryPassword": "password",
    "svmName": "svm_azureHAPayGo"
  }
]
```

## Delete CIFS server configuration

You can use this workflow to delete a CIFS server configuration for an existing Cloud Volumes ONTAP working environment.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Delete CIFS server configuration for single node

You can use this workflow to delete CIFS server configuration for a single node system.

#### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the working environment used in the `workingEnvironmentId` path parameter.

#### 2. Delete the CIFS configurations

HTTP method	Path
POST	/occm/api/azure/vsa/working-environments/{workingEnvironmentId}/delete-cifs

## curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/working-
environments/<WORKING_ENV_ID>/delete-cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

- Path parameter <WORKING\_ENV\_ID> workingEnvironmentId string
- Optional JSON body

```
{
  "activeDirectoryUsername": "string",
  "activeDirectoryPassword": "string",
  "svmName": "string"
}
```

## Output

None.

## Delete CIFS server configuration for high availability pair

You can use this workflow to delete CIFS server configuration for an HA working environment.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the publicId value for the working environment used in the workingEnvironmentId path parameter.

### 2. Delete the CIFS configurations

HTTP method	Path
POST	/occm/api/azure/ha/working-environments/{workingEnvironmentId}/delete-cifs

## curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/working-
environments/<WORKING_ENV_ID>/delete-cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

- Path parameter <WORKING\_ENV\_ID> workingEnvironmentId string

- Optional JSON body

```
{
  "activeDirectoryUsername": "string",
  "activeDirectoryPassword": "string",
  "svmName": "string"
}
```

## Output

None.

## Aggregates

### Get aggregates

You can retrieve a list of available disk aggregates of an Azure working environment.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

#### Get aggregates for single node

You can use this workflow to retrieve the aggregates for a single node working environment.

#### 1. Create the working environment

Perform the workflow [Create Azure single node working environment](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

#### 2. Get the list of aggregates

HTTP method	Path
GET	/occm/api/azure/vsa/aggregates/{workingEnvironmentId}

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/aggregates/<WORKING_ENV_ID>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

Path parameter:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`) string

## Output

An array of aggregates for the indicated working environment is returned as shown in the JSON output example.



The capacity (sizes) in the output are in MB/GB/TB (1000th order) because these are ONTAP aggregates, whereas in Cloud Manager the capacity is specified as MiB, GiB (1024 order).

## JSON output example

```
[
  {
    "name": "aggr1",
    "availableCapacity": {
      "size": 905.27,
      "unit": "GB"
    },
    "totalCapacity": {
      "size": 906.29,
      "unit": "GB"
    },
    "usedCapacity": {
      "size": 1.02,
      "unit": "GB"
    },
    "volumes": [
      {
        "name": "svm_ShirleyAzureVsa2601_root",
        "totalSize": {
          "size": 1.0,
          "unit": "GB"
        },
        "usedSize": {
          "size": 3.62396240234375E-4,
          "unit": "GB"
        },
        "thinProvisioned": false,
        "isClone": false,
        "rootVolume": true
      }
    ],
    "providerVolumes": [
      {
        "id": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/ShirleyAzureVsa2601-rg/providers/Microsoft.Compute/disks/ShirleyAzureVsa2601datadisk3",
        "name": "ShirleyAzureVsa2601datadisk3",
        "size": {
```

```

        "size": 1.0,
        "unit": "TB"
    },
    "state": "available",
    "device": "3",
    "instanceId": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/ShirleyAzureVsa2601-rg/providers/Microsoft.Compute/virtualMachines/ShirleyAzureVsa2601",
    "diskType": "Premium_LRS",
    "encrypted": false,
    "iops": null
}
],
"disks": [
    {
        "name": "NET-1.2",
        "position": "data",
        "ownerNode": "ShirleyAzureVsa2601-01",
        "device": "LUN 5.3",
        "vmDiskProperties": null
    }
],
"state": "online",
"encryptionType": "notEncrypted",
"encryptionKeyId": null,
"isRoot": false,
"homeNode": "ShirleyAzureVsa2601-01",
"ownerNode": "ShirleyAzureVsa2601-01",
"capacityTier": null,
"capacityTierUsed": null,
"sidlEnabled": false,
"snaplockType": "non_snaplock"
},
{
    "name": "aggr2",
    "availableCapacity": {
        "size": 906.29,
        "unit": "GB"
    },
    "totalCapacity": {
        "size": 906.29,
        "unit": "GB"
    },
    "usedCapacity": {
        "size": 3.48,
        "unit": "MB"
    }
}

```

```

    },
    "volumes": [],
    "providerVolumes": [
      {
        "id": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/ShirleyAzureVsa2601-rg/providers/Microsoft.Compute/disks/ShirleyAzureVsa2601datadisk4",
        "name": "ShirleyAzureVsa2601datadisk4",
        "size": {
          "size": 1.0,
          "unit": "TB"
        },
        "state": "available",
        "device": "4",
        "instanceId": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/ShirleyAzureVsa2601-rg/providers/Microsoft.Compute/virtualMachines/ShirleyAzureVsa2601",
        "diskType": "Premium_LRS",
        "encrypted": false,
        "iops": null
      }
    ],
    "disks": [
      {
        "name": "NET-1.3",
        "position": "data",
        "ownerNode": "ShirleyAzureVsa2601-01",
        "device": "LUN 5.4",
        "vmDiskProperties": null
      }
    ],
    "state": "online",
    "encryptionType": "notEncrypted",
    "encryptionKeyId": null,
    "isRoot": false,
    "homeNode": "ShirleyAzureVsa2601-01",
    "ownerNode": "ShirleyAzureVsa2601-01",
    "capacityTier": null,
    "capacityTierUsed": null,
    "sidlEnabled": false,
    "snaplockType": "non_snaplock"
  },
  {
    "name": "aggr3",
    "availableCapacity": {
      "size": 1.77,

```

```

        "unit": "TB"
    },
    "totalCapacity": {
        "size": 1.77,
        "unit": "TB"
    },
    "usedCapacity": {
        "size": 5.78,
        "unit": "MB"
    },
    "volumes": [],
    "providerVolumes": [
        {
            "id": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/ShirleyAzureVsa2601-rg/providers/Microsoft.Compute/disks/ShirleyAzureVsa2601datadisk5",
            "name": "ShirleyAzureVsa2601datadisk5",
            "size": {
                "size": 1.0,
                "unit": "TB"
            },
            "state": "available",
            "device": "5",
            "instanceId": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/ShirleyAzureVsa2601-rg/providers/Microsoft.Compute/virtualMachines/ShirleyAzureVsa2601",
            "diskType": "Premium_LRS",
            "encrypted": false,
            "iops": null
        },
        {
            "id": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/ShirleyAzureVsa2601-rg/providers/Microsoft.Compute/disks/ShirleyAzureVsa2601datadisk6",
            "name": "ShirleyAzureVsa2601datadisk6",
            "size": {
                "size": 1.0,
                "unit": "TB"
            },
            "state": "available",
            "device": "6",
            "instanceId": "/subscriptions/x000xx00-0x00-0000-000x/resourceGroups/ShirleyAzureVsa2601-rg/providers/Microsoft.Compute/virtualMachines/ShirleyAzureVsa2601",
            "diskType": "Premium_LRS",
            "encrypted": false,

```

```

        "iops": null
    },
    ],
    "disks": [
        {
            "name": "NET-1.4",
            "position": "data",
            "ownerNode": "ShirleyAzureVsa2601-01",
            "device": "LUN 5.5",
            "vmDiskProperties": null
        },
        {
            "name": "NET-1.5",
            "position": "data",
            "ownerNode": "ShirleyAzureVsa2601-01",
            "device": "LUN 5.6",
            "vmDiskProperties": null
        }
    ],
    "state": "online",
    "encryptionType": "notEncrypted",
    "encryptionKeyId": null,
    "isRoot": false,
    "homeNode": "ShirleyAzureVsa2601-01",
    "ownerNode": "ShirleyAzureVsa2601-01",
    "capacityTier": null,
    "capacityTierUsed": null,
    "sidlEnabled": false,
    "snaplockType": "non_snaplock"
}
]

```

## Get aggregates for high availability pair

You can use this workflow to retrieve the aggregates for an HA working environment.

### 1. Create the working environment

Perform the workflow [Create Azure HA working environment](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

### 2. Get the list of aggregates

HTTP method	Path
GET	/occm/api/azure/ha/aggregates/{workingEnvironmentId}



## curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/aggregates/<WORKING_ENV_ID>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

Path parameter:

- <WORKING\_ENV\_ID> (workingEnvironmentId) string

## Output

An array of aggregates for the indicated working environment is returned as shown in the JSON output example.



The capacity (sizes) in the output are in MB/GB/TB (1000th order) because these are ONTAP aggregates, whereas in Cloud Manager the capacity is specified as MiB, GiB (1024 order).

## JSON output example

```
[
  {
    "name": "aggr1",
    "availableCapacity": {
      "size": 906.16,
      "unit": "GB"
    },
    "totalCapacity": {
      "size": 907.18,
      "unit": "GB"
    },
    "usedCapacity": {
      "size": 1.01,
      "unit": "GB"
    },
    "volumes": [
      {
        "name": "svm_ShirleyHa2801_root",
        "totalSize": {
          "size": 1.0,
          "unit": "GB"
        },
        "usedSize": {
          "size": 3.24249267578125E-4,
          "unit": "GB"
        }
      }
    ]
  }
]
```

```

        "thinProvisioned": false,
        "isClone": false,
        "rootVolume": true
    }
],
"providerVolumes": [
    {
        "id": "ki4cw3n3oyha",
        "name": "ki4cw3n3oyha",
        "size": {
            "size": 1.0,
            "unit": "TB"
        },
        "state": "available",
        "device": "",
        "instanceId": "",
        "diskType": "Premium_LRS",
        "encrypted": true,
        "iops": null
    }
],
"disks": [
    {
        "name": "NET-1.3",
        "position": "data",
        "ownerNode": "ShirleyHa2801-01",
        "device": "",
        "vmDiskProperties": {
            "objectName": "ki4cw3n3oyha",
            "storageAccountName": "rootsacnqfypfg",
            "containerName": "blobcontainer"
        }
    }
],
"state": "online",
"encryptionType": "cloudEncrypted",
"encryptionKeyId": null,
"isRoot": false,
"homeNode": "ShirleyHa2801-01",
"ownerNode": "ShirleyHa2801-01",
"capacityTier": "Blob",
"capacityTierUsed": {
    "size": 0.0,
    "unit": "GB"
},
"sidlEnabled": true,

```

```

    "snaplockType": "non_snaplock"
  },
  {
    "name": "aggr2",
    "availableCapacity": {
      "size": 907.18,
      "unit": "GB"
    },
    "totalCapacity": {
      "size": 907.18,
      "unit": "GB"
    },
    "usedCapacity": {
      "size": 500.0,
      "unit": "KB"
    },
    "volumes": [],
    "providerVolumes": [
      {
        "id": "1102qyj51rwt",
        "name": "1102qyj51rwt",
        "size": {
          "size": 1.0,
          "unit": "TB"
        },
        "state": "available",
        "device": "",
        "instanceId": "",
        "diskType": "Premium_LRS",
        "encrypted": true,
        "iops": null
      }
    ],
    "disks": [
      {
        "name": "NET-1.4",
        "position": "data",
        "ownerNode": "ShirleyHa2801-01",
        "device": "",
        "vmDiskProperties": {
          "objectName": "1102qyj51rwt",
          "storageAccountName": "rootsacnqfypfg",
          "containerName": "blobcontainer"
        }
      }
    ]
  },
]

```

```

    "state": "online",
    "encryptionType": "cloudEncrypted",
    "encryptionKeyId": null,
    "isRoot": false,
    "homeNode": "ShirleyHa2801-01",
    "ownerNode": "ShirleyHa2801-01",
    "capacityTier": "Blob",
    "capacityTierUsed": {
      "size": 0.0,
      "unit": "GB"
    },
    "sidlEnabled": true,
    "snaplockType": "non_snaplock"
  }
]

```

## Create aggregate

You can create a new aggregate within an Azure working environment using this workflow.

### 1. Create the working environment

Perform the workflow [Create Azure single node working environment](#) and choose the `publicId` value for the `workingEnvironmentId` parameter in the JSON input.

### 2. Select the Azure Storage Account Types

Perform the [Get Azure Storage Account Types](#) workflow and choose the desired storage type:

- Choose the `diskType` of the desired storage type item for the `providerVolumeType` parameter in the JSON input.
- Choose the `size` value of the desired disk from the `sizes` → `size` field for the `size` field inside `diskSize` parameter in the JSON input.
- Choose the `unit` value of the desired disk from the `sizes` → `size` field for the `unit` field inside `diskSize` parameter in the JSON input.

### 3. Create the aggregate

HTTP method	Path
POST	<code>occm/api/azure/vsa/aggregates</code>

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/aggregates'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

The JSON input example includes the minimum list of input parameters.

## JSON input example

```
{
  "name": "aggr3",
  "workingEnvironmentId": "VsaWorkingEnvironment-IsDYFJf8",
  "numberOfDisks": "2",
  "diskSize": {
    "size": "1",
    "unit": "TB"
  },
  "providerVolumeType": "Premium_LRS"
}
```

## Output

None

## Add disks to aggregate

You can add disks to an existing aggregate.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Add disks to an aggregate for single node

You can use this workflow to add disks to an aggregate for a single node working environment.

#### 1. Create the working environment

Perform the workflow [Create Azure single node working environment](#) and choose the `publicId` value for the `workingEnvironmentId` path parameter.

#### 2. Create the aggregate

Perform the workflow [Create aggregate](#) to create an aggregate with the name `aggr2` and choose `aggr2` for the `aggregateName` path parameter.

### 3. Add the disks to the aggregate

HTTP method	Path
POST	/occm/api/azure/vsa/aggregates/{workingEnvironmentId}/{aggregateName}/disks

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/aggregates/<WORKING_ENV_ID>/<AGGR_NAME>/disks' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

#### Input

You must include the following path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId) string
- <AGGR\_NAME> (aggregateName) string

Also, the JSON input example includes an input parameter as shown.

#### JSON input example

```
{
  "numberOfDisks": "1"
}
```

#### Output

None

#### Add disks to an aggregate for high availability pair

You can use this workflow to add disks to an aggregate for HA working environment.

##### 1. Create the working environment

Perform the workflow [Create Azure HA working environment](#) and choose the `publicId` value for the `workingEnvironmentId` path parameter.

##### 2. Create the aggregate

Perform the workflow [Create aggregate](#) to create an aggregate with the name `aggr2` and choose `aggr2` for the `aggregateName` path parameter.

##### 3. Add the disks to the aggregate

HTTP method	Path
POST	/occm/api/azure/ha/aggregates/{workingEnvironmentId}/{aggregateName}/disks

## curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/aggregates/<WORKI
NG_ENV_ID>/<AGGR_NAME>/disks' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>' --d @JSONinput
```

## Input

You must include the following path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId) string
- <AGGR\_NAME> (aggregateName) string

Also, the JSON input example includes an input parameter as shown.

## JSON input example

```
{
  "numberOfDisks": "2"
}
```

## Output

None

## Delete aggregate

You can delete an existing disk aggregate in an Azure working environment.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Delete aggregate for single node

You can use this workflow to delete an aggregate for a single node working environment.

#### 1. Create the working environment

Perform the workflow [Create Azure single node working environment](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

#### 2. Create an aggregate to delete

Perform the workflow [Create aggregate](#) to create an aggregate with the name `aggr2`. Use `aggr2` value for the `aggregateName` path parameter.

### 3. Delete the aggregate

HTTP method	Path
DELETE	/occm/api/azure/vsa/aggregates/{workingEnvironmentId}/{aggregateName}

#### curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/aggregates/<WORKING_ENV_ID>/<AGGR_NAME>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

Path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId) string
- <AGGR\_NAME> (aggregateName) string

#### Output

None

#### Delete aggregate for high availability pair

You can use this workflow to delete an aggregate for an HA working environment.

#### 1. Create the working environment

Perform the workflow [Create Azure HA working environment](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

#### 2. Create an aggregate to delete

Perform the workflow [Create aggregate](#) to create an aggregate with the name `aggr2`. Use `aggr2` value for the `aggregateName` path parameter.

### 3. Delete the aggregate

HTTP method	Path
DELETE	/occm/api/azure/ha/aggregates/{workingEnvironmentId}/{aggregateName}

#### curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/aggregates/<WORKING_ENV_ID>/<AGGR_NAME>' --header 'Content-Type: application/json' --header
'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```



## Input

Path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId) string
- <AGGR\_NAME> (aggregateName) string

## Output

None

### Delete aggregate for high availability pair

You can use this workflow to delete an aggregate for an HA working environment.

#### 1. Create the working environment

Perform the workflow [Create Azure HA working environment](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

#### 2. Create an aggregate to delete

Perform the workflow [Create aggregate](#) to create an aggregate with the name `aggr2`. Use `aggr2` value for the `aggregateName` path parameter.

#### 3. Delete the aggregate

HTTP method	Path
DELETE	/occm/api/azure/ha/aggregates/{workingEnvironmentId}/{aggregateName}

#### curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/aggregates/<WORKI
NG_ENV_ID>/aggr2' --header 'Content-Type: application/json' --header 'x-
agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

Path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId) string
- <AGGR\_NAME> (aggregateName) string

## Output

None

## Volumes

## Create a volume using NFS

You can use this workflow to create a volume accessed through NFS protocol.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Create volume using NFS for single node

You can use this workflow to create a volume using NFS protocol for a single node working environment.

#### 1. Select the working environment

Perform the workflow [Create working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter in the JSON input.

#### 2. Create the volume

HTTP method	Path
POST	/occm/api/azure/vsa/volumes

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/volumes'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

#### Input

The JSON input example includes the minimum list of input parameters.

#### JSON input example

```
{
  "providerVolumeType": "Premium_LRS",
  "verifyNameUniqueness": true,
  "name": "vol2",
  "size": {
    "size": 10,
    "unit": "GB"
  },
  "enableCompression": true,
  "enableDeduplication": true,
  "createAggregateIfNotFound": "true",
  "enableThinProvisioning": true,
  "aggregateName": "aggr1",
  "maxNumOfDisksApprovedToAdd": 0,
  "svmName": "svm_ShirleyAzureVsa2601",
  "iops": null,
  "snapshotPolicyName": "default",
  "autoVsaCapacityManagementEnabled": true,
  "exportPolicyInfo": {
    "_ips": "10.0.0.0/16",
    "ips": [
      "10.0.0.0/16"
    ],
    "nfsVersion": [
      "nfs3",
      "nfs4"
    ],
    "policyType": "custom"
  },
  "workingEnvironmentId": "VsaWorkingEnvironment-IsDYFJf8"
}
```

## Output

None

## Create volume using NFS for high availability pair

You can use this workflow to create a volume using NFS protocol for an HA working environment.

### 1. Select the working environment

Perform the workflow [Create working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter in the JSON input.

## 2. Create the volume

HTTP method	Path
POST	/occm/api/azure/ha/volumes

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters.

### JSON input example

```
{
  "providerVolumeType": "Premium_LRS",
  "verifyNameUniqueness": true,
  "name": "vol3",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "enableCompression": true,
  "enableDeduplication": true,
  "createAggregateIfNotFound": "true",
  "enableThinProvisioning": true,
  "aggregateName": "aggr1",
  "maxNumOfDisksApprovedToAdd": 0,
  "svmName": "svm_ShirleyHa2901",
  "iops": null,
  "snapshotPolicyName": "default",
  "autoVsaCapacityManagementEnabled": true,
  "exportPolicyInfo": {
    "_ips": "10.0.0.0/16",
    "ips": [
      "10.0.0.0/16"
    ],
    "nfsVersion": [
      "nfs3",
      "nfs4"
    ],
    "policyType": "custom"
  },
  "workingEnvironmentId": "VsaWorkingEnvironment-LUeyohBV"
}
```

## Output

None

## Create a volume using CIFS

You can use this workflow to create a volume accessed through CIFS protocol.



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)

- [HA pair](#)

## Create volume using CIFS for single node

You can use this workflow to create a volume using CIFS protocol for a single node working environment.

### 1. Choose the CIFS configuration

A CIFS server configuration must be defined for your working environment. You can do one of the following:

- If a CIFS configuration already exists, perform the workflow [Get CIFS server configurations](#) to access the configuration parameters.
- If a CIFS configuration does not exist, perform the workflow [Create CIFS server configuration](#) to create one.

### 2. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` (working environment) and the `svmName` (SVM name).

### 3. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the name for the `aggregateName` value.



If aggregate name does not exist and the `createAggregateIfNotFound` query parameter is set `true`, the create volume request is allowed if the named aggregate is not found.

### 4. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

### 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

### 6. Create the volume

HTTP method	Path
POST	/occm/api/azure/vsa/volumes

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/volumes'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

The JSON input example includes the minimum list of input parameters, including:

- <WORKING\_ENV\_ID> (workingEnvironmentId) string
- <SVM\_NAME> (svmName) string
- <AGGR\_NAME> (aggregateName) string

If an aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

## JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-SfpVUZSc",
  "svmName": "svm_zivaws02we01",
  "aggregateName": "aggr1",
  "name": "zivaws02we02vol02Cifs",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "shareInfo": {
    "accessControl": {
      "permission": "full_control",
      "users": [
        "Everyone"
      ],
      "users": "Everyone;"
    },
    "shareName": "zivaws02we01vol02Cifs_share"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

## Output

None

### Create volume using CIFS for high availability pair

You can use this workflow to create a volume using CIFS protocol for an HA working environment.

## 1. Choose the CIFS configuration

A CIFS server configuration must be defined for your working environment. You can do one of the following:

- If a CIFS configuration already exists, perform the workflow [Get CIFS server configurations](#) to access the configuration parameters.
- If a CIFS configuration does not exist, perform the workflow [Create CIFS server configuration](#) to create one.

## 2. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` (working environment) and the `svmName` (SVM name).

## 3. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the name for the `aggregateName` value.



If aggregate name does not exist and the `createAggregateIfNotFound` query parameter is set `true`, the create volume request is allowed if the named aggregate is not found.

## 4. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or byte.

## 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

## 6. Create the volume

HTTP method	Path
POST	/occm/api/azure/ha/volumes

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters, including:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`) string
- `<SVM_NAME>` (`svmName`) string
- `<AGGR_NAME>` (`aggregateName`) string



If an aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-SfpVUZSc",
  "svmName": "svm_zivaws02we01",
  "aggregateName": "aggr1",
  "name": "zivaws02we02vol02Cifs",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "shareInfo": {
    "accessControl": {
      "permission": "full_control",
      "users": [
        "Everyone"
      ],
      "users": "Everyone;"
    },
    "shareName": "zivaws02we01vol02Cifs_share"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

### Output

None

### Create a volume using iSCSI

You can use this workflow to create a volume accessed through iSCSI.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

#### Create volume using iSCSI for single node

You can use this workflow to create a volume using iSCSI protocol for a single node working environment.

There are two workflows available depending on whether a new or existing iGroup is used. You need to select

the correct workflow:

- [Create volume using iSCSI with a new iGroup](#)
- [Create volume using iSCSI with an existing iGroup](#)

## Create volume using iSCSI with a new iGroup



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter and the `svmName` value for the `svmName` parameter.

### 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the name for the `aggregateName` value.

### 3. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

### 4. Choose the iscsiInfo parameters

You must choose the following values for the REST API call:

- A unique igroup name for `igroupCreationRequest` → `igroupName` parameter
- The required iqn's to `igroupCreationRequest` → `initiators` parameter.
- The required operating system for the `osName` parameter from one of the following:
  - windows
  - linux
  - vmware
  - windows\_2008
  - windows\_gpt

### 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

### 6. Create the volume

HTTP method	Path
POST	/occm/api/azure/vsa/volumes

## curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/volumes'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

The JSON input example includes the minimum list of input parameters, including:

- <WORKING\_ENV\_ID> (workingEnvironmentId) string
- <SVM\_NAME> (svmName) string
- <AGGR\_NAME> (aggregateName) string

If aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

## JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-SfpVUZSc",
  "svmName": "svm_zivaws02we01",
  "aggregateName": "aggr1",
  "name": "zivaws02we01vol01Iscsi",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "iscsiInfo": {
    "igroupCreationRequest": {
      "igroupName": "zivIgroup",
      "initiators": [
        "iqn.1994-05.com.redhat:00xx00000000",
        "iqn.1994-05.com.redhat:00xx00000000"
      ]
    },
    "osName": "linux"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

## Output

None

## Create volume using iSCSI with an existing iGroup



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter and the `svmName` value for the `svmName` parameter.

### 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the name for the `aggregateName` value.

### 3. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or byte.

### 4. Choose the iGroup

Perform the workflow [Get iGroups](#) and choose the `igroups` for the `iscasiInfo → igroups` value. Also select the `osType` value for the `iscasiInfo → osName`.

### 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

### 6. Create the volume

HTTP method	Path
POST	/occm/api/azure/vsa/volumes

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/volumes'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

The JSON input example includes the minimum list of input parameters, including:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`) string
- `<SVM_NAME>` (`svmName`) string

- <AGGR\_NAME> (aggregateName) string

If an aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-UvFmWXoD",
  "svmName": "svm_zivaws01we01",
  "aggregateName": "aggr1",
  "name": "zivaws01we01vol05Iscsi",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "iscsiInfo": {
    "igroups": ["zivIgroup1"],
    "osName": "linux"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

### Output

None

### Create volume using iSCSI for high availability

You can use this workflow to create a volume using iSCSI protocol for an HA working environment.

There are two workflows available depending on whether a new or existing iGroup is used. You need to select the correct workflow:

- [Create volume using iSCSI with a new iGroup](#)
- [Create volume using iSCSI with an existing iGroup](#)

### Create volume using iSCSI with a new iGroup



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

## 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter and the `svmName` value for the `svmName` parameter.

## 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the `name` for the `aggregateName` value.

## 3. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or byte.

## 4. Choose the iscsiInfo parameters

You must choose the following values for the REST API call:

- A unique igroup name for `igroupCreationRequest` → `igroupName` parameter
- The required iqn's to `igroupCreationRequest` → `initiators` parameter.
- The required operating system for the `osName` parameter from one of the following:
  - windows
  - linux
  - vmware
  - windows\_2008
  - windows\_gpt

## 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

## 6. Create the volume

HTTP method	Path
POST	/occm/api/azure/ha/volumes

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters, including:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`) string

- <SVM\_NAME> (svmName) string
- <AGGR\_NAME> (aggregateName) string

If aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-1m76JaRt",
  "svmName": "svm_ranukazure12",
  "snapshotPolicyName": "default",
  "name": "ranukvoliscsi",
  "iops": null,
  "throughput": null,
  "providerVolumeType": "Premium_LRS",
  "capacityTier": "Blob",
  "tieringPolicy": "auto",
  "verifyNameUniqueness": true,
  "iscsiInfo": {
    "igroupCreationRequest": {
      "igroupName": "ig1",
      "initiators": [
        "iqn.1991-05.com.microsoft:pradipm02-pc"
      ]
    },
    "osName": "windows"
  },
  "size": {
    "size": 200,
    "unit": "GB"
  },
  "enableThinProvisioning": true,
  "enableDeduplication": true,
  "enableCompression": true,
  "maxNumOfDisksApprovedToAdd": 0,
  "aggregateName": "aggr1"
}
```

### Output

None

### Create volume using iSCSI with an existing iGroup



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

## 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter and the `svmName` value for the `svmName` parameter.

## 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the name for the `aggregateName` value.

## 3. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or byte.

## 4. Choose the iGroup

Perform the workflow [Get iGroups](#) and choose the `igroups` for the `iscsiInfo → igroups` value. Also select the `osType` value for the `iscsiInfo → osName`.

## 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

## 6. Create the volume

HTTP method	Path
POST	/occm/api/azure/ha/volumes

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters, including:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`) string
- `<SVM_NAME>` (`svmName`) string
- `<AGGR_NAME>` (`aggregateName`) string

If an aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.



## JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-UvFmWXoD",
  "svmName": "svm_zivaws0lwe01",
  "aggregateName": "aggr1",
  "name": "zivaws0lwe01vol05Iscsi",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "iscsiInfo": {
    "igroups": ["zivIgroup1"],
    "osName": "linux"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

## Output

None

## Get volumes

You can retrieve the list of volumes of an Azure working environment.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get volume for single node

You can use this workflow to retrieve volumes for a single node working environment.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get volume for single node

You can use this workflow to retrieve volume for a single node working environment.

## 1. Create the working environment

Perform the workflow [Create Azure single node working environment](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` query parameter.

## 2. Get the volumes

HTTP method	Path
GET	/occm/api/azure/vsa/volumes

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/volumes?workingEnvironmentId=<WORKING_ENV_ID>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

### Input

Query parameter `<WORKING_ENV_ID>` (`workingEnvironmentId`) string

### Output

The JSON output example includes the list of volumes for the working environment.

### JSON output example

```
[
  {
    "name": "vol1",
    "uuid": "x0000x00-0000-xx00-x000-000x0x0xxxxx",
    "svmName": "svm_ShirleyAzureVsa2601",
    "size": {
      "size": 10.0,
      "unit": "GB"
    },
    "usedSize": {
      "size": 2.74658203125E-4,
      "unit": "GB"
    },
    "junctionPath": "/vol1",
    "volumeTotalInodes": 311287,
    "volumeUsedInodes": 96,
    "mountPoint": "10.0.0.10:/vol1",
    "compressionSpaceSaved": {
      "size": 0.0,
      "unit": "GB"
    }
  },
]
```

```

"deduplicationSpaceSaved": {
    "size": 0.0,
    "unit": "GB"
},
"thinProvisioning": true,
"compression": true,
"deduplication": true,
"snapshotPolicy": "default",
"securityStyle": "unix",
"exportPolicyInfo": {
    "name": "export-svm_ShirleyAzureVsa2601-vol1",
    "policyType": "custom",
    "ips": [
        "10.0.0.0/16"
    ],
    "nfsVersion": [
        "nfs3",
        "nfs4"
    ]
},
"shareNames": [],
"shareInfo": [],
"parentVolumeName": "",
"rootVolume": false,
"state": "online",
"volumeType": "rw",
"aggregateName": "aggr1",
"parentSnapshot": null,
"autoSizeMode": "grow",
"maxGrowSize": {
    "size": 110.0,
    "unit": "GB"
},
"providerVolumeType": "Premium_LRS",
"cloneNames": [],
"moving": false,
"primaryNoFailoverMountPoint": null,
"secondaryNoFailoverMountPoint": null,
"capacityTier": null,
"capacityTierUsedSize": null,
"cifsShareAccessPoint": null,
"primaryCifsShareAccessPoint": null,
"secondaryCifsShareAccessPoint": null,
"tieringPolicy": "none",
"tierInactiveUserData": {
    "size": 0.0,

```

```

        "unit": "GB"
    },
    "tierInactiveUserDataPercent": 0,
    "comment": null,
    "qosPolicyGroupName": null,
    "snaplockType": "non_snaplock",
    "constituentsAggregates": [],
    "snapshotsUsedSize": {
        "size": 0.0,
        "unit": "Byte"
    },
    "cbsBackupsInfo": null,
    "minimumCoolingDays": null,
    "targetName": "iqn.1992-
08.com.netapp:sn.65c7e1cc600d11eb8ca3000d3a7e6f7c:vs.2",
    "iscsiEnabled": false,
    "isFlexGroupVolume": false
}
]

```

### Get volume for high availability pair

You can use this workflow to retrieve volume for an HA working environment.

#### 1. Create the working environment

Perform the workflow [Create Azure HA working environment](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` query parameter.

#### 2. Get the volumes

HTTP method	Path
GET	/occm/api/azure/ha/volumes

#### curl example

```

curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/volumes?workingEn
vironmentId=<WORKING_ENV_ID>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>'

```

#### Input

Query parameter `<WORKING_ENV_ID>` (`workingEnvironmentId`) string

## Output

The JSON output example includes the list of volumes for the working environment.

### JSON output example

```
[
  {
    "name": "vol1",
    "uuid": "x0000x00-0000-xx00-x000-000x0x0xxxxx",
    "svmName": "svm_ShirleyHa2901",
    "size": {
      "size": 100.0,
      "unit": "GB"
    },
    "usedSize": {
      "size": 2.93731689453125E-4,
      "unit": "GB"
    },
    "junctionPath": "/vol1",
    "volumeTotalInodes": 3112959,
    "volumeUsedInodes": 96,
    "mountPoint": "10.0.0.9:/vol1",
    "compressionSpaceSaved": {
      "size": 0.0,
      "unit": "GB"
    },
    "deduplicationSpaceSaved": {
      "size": 0.0,
      "unit": "GB"
    },
    "thinProvisioning": true,
    "compression": true,
    "deduplication": true,
    "snapshotPolicy": "default",
    "securityStyle": "unix",
    "exportPolicyInfo": {
      "name": "export-svm_ShirleyHa2901-vol1",
      "policyType": "custom",
      "ips": [
        "10.0.0.0/16"
      ],
      "nfsVersion": [
        "nfs3",
        "nfs4"
      ]
    },
    "shareNames": [],
  }
]
```

```

"shareInfo": [],
"parentVolumeName": "",
"rootVolume": false,
"state": "online",
"volumeType": "rw",
"aggregateName": "aggr1",
"parentSnapshot": null,
"autoSizeMode": "grow",
"maxGrowSize": {
    "size": 1100.0,
    "unit": "GB"
},
"providerVolumeType": "Premium_LRS",
"cloneNames": [],
"moving": false,
"primaryNoFailoverMountPoint": null,
"secondaryNoFailoverMountPoint": null,
"capacityTier": null,
"capacityTierUsedSize": null,
"cifsShareAccessPoint": null,
"primaryCifsShareAccessPoint": null,
"secondaryCifsShareAccessPoint": null,
"tieringPolicy": "none",
"tierInactiveUserData": {
    "size": 0.0,
    "unit": "GB"
},
"tierInactiveUserDataPercent": 0,
"comment": null,
"qosPolicyGroupName": null,
"snaplockType": "non_snaplock",
"constituentsAggregates": [],
"snapshotsUsedSize": {
    "size": 0.0,
    "unit": "Byte"
},
"pbsBackupsInfo": null,
"minimumCoolingDays": null,
"targetName": "iqn.1992-
08.com.netapp:sn.fc000x00000000xx0x000000xae000005:vs.3",
"iscsiEnabled": false,
"isFlexGroupVolume": false
},
{
    "name": "vol2",
    "uuid": "x0000x00-0000-xx00-x000-000x0x0xxxxx",

```

```

"svmName": "svm_ShirleyHa2901",
"size": {
  "size": 30.0,
  "unit": "GB"
},
"usedSize": {
  "size": 2.6702880859375E-4,
  "unit": "GB"
},
"junctionPath": "/vol2",
"volumeTotalInodes": 933887,
"volumeUsedInodes": 96,
"mountPoint": "10.0.0.9:/vol2",
"compressionSpaceSaved": {
  "size": 0.0,
  "unit": "GB"
},
"deduplicationSpaceSaved": {
  "size": 0.0,
  "unit": "GB"
},
"thinProvisioning": false,
"compression": false,
"deduplication": false,
"snapshotPolicy": "default",
"securityStyle": "unix",
"exportPolicyInfo": {
  "name": "export-svm_ShirleyHa2901-vol2",
  "policyType": "custom",
  "ips": [
    "10.0.0.0/16"
  ],
  "nfsVersion": [
    "nfs3",
    "nfs4"
  ]
},
"shareNames": [],
"shareInfo": [],
"parentVolumeName": "",
"rootVolume": false,
"state": "online",
"volumeType": "rw",
"aggregateName": "aggr1",
"parentSnapshot": null,
"autoSizeMode": "grow",

```

```

    "maxGrowSize": {
      "size": 330.0,
      "unit": "GB"
    },
    "providerVolumeType": "Premium_LRS",
    "cloneNames": [],
    "moving": false,
    "primaryNoFailoverMountPoint": null,
    "secondaryNoFailoverMountPoint": null,
    "capacityTier": null,
    "capacityTierUsedSize": null,
    "cifsShareAccessPoint": null,
    "primaryCifsShareAccessPoint": null,
    "secondaryCifsShareAccessPoint": null,
    "tieringPolicy": "none",
    "tierInactiveUserData": {
      "size": 0.0,
      "unit": "GB"
    },
    "tierInactiveUserDataPercent": 0,
    "comment": null,
    "qosPolicyGroupName": null,
    "snaplockType": "non_snaplock",
    "constituentsAggregates": [],
    "snapshotsUsedSize": {
      "size": 0.0,
      "unit": "Byte"
    },
    "cbsBackupsInfo": null,
    "minimumCoolingDays": null,
    "targetName": "iqn.1992-
08.com.netapp:sn.fc000x00000000xx0x000000xae000005:vs.3",
    "iscsiEnabled": false,
    "isFlexGroupVolume": false
  }
]

```

## Modify volume

You can modify the configuration of an existing volume.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)



## Modify volume for single node

You can use this workflow to modify the volume configuration for a single node working environment.

### 1. Create the working environment

Perform the workflow [Create Azure single node working environment](#) and choose the `publicId` value of the working environment to be used as the `workingEnvironmentId` path parameter.

### 2. Select the volume

Perform the workflow [Get volumes](#) and choose the `name` and the `svmName` values of the volume to modify and use them for the `volumeName` and `svmName` path parameters.

### 3. Modify the volume

HTTP method	Path
PUT	/occm/api/azure/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}

#### curl example

```
curl --location --request PUT
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/volumes/<WORKING_ENV_ID>/<SVM_NAME>/<VOLUME_NAME>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

#### Input

Path parameters:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`) string
- `<SVM_NAME>` (`svmName`) string
- `<VOLUME_NAME>` (`volumeName`) string

The JSON input example includes the minimum list of input parameters.

#### JSON input example

```
{
  "volumeName": "vol5",
  "svmName": "svm_ShirleyAzureVsa2601",
  "originalVolumeInfo": {
    "exportPolicyInfo": {
      "ips": [
        "10.0.0.0/16"
      ],
      "name": "export-svm_ShirleyAzureVsa2601-vol5",
      "nfsVersion": [
        "nfs3",
        "nfs4"
      ],
      "policyType": "custom"
    },
    "shareInfo": [],
    "snapshotPolicyName": "default"
  },
  "workingEnvironmentName": "ShirleyAzureVsa2601",
  "snapshotPolicyName": "default",
  "exportPolicyInfo": {
    "ips": [],
    "policyType": "none"
  },
  "workingEnvironmentId": "VsaWorkingEnvironment-IsDYFJf8"
}
```

## Output

None

## Modify volume for high availability pair

You can use this workflow to modify the volume configuration for an HA working environment.

### 1. Create the working environment

Perform the workflow [Create Azure HA working environment](#) and choose the `publicId` value of the working environment to be used as the `workingEnvironmentId` path parameter.

### 2. Select the volume

Perform the workflow [Get volumes](#) and choose the `name` and the `svmName` values of the volume to modify and use them for the `volumeName` and `svmName` path parameters.

### 3. Modify the volume

HTTP method	Path
PUT	/occm/api/azure/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}

### curl example

```
curl --location --request PUT
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/volumes/<WORKING_
ENV_ID>/<SVM_NAME>/<VOLUME_NAME>' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

Path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId) string
- <SVM\_NAME> (svmName) string
- <VOLUME\_NAME> (volumeName) string

The JSON input example includes the minimum list of input parameters.

### JSON input example

```
{
  "volumeName": "vol2",
  "svmName": "svm_ShirleyHa2901",
  "originalVolumeInfo": {
    "exportPolicyInfo": {
      "ips": [
        "10.0.0.0/16"
      ],
      "name": "export-svm_ShirleyHa2901-vol2",
      "nfsVersion": [
        "nfs3",
        "nfs4"
      ],
      "policyType": "custom"
    },
    "shareInfo": [],
    "snapshotPolicyName": "default"
  },
  "workingEnvironmentName": "ShirleyHa2901",
  "snapshotPolicyName": "default",
  "exportPolicyInfo": {
    "ips": [
      "20.0.0.0/16"
    ],
    "nfsVersion": [
      "nfs4"
    ],
    "policyType": "custom"
  },
  "workingEnvironmentId": "VsaWorkingEnvironment-LUeyohBV"
}
```

## Output

None

## Delete volume

You can delete an existing volume.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

## Delete volume for single node

You can use this workflow to delete volume for a single node working environment.

### 1. Create the working environment

Perform the [Create Azure single node working environment](#) workflow and choose the `publicId` value for the working environment field in the input parameter.

### 2. Select the volume

Perform the workflow [Get volumes](#) and choose the `name` and the `svmName` values of the volume to delete and use them for the `volumeName` and `svmName` path parameters.

### 3. Delete the volume

HTTP method	Path
DELETE	/occm/api/azure/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}

#### curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/volumes/<WORKING_ENV_ID>/<SVM_NAME>/<VOLUME_NAME>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

Path parameters:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`) string
- `<SVM_NAME>` (`svmName`) string
- `<VOLUME_NAME>` (`volumeName`) string

#### Output

None

## Delete volume for high availability pair

You can use this workflow to delete volume for an HA working environment.

### 1. Create the working environment

Perform the [Create Azure HA working environment](#) workflow and choose the `publicId` value for the working environment field in the input parameter.

### 2. Select the volume

Perform the workflow [Get volumes](#) and choose the `name` and the `svmName` values of the volume to delete and use them for the `volumeName` and `svmName` path parameters.

### 3. Delete the volume

HTTP method	Path
DELETE	/occm/api/azure/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}

#### curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/volumes/<WORKING_
ENV_ID>/<SVM_NAME>/<VOLUME_NAME>' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

Path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId) string
- <SVM\_NAME> (svmName) string
- <VOLUME\_NAME> (volumeName) string

#### Output

None

#### Create quote

You can create a quote for a new volume which returns a resource quote needed to satisfy the request. The resource quote contains aggregate information where the volume will be created and confirms if the space is available. This is a recommended step but is not mandatory.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

#### Create quote for single node

You can perform this workflow to create a volume quote for a single node working environment.

#### 1. Select the working environment

Perform the workflow [Create Azure single node working environment](#) and choose the `publicId` value for the working environment field in the input parameter.

#### 2. Generate the volume quote

HTTP method	Path
POST	/occm/api/azure/vsa/quote

## curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/volumes/quote'
--header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

The JSON input example includes the list of input parameters.

## JSON input example

```
{
  "providerVolumeType": "Premium_LRS",
  "verifyNameUniqueness": true,
  "name": "vol3",
  "size": {
    "size": 10,
    "unit": "GB"
  },
  "enableCompression": true,
  "enableDeduplication": true,
  "enableThinProvisioning": true,
  "svmName": "svm_ShirleyAzureVsa2601",
  "iops": null,
  "snapshotPolicyName": "default",
  "autoVsaCapacityManagementEnabled": true,
  "exportPolicyInfo": {
    "_ips": "10.0.0.0/16",
    "ips": [
      "10.0.0.0/16"
    ],
    "policyType": "custom"
  },
  "workingEnvironmentId": "VsaWorkingEnvironment-IsDYFJf8"
}
```

## Output

The JSON output example includes an example of the quote details.

## JSON output example

```
{
  "numOfDisks": 0,
  "diskSize": {
    "size": 1.0,
    "unit": "TB"
  },
  "aggregateName": "aggr1",
  "newAggregate": false,
  "autoVsaCapacityManagement": true
}
```

### Create quote for high availability pair

You can use this workflow to create a volume quote for an HA working environment.

#### 1. Create the working environment

Perform the workflow [Create Azure HA working environment](#) and choose the `publicId` value for the working environment field in the input parameter.

#### 2. Generate the volume quote

HTTP method	Path
POST	/occm/api/azure/ha/quote

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/volumes/quote'
--header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

#### Input

The JSON input example includes the list of input parameters.

#### JSON input example



```
{
  "providerVolumeType": "Premium_LRS",
  "verifyNameUniqueness": true,
  "name": "vol3",
  "size": {
    "size": 10,
    "unit": "GB"
  },
  "enableCompression": true,
  "enableDeduplication": true,
  "enableThinProvisioning": true,
  "svmName": "svm_ShirleyAzureVsa2601",
  "iops": null,
  "snapshotPolicyName": "default",
  "autoVsaCapacityManagementEnabled": true,
  "exportPolicyInfo": {
    "_ips": "10.0.0.0/16",
    "ips": [
      "10.0.0.0/16"
    ],
    "policyType": "custom"
  },
  "workingEnvironmentId": "VsaWorkingEnvironment-IsDYFJf8"
}
```

## Output

The JSON output example includes an example of the quote details.

## JSON output example

```
{
  "numOfDisks": 0,
  "diskSize": {
    "size": 1.0,
    "unit": "TB"
  },
  "aggregateName": "aggr1",
  "newAggregate": false,
  "autoVsaCapacityManagement": true
}
```

## Get iGroups

You can use this workflow to retrieve all the initiator groups (iGroups).

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

#### Get iGroups for single node

You can use this workflow to retrieve iGroups for a single node working environment.

### 1. Select the working environment

Perform the workflow [Create Azure single node working environment](#) and choose the `publicId` and `svmName` values for the working environment `workingEnvironmentId` and `svmName` path parameters.

### 2. Get the CIFS configurations

HTTP method	Path
GET	/occm/api/azure/vsa/volumes/igroups/{workingEnvironmentId}/{svmName}

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/volumes/igroups/
<WORKING_ENV_ID>/<SVM_NAME>' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type:
application/json'
```

#### Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId` string
- Path parameter `<SVM_NAME>` `svmName` string

#### Output

The JSON output example includes a list of iGroups.

#### JSON output example

```
[
  {
    "igroupName": "zivIgroup1",
    "osType": "linux",
    "portsetName": "",
    "igroupType": "iscsi",
    "initiators": [
      "iqn.1994-05.com.redhat:0x0xx000000x"
    ]
  },
  {
    "igroupName": "zivIgroup2",
    "osType": "linux",
    "portsetName": "",
    "igroupType": "iscsi",
    "initiators": [
      "iqn.1994-05.com.redhat:0x0xx000000x"
    ]
  }
]
```

### Get iGroups for high availability pair

You can use this workflow to retrieve iGroups for an HA working environment.

#### 1. Select the working environment

Perform the workflow [Create Azure single node working environment](#) and choose the `publicId` and `svmName` values for the working environment `workingEnvironmentId` and `svmName` path parameters.

#### 2. Get the CIFS configurations

HTTP method	Path
GET	/occm/api/azure/ha/volumes/igroups/{workingEnvironmentId}/{svmName}

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/volumes/igroups/<
WORKING_ENV_ID>/<SVM_NAME>' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type:
application/json'
```

#### Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId` string

- Path parameter <SVM\_NAME> svmName string

## Output

The JSON output example includes a list of iGroups.

## JSON output example

```
[
  {
    "igroupName": "zivIgroup1",
    "osType": "linux",
    "portsetName": "",
    "igroupType": "iscsi",
    "initiators": [
      "iqn.1994-05.com.redhat:0x0xx000000x"
    ]
  },
  {
    "igroupName": "zivIgroup2",
    "osType": "linux",
    "portsetName": "",
    "igroupType": "iscsi",
    "initiators": [
      "iqn.1994-05.com.redhat:0x0xx000000x"
    ]
  }
]
```

## Metadata

### Get Azure regions

This workflow retrieves the Azure regions in which an Cloud Volumes ONTAP working environment may be created.



Ensure that you've the Azure subscription ID. You can easily obtain the ID from the Azure portal.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get Azure regions for single node

You can perform this workflow to retrieve the Azure regions for a single node working environment.

## 1. Get the list of regions

HTTP method	Path
GET	/occm/api/azure/vsa/metadata/regions

### Curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/metadata/regions
?subscriptionId=<SUBSCRIPTION_ID>' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

### Input

Query parameters (Optional):

- fields, string
- subscriptionId, string
- cloudProviderAccountId, string

### Output

The JSON output provides an example of a list of Azure regions.

### JSON output example

```
[
  {
    "displayName": "Central US",
    "name": "centralus",
    "vnets": null
  },
  {
    "displayName": "East US",
    "name": "eastus",
    "vnets": null
  },
  {
    "displayName": "East US 2",
    "name": "eastus2",
    "vnets": null
  },
  {
    "displayName": "West US 2",
    "name": "westus2",
    "vnets": null
  }
]
```

### Get Azure regions for high availability pair

You can perform this workflow to retrieve the Azure regions for an HA working environment.

#### 1. Get the list of regions

HTTP method	Path
GET	/occm/api/azure/ha/metadata/regions

#### Curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/metadata/regions?
subscriptionId=<SUBSCRIPTION_ID>' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

(Optional) Query parameters:

- fields, string
- subscriptionId, string

- cloudProviderAccountId, string

## Output

The JSON output provides an example of a list of Azure regions.

### JSON output example

```
[
  {
    "displayName": "Central US",
    "name": "centralus",
    "vnets": null
  },
  {
    "displayName": "East US",
    "name": "eastus",
    "vnets": null
  },
  {
    "displayName": "East US 2",
    "name": "eastus2",
    "vnets": null
  },
  {
    "displayName": "West US 2",
    "name": "westus2",
    "vnets": null
  }
]
```

## Get Azure permutations

You can use the permutations endpoint to retrieve the Cloud Volumes ONTAP configuration information.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get permutations for single node

You can use this workflow to retrieve the Cloud Volumes ONTAP configurations information for a single node working environment.

#### 1. Get the permutations

HTTP method	Path
GET	/occm/api/azure/vsa/metadata/permutations

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/metadata/permutations' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type: application/json'
```

### Input

There are several optional query parameters you can use:

- region string
- version string
- license string
- instance\_type string
- default\_instance\_type string
- feature string
- latest\_only string
- marketplace\_version string
- marketplace\_sku string

### Output

The JSON output example includes the list of Cloud Volumes ONTAP configurations.

### JSON output example

```
[
  {
    "ontapVersion": "ONTAP-9.9.0X5.T1.azure",
    "license": {
      "type": "azure-cot-explore-paygo",
      "name": "Cloud Volumes ONTAP Explore",
      "description": "Suitable for smaller capacity applications. Supports up to 2 TB of underlying Azure storage.",
      "subName": "",
      "subDescription": "Support of tiering to object storage is not included.",
      "capacity_limit": "2TB",
      "platformLicenseRequired": false,
      "default": false,
      "capacityLimit": {
```



```

        "size": 2.0,
        "unit": "TB"
    }
},
"instanceType": "Standard_DS3_v2",
"region": {
    "name": "East US 2",
    "code": "eastus2",
    "location": "Virginia",
    "s3Region": null
},
"defaultInstance": true,
"features": [
    "four-nics",
    "no-sidl"
],
"upgradeableFrom": [
    "9.8",
    "9.9"
]
},
{
    "ontapVersion": "ONTAP-9.9.0X5.T1.azure",
    "license": {
        "type": "azure-cot-explore-paygo",
        "name": "Cloud Volumes ONTAP Explore",
        "description": "Suitable for smaller capacity applications.
Supports up to 2 TB of underlying Azure storage.",
        "subName": "",
        "subDescription": "Support of tiering to object storage is not
included.",
        "capacity_limit": "2TB",
        "platformLicenseRequired": false,
        "default": false,
        "capacityLimit": {
            "size": 2.0,
            "unit": "TB"
        }
    },
    "instanceType": "Standard_DS3_v2",
    "region": {
        "name": "East US 2",
        "code": "eastus2",
        "location": "Virginia",
        "s3Region": null
    }
},

```

```

    "defaultInstance": true,
    "features": [
        "four-nics",
        "no-sidl"
    ],
    "upgradeableFrom": [
        "9.8",
        "9.9"
    ]
}
]

```

### Get permutations for high availability pair

You can use this workflow to retrieve the Cloud Volumes ONTAP configurations information for an HA working environment.

#### 1. Get the permutations

HTTP method	Path
GET	/occm/api/azure/ha/metadata/permutations

#### curl example

```

curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/metadata/permutations' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type: application/json'

```

#### Input

There are several optional query parameters you can use:

- region string
- version string
- license string
- instance\_type string
- default\_instance\_type string
- feature string
- latest\_only string
- marketplace\_version string
- marketplace\_sku string

## Output

The JSON output example includes the list of Cloud Volumes ONTAP configurations.

### JSON output example

```
[
  {
    "ontapVersion": "ONTAP-9.9.0X5.T1.azureha",
    "license": {
      "type": "azure-ha-cot-standard-paygo",
      "name": "Cloud Volumes ONTAP Standard",
      "description": "Flexible performance and larger capacity for a wider range of applications. Supports up to 10 TB of underlying Azure storage.",
      "subName": "",
      "subDescription": "Supports tiering to object storage of replicated volumes and snapshots.",
      "capacity_limit": "10TB",
      "platformLicenseRequired": false,
      "default": true,
      "capacityLimit": {
        "size": 10.0,
        "unit": "TB"
      }
    },
    "instanceType": "Standard_DS4_v2",
    "region": {
      "name": "Southeast Asia",
      "code": "southeastasia",
      "location": "Singapore",
      "s3Region": null
    },
    "defaultInstance": true,
    "features": [],
    "upgradeableFrom": [
      "9.8",
      "9.9"
    ]
  },
  {
    "ontapVersion": "ONTAP-9.9.0X5.T1.azureha",
    "license": {
      "type": "azure-ha-cot-standard-paygo",
      "name": "Cloud Volumes ONTAP Standard",
      "description": "Flexible performance and larger capacity for a wider range of applications. Supports up to 10 TB of underlying Azure storage.",
```

```

        "subName": "",
        "subDescription": "Supports tiering to object storage of
replicated volumes and snapshots.",
        "capacity_limit": "10TB",
        "platformLicenseRequired": false,
        "default": true,
        "capacityLimit": {
            "size": 10.0,
            "unit": "TB"
        }
    },
    "instanceType": "Standard_DS4_v2",
    "region": {
        "name": "Southeast Asia",
        "code": "southeastasia",
        "location": "Singapore",
        "s3Region": null
    },
    "defaultInstance": true,
    "features": [],
    "upgradeableFrom": [
        "9.8",
        "9.9"
    ]
}
]

```

## Get Azure storage account types

You can retrieve the supported Azure storage account types.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get Azure storage account types for single node

You can perform this workflow to retrieve the Azure storage account types for a single node working environment.

#### 1. Get the storage account types

HTTP method	Path
GET	/occm/api/azure/vsa/metadata/storage-account-types

## curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/metadata/storage
-account-types' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization:
Bearer <ACCESS_TOKEN>' --header 'Content-Type: application/json'
```

## Input

None

## Output

The JSON output example includes the list of Azure storage account types.

## JSON output example

```
[{
  "diskType": "Premium",
  "availabilityTypes": ["Premium_LRS"],
  "sizes": [{
    "size": {
      "size": 500.0,
      "unit": "GB"
    },
    "description": "",
    "supportedOccmLicenses": ["Explore (hourly)", "Standard
(hourly)", "Standard (BYOL)", "Cloud Volumes ONTAP Explore", "Cloud
Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP
Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL",
"Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP
Capacity Based Charging", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP Standard",
"Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
    "isDefault": false
  }, {
    "size": {
      "size": 1.0,
      "unit": "TB"
    },
    "description": "",
    "supportedOccmLicenses": ["Explore (hourly)", "Standard
(hourly)", "Standard (BYOL)", "Cloud Volumes ONTAP Explore", "Cloud
Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes
```

```

ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP
Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL",
"Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP
Capacity Based Charging", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP Standard",
"Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
    "isDefault": true
}, {
    "size": {
        "size": 2.0,
        "unit": "TB"
    },
    "description": "",
    "supportedOccmLicenses": ["Explore (hourly)", "Standard
(hourly)", "Standard (BYOL)", "Cloud Volumes ONTAP Explore", "Cloud
Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP
Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL",
"Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP
Capacity Based Charging", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP Standard",
"Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
    "isDefault": false
}, {
    "size": {
        "size": 4.0,
        "unit": "TB"
    },
    "description": "",
    "supportedOccmLicenses": ["Standard (hourly)", "Standard
(BYOL)", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes
ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Capacity
Based Charging", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud
Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP
Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard",
"Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes

```

```

ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL"],
    "isDefault": false
  }, {
    "size": {
      "size": 8.0,
      "unit": "TB"
    },
    "description": "",
    "supportedOccmLicenses": ["Standard (hourly)", "Standard
(BYOL)", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes
ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Capacity
Based Charging", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud
Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP
Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard",
"Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL"],
    "isDefault": false
  }, {
    "size": {
      "size": 16.0,
      "unit": "TB"
    },
    "description": "",
    "supportedOccmLicenses": ["Standard (BYOL)", "Cloud
Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP
Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Capacity Based
Charging", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes
ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
    "isDefault": false
  }, {
    "size": {
      "size": 32.0,
      "unit": "TB"
    },
    "description": "",
    "supportedOccmLicenses": ["Standard (BYOL)", "Cloud
Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP
Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Capacity Based
Charging", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes
ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Premium",

```

```

"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
    "isDefault": false
  }
]
}, {
  "diskType": "Standard",
  "availabilityTypes": ["Standard_LRS"],
  "sizes": [{
    "size": {
      "size": 100.0,
      "unit": "GB"
    },
    "description": "",
    "supportedOccmLicenses": ["Explore (hourly)", "Standard
(hourly)", "Standard (BYOL)", "Cloud Volumes ONTAP Explore", "Cloud
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Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL",
"Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP
Capacity Based Charging", "Cloud Volumes ONTAP Explore", "Cloud Volumes

```

```

ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes
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```

```

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Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Capacity Based
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]
}
]

```

### Get Azure storage account types for high availability pair

You can perform this workflow to retrieve the Azure storage account types for an HA working environment.

#### 1. Get the storage account types

HTTP method	Path
GET	/occm/api/azure/ha/metadata/storage-account-types

#### curl example

```

curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/metadata/storage-
account-types' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization:
Bearer <ACCESS_TOKEN>' --header 'Content-Type: application/json'

```

## Input

None

## Output

The JSON output example includes the list of Azure storage account types.

### JSON output example

```
[{
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  "availabilityTypes": ["Premium_LRS"],
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  }
}]
```

```

ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
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]
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```

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ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP
Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL",
"Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP
Capacity Based Charging", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP Standard",
"Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
        "isDefault": false
    }, {
        "size": {
            "size": 4.0,
            "unit": "TB"
        },
        "description": "",
        "supportedOccmLicenses": ["Standard (hourly)", "Standard
(BYOL)", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes
ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Capacity
Based Charging", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud

```

```

Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP
Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard",
"Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL"],
    "isDefault": false
  }, {
    "size": {
      "size": 8.0,
      "unit": "TB"
    },
    "description": "",
    "supportedOccmLicenses": ["Standard (hourly)", "Standard
(BYOL)", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes
ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Capacity
Based Charging", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud
Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP
Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard",
"Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL"],
    "isDefault": false
  }, {
    "size": {
      "size": 16.0,
      "unit": "TB"
    },
    "description": "",
    "supportedOccmLicenses": ["Standard (BYOL)", "Cloud
Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP
Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Capacity Based
Charging", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes
ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
    "isDefault": false
  }, {
    "size": {
      "size": 32.0,
      "unit": "TB"
    },
    "description": "",
    "supportedOccmLicenses": ["Standard (BYOL)", "Cloud

```

```

Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP
Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Capacity Based
Charging", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes
ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
    "isDefault": false
  }
]
}, {
  "diskType": "StandardSSD",
  "availabilityTypes": ["StandardSSD_LRS"],
  "sizes": [{
    "size": {
      "size": 100.0,
      "unit": "GB"
    },
    "description": "",
    "supportedOccmLicenses": ["Explore (hourly)", "Standard
(hourly)", "Standard (BYOL)", "Cloud Volumes ONTAP Explore", "Cloud
Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP
Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL",
"Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP
Capacity Based Charging", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP Standard",
"Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
    "isDefault": false
  }, {
    "size": {
      "size": 500.0,
      "unit": "GB"
    },
    "description": "",
    "supportedOccmLicenses": ["Explore (hourly)", "Standard
(hourly)", "Standard (BYOL)", "Cloud Volumes ONTAP Explore", "Cloud
Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP
Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL",
"Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP
Capacity Based Charging", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP

```

```

BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP Standard",
"Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
    "isDefault": false
}, {
    "size": {
        "size": 1.0,
        "unit": "TB"
    },
    "description": "",
    "supportedOccmLicenses": ["Explore (hourly)", "Standard
(hourly)", "Standard (BYOL)", "Cloud Volumes ONTAP Explore", "Cloud
Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP
Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL",
"Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP
Capacity Based Charging", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP Standard",
"Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
    "isDefault": true
}, {
    "size": {
        "size": 2.0,
        "unit": "TB"
    },
    "description": "",
    "supportedOccmLicenses": ["Explore (hourly)", "Standard
(hourly)", "Standard (BYOL)", "Cloud Volumes ONTAP Explore", "Cloud
Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP
Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL",
"Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP
Capacity Based Charging", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes
ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP
BYOL", "Cloud Volumes ONTAP Explore", "Cloud Volumes ONTAP Standard",
"Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
    "isDefault": false
}

```

```

    }, {
      "size": {
        "size": 4.0,
        "unit": "TB"
      },
      "description": "",
      "supportedOccmLicenses": ["Standard (hourly)", "Standard (BYOL)", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
      "isDefault": false
    }, {
      "size": {
        "size": 8.0,
        "unit": "TB"
      },
      "description": "",
      "supportedOccmLicenses": ["Standard (hourly)", "Standard (BYOL)", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Standard", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
      "isDefault": false
    }, {
      "size": {
        "size": 16.0,
        "unit": "TB"
      },
      "description": "",
      "supportedOccmLicenses": ["Standard (BYOL)", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes

```

```

ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
    "isDefault": false
  }, {
    "size": {
      "size": 32.0,
      "unit": "TB"
    },
    "description": "",
    "supportedOccmLicenses": ["Standard (BYOL)", "Cloud
Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP
Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Capacity Based
Charging", "Cloud Volumes ONTAP Capacity Based Charging", "Cloud Volumes
ONTAP Premium", "Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Premium",
"Cloud Volumes ONTAP BYOL", "Cloud Volumes ONTAP Premium", "Cloud Volumes
ONTAP BYOL", "Cloud Volumes ONTAP Premium", "Cloud Volumes ONTAP BYOL"],
    "isDefault": false
  }
]
}
]

```

## Get Azure VNets

You can perform this workflow to retrieve the network extended information.



Ensure that you've the Azure subscription ID. You can easily obtain the ID from the Azure portal.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get Azure VNets for single node

You can perform this workflow to retrieve the Azure VNets for a single node working environment.

#### 1. Get the VNets

HTTP method	Path
GET	/occm/api/azure/vsa/metadata/vnets

#### curl example



```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/metadata/vnets?r
egion=<REGION>&subscriptionId=<SUBSCRIPTION_ID>' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --header
'Content-Type: application/json'
```

## Input

Query parameters:

- <REGION> region string
- <SUBSCRIPTION\_ID> subscriptionId string
- (Optional) cloudProviderAccountId string

## Output

The JSON output example includes the list of Azure storage account types.

## JSON output example

```
{
  "virtualNetworks": [
    {
      "name": "Vnet1",
      "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/virtualNetworks/Vnet1",
      "cidrs": [
        {
          "cidr": "10.0.0.0/16",
          "subnets": [
            {
              "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/virtualNetworks/Vnet1/subnets/Subnet1",
              "cidr": "10.0.0.0/24",
              "name": "Subnet1",
              "availableIps": 250,
              "minimumRequiredIps": 6
            },
            {
              "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/virtualNetworks/Vnet1/subnets/Subnet2",
              "cidr": "10.0.1.0/24",
              "name": "Subnet2",
              "availableIps": 251,
            }
          ]
        }
      ]
    }
  ]
}
```

```

        "minimumRequiredIps": 6
    },
    {
        "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/virtualNetworks/Vnet1/subnets/ProxySubnet",
        "cidr": "10.0.2.0/24",
        "name": "ProxySubnet",
        "availableIps": 245,
        "minimumRequiredIps": 6
    }
]
}
],
"resourceGroup": "occm_group_eastus2",
"tags": []
},
{
    "name": "Vnet2",
    "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/virtualNetworks/Vnet2",
    "cidrs": [
        {
            "cidr": "10.1.0.0/16",
            "subnets": [
                {
                    "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/virtualNetworks/Vnet2/subnets/Subnet1",
                    "cidr": "10.1.0.0/24",
                    "name": "Subnet1",
                    "availableIps": 251,
                    "minimumRequiredIps": 6
                },
                {
                    "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/virtualNetworks/Vnet2/subnets/Subnet2",
                    "cidr": "10.1.1.0/24",
                    "name": "Subnet2",
                    "availableIps": 251,
                    "minimumRequiredIps": 6
                },
                {
                    "id":

```

```

"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/virtualNetworks/Vnet2/subnets/ProxySubnet",
    "cidr": "10.1.2.0/24",
    "name": "ProxySubnet",
    "availableIps": 251,
    "minimumRequiredIps": 6
  }
]
}
],
"resourceGroup": "occm_group_eastus2",
"tags": []
}
],
"securityGroups": [
  {
    "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/networkSecurityGroups/OCCM-SG-467",
    "name": "OCCM-SG-467",
    "resourceGroup": "occm_group_eastus2"
  },
  {
    "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/networkSecurityGroups/OCCM-SG-491",
    "name": "OCCM-SG-491",
    "resourceGroup": "occm_group_eastus2"
  },
  {
    "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/networkSecurityGroups/OCCM-SG-589",
    "name": "OCCM-SG-589",
    "resourceGroup": "occm_group_eastus2"
  }
]
}

```

### Get Azure VNets for high availability pair

You can perform this workflow to retrieve the Azure network extended information for an HA working environment.

#### 1. Get the VNets

HTTP method	Path
GET	/occm/api/azure/ha/metadata/vnets

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/metadata/vnets?region=<REGION>&subscriptionId=<SUBSCRIPTION_ID>' --header 'x-agent-id:<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type: application/json'
```

### Input

Query parameters:

- <REGION> region string
- <SUBSCRIPTION\_ID> subscriptionId string
- (Optional) cloudProviderAccountId string

### Output

The JSON output example includes the list of Azure storage account types.

### JSON output example

```
{
  "virtualNetworks": [
    {
      "name": "Vnet1",
      "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/providers/Microsoft.Network/virtualNetworks/Vnet1",
      "cidrs": [
        {
          "cidr": "10.0.0.0/16",
          "subnets": [
            {
              "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/providers/Microsoft.Network/virtualNetworks/Vnet1/subnets/Subnet1",
              "cidr": "10.0.0.0/24",
              "name": "Subnet1",
              "availableIps": 250,
              "minimumRequiredIps": 6
            },
            {
              "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
```

```

    providers/Microsoft.Network/virtualNetworks/Vnet1/subnets/Subnet2",
        "cidr": "10.0.1.0/24",
        "name": "Subnet2",
        "availableIps": 251,
        "minimumRequiredIps": 6
    },
    {
        "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/virtualNetworks/Vnet1/subnets/ProxySubnet",
        "cidr": "10.0.2.0/24",
        "name": "ProxySubnet",
        "availableIps": 245,
        "minimumRequiredIps": 6
    }
]
}
],
"resourceGroup": "occm_group_eastus2",
"tags": []
},
{
    "name": "Vnet2",
    "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/virtualNetworks/Vnet2",
    "cidrs": [
        {
            "cidr": "10.1.0.0/16",
            "subnets": [
                {
                    "id":
"/subscriptions/dxxxxxxxx0000000000000008/resourceGroups/occm_group_eastus2
/providers/Microsoft.Network/virtualNetworks/Vnet2/subnets/Subnet1",
                    "cidr": "10.1.0.0/24",
                    "name": "Subnet1",
                    "availableIps": 251,
                    "minimumRequiredIps": 6
                },
                {
                    "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/virtualNetworks/Vnet2/subnets/Subnet2",
                    "cidr": "10.1.1.0/24",
                    "name": "Subnet2",
                    "availableIps": 251,

```

```

        "minimumRequiredIps": 6
      },
      {
        "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/virtualNetworks/Vnet2/subnets/ProxySubnet",
        "cidr": "10.1.2.0/24",
        "name": "ProxySubnet",
        "availableIps": 251,
        "minimumRequiredIps": 6
      }
    ]
  },
  "resourceGroup": "occm_group_eastus2",
  "tags": []
},
],
"securityGroups": [
  {
    "id":
"/subscriptions/dxxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/
providers/Microsoft.Network/networkSecurityGroups/OCCM-SG-467",
    "name": "OCCM-SG-467",
    "resourceGroup": "occm_group_eastus2"
  },
  {
    "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/networkSecurityGroups/OCCM-SG-491",
    "name": "OCCM-SG-491",
    "resourceGroup": "occm_group_eastus2"
  },
  {
    "id":
"/subscriptions/xxxxxxxx0000000000000000/resourceGroups/occm_group_eastus2/p
roviders/Microsoft.Network/networkSecurityGroups/OCCM-SG-589",
    "name": "OCCM-SG-589",
    "resourceGroup": "occm_group_eastus2"
  }
]
}

```

### Get Azure availability zones

You can perform this workflow to retrieve the Azure availability zones by region.



Ensure that you've the Azure subscription ID. You can easily obtain the ID from the Azure portal.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

#### Get availability zones for single node

You can use this workflow to retrieve the availability zones by region for a single node working environment.

#### 1. Get the availability zones

HTTP method	Path
GET	/occm/api/azure/vsa/metadata/availability-zones

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/metadata/availab
ility-zones?region=<REGION>&subscriptionId=<SUBSCRIPTION_ID>' --header 'x-
agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
--header 'Content-Type: application/json'
```

#### Input

Query parameters:

- <REGION> region string
- (Optional) <SUBSCRIPTION\_ID> subscriptionId string
- (Optional) cloudProviderAccountId string

#### Output

The JSON output example includes the list of Azure availability zones.

#### JSON output example

```
{
  "region": "eastus2",
  "zones": [
    1,
    3,
    2
  ]
}
```

## Get availability zones for high availability pair

You can use this workflow to retrieve the availability zones by region for a high availability pair working environment.

### 1. Get the availability zones

HTTP method	Path
GET	/occm/api/azure/ha/metadata/availability-zones

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/metadata/availabi
lity-zones?region=<REGION>&subscriptionId=<SUBSCRIPTION_ID>' --header 'x-
agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
--header 'Content-Type: application/json'
```

#### Input

Query parameters:

- <REGION> region string
- (Optional) <SUBSCRIPTION\_ID> subscriptionId string
- (Optional) cloudProviderAccountId string

#### Output

The JSON output example includes the list of Azure availability zones.

#### JSON output example

```
{
  "region": "eastus2",
  "zones": [
    1,
    3,
    2
  ]
}
```

## Get availability zones for high availability pair

You can use this workflow to retrieve the availability zones by region for a high availability pair working environment.

### 1. Get the availability zones



HTTP method	Path
GET	/occm/api/azure/ha/metadata/availability-zones

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/metadata/availability-zones?region=<REGION>&subscriptionId=<SUBSCRIPTION_ID>' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
--header 'Content-Type: application/json'
```

### Input

Query parameters:

- <REGION> region string
- (Optional) <SUBSCRIPTION\_ID> subscriptionId string
- (Optional) cloudProviderAccountId string

### Output

The JSON output example includes the list of Azure storage account types.

### JSON output example

```
{
  "region": "eastus2",
  "zones": [
    1,
    3,
    2
  ]
}
```

### Get Azure packages

You can perform this workflow to retrieve the pre-defined packages configuration.

Choose the correct workflow depending on the type of Cloud Volumes ONTAP deployment:

- [Single Node](#)
- [HA pair](#)

### Get packages for single node

You can use this workflow to retrieve the packages information for a single node working environment.

## 1. Get the packages

HTTP method	Path
GET	/occm/api/azure/vsa/metadata/packages

### curl example

```
curl --location --request GET 'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/metadata/packages' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type: application/json'
```

### Input

None

### Output

The JSON output example includes the packages information.

### JSON output example

```
Output example [
  {
    "name": "azure_poc",
    "displayName": "POC and small workloads",
    "description": "No description yet",
    "licenseType": "azure-cot-explore-paygo",
    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "Standard_DS3_v2"
      }
    ],
    "diskType": "Premium_LRS",
    "diskSize": {
      "size": 100.0,
      "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": null,
    "writingSpeedState": "NORMAL"
  },
  {
    "name": "azure_standard",
    "displayName": "Database and application data production
workloads",
    "description": "No description yet",
    "licenseType": "azure-cot-standard-paygo",
```

```

    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "Standard_DS4_v2"
      }
    ],
    "diskType": "Premium_LRS",
    "diskSize": {
      "size": 100.0,
      "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": null,
    "writingSpeedState": "NORMAL"
  },
  {
    "name": "azure_dr",
    "displayName": "Cost effective DR",
    "description": "No description yet",
    "licenseType": "azure-cot-standard-paygo",
    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "Standard_DS4_v2"
      }
    ],
    "diskType": "Standard_LRS",
    "diskSize": {
      "size": 100.0,
      "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": null,
    "writingSpeedState": "NORMAL"
  },
  {
    "name": "azure_fastest",
    "displayName": "Highest performance production workloads",
    "description": "No description yet",
    "licenseType": "azure-cot-premium-paygo",
    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "Standard_DS5_v2"
      }
    ]
  },

```

```

    "diskType": "Premium_LRS",
    "diskSize": {
      "size": 100.0,
      "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": null,
    "writingSpeedState": "NORMAL"
  }
]

```

## Get packages for high availability pair

You can use this workflow to retrieve the packages information for an HA working environment.

### 1. Get the packages

HTTP method	Path
GET	/occm/api/azure/ha/metadata/packages

#### curl example

```

curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/metadata/packages
' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>' --header 'Content-Type: application/json'

```

#### Input

None

#### Output

The JSON output example includes the packages information.

#### JSON output example

```

Output example [
  {
    "name": "azure_poc",
    "displayName": "POC and small workloads",
    "description": "No description yet",
    "licenseType": "azure-cot-explore-paygo",
    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "Standard_DS3_v2"
      }
    ]
  },
]

```

```

    "diskType": "Premium_LRS",
    "diskSize": {
        "size": 100.0,
        "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": null,
    "writingSpeedState": "NORMAL"
},
{
    "name": "azure_standard",
    "displayName": "Database and application data production
workloads",
    "description": "No description yet",
    "licenseType": "azure-cot-standard-paygo",
    "instanceTypeMapping": [
        {
            "region": "default",
            "instanceType": "Standard_DS4_v2"
        }
    ],
    "diskType": "Premium_LRS",
    "diskSize": {
        "size": 100.0,
        "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": null,
    "writingSpeedState": "NORMAL"
},
{
    "name": "azure_dr",
    "displayName": "Cost effective DR",
    "description": "No description yet",
    "licenseType": "azure-cot-standard-paygo",
    "instanceTypeMapping": [
        {
            "region": "default",
            "instanceType": "Standard_DS4_v2"
        }
    ],
    "diskType": "Standard_LRS",
    "diskSize": {
        "size": 100.0,
        "unit": "GB"
    },

```

```

    "capacityTier": null,
    "instanceTenancy": null,
    "writingSpeedState": "NORMAL"
  },
  {
    "name": "azure_fastest",
    "displayName": "Highest performance production workloads",
    "description": "No description yet",
    "licenseType": "azure-cot-premium-paygo",
    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "Standard_DS5_v2"
      }
    ],
    "diskType": "Premium_LRS",
    "diskSize": {
      "size": 100.0,
      "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": null,
    "writingSpeedState": "NORMAL"
  }
]

```

### Get packages for high availability pair

You can use this workflow to retrieve the packages for an HA working environment.

#### 1. Get the packages

HTTP method	Path
GET	/occm/api/azure/ha/metadata/packages

#### curl example

```

curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/azure/ha/metadata/packages'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>' --header 'Content-Type: application/json'

```

#### Input

None

## Output

The JSON output example includes the list of Azure storage account types.

### JSON output example

```
Output example [
  {
    "name": "azure_poc",
    "displayName": "POC and small workloads",
    "description": "No description yet",
    "licenseType": "azure-cot-explore-paygo",
    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "Standard_DS3_v2"
      }
    ],
    "diskType": "Premium_LRS",
    "diskSize": {
      "size": 100.0,
      "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": null,
    "writingSpeedState": "NORMAL"
  },
  {
    "name": "azure_standard",
    "displayName": "Database and application data production
workloads",
    "description": "No description yet",
    "licenseType": "azure-cot-standard-paygo",
    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "Standard_DS4_v2"
      }
    ],
    "diskType": "Premium_LRS",
    "diskSize": {
      "size": 100.0,
      "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": null,
    "writingSpeedState": "NORMAL"
  },
]
```

```

{
  "name": "azure_dr",
  "displayName": "Cost effective DR",
  "description": "No description yet",
  "licenseType": "azure-cot-standard-paygo",
  "instanceTypeMapping": [
    {
      "region": "default",
      "instanceType": "Standard_DS4_v2"
    }
  ],
  "diskType": "Standard_LRS",
  "diskSize": {
    "size": 100.0,
    "unit": "GB"
  },
  "capacityTier": null,
  "instanceTenancy": null,
  "writingSpeedState": "NORMAL"
},
{
  "name": "azure_fastest",
  "displayName": "Highest performance production workloads",
  "description": "No description yet",
  "licenseType": "azure-cot-premium-paygo",
  "instanceTypeMapping": [
    {
      "region": "default",
      "instanceType": "Standard_DS5_v2"
    }
  ],
  "diskType": "Premium_LRS",
  "diskSize": {
    "size": 100.0,
    "unit": "GB"
  },
  "capacityTier": null,
  "instanceTenancy": null,
  "writingSpeedState": "NORMAL"
}
]

```

## Miscellaneous



## Create Azure cloud provider account

You can use this workflow to create an Azure cloud provider account. An Azure cloud provider account holds Azure access keys required to perform actions in Azure.

### Before you begin

You must have Azure credentials.

### 1. Get the account

HTTP method	Path
GET	/occm/api/accounts?providerType=AZURE

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/accounts?providerType=AZURE'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
--header 'Content-Type: application/json'
```

### Input

Query parameter (Optional):

providerType string

### Output

The JSON output provides an example of the cloud provider details.

### JSON output example

```

{
  "awsAccounts": [],
  "azureAccounts": [
    {
      "publicId": "ManagedServiceIdentity",
      "accountName": "Managed Service Identity",
      "accountType": "SERVICE_IDENTITY",
      "tenantId": "",
      "applicationId": "",
      "occmRole": "Azure",
      "vsaList": [
        {
          "publicId": "VsaWorkingEnvironment-uFPaNkrv",
          "name": "Azure123",
          "workingEnvironmentType": "AZURE"
        }
      ]
    }
  ],
  "gcpStorageAccounts": [],
  "nssAccounts": []
}

```

## GCP workflows

### Before you begin

There are several workflows that you can use to deploy and manage Cloud Volumes ONTAP in Google Cloud.



Review the [Get started](#) section before using any of the Cloud Manager REST API workflows.

### Workflow categories

The GCP workflows are organized into the following categories:

- Working environments
- Aggregates
- Volumes
- Metadata

See [Understanding the workflow processes](#) for more information on these categories.



Cloud Volumes ONTAP requires a Google Cloud service account to run several background automation tasks such as data tiering and backup service. [Learn more about GCP service accounts.](#)

## Connector setup

You must have a **Connector** for the cloud environment before creating a working environment and performing other activities using the workflows. You can create a Connector using the Cloud Manager web UI. When you create a Connector, Cloud Manager adds the GCP cloud provider account that you deployed the Connector in to your list of available accounts. Your GCP account needs to have the right permissions in order to create a Connector.

Review [Learn about GCP Connectors](#) to know how to create and deploy a GCP Connector.

## Working environments

### Create a working environment with PAYGO

You can use this workflow to create a new GCP Cloud Volumes ONTAP working environment using pay-as-you-go (PAYGO) subscription.

#### Note the following when using PAYGO:

- A marketplace subscription is required.
- A NetApp Support Site (NSS) key is recommended to register the system for support, but it's not required.
- You can add more volumes after creating the working environment. You can choose to create a volume using either [NFS](#), [CIFS](#), or [iSCSI](#) protocol.

### 1. Select the region

Perform the workflow [Get regions](#) and do the following:

- Choose the `name` value of the required region for the `region` parameter in step 8.
- Choose one of the VPCs. Choose `name` for `vpcId` parameter and `subnets: path` for `subnetId` and `subnetPath` parameters in step 8.

### 2. Select the workspace

Perform the workflow [Get tenants](#) and choose the `workspacePublicId` value for the `tenantId` parameter in step 8.

### 3. Select the projects

Perform the workflow [Get projects](#) and choose the `projectId` value of the required project for `project` parameter in step 8.

#### 4. Select the permutations

Perform the workflow [Get permutations](#) and choose the `ontapVersion`, `license: type`, and `instanceType` values of the required `vsaMetadata` parameter in step 8.

#### 5. Select the packages configuration

Perform the workflow [Get packages](#) and search the `licenseType` from permutations:

- Choose the `name` for `packageName` parameter.
- Choose the `diskSize` for `gcpVolumeSize`.
- Choose the `diskType` and `writingSpeedState` for the `gcpVolumeType` and `writingSpeedState` parameters.

#### 6. Select the service account

Perform the workflow [Get service accounts](#) workflow and choose the `email` value of the required service accounts for the `gcpServiceAccount` parameter in step 8.

#### 7. (Optional) Obtain an NSS key

An NSS key is **optional** when using PAYGO subscription. If needed, you can create a key or select an existing key, and include the NSS key in the `nssAccount` parameter in step 8.

- To create a new NSS key using the Cloud Manager web user interface, perform the task [Generate NSS user ID](#) and choose the `id`.
- To select an existing NSS key, perform the [Get NSS keys](#) workflow and choose the `id` value of the required NSS user.

#### 8. Create the working environment

HTTP method	Path
POST	/occm/api/gcp/vsa/working-environments

##### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/working-
environments' --header 'x-agent-id: <AGENT_ID>' //<1> --header
'Authorization: Bearer <ACCESS_TOKEN>' //<2> ---header 'Content-Type:
application/json' --d @JSONinput
```

(1) Replace `<AGENT_ID>` with your agent ID.

(2) Replace `<ACCESS_TOKEN>` with your obtained bearer access token.

##### Input

The JSON input example includes the minimum list of parameters.



This request uses PAYGO as indicated in the `licenseType` parameter.

### JSON input example

```
{
  "name": "zivgcp01we03",
  "svmPassword": "password",
  "vpcId": "default",
  "region": "us-west1-b",
  "tenantId": "tenantID",
  "subnetPath": "projects/occm-dev/regions/us-west1/subnetworks/default",
  "subnetId": "projects/occm-dev/regions/us-west1/subnetworks/default",
  "dataEncryptionType": "GCP",
  "vsaMetadata": {
    "ontapVersion": "ONTAP-9.9.0X4.T1.gcp",
    "licenseType": "gcp-cot-explore-paygo",
    "instanceType": "custom-4-16384"
  },
  "gcpVolumeSize": {
    "size": 100,
    "unit": "GB"
  },
  "gcpVolumeType": "pd-ssd",
  "gcpLabels": [],
  "writingSpeedState": "NORMAL",
  "packageName": "gcp_poc",
  "gcpServiceAccount": "xxxxxx@occm-dev.iam.xxx.com",
  "project": "occm-dev",
  "backupVolumesToCbs": false
}
```

### JSON output example

```

{
  "publicId": "vsaworkingenvironment-2qkd75xv",
  "name": "zivgcp01we03",
  "tenantId": "tenantIDshownhere",
  "svmName": "svm_zivgcp01we03",
  "creatorUserEmail": "user_email",
  "status": null,
  "providerProperties": null,
  "reservedSize": null,
  "clusterProperties": null,
  "ontapClusterProperties": null,
  "cloudProviderName": "GCP",
  "snapshotPolicies": null,
  "actionsRequired": null,
  "activeActions": null,
  "replicationProperties": null,
  "schedules": null,
  "svms": null,
  "workingEnvironmentType": "VSA",
  "supportRegistrationProperties": null,
  "supportRegistrationInformation": null,
  "capacityFeatures": null,
  "encryptionProperties": null,
  "supportedFeatures": null,
  "isHA": false,
  "haProperties": null,
  "k8sProperties": null,
  "fpolicyProperties": null,
  "saasProperties": null,
  "cbsProperties": null,
  "complianceProperties": null,
  "monitoringProperties": null
}

```

### Create a working environment with BYOL

You can use this workflow to create a new Cloud Volumes ONTAP working environment using bring your own license (BYOL) licensing.

**Note the following when using BYOL licensing:**

- A marketplace subscription is not required.
- A NetApp Support Site (NSS) key is required to register the system for support.
- You can add more volumes after creating the working environment. You can choose to create a volume using either [NFS](#), [CIFS](#), or [iSCSI](#) protocol.

## 1. Select the region

Perform the workflow [Get regions](#) and do the following:

- Choose the `name` value of the required region for the `region` parameter in step 8.
- Choose one of the VPCs. Choose `name` for `vpcId` parameter and `subnets: path` for `subnetId` and `subnetPath` parameters in step 8.

## 2. Select the workspace

Perform the workflow [Get tenants](#) and choose the `workspacePublicId` value for the `tenantId` parameter in step 8.

## 3. Select the project

Perform the workflow [Get projects](#) and choose the `projectId` value of the required project for `project` parameter in step 8.

## 4. Select the permutations

Perform the workflow [Get permutations](#) and choose the `ontapVersion`, `license: type`, and `instanceType` values of the required `vsaMetadata` parameter in step 8.

## 5. Select the packages configuration

Perform the workflow [Get packages](#) and search the `licenseType` from permutations:

- Choose the `name` for `packageName` parameter.
- Choose the `diskSize` for `gcpVolumeSize`.
- Choose the `diskType` and `writingSpeedState` for the `gcpVolumeType` and `writingSpeedState` parameters.

## 6. Select the service account

Perform the workflow [Get service accounts](#) workflow and choose the `email` value of the required service accounts for the `gcpServiceAccount` parameter in step 8.

## 7. Obtain an NSS key

An NSS key is **required** when using BYOL subscription. If needed, you can create a key or select an existing key, and include the NSS key in the `nssAccount` parameter in step 8.

- To create a new NSS key using the Cloud Manager web user interface, perform the task [Generate NSS user ID](#) and choose the `id`.
- To select an existing NSS key, perform the [Get NSS keys](#) workflow and choose the `id` value of the required NSS user.

## 8. Create the working environment

HTTP method	Path
POST	/occm/api/gcp/vsa/working-environments

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/working-
environments' --header 'x-agent-id: <AGENT_ID>' //<1> --header
'Authorization: Bearer <ACCESS_TOKEN>' //<2> ---header 'Content-Type:
application/json' --d @JSONinput
```

- (1) Replace `<AGENT_ID>` with your agent ID.
- (2) Replace `<ACCESS_TOKEN>` with your obtained bearer access token.

### Input

The JSON input example includes the minimum list of parameters. This request uses BYOL licensing as indicated in the `licenseType` parameter. The `serialNumber` is required.

### JSON input example



```

{
  name: "gcpwe123"
  backupVolumesToCbs: true
  capacityTier: "cloudStorage"
  dataEncryptionType: "GCP"
  enableCompliance: true
  gcpLabels: []
  gcpServiceAccount: "fabric-pool@occm-dev.iam.gserviceaccount.com"
  gcpVolumeSize: {size: 500, unit: "GB", _identifier: "500 GB"}
  gcpVolumeType: "pd-ssd"
  name: "gcpwe123"
  nssAccount: "0xxx-000-4c70-9cee-304f36b74db6"
  packageName: "gcp_poc"
  project: "occm-dev"
  region: "europe-west3-c"
  serialNumber: "00000108000000000000"
  subnetId: "projects/occm-dev/regions/europe-west3/subnetworks/vpc4qa-2-
europe-west3"
  subnetPath: "projects/occm-dev/regions/europe-west3/subnetworks/vpc4qa-2-
europe-west3"
  svmPassword: "Netappl23"
  tenantId: "workspaceNqaJyVMz"
  tierLevel: "standard"
  volume: {
    exportPolicyInfo: {
      policyType: "custom",
      ips: ["172.22.13.0/24"],
      nfsVersion: ["nfs3", "nfs4"]
    }
  }
}
vpcId: "vpc4qa-2"
vsaMetadata: {
  ontapVersion: "ONTAP-9.10.1RC1.T1.gcp",
  licenseType: "gcp-cot-premium-byol"
}
instanceType: "n2-standard-4"
licenseType: "gcp-cot-premium-byol"
ontapVersion: "ONTAP-9.10.1RC1.T1.gcp"
writingSpeedState: "NORMAL"
}

```

## Output

The JSON output example includes an example of the `VsaWorkingEnvironmentResponse` response.

JSON output example

```

{
  "publicId": "vsaworkingenvironment-9nhkrtu0",
  "name": "yuvalbyol3101",
  "tenantId": "tenantIDshownhere",
  "svmName": "svm_yuvalbyol3101",
  "creatorUserEmail": "user_email",
  "status": null,
  "providerProperties": null,
  "reservedSize": null,
  "clusterProperties": null,
  "ontapClusterProperties": null,
  "cloudProviderName": "GCP",
  "snapshotPolicies": null,
  "actionsRequired": null,
  "activeActions": null,
  "replicationProperties": null,
  "schedules": null,
  "svms": null,
  "workingEnvironmentType": "VSA",
  "supportRegistrationProperties": null, "supportRegistrationInformation":
null,
  "capacityFeatures": null,
  "encryptionProperties": null,
  "supportedFeatures": null,
  "isHA": false,
  "haProperties": null,
  "fpolicyProperties": null,
  "saasProperties": null,
  "cbsProperties": null,
  "complianceProperties": null,
  "monitoringProperties": null,
  "licensesInformation": null
}

```

## Get working environment

You can retrieve the public identifier, working environment ID, the storage virtual machine name for Cloud Volumes ONTAP working environments and other Cloud Volumes ONTAP related details (visible to currently logged in user) which would be used in other workflows.

### 1. Get the working environments

HTTP method	Path
GET	/occm/api/gcp/vsa/working-environments/{workingEnvironmentId}

## curl

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/working-
environments' --header 'Content-Type: application/json' --header 'x-agent-
id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

(Optional) Query parameters:

- fields string
- tenantId string

## Output

The JSON output example includes details of a single node Google Cloud working environment.

## JSON output example

```
[
  {
    "publicId": "vsaworkingenvironment-sfrf3wvj",
    "name": "zivgcp01we02",
    "tenantId": "tenantIDshownhere",
    "svmName": "svm_zivgcp01we02",
    "creatorUserEmail": "user_email",
    "status": null,
    "providerProperties": null,
    "reservedSize": null,
    "clusterProperties": null,
    "ontapClusterProperties": null,
    "cloudProviderName": "GCP",
    "snapshotPolicies": null,
    "actionsRequired": null,
    "activeActions": null,
    "replicationProperties": null,
    "schedules": null,
    "svms": null,
    "workingEnvironmentType": "VSA",
    "supportRegistrationProperties": null,
    "supportRegistrationInformation": [],
    "capacityFeatures": null,
    "encryptionProperties": null,
    "supportedFeatures": null,
    "isHA": false,
    "haProperties": null,
    "k8sProperties": null,
    "fpolicyProperties": null,
```

```

    "saasProperties": null,
    "cbsProperties": null,
    "complianceProperties": null,
    "monitoringProperties": null
  },
  {
    "publicId": "vsaworkingenvironment-2qkd75xv",
    "name": "zivgcp01we03",
    "tenantId": "tenantIdshownhere",
    "svmName": "svm_zivgcp01we03",
    "creatorUserEmail": "user_email",
    "status": null,
    "providerProperties": null,
    "reservedSize": null,
    "clusterProperties": null,
    "ontapClusterProperties": null,
    "cloudProviderName": "GCP",
    "snapshotPolicies": null,
    "actionsRequired": null,
    "activeActions": null,
    "replicationProperties": null,
    "schedules": null,
    "svms": null,
    "workingEnvironmentType": "VSA",
    "supportRegistrationProperties": null,
    "supportRegistrationInformation": [],
    "capacityFeatures": null,
    "encryptionProperties": null,
    "supportedFeatures": null,
    "isHA": false,
    "haProperties": null,
    "k8sProperties": null,
    "fpolicyProperties": null,
    "saasProperties": null,
    "cbsProperties": null,
    "complianceProperties": null,
    "monitoringProperties": null
  }
]

```

### Delete a working environment

You can delete an existing GCP Cloud Volumes ONTAP working environment.

## 1. Select the working environment

Perform the workflow [Get working environment](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

## 2. Delete the working environment

HTTP method	Path
DELETE	/occm/api/gcp/vsa/working-environments/{workingEnvironmentId}

### Curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/working-
environments/<WORKING_ENV_ID>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>'
```

### Input

Path parameter `<WORKING_ENV_ID>` (`workingEnvironmentId`) string

(Optional) Query parameters:

- `localDelete` boolean

If `true` the Cloud Volumes ONTAP instance in the cloud is not terminated, but Cloud Manager no longer manages it (default is `false`). If `false` the Cloud Volumes ONTAP instance is deleted including all the cloud resources created for this working environment.

- `forceDelete` boolean

If `true` the working environment is deleted even if it is part of one or more SnapMirror relationships (default is `false`).

### Output

None

## Create CIFS server configuration

If you want to create CIFS volumes on your Cloud Volumes ONTAP system, you first need to configure the CIFS server. You can choose to set up the CIFS server in a workgroup or in an Active Directory domain. Review the [ONTAP documentation](#) for more information.

Choose the workflow that is specific to your goal:

- [Set up a CIFS server in a workgroup](#)
- [Set up a CIFS server in an Active Directory domain](#)

## Set up a CIFS server in a workgroup

You can configure a CIFS server in a workgroup when the Microsoft Active Directory domain infrastructure is not available.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the working environment used in the `workingEnvironmentId` path parameter.

### 2. Create the CIFS configuration

Create the CIFS server configuration.

HTTP method	Path
POST	/occm/api/gcp/vsa/working-environments/{workingEnvironmentId}/cifs-workgroup

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/working-
environments/<WORKING_ENV_ID>/cifs-workgroup' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

#### Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId` string

#### JSON input example

```
{
  "serverName": "SMB_SERVER02",
  "workgroupName": "workgroup02",
  "svmName": "svm_ziv01we01"
}
```

#### Output

None.

## Set up a CIFS server in an Active Directory domain

You can create a CIFS server on the SVM and specify the Active Directory (AD) domain to which it belongs.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the working environment used in the `workingEnvironmentId` path parameter.

## 2. Determine the Active Directory configuration

You need the following configuration parameters for an Active Directory server.

Input parameter	Description
dnsDomain	Use the Active Directory domain as the DNS name.
ipAddresses	Define the primary DNS IP address and optionally add a secondary IP address.
netBIOS	Use the CIFS server NetBIOS name.
organizationalUnit	Include the organizational unit as appropriate.
activeDirectoryDomain	Set the Active Directory domain to join.
activeDirectoryUsername	A username with authorization to join the domain.
activeDirectoryPassword	The password for the authorized username.

## 3. Create the CIFS configuration

Create the CIFS server configuration.

HTTP method	Path
POST	/occm/api/gcp/vsa/working-environments/{workingEnvironmentId}/cifs

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/working-
environments/<WORKING_ENV_ID>/cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

- Path parameter <WORKING\_ENV\_ID> workingEnvironmentId string

### JSON input example

```
{
  "dnsDomain": "zivh.netapp.com",
  "ipAddresses": [
    "172.31.5.241"
  ],
  "netBIOS": "zivaws02we03",
  "organizationalUnit": "CN=Computers",
  "activeDirectoryDomain": "zivh.netapp.com",
  "activeDirectoryUsername": "administrator",
  "activeDirectoryPassword": "password"
}
```

## Output

None.

## Get CIFS server configurations

You can use this workflow to retrieve the CIFS server configurations for an existing Cloud Volumes ONTAP working environment.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the working environment used in the `workingEnvironmentId` path parameter.

### 2. Get the CIFS configurations

HTTP method	Path
GET	/occm/api/gcp/vsa/working-environments/{workingEnvironmentId}/cifs

## curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/working-
environments/<WORKING_ENV_ID>/cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId` string
- (Optional) Query parameter `svm` string

## Output

The JSON output example includes the CIFS configurations for an existing Cloud Volumes ONTAP ONTAP working environment.



## JSON output example

```
[
  {
    "dnsDomain": "zivh.netapp.com",
    "activeDirectoryDomain": "zivh.netapp.com",
    "ipAddresses": [
      "172.31.5.241"
    ],
    "netBIOS": "zivaws02we01",
    "organizationalUnit": "CN=Computers",
    "authenticationType": "domain"
  }
]
```

## Delete CIFS server configuration

You can use this workflow to delete a CIFS server configuration for an existing Cloud Volumes ONTAP working environment.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the working environment used in the `workingEnvironmentId` path parameter.

### 2. Delete the CIFS configurations

HTTP method	Path
POST	/occm/api/gcp/vsa/working-environments/{workingEnvironmentId}/delete-cifs

## curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/working-
environments/<WORKING_ENV_ID>/delete-cifs' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

- Path parameter `<WORKING_ENV_ID>` `workingEnvironmentId` string
- Optional JSON body

```
{
  "activeDirectoryUsername": "string",
  "activeDirectoryPassword": "string",
  "svmName": "string"
}
```

## Output

None.

## Aggregates

### Get aggregates

You can retrieve a list of available disk aggregates for Cloud Volumes ONTAP in Google Cloud.

#### 1. Select the working environment

Perform the workflow [Get working environment](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

#### 2. Get the list of aggregates

HTTP method	Path
GET	/occm/api/gcp/vsa/aggregates/{workingEnvironmentId}

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/aggregates/<WORKING_ENV_ID>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

Path parameter:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`) string

## Output

An array of aggregates for the indicated working environment is returned as shown in the JSON output example.



The capacity (sizes) in the output are in MB/GB/TB (1000th order) because these are ONTAP aggregates, whereas in Cloud Manager the capacity is specified as MiB, GiB (1024 order).

## JSON output example

```
[
  {
    "name": "aggr1",
    "availableCapacity": {
      "size": 87.55,
      "unit": "GB"
    },
    "totalCapacity": {
      "size": 88.57,
      "unit": "GB"
    },
    "usedCapacity": {
      "size": 1.02,
      "unit": "GB"
    },
    "volumes": [
      {
        "name": "svm_zivgcp01we02_root",
        "totalSize": {
          "size": 1.0,
          "unit": "GB"
        },
        "usedSize": {
          "size": 7.59124755859375E-4,
          "unit": "GB"
        },
        "thinProvisioned": false,
        "isClone": false,
        "rootVolume": true
      }
    ],
    "providerVolumes": [
      {
        "id": "000000000000000000",
        "name": "zivgcp01we02datadisk1",
        "size": {
          "size": 100.0,
          "unit": "GB"
        },
        "state": "READY",
        "device": "zivgcp01we02datadisk1",
        "instanceId": "zivgcp01we02",
        "diskType": "pd-ssd",
        "encrypted": true,
      }
    ]
  }
]
```

```

        "iops": null
      }
    ],
    "disks": [
      {
        "name": "NET-1.2",
        "position": "data",
        "ownerNode": "zivgcp01we02-01",
        "device": "zivgcp01we02datadisk1",
        "vmDiskProperties": null
      }
    ],
    "state": "online",
    "encryptionType": "cloudEncrypted",
    "encryptionKeyId": null,
    "isRoot": false,
    "homeNode": "zivgcp01we02-01",
    "ownerNode": "zivgcp01we02-01",
    "capacityTier": null,
    "capacityTierUsed": null,
    "sidlEnabled": true,
    "snaplockType": "non_snaplock"
  }
]

```

## Create aggregate

You can create new aggregate within a Cloud Volumes ONTAP working environment using this workflow.

### 1. Select the working environment

Perform the workflow [Get working environment](#) and choose the `publicId` value for the `workingEnvironmentId` parameter in the JSON input.

### 2. Select the GCP disk types

Perform the [Get GCP disk types](#) workflow and choose the `size` and `supportedDiskType` values of the required `diskSize` and `providerVolumeType` parameters in the JSON input.

### 3. Create the aggregate

HTTP method	Path
POST	<code>occm/api/gcp/vsa/aggregates</code>

## curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/aggregates'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

The JSON input example includes the minimum list of input parameters.

## JSON input example

```
{
  "name": "ziv01agg01",
  "workingEnvironmentId": "vsaworkingenvironment-sfrf3wvj",
  "numberOfDisks": 1,
  "diskSize": {
    "size": 100,
    "unit": "GB"
  },
  "providerVolumeType": "pd-ssd"
}
```

## Output

None

## Add disks to aggregate

You can add disks to an existing aggregate.

### 1. Select the working environment

Perform the workflow [Get GCP single node working environment](#) and choose the `publicId` value for the `workingEnvironmentId` path parameter.

### 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose name of the required aggregate for the `aggregateName` path parameter.

### 3. Add the disks to the aggregate

HTTP method	Path
POST	/occm/api/gcp/vsa/aggregates/{workingEnvironmentId}/{aggregateName}/disks

## curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/aggregates/<WORKING_ENV_ID>/<AGGR_NAME>/disks' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

You must include the following path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId) string
- <AGGR\_NAME> (aggregateName) string

Also, the JSON input example includes an input parameter as shown.

## JSON input example

```
{
  "numberOfDisks": "1"
}
```

## Output

None

## Delete aggregate

You can delete an existing disk aggregate in a Cloud Volumes ONTAP working environment.

### 1. Select the working environment

Perform the workflow [Get working environment](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` path parameter.

### 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the `name` value of the required aggregate for the `aggregateName` path parameter.

### 3. Delete the aggregate

HTTP method	Path
DELETE	/occm/api/gcp/vsa/aggregates/{workingEnvironmentId}/{aggregateName}

## curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/aggregates/<WORKING_ENV_ID>/<AGGR_NAME>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

Path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId) string
- <AGGR\_NAME> (aggregateName) string

## Output

None

## Volumes

### Create a volume using NFS

You can use this workflow to create a volume accessed through NFS protocol.



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

#### 1. Select the working environment

Perform the workflow [Get working environment](#) and choose the `publicId` and the `svmName` values for the `workingEnvironmentId` and the `svmName` parameters.

#### 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the `name` value of the aggregate for the `name` parameter.



If aggregate name does not exist and the `createAggregateIfNotFound` query parameter is set `true`, the create volume request is allowed if the named aggregate is not found.

#### 3. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

#### 4. Select the region

Perform the workflow [Get regions](#) workflow and pick `ipCidrRange` value of the required region → `subnets` for `exportPolicy` → `ips` value.

## 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

## 6. Create the volume

HTTP method	Path
POST	/occm/api/gcp/vsa/volumes

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters, including:

- <WORKING\_ENV\_ID> (workingEnvironmentId)
- <SVM\_NAME> (svmName)
- <AGGR\_NAME> (aggregateName)

If aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

### JSON input example



```
{
  "workingEnvironmentId": "vsaworkingenvironment-sfrf3wvj",
  "svmName": "svm_zivgcp0lwe02",
  "aggregateName": "ziv0lagg01",
  "name": "zivagg01vol01",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0,
  "exportPolicyInfo": {
    "ips": [
      "10.138.0.0/20"
    ],
    "nfsVersion": [
      "nfs3", "nfs4"
    ],
    "policyType": "custom"
  }
}
```

## Output

None

## Create a volume using CIFS

You can use this workflow to create a volume accessed through CIFS.



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

### 1. Choose the CIFS configuration

A CIFS server configuration must be defined for your working environment. You can do one of the following:

- If a CIFS configuration already exists, perform the workflow [Get CIFS server configurations](#) to access the configuration parameters.
- If a CIFS configuration does not exist, perform the workflow [Create CIFS server configuration](#) to create one.

## 2. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` (working environment) and the `svmName` (SVM name).

## 3. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the `name` for the `aggregateName` value.



If aggregate name does not exist and the `createAggregateIfNotFound` query parameter is set `true`, the create volume request is allowed if the named aggregate is not found.

## 4. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

## 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

## 6. Create the volume

HTTP method	Path
POST	/occm/api/gcp/vsa/volumes

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters, including:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`) string
- `<SVM_NAME>` (`svmName`) string
- `<AGGR_NAME>` (`aggregateName`) string

If an aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-SfpVUZSc",
  "svmName": "svm_zivaws02we01",
  "aggregateName": "aggr1",
  "name": "zivaws02we02vol02Cifs",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "shareInfo": {
    "accessControl": {
      "permission": "full_control",
      "users": [
        "Everyone"
      ],
      "users": "Everyone;"
    },
    "shareName": "zivaws02we01vol02Cifs_share"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

## Output

None

## Create a volume using iSCSI

You can use this workflow to create a volume accessed through iSCSI. There are two workflows available depending on whether a new or existing iGroup is used. You need to select the correct workflow:

- [Create volume using iSCSI with a new iGroup](#)
- [Create volume using iSCSI with an existing iGroup](#)

### Create volume using iSCSI with a new iGroup



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

## 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter and the `svmName` value for the `svmName` parameter.

## 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the `name` for the `aggregateName` value.

## 3. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

## 4. Choose the iscsiInfo parameters

You must choose the following values for the REST API call:

- A unique igroup name for `igroupCreationRequest` → `igroupName` parameter
- The required iqns to `igroupCreationRequest` → `initiators` parameter.
- The required operating system for the `osName` parameter from one of the following:
  - windows
  - linux
  - vmware
  - windows\_2008
  - windows\_gpt

## 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

## 6. Create the volume

HTTP method	Path
POST	/occm/api/gcp/vsa/volumes

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters, including:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`) string

- <SVM\_NAME> (svmName) string
- <AGGR\_NAME> (aggregateName) string

If aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-SfpVUZSc",
  "svmName": "svm_zivaws02we01",
  "aggregateName": "aggr1",
  "name": "zivaws02we01vol01Iscsi",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "iscsiInfo": {
    "igroupCreationRequest": {
      "igroupName": "zivIgroup",
      "initiators": [
        "iqn.1994-05.com.redhat:96de86825216",
        "iqn.1994-05.com.redhat:96de86823426"
      ]
    },
    "osName": "linux"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

### Output

None

### Create volume using iSCSI with an existing iGroup



If the properties `aggregateName` and `maxNumOfDisksApprovedToAdd` are not provided on the REST API call, the response will fail with a suggested name for the aggregate and the number of disks needed to fulfill the request.

### 1. Select the working environment

Perform the workflow [Get working environments](#) and choose the `publicId` value for the `workingEnvironmentId` parameter and the `svmName` value for the `svmName` parameter.

## 2. Select the aggregate

Perform the workflow [Get aggregates](#) and choose the name for the `aggregateName` value.

## 3. Choose the size for the disk

Choose the size value for the `size:size` parameter. The `size:unit` must be one of the following: TB, GB, MB, KB, or Byte.

## 4. Choose the iGroup

Perform the workflow [Get iGroups](#) and choose the igroups for the `iscasiInfo → igroups` value. Also select the `osType` value for the `iscasiInfo → osName`.

## 5. Create the quote

Perform the workflow [Create quote](#). This is a recommended step but is not mandatory.

## 6. Create the volume

HTTP method	Path
POST	/occm/api/gcp/vsa/volumes

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/volumes' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters, including:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`) string
- `<SVM_NAME>` (`svmName`) string
- `<AGGR_NAME>` (`aggregateName`) string

If an aggregate name does not exist, you can set the `createAggregateIfNotFound` query parameter to `true` which allows the aggregate not-found condition.

### JSON input example

```
{
  "workingEnvironmentId": "VsaWorkingEnvironment-UvFmWXoD",
  "svmName": "svm_zivaws01we01",
  "aggregateName": "aggr1",
  "name": "zivaws01we01vol05Iscsi",
  "size": {
    "size": 100,
    "unit": "GB"
  },
  "iscsiInfo": {
    "igroups": ["zivIgroup1"],
    "osName": "linux"
  },
  "snapshotPolicyName": "default",
  "enableThinProvisioning": true,
  "enableCompression": true,
  "enableDeduplication": true,
  "maxNumOfDisksApprovedToAdd": 0
}
```

## Output

None

## Get volumes

You can retrieve the list of volumes of a single node GCP working environment.

### 1. Select the working environment

Perform the workflow [Get working environment](#) and choose the `publicId` value of the working environment for the `workingEnvironmentId` query parameter.

### 2. Get the volumes

HTTP method	Path
GET	/occm/api/gcp/vsa/volumes

## curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/volumes?workingEnv
ironmentId=<WORKING_ENV_ID>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>'
```

## Input

Query parameter <WORKING\_ENV\_ID> (workingEnvironmentId) string

## Output

The JSON output example includes the list of volumes for the working environment.

## JSON output example

```
[
  {
    "name": "zivagg01vol01",
    "uuid": "0x00000-0xx0-00xx-xx00-00xxxx000",
    "svmName": "svm_zivgcp01we02",
    "size": {
      "size": 100.0,
      "unit": "GB"
    },
    "usedSize": {
      "size": 2.93731689453125E-4,
      "unit": "GB"
    },
    "junctionPath": "/zivagg01vol01",
    "volumeTotalInodes": 3112959,
    "volumeUsedInodes": 96,
    "mountPoint": "10.138.0.150:/zivagg01vol01",
    "compressionSpaceSaved": {
      "size": 0.0,
      "unit": "GB"
    },
    "deduplicationSpaceSaved": {
      "size": 0.0,
      "unit": "GB"
    },
    "thinProvisioning": true,
    "compression": true,
    "deduplication": true,
    "snapshotPolicy": "default",
    "securityStyle": "unix",
    "exportPolicyInfo": {
      "name": "export-svm_zivgcp01we02-zivagg01vol01",
      "policyType": "custom",
      "ips": [
        "10.138.0.0/20"
      ],
      "nfsVersion": [
        "nfs3",
        "nfs4"
      ]
    }
  }
]
```



```

    ],
    "shareNames": [],
    "shareInfo": [],
    "parentVolumeName": "",
    "rootVolume": false,
    "state": "online",
    "volumeType": "rw",
    "aggregateName": "ziv01agg01",
    "parentSnapshot": null,
    "autoSizeMode": "grow",
    "maxGrowSize": {
        "size": 1100.0,
        "unit": "GB"
    },
    "providerVolumeType": "pd-ssd",
    "cloneNames": [],
    "moving": false,
    "primaryNoFailoverMountPoint": null,
    "secondaryNoFailoverMountPoint": null,
    "capacityTier": null,
    "capacityTierUsedSize": null,
    "cifsShareAccessPoint": null,
    "primaryCifsShareAccessPoint": null,
    "secondaryCifsShareAccessPoint": null,
    "tieringPolicy": "none",
    "tierInactiveUserData": null,
    "tierInactiveUserDataPercent": null,
    "comment": null,
    "qosPolicyGroupName": null,
    "snaplockType": "non_snaplock",
    "constituentsAggregates": [],
    "snapshotsUsedSize": {
        "size": 0.0,
        "unit": "Byte"
    },
    "cbsBackupsInfo": null,
    "minimumCoolingDays": null,
    "targetName": "iqn.1992-
08.com.netapp:sn.986656ab5e3e11eb9cb735a0758d479a:vs.2",
    "iscsiEnabled": false,
    "isFlexGroupVolume": false
}
]

```

## Modify volume

You can modify the configuration of an existing volume.

### 1. Select the working environment

Perform the workflow [Get working environment](#) and choose the `publicId` and `svmName` values of the working environment for used as the `workingEnvironmentId` and `svmName` path parameters.

### 2. Select the volume

Perform the workflow [Get volumes](#) and choose the `name` for the `volumeName` path parameter.

### 3. Modify the volume

HTTP method	Path
PUT	/occm/api/gcp/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}

#### curl example

```
curl --location --request PUT
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/volumes/<WORKING_ENV_ID>/<SVM_NAME>/<VOLUME_NAME>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

#### Input

Path parameters:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`) string
- `<SVM_NAME>` (`svmName`) string
- `<VOLUME_NAME>` (`volumeName`) string

The JSON input example includes the minimum list of input parameters.

#### JSON input example

```
{
  "exportPolicyInfo": {
    "policyType": "custom",
    "ips": [
      "10.000.0.0/20"
    ],
    "nfsVersion": [
      "nfs3"
    ]
  }
}
```

## Output

None

## Delete volume

You can delete an existing volume.

### 1. Select the working environment

Perform the [Get working environment](#) workflow and choose the `publicId` and `svmName` values of the required working environment for `workingEnvironmentId` and `svmName` path parameters.

### 2. Select the volume

Perform the workflow [Get volumes](#) and choose the name for the `volumeName` path parameter.

### 3. Delete the volume

HTTP method	Path
DELETE	/occm/api/gcp/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}

## curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/azure/vsa/volumes/<WORKING_ENV_ID>/<SVM_NAME>/<VOLUME_NAME>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

Path parameters:

- `<WORKING_ENV_ID>` (`workingEnvironmentId`) string
- `<SVM_NAME>` (`svmName`) string

- <VOLUME\_NAME> (volumeName) string

## Output

None

## Create quote

You can create a quote for a new volume which returns a resource quote needed to satisfy the request. The resource quote contains aggregate information where the volume will be created and confirms if the space is available. This is a recommended step but is not mandatory.

### 1. Select the working environment

Perform the workflow [Get working environment](#) and choose the `publicId` and `'svmName'` values of the required working environment for `workingEnvironmentId` and `svmName` parameters in the JSON input.

### 2. Select the aggregate

Perform the [Get aggregates](#) workflow and choose the `name` value of the required aggregate for the `aggregateName` parameter in the JSON input.

### 3. Select the gcp disk type

Perform the [Get gcp disk types](#) workflow and choose the `size` and `supportedDiskType` values of the required disk type for the `diskSize` and `providerVolumeType` parameters in the JSON input.

### 4. Generate the volume quote

HTTP method	Path
POST	/occm/api/gcp/vsa/quote

## curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/volumes/quote'
--header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

## Input

The JSON input example includes the list of input parameters.

## JSON input example

```
{
  "workingEnvironmentId": "vsaworkingenvironment-sfrf3wvj",
  "svmName": "svm_zivgcp01we02",
  "aggregateName": "ziv01agg01",
  "name": "zivagg01vol01",
  "size": {
    "size": "100",
    "unit": "GB"
  },
  "enableThinProvisioning": "true",
  "providerVolumeType": "pd-ssd",
  "verifyNameUniqueness": "true"
}
```

## Output

The JSON output example includes an example of the quote details.

## JSON output example

```
{
  "numOfDisks": 0,
  "diskSize": {
    "size": 100.0,
    "unit": "GB"
  },
  "aggregateName": "ziv01agg01",
  "newAggregate": false,
  "autoVsaCapacityManagement": true
}
```

## Get iGroups

You can use this workflow to retrieve all the initiator groups (iGroups).

### 1. Create the working environment

Perform the workflow [Create GCP single node working environment](#) and choose the `publicId` and `svmName` values for the working environment `workingEnvironmentId` and `svmName` path parameters.

### 2. Get the CIFS configurations

HTTP method	Path
GET	/occm/api/gcp/vsa/volumes/igroups/{workingEnvironmentId}/{svmName}

## curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/volumes/igroups/<WORKING_ENV_ID>/<SVM_NAME>' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type:
application/json'
```

## Input

- Path parameter <WORKING\_ENV\_ID> workingEnvironmentId string
- Path parameter <SVM\_NAME> svmName string

## Output

The JSON output example includes a list of iGroups.

## JSON output example

```
[
  {
    "igroupName": "zivIgroup1",
    "osType": "linux",
    "portsetName": "",
    "igroupType": "iscsi",
    "initiators": [
      "iqn.1994-05.com.redhat:1d9ac633937c"
    ]
  },
  {
    "igroupName": "zivIgroup2",
    "osType": "linux",
    "portsetName": "",
    "igroupType": "iscsi",
    "initiators": [
      "iqn.1994-05.com.redhat:96de86825216"
    ]
  }
]
```

## Metadata

### Get GCP regions

This workflow retrieves the GCP regions in which a Cloud Volumes ONTAP working environment might be created.

## 1. Get the list of regions

HTTP method	Path
GET	/occm/api/gcp/vsa/metadata/regions

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/metadata/regions'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

### Input

None

### Output

The JSON output provides an example of a list of GCP regions.

### JSON output example

```
[
  {
    "displayName": "asia-east1",
    "name": "asia-east1",
    "zones": [
      {
        "name": "asia-east1-a"
      },
      {
        "name": "asia-east1-b"
      },
      {
        "name": "asia-east1-c"
      }
    ],
    "vpcs": [
      {
        "name": "default",
        "subnets": [
          {
            "ipCidrRange": "10.140.0.0/20",
            "name": "default",
            "path": "projects/occm-dev/regions/asia-
east1/subnetworks/default",
            "availableIps": 4090,
            "minimumRequiredIps": 6
          }
        ]
      }
    ]
  }
]
```

```

    ],
    "firewalls": [
      {
        "name": "allow-all",
        "vpc": "default"
      },
      {
        "name": "allow-ssh-netapp",
        "vpc": "default"
      }
    ]
  },
  {
    "name": "eli-vpc",
    "subnets": [
      {
        "ipCidrRange": "10.0.0.0/00",
        "name": "eli-subnet",
        "path": "projects/occm-dev/regions/asia-
east1/subnetworks/eli-subnet",
        "availableIps": 250,
        "minimumRequiredIps": 6
      }
    ],
    "firewalls": [
      {
        "name": "eli-vpc-allow-http",
        "vpc": "eli-vpc"
      },
      {
        "name": "eli-vpc-allow-https",
        "vpc": "eli-vpc"
      }
    ]
  },
],
},
{
  "displayName": "asia-northeast1",
  "name": "asia-northeast1",
  "zones": [
    {
      "name": "asia-northeast1-a"
    },
    {
      "name": "asia-northeast1-b"
    }
  ]
}

```



```

    },
    {
      "name": "asia-northeast1-c"
    }
  ],
  "vpcs": [
    {
      "name": "default",
      "subnets": [
        {
          "ipCidrRange": "00.000.0.0/20",
          "name": "default",
          "path": "projects/occm-dev/regions/asia-northeast1/subnetworks/default",
          "availableIps": 4090,
          "minimumRequiredIps": 6
        }
      ],
      "firewalls": [
        {
          "name": "allow-all",
          "vpc": "default"
        },
        {
          "name": "allow-ssh-netapp",
          "vpc": "default"
        }
      ]
    }
  ]
}
}
}

```

### Get GCP permutations

You can use the permutations endpoint to retrieve the Cloud Volumes ONTAP configuration information such as `ontapVersion`, `license`, `instanceType`, `region` and more. You can check the possible permutations that can potentially be provided for the GCP workflows while provisioning a Cloud Volumes ONTAP instance.

#### 1. Get the permutations

HTTP method	Path
GET	/occm/api/gcp/vsa/metadata/permutations

## curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/metadata/permutati
ons?latest_only=true' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type:
application/json'
```

## Input

There are several **optional** query parameters you can use:

- region string
- version string
- license string
- machine\_type string
- latest\_only string

## Output

The JSON output example includes the list of Cloud Volumes ONTAP configurations.

## JSON output example

```
[
  {
    "ontapVersion": "ONTAP-9.9.0X4.T1.gcp",
    "license": {
      "type": "gcp-cot-explore-paygo",
      "name": "Cloud Volumes ONTAP Explore",
      "description": "Suitable for smaller capacity applications.
Supports up to 2 TB of underlying GCP storage.",
      "subName": "",
      "subDescription": "Support of tiering to object storage is not
included.",
      "capacity_limit": "2TB",
      "platformLicenseRequired": false,
      "default": false,
      "capacityLimit": {
        "size": 2.0,
        "unit": "TB"
      }
    },
    "instanceType": "custom-4-16384",
    "region": {
      "name": "asia east 1",
      "code": "asia-east1",
```

```

        "location": "Changhua County, Taiwan",
        "s3Region": null
    },
    "defaultInstance": false,
    "features": [
        "cpu:Intel Skylake"
    ],
    "upgradeableFrom": [
        "9.8",
        "9.9.0"
    ]
},
{
    "ontapVersion": "ONTAP-9.9.0X4.T1.gcp",
    "license": {
        "type": "gcp-cot-explore-paygo",
        "name": "Cloud Volumes ONTAP Explore",
        "description": "Suitable for smaller capacity applications.
Supports up to 2 TB of underlying GCP storage.",
        "subName": "",
        "subDescription": "Support of tiering to object storage is not
included.",
        "capacity_limit": "2TB",
        "platformLicenseRequired": false,
        "default": false,
        "capacityLimit": {
            "size": 2.0,
            "unit": "TB"
        }
    },
    "instanceType": "custom-4-16384",
    "region": {
        "name": "asia east 2",
        "code": "asia-east2",
        "location": "Hong Kong",
        "s3Region": null
    },
    "defaultInstance": false,
    "features": [
        "cpu:Intel Skylake"
    ],
    "upgradeableFrom": [
        "9.8",
        "9.9.0"
    ]
}

```

## Get tag keys

You can perform this workflow to retrieve all the labels in the specified project and zone.

### 1. Select the project

Perform the workflow [Get projects](#) and choose `projectId` value of the required project for `projectId` query parameter.

### 2. Select the region

Perform the [Get regions](#) workflow and choose the `zone: name` value of the required region for the `zone` query parameter.

### 3. Get the tag keys

HTTP method	Path
GET	/occm/api/gcp/vsa/metadata/tag-keys

#### curl example

```
curl --location --request GET 'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/metadata/tag-keys?projectId=<PROJECT_ID>&zone=<ZONE>' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type: application/json'
```

#### Input

Query parameters:

- `<PROJECT_ID>` `projectId` string
- `<ZONE>` `zone` string

#### Output

The JSON output example includes the list of Azure storage account types.

#### JSON output example

```
[
  {
    "key": "working-environment-id",
    "values": [
      "vsaworkingenvironment-sfrf3wvj",
      "vsaworkingenvironment-2qkd75xv"
    ]
  },
]
```

```

{
  "key": "count-down",
  "values": [
    "3",
    "0",
    "2"
  ]
},
{
  "key": "username",
  "values": [
    "administrator"
  ]
},
{
  "key": "keepme",
  "values": [
    "10"
  ]
},
{
  "key": "cloud-ontap-version",
  "values": [
    "9_9_0x4"
  ]
},
{
  "key": "cloud-ontap-dm",
  "values": [
    "zivgcp01we02-deployment",
    "zivgcp01we03-deployment"
  ]
},
{
  "key": "platform-serial-number",
  "values": [
    "000000300000000000009",
    "0000000000000000096011"
  ]
}
]
},
{
  "key": "netapp:cloud-compliance:cloudManager:ClientId",
  "values": [
    "sNwn2FzHxFrucwz8j1huxNIYI7aRNqTC"
  ]
}

```

```
]
}
]
```

## Create Buckets

You can perform this workflow to create a new bucket. This is a GCP storage bucket (data container in GCP) required for data tiering and backup.

### 1. Create a bucket

HTTP method	Path
POST	/occm/api/gcp/vsa/metadata/create-bucket

#### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/metadata/create-
bucket' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>' --header 'Content-Type: application/json' --d JSONinput
```

#### JSON input example

```
{
  "projectId": "occm-dev",
  "bucketName": "zivgcpbucket02",
  "location": "us-west1",
  "storageClass": "standard"
}
```

#### Output

None

## Get buckets

You can perform this workflow to retrieve the S3 buckets. The S3 buckets are the GCP storage buckets (data containers in GCP) required for data tiering and backups.

### 1. Get the buckets

HTTP method	Path
GET	/occm/api/vsa/metadata/buckets

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/vsa/metadata/buckets'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>' --header 'Content-Type: application/json'
```

### Input

None

### Output

The JSON output example includes the list of S3 buckets.

### JSON output example

```
[
  {
    "bucketName": "3.9.0.bins.08112020",
    "region": "us-east-1",
    "tags": {}
  },
  {
    "bucketName": "0000000000-awsmacietrail-dataevent",
    "region": "us-east-1",
    "tags": {}
  }
]
```

### Get GCP packages

You can perform this workflow to retrieve the pre-defined packages configuration.

#### 1. Get the packages

HTTP method	Path
GET	/occm/api/gcp/vsa/metadata/packages

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/metadata/packages'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>' --header 'Content-Type: application/json'
```

### Input

None

## Output

The JSON output example includes the list of GCP packages.

### JSON output example

```
[
  {
    "name": "gcp_poc",
    "displayName": "POC and small workloads",
    "description": "No description yet",
    "licenseType": "gcp-cot-explore-paygo",
    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "custom-4-16384"
      }
    ],
    "diskType": "pd-ssd",
    "diskSize": {
      "size": 100.0,
      "unit": "GB"
    },
    "capacityTier": null,
    "instanceTenancy": null,
    "writingSpeedState": "NORMAL"
  },
  {
    "name": "gcp_standard",
    "displayName": "Database and application data production
workloads",
    "description": "No description yet",
    "licenseType": "gcp-cot-standard-paygo",
    "instanceTypeMapping": [
      {
        "region": "default",
        "instanceType": "n1-standard-8"
      }
    ],
    "diskType": "pd-ssd",
    "diskSize": {
      "size": 100.0,
      "unit": "GB"
    },
    "capacityTier": "GCP",
    "instanceTenancy": null,
    "writingSpeedState": "NORMAL"
  },
]
```



```

{
  "name": "gcp_dr",
  "displayName": "Cost effective DR",
  "description": "No description yet",
  "licenseType": "gcp-cot-standard-paygo",
  "instanceTypeMapping": [
    {
      "region": "default",
      "instanceType": "n1-standard-8"
    }
  ],
  "diskType": "pd-standard",
  "diskSize": {
    "size": 100.0,
    "unit": "GB"
  },
  "capacityTier": "GCP",
  "instanceTenancy": null,
  "writingSpeedState": "NORMAL"
},
{
  "name": "gcp_fastest",
  "displayName": "Highest performance production workloads",
  "description": "No description yet",
  "licenseType": "gcp-cot-premium-paygo",
  "instanceTypeMapping": [
    {
      "region": "default",
      "instanceType": "n1-standard-32"
    }
  ],
  "diskType": "pd-ssd",
  "diskSize": {
    "size": 100.0,
    "unit": "GB"
  },
  "capacityTier": "GCP",
  "instanceTenancy": null,
  "writingSpeedState": "NORMAL"
}
]

```

### Get Snapshot policies

You can perform this workflow to retrieve the default snapshot policies available on the cluster.

## 1. Get the snapshot policies

HTTP method	Path
GET	/occm/api/gcp/vsa/metadata/default-snapshot-policies

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/metadata/default-
snapshot-policies' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type:
application/json'
```

### Input

None

### Output

The JSON output example includes the list of default snapshot policies available on the cluster.

### JSON output example

```
[
  {
    "name": "default",
    "schedules": [
      {
        "frequency": "hourly",
        "retention": 6
      },
      {
        "frequency": "daily",
        "retention": 2
      },
      {
        "frequency": "weekly",
        "retention": 2
      }
    ],
    "description": "Default policy with hourly, daily & weekly
schedules."
  },
  {
    "name": "none",
    "schedules": [],
    "description": "Policy for no automatic snapshots."
  }
]
```

## Get supported features

You can perform this workflow to retrieve and check the supported features while provisioning a Cloud Volumes ONTAP instance.

### 1. Select the permutations

Perform the workflow [Get permutations](#) and choose the `ontapVersion`, `license: type`, `instanceType`, and `region: code` values of the required permutations for the query parameters of supported features request.

### 2. Get the supported features

HTTP method	Path
GET	/occm/api/gcp/vsa/metadata/supported-features

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/metadata/supported-features?region=<REGION>&ontapVersion=<ONTAP_VERSION>&dataEncryptionType=<ENCRP_TYPE>&licenseType=<LICENSE_TYPE>&instanceType=<INST_TYPE>' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --header 'Content-Type: application/json'
```

## Input

Query parameters:

- <REGION> region string
- <ONTAP\_VERSION> ontapVersion string
- <LICENSE\_TYPE> licenseType string
- <INST\_TYPE> instanceType string
- <ENCRP\_TYPE> dataEncryptionType string

## JSON output example

```
{
  "wormSupportedVersion": true,
  "cbsSupportedVersion": true,
  "httpsStorageAccountSupportedVersion": false,
  "tieringWithServiceAccount": true
}
```

## Get supported capacity tiers

You can retrieve the supported capacity tiers for Google Cloud disk types.

### 1. Select the permutations

Perform the workflow [Get permutations](#) and choose the ontapVersion, license: type, instanceType, and region: code values of the required permutations for the query parameters of supported capacity tiers request.

### 2. Get the supported features

HTTP method	Path
GET	/occm/api/gcp/vsa/metadata/supported-capacity-tiers

## curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/metadata/supported
-capacity
-tiers?region=<REGION>&ontapVersion=<ONTAP_VERSION>&dataEncryptionType=<EN
CRP_TYPE>&licenseType=<LICENSE_TYPE>&instanceType=<INST_TYPE>' --header
'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
--header 'Content-Type: application/json'
```

## Input

Query parameters:

- <REGION> region string
- <ONTAP\_VERSION> ontapVersion string
- <LICENSE\_TYPE> licenseType string
- <INST\_TYPE> instanceType string
- <ENCRP\_TYPE> dataEncryptionType string

## Output

The output shows a list of supported capacity tiers for the GCP disk types.

## JSON output example

```

{
  "supportedCapacityTiersPerVolumeType": [
    {
      "volumeType": "pd-standard",
      "supportedCapacityTiers": [
        "cloudStorage"
      ],
      "availableTieringPolicies": [
        "none",
        "snapshot_only"
      ]
    },
    {
      "volumeType": "pd-ssd",
      "supportedCapacityTiers": [
        "cloudStorage"
      ],
      "availableTieringPolicies": [
        "none",
        "snapshot_only"
      ]
    }
  ],
  "capacityTiersDisableReasons": [
    "Cannot create capacity tiered volume on Cloud Volumes ONTAP  
Explore license"
  ],
  "compositeSupported": true,
  "forceCompositeVersion": false
}

```

## Get service accounts

This workflow retrieves a list of service accounts from the specified project.

### 1. Get the list of service accounts

HTTP method	Path
GET	/occm/api/gcp/vsa/metadata/service-accounts

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/metadata/service-accounts' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

None

## Output

The JSON output retrieves a list of service accounts from the project.

## JSON output example

```
{
  "accounts": [
    {
      "name": "projects/occm-dev/serviceAccounts/00000-compute@serviceaccount.com",
      "projectId": "occm-dev",
      "email": "00000-compute@serviceaccount.com",
      "displayName": "Compute Engine default service account",
      "isEnabled": false
    },
    {
      "name": "projects/occm-dev/serviceAccounts/xxx-000@occmaccount.com",
      "projectId": "occm-dev",
      "email": "xxxx-000@occmaccount.com",
      "displayName": "admin",
      "isEnabled": false
    }
  ]
}
```

## Get projects

This workflow retrieves the list of projects that the caller has permission on.

### 1. Get the list of regions

HTTP method	Path
GET	/occm/api/gcp/vsa/metadata/projects

## curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/metadata/projects'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

**Input**

None

**Output**

The JSON output provides an example of a list of authorized projects.

**JSON output example**



```

{
  "projects": [
    {
      "isDefault": false,
      "projectNumber": "958377592668",
      "projectId": "occm-host",
      "lifecycleState": "ACTIVE",
      "name": "OCCM-host",
      "createTime": "2019-07-24T14:36:32.472Z",
      "parent": {
        "type": "folder",
        "id": "339830134733"
      },
      "subscriptionId": null
    },
    {
      "isDefault": false,
      "projectNumber": "844924364732",
      "projectId": "occm-slave",
      "lifecycleState": "ACTIVE",
      "name": "OCCM-slave",
      "createTime": "2019-07-24T14:36:32.405Z",
      "parent": {
        "type": "folder",
        "id": "339830134733"
      },
      "subscriptionId": null
    },
    {
      "isDefault": true,
      "projectNumber": "92083494653",
      "projectId": "occm-dev",
      "lifecycleState": "ACTIVE",
      "name": "OCCM-Dev",
      "createTime": "2018-05-24T17:23:50.505Z",
      "parent": {
        "type": "folder",
        "id": "339830134733"
      },
      "subscriptionId": "gcp-saasMpIntegrationProductId-
saasMpCustomerIdentifier6"
    }
  ]
}

```

## Get GCP encryption keys

This workflow retrieves the GCP encryption keys for a specific region.

### 1. Select the region

Perform the workflow [Get regions](#) and choose the `name` value of the required region for the `region` path parameter.

### 2. Select the project

Perform the [get projects](#) workflow and choose the `projectId` value of the required project for the `project` path parameter.

### 3. Get the encryption keys

HTTP method	Path
GET	/occm/api/gcp/vsa/metadata/gcp-encryption-keys

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/metadata/gcp-
encryption-keys?region=<REGION>&project=<PROJECT>' --header 'Content-Type:
application/json' --header 'x-agent-id: <AGENT_ID>' --header
'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

Required query parameters:

- <REGION> `region`: string
- <PROJECT> `project`: string

#### Output

The JSON output provides an example of a list of GCP encryption keys for a specific region.

#### JSON output example

```
[
  {
    "name": "key1",
    "id": "projects/occm-dev/locations/global/keyRings/test/cryptoKeys/key1",
    "keyRing": "test",
    "location": "global"
  },
  {
    "name": "key2",
    "id": "projects/occm-dev/locations/global/keyRings/test/cryptoKeys/key2",
    "keyRing": "test",
    "location": "global"
  }
]
```

## Get GCP disk types

This workflow retrieves the GCP supported disk types.

### 1. Get the disk types

HTTP method	Path
GET	/occm/api/gcp/vsa/metadata/gcp-disk-types

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/metadata/gcp-disk-
types' --header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

### Input

None

### Output

The JSON output provides an example of a list of GCP supported disk types.

### JSON output example

```
[
  {
    "size": {
      "size": 100.0,
      "unit": "GB"
    },
    "supportedDiskTypes": [
      "pd-standard",
      "pd-ssd"
    ],
    "supportedOccmLicenses": [
      "Standard (BYOL)",
      "Cloud Volumes ONTAP Standard",
      "Cloud Volumes ONTAP Explore",
      "Standard (hourly)",
      "Cloud Volumes ONTAP BYOL",
      "Explore (hourly)",
      "Cloud Volumes ONTAP Premium"
    ]
  },
  {
    "size": {
      "size": 500.0,
      "unit": "GB"
    },
    "supportedDiskTypes": [
      "pd-standard",
      "pd-ssd"
    ],
    "supportedOccmLicenses": [
      "Standard (BYOL)",
      "Cloud Volumes ONTAP Standard",
      "Cloud Volumes ONTAP Explore",
      "Standard (hourly)",
      "Cloud Volumes ONTAP BYOL",
      "Explore (hourly)",
      "Cloud Volumes ONTAP Premium"
    ]
  }
]
```

### Get instance types not supporting acceleration and capacity tiering

This workflow retrieves the GCP instance types which do not support the acceleration and capacity tiering. This means that these kind instance types do not use any sort of

hardware accelerator. You can check the instance types while provisioning the Cloud Volumes ONTAP.

### 1. Get the instance types

HTTP method	Path
GET	occm/api/gcp/vsa/metadata/instance-types-not-supporting-acceleration-and-capacity-tiering

#### curl example

```
curl --location --request GET 'https://cloudmanager.cloud.netapp.com/occm/api/gcp/vsa/metadata/instance-types-not-supporting-acceleration-and-capacity-tiering' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

None

#### Output

The JSON output provides an example of a list of instance types.

#### JSON output example

```
{
  "instanceTypes": []
}
```

## Common workflows

### Before you begin

There are several common workflows you can use with any of the public cloud providers.



Before using any of the Cloud Volumes ONTAP REST API workflows, review [Get started](#) section.

### Workflow categories

The common workflows are organized into the following functional categories:

#### Identity and access

These workflows are typically used to obtain an access token to identify the API caller and manage authorized access to the resources.

## SaaS marketplace

These workflows allow you to manage the subscription of a cloud provider account. You can attach a Cloud Manager SaaS subscription to the cloud provider account or retrieve a list of subscriptions.

## NetApp Support site

You can perform specific workflows to manage the NSS keys as part of registering a Cloud Manager REST resource for support. Specific NSS keys or all of the available keys can be retrieved. You can also create or delete an NSS key if needed.

## Internal task

You can use these workflows to retrieve the information and status of a background task.

## SnapMirror Replication

These workflows allow you to manage and monitor SnapMirror relationships to replicate data between source and destination working environments. This supports disaster recovery and backup which optimizes data availability.

## Connector setup

You must have a **Connector** for the cloud environment before creating a working environment and performing other activities using the workflows. You can create a Connector using the Cloud Manager web UI. When you create a Connector, Cloud Manager adds the cloud provider account that you deployed the Connector in to your list of available accounts. Your cloud provider account needs to have the right permissions in order to create a Connector.

Review [Learn about Connectors](#) to know how to create and deploy a Connector.

## Identity and access

### Get supported services

You can use this workflow to retrieve information about the Cloud Manager supported services including the *client id* and *account id* values.



This workflow describes how to use the REST API to retrieve the two ID values. You can also use the Cloud Manager web UI to get these values. See [Get the client and account identifiers](#) for more information.

### 1. Get the supported services

This API returns information about the supported services.

HTTP method	Resource path
GET	/occm/api/occm/system/support-services

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/occm/system/support-
services' --header 'Content-Type: application/json' --header 'x-agent-Id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input parameters

None

## Output

The JSON output example includes the supported services information. You can locate the `clientId` value under `auth0Information` and the `accountId` value under `tenancyServiceInformation`.

## JSON output example

```
{
  "asupEnabled": true,
  "cognitoEnabled": true,
  "kinesisEnabled": true,
  "intercomEnabled": true,
  "liveChatEnabled": true,
  "volumeViewEnabled": true,
  "portalService": {
    "usePortalAuthentication": true,
    "auth0Information": {
      "domain": "netapp-cloud-account.auth0.com",
      "audience": "https://api.cloud.netapp.com",
      "clientId": "WsefXFuCJJvMKCMppR65jCktHAQBWFs4"
    },
    "portalInformation": {
      "edit_user_url":
"https://services.cloud.netapp.com/?userMenuOpen",
      "portalBackEnd": "https://api.services.cloud.netapp.com",
      "portalFrontEnd": "https://services.cloud.netapp.com"
    },
    "saasFrontEnd": "https://cloudmanager.netapp.com"
  },
  "intercomAppId": "brf2h510",
  "tenancyServiceInformation": {
    "accountId": "account-xxx1234",
    "url": "https://cloudmanager.cloud.netapp.com/tenancy",
    "accountWidgetUrl":
"https://services.cloud.netapp.com/accountWidgetLoader.js",
    "agentsMgmtUrl": "https://cloudmanager.cloud.netapp.com/agents-
mgmt",
    "forwarderUrlOverride": "https://cloudmanager.cloud.netapp.com"
  },
}
```

```

"saasMpServiceInformation": {
  "productUrlAws":
"http://aws.amazon.com/marketplace/pp/B086BQCW8P",
  "productUrlGcp":
"https://console.cloud.google.com/marketplace/details/netapp-
cloudmanager/cloud-manager",
  "url": "https://cloudmanager.cloud.netapp.com/saas-mp",
  "productUrlAzure": "https://portal.azure.com/#create/netapp.test-
cloud-manager"
},
"cvssInformation": "https://services.cloud.netapp.com",
"backupToS3Information": {
  "enabled": true,
  "disableReason": null,
  "notSubscribedReason": false,
  "cbsEnabled": true,
  "onpremSupported": true
},
"complianceEnabled": false,
"ipaServiceInformation": {
  "url": "https://cloudmanager.cloud.netapp.com/ipa"
},
"servicesInformation": {
  "compliance": {
    "enabled": false,
    "govSupported": true,
    "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_compliance/index.html"
  },
  "cloudSync": {
    "iframeUrl": "https://dev.cloudsync.netapp.com",
    "url": "https://dev.cloudsync.netapp.com",
    "enabled": false,
    "apiUrl": "https://api.dev.cloudsync.netapp.com",
    "govSupported": false
  },
  "monitoring": {
    "enabled": false,
    "govSupported": true,
    "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/monitoring/index.html",
    "apiUrl": "https://cloudmanager.cloud.netapp.com"
  },
  "astra": {
    "enabled": true,
    "govSupported": false,

```



```

        "iframeUrl": "https://engint.astra.netapp.io"
    },
    "gfc": {
        "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_gfc/index.html",
        "dashboardUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_gfc/index.html",
        "enabled": false,
        "apiUrl": "https://cloudmanager.cloud.netapp.com",
        "govSupported": false
    },
    "cloudTiering": {
        "iframeUrl": "https://tiering.cloud.netapp.com",
        "url": "https://tiering.cloud.netapp.com",
        "enabled": false,
        "apiUrl": "https://tiering.cloud.netapp.com",
        "govSupported": false
    },
    "snapCenter": {
        "enabled": false,
        "govSupported": false,
        "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_snapcenter/index.html",
        "apiUrl": "https://cloudmanager.cloud.netapp.com"
    },
    "k8s": {
        "enabled": false,
        "govSupported": false,
        "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_k8s/index.html",
        "apiUrl": "https://cloudmanager.cloud.netapp.com"
    },
    "spot": {
        "enabled": true,
        "govSupported": false,
        "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_spot/index.html",
        "apiUrl": "https://cloudmanager.cloud.netapp.com"
    },
    "sfr": {
        "enabled": false,
        "govSupported": true,
        "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_sfr/index.html",
        "dashboardUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_sfr/index.html"
    }
}

```

```

    },
    "activeIq": {
      "enabled": true,
      "govSupported": false,
      "iframeUrl": "https://digitaladvisor.aws.techteam.netapp.com"
    }
  },
  "setupInfo": {
    "isSetup": true,
    "isPendingConnectivitySet": false,
    "needCertificate": false,
    "runningInDocker": false
  },
  "useCompliancePrivateIpContainerMode": false
}

```

## Get cloud provider accounts

You can retrieve a list of the Cloud Manager accounts available for the supported cloud platforms.

### 1. Get the cloud provider accounts

HTTP method	Resource path
GET	/occm/api/accounts/cloud-providers

#### curl example

```

curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/accounts/cloud-providers'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'

```

#### Input parameters

None

#### Output

The JSON output example shows the cloud provider accounts returned in separate named arrays.

#### JSON output example

```
{
  "awsAccounts": [
    {
      "publicId": "InstanceProfile",
      "accountName": "Instance Profile",
      "accountType": "INSTANCE_PROFILE",
      "accountId": "733004784675",
      "accessKey": "",
      "assumeRole": null,
      "occmRole": "occm",
      "vsaList": [
        {
          "publicId": "VsaWorkingEnvironment-N6BPfglr",
          "name": "ziv04we0lha",
          "workingEnvironmentType": "AWSHA"
        }
      ],
      "subscriptionId": "subscctionIDshownhere"
    }
  ],
  "azureAccounts": [],
  "gcpStorageAccounts": [],
  "nssAccounts": []
}
```

## Get tenants

You can retrieve a list of tenants visible to the user currently signed in through the account workspace.

### 1. Get the account identifier

Perform the workflow [Get supported services](#) to retrieve the account ID.



You can also get the account identifier through the Cloud Manager web UI. See [Get the client and account identifiers](#) for more information.

### 2. Get the account workspace

HTTP method	Resource path
GET	/tenancy/account/{account_id}/workspace

### curl example

```
curl --location --request GET
"https://cloudmanager.cloud.netapp.com/tenancy/account/<ACCOUNT_ID>/worksp
ace" --header 'Content-Type: application/json' --header 'Authorization:
Bearer <ACCESS_TOKEN>'
```

### Input parameters

Path parameter with the account ID.

### Output

The JSON output example shows the list of tenants.

### JSON output example

```
[
  {
    "workspacePublicId": "workspace-ced4x9X4",
    "workspaceName": "Workspace-1",
    "associatedAgents": []
  }
]
```

## SaaS marketplace

### Get SaaS marketplace account

You can use this workflow to retrieve the current marketplace account and subscriptions.

#### Before you begin

Every cloud account can *optionally* have a subscription associated with it. The subscription identifies how the various cloud services used by the account are charged. When retrieving the following SaaS accounts, notice that the `subscriptionId` values in the `cloudAccounts` array objects match the `id` values in the associated subscription arrays for the three cloud providers.



Each cloud account can have exactly zero or one subscription. You must have a subscription when creating a working environment using PAYGO ("pay as you go").

#### 1. Get the SaaS accounts

HTTP method	Resource path
GET	/occm/api/occm/saas-mp-service/account

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/occm/saas-mp-
service/account' --header 'Content-Type: application/json' --header 'x-
agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

**Input parameters**

None

**Output**

The JSON output example shows the subscriptions and in each case the account it is associated with.

**JSON output example**

```

{
  "awsSubscriptions": [
    {
      "id": "awsid00000",
      "name": "aws-sub-a2",
      "provider": "aws",
      "active": true
    }
  ],
  "azureSubscriptions": [],
  "gcpSubscriptions": [
    {
      "id": "gcp-xxxx0000",
      "name": "GCP subscription",
      "provider": "gcp",
      "active": true
    }
  ],
  "eligibleForFreeTrialAws": false,
  "eligibleForFreeTrialGcp": false,
  "eligibleForFreeTrialAzure": false,
  "cloudAccounts": [
    {
      "cloudAccountId": "000000",
      "provider": "aws",
      "subscriptionId": "aws-xxxxx000000xxxxxxx0000"
    },
    {
      "cloudAccountId": "occm-dev",
      "provider": "gcp",
      "subscriptionId": "gcp-xxx00000xxx0000"
    },
    {
      "cloudAccountId": "occm-host",
      "provider": "gcp",
      "subscriptionId": "gcp-xxxx000000xxx00000"
    }
  ]
}

```

### Attach SaaS subscription

You can use this workflow to attach a Cloud Manager SaaS subscription to a cloud provider account.

## 1. Select the cloud provider path parameter

Select the cloud provider from the list of allowed values below. You will use this value as the *provider* path parameter in the curl example in step 4.

- aws
- azure
- gcp

## 2. Determine the account identifier path parameter

Perform the workflow [Get cloud provider accounts](#) and choose the `accountId` value for the account.

## 3. Get the SaaS marketplace account

Perform the workflow [Get SaaS marketplace account](#) and choose the `id` value for the `subscriptionId` parameter.

## 4. Attach the subscription

HTTP method	Resource path
POST	/occm/api/occm/saas-mp-service/attach-subscription/{provider}/{cloudAccountId}

### curl example

```
curl --location --request PUT
'https://cloudmanager.cloud.netapp.com/occm/api/occm/saas-mp-
service/attach-subscription/<PROVIDER>/<CLOUD_ACC_ID>' --header 'x-agent-
id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>' --header
'Content-Type: application/json' --d @JSONinput
```

### Input parameters

The JSON input example includes the input parameter.

### JSON input example

```
{
  "subscriptionId": "gcp-saasMpIntegrationProductId-
saasMpCustomerIdentifier0"
}
```

### Output

None

## NetApp Support Site

## Get an NSS key

You can retrieve the key for a specific NetApp Support Site account.

### 1. Select the account

Perform the workflow [Get supported services](#) and choose the `accountId` value for the path parameter.

### 2. Select the NSS key to retrieve

Perform the workflow [Get NSS keys](#) and choose the `id` value for the `nssKeyId` path parameter.

### 3. Retrieve the NSS key

HTTP method	Resource path
GET	/ipa/account/{accountId}/nss-keys/{nssKeyId}

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/ipa/account/<ACCOUNT_ID>/nss-
key/<NSS_KEY_ID>' --header 'Content-Type: application/json' --header 'x-
agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input parameters

Path parameters:

- `<ACCOUNT_ID>` (`accountId`)
- `<NSS_KEY_ID>` (`nssKeyId`)

#### Output

The NSS key and related information is returned as shown in the JSON output example.

#### JSON output example

```
{
  "id": "d69a5214-7d61-486e-8750-8e1f68601c43",
  "username": "misterziv",
  "resources": [],
  "credentialType": "password"
}
```

## Get NSS keys

You can retrieve all of the available NetApp Support Site credential keys.



## 1. Select the account to use

Perform the workflow [Get cloud provider accounts](#) and choose the `accountId` value for the path parameter.

## 2. Retrieve the NSS keys

HTTP method	Resource path
GET	/ipa/account/{accountId}/nss-keys

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/ipa/account/<ACCOUNT_ID>/nss-
keys?includeResources=true' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>'
```

### Input parameters

- Path parameter `<ACCOUNT_ID>` (`accountId`)
- Query parameter `includeResources` is optional

### Output

The JSON output example includes a list of the NSS keys.

### JSON output example

```
[
  {
    "id": "d69a5214-7d61-486e-8750-8e1f68601c43",
    "username": "zivtest03",
    "resources": [VsaWorkingEnvironment-4UHd0x6l],
    "credentialType": "password"
  },
  {
    "id": "98f2c5db-af76-428f-ae81-08fdfa1e04ae",
    "username": "zivtest23",
    "resources": [],
    "credentialType": "password"
  }
]
```

### Delete an NSS key

You can delete an NetApp Support Site (NSS) key.

### 1. Select the account to use

Perform the workflow [Get supported services](#) and choose the `accountId` value for the path parameter.

### 2. Select the NSS key to delete

Perform the workflow [Get NSS keys](#) and choose the `id` value for the `nssKeyId` parameter.

### 3. Delete the NSS keys

HTTP method	Resource path
DELETE	/ipa/account/{accountId}/nss-keys/{nssKeyId}

#### curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/ipa/account/<ACCOUNT_ID>/nss-
key/<NSS_KEY_ID>' --header 'Content-Type: application/json' --header 'x-
agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input parameters

- Path parameter `<ACCOUNT_ID>` (`accountId`)
- Path parameter `<NSS_KEY_ID>` (`nssKeyId`)

#### Output

None

## Internal tasks and support

### Get active task

All of the requests made to the Cloud Manager REST API are processed asynchronously except those using the HTTP GET method. Each of these asynchronous requests is assigned a unique identifier which is returned to the caller in the response. You can use the request ID to retrieve information about the background task including its status.

#### 1. Get the request identifier

After issuing any REST API call, the associated request identifier is returned in the `X-Response_Id` header. You must extract this value and use it in the path variable in the next step.

#### 2. Get the task

HTTP method	Resource path
GET	/occm/api/audit/activeTask/{request_id}

## curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/audit/activeTask/<REQUEST_ID>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input parameters

Path parameter that contains the request identifier <REQUEST\_ID> for the original task.

## Output

The JSON output example includes the list of returned values. The `status` contains one of three values indicating the status of the task.

Status	Description
1	The asynchronous task completed successfully.
0	The background task is still running and has not completed.
-1	The asynchronous task completed but failed.

## JSON output example

```
{
  "status": 0,
  "closeTime": -2147483648,
  "actionName": "Create Vsa Working Environment",
  "error": null
}
```

## SnapMirror replication

### Create a SnapMirror replication relationship

You can use this workflow to create a new SnapMirror replication relationship to an ONTAP working environment. You can replicate data between working environments by choosing a one-time data replication for data transfer, or a recurring schedule for disaster recovery or long-term retention.



This workflow varies slightly depending on the cloud provider you are using.

### 1. Select the working environment

Based on the cloud provider, you need to perform a workflow to get the identifier for the working environment as shown in the following table.

Provider	Workflow
AWS	Perform the workflow <a href="#">Get working environments</a> and choose the <code>publicId</code> and <code>svmName</code> values for the source and destination.

## 2. Select the LIFs

Perform the workflow [Get intercluster LIFs](#) and choose the `address` value for the source and destination.

## 3. Select the SnapMirror policy

Perform the workflow [Get SnapMirror policies](#) and choose the `name` value for the required schedule.

## 4. Select the SnapMirror schedule

Perform the workflow [Get schedules](#) and choose the `name` value for the required policy.

## 5. Select the volume names and related storage parameters

Based on the cloud provider, you need to perform a workflow to get the volume information.

Provider	Workflow
AWS	Perform the workflow <a href="#">Get volumes</a> and choose the <code>name</code> and <code>svmName</code> and <code>aggregateName</code> values.

## 6. Create a quote

Based on the cloud provider, you need to perform a workflow to get the volume information.

Provider	Workflow
AWS	Perform the workflow <a href="#">Create quote</a> and choose the <code>providerVolumeType</code> and <code>name</code> values.

## 7. Create the relationship

HTTP method	Path
POST	/occm/api/replication/vsa

### curl example

```
curl --location --request POST
'https://cloudmanager.cloud.netapp.com/occm/api/replication/vsa' --header
'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>'
--header 'Authorization: Bearer <ACCESS_TOKEN>' --d @JSONinput
```

### Input

The JSON input example includes the minimum list of input parameters. The `maxTransferRate` is maximum transfer rate limit in KB/s. Specify 0 to indicate no limit or an integer between 1024 and

2,147,482,624.

JSON input example

```
{
  "replicationRequest": {
    "sourceWorkingEnvironmentId": "vsaworkingenvironment-sfrf3wvj",
    "destinationWorkingEnvironmentId": "vsaworkingenvironment-2qkd75xv",
    "sourceInterclusterLifIps": [
      "10.138.0.147"
    ],
    "destinationInterclusterLifIps": [
      "10.138.0.154"
    ],
    "policyName": "MirrorAllSnapshots",
    "scheduleName": "daily",
    "maxTransferRate": 102400
  },
  "replicationVolume": {
    "sourceSvmName": "svm_zivgcp01we02",
    "sourceVolumeName": "zivagg01vol01",
    "destinationVolumeName": "zivagg01vol03_copy",
    "destinationAggregateName": "aggr1",
    "numOfDisksApprovedToAdd": 0,
    "advancedMode": false,
    "destinationProviderVolumeType": "pd-ssd",
    "destinationSvmName": "svm_zivgcp01we03"
  }
}
```

Output

None

Update a SnapMirror replication relationship

You can use this workflow to update an existing SnapMirror replication relationship.

1. Select the working environment and related values

Perform the workflow [Get relationships status](#) and choose the `workingEnvironment` and `svmName` and `volumeName` values for the path parameters. All values are for the destination.

2. Update the relationship

HTTP method	Path
PUT	/occm/api/replication/{workingEnvironmentId}/{destinationSvmName}/{destinationVolumeName}

## curl example

```
curl --location --request PUT
'https://cloudmanager.cloud.netapp.com/occm/api/replication/<WORKING_ENV_ID/<SVM_NAME/<VOLUME_NAME>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer
<ACCESS_TOKEN>' --d @JSONinput
```

## Input

Path parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId)
- <SVM\_NAME> (destinationSvmName)
- <VOLUME\_NAME> (destinationVolumeName)

The JSON input example includes some of the parameters you can update.

## JSON input example

```
{
  "maxTransferRate": 0
}
```

## Output

None

## Delete a SnapMirror replication relationship

You can use this workflow to delete an existing SnapMirror replication relationship.

### 1. Select the working environment and related values

Perform the workflow [Get relationships status](#). Choose the `workingEnvironmentId` and `svmName` and `volumeName` values for the path parameters. All values are for the destination.

### 2. Delete the relationship

HTTP method	Path
DELETE	/occm/api/replication/{destinationWorkingEnvironmentId}/{destinationSvmName}/{destinationVolumeName}

## curl example

```
curl --location --request DELETE
'https://cloudmanager.cloud.netapp.com/occm/api/replication/<WORKING_ENV_ID>/<SVM_NAME>/<VOLUME_NAME>' --header 'Content-Type: application/json'
--header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

### Input

There are three path parameters, all of which apply to the destination:

- <WORKING\_ENV\_ID> (destinationWorkingEnvironmentId)
- <SVM\_NAME> (destinationSvmName)
- <VOLUME\_NAME> (destinationVolumeName)

### Output

None

### Get the SnapMirror relationships

You can retrieve all the SnapMirror relationship pairs.

#### 1. Retrieve the relationships

HTTP method	Path
GET	/occm/api/replication/all-relationships

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/replication/all-relationships' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

### Input parameters

None

### Output

An array of relationship pairs is returned as shown in the JSON output example.

### JSON output example

```
{
  "relationships": [
    {
      "source": {
        "id": "vsaworkingenvironment-sfrf3wvj"
      },
      "target": {
        "id": "vsaworkingenvironment-2qkd75xv"
      }
    }
  ]
}
```

### Get the status of the replication relationships

You can use this workflow to retrieve the status of all the SnapMirror replication relationships.



This workflow varies slightly depending on the cloud provider you are using.

#### 1. Optionally select the tenant ID

Based on the cloud provider, you need to perform a workflow to get the tenant ID as shown in the following table.

Provider	Workflow
AWS	Perform the workflow <a href="#">Get working environments</a> and choose the <code>tenantId</code> value.

#### 2. Get the status of the relationships

HTTP method	Path
GET	/occm/api/replication/status

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/replication/status'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

#### Input

The query parameter `tenantId` is optional.



## Output

The JSON output example includes the list of all the SnapMirror relationships with status.

### JSON output example

```
[
  {
    "source": {
      "workingEnvironmentId": "vsaworkingenvironment-sfrf3wvj",
      "workingEnvironmentType": "VSA",
      "workingEnvironmentStatus": "ON",
      "clusterName": "zivgcp01we02",
      "region": "us-west1-b",
      "availabilityZone": null,
      "svmName": "svm_zivgcp01we02",
      "nodeName": null,
      "volumeName": "zivagg01vol01"
    },
    "destination": {
      "workingEnvironmentId": "vsaworkingenvironment-2qkd75xv",
      "workingEnvironmentType": "VSA",
      "workingEnvironmentStatus": "ON",
      "clusterName": "zivgcp01we03",
      "region": "us-west1-b",
      "availabilityZone": null,
      "svmName": "svm_zivgcp01we03",
      "nodeName": "zivgcp01we03-01",
      "volumeName": "zivagg01vol01_copy"
    },
    "mirrorState": "snapmirrored",
    "relationshipType": "extended_data_protection",
    "relationshipStatus": "idle",
    "relationshipProgress": null,
    "policy": "MirrorAllSnapshots",
    "policyType": "async_mirror",
    "schedule": "daily",
    "maxTransferRate": {
      "size": 102400.0,
      "unit": "KB"
    },
    "networkCompressionRatio": "1:1",
    "healthy": true,
    "unhealthyReason": null,
    "lagTime": {
      "length": 14012,
      "unit": "SECONDS"
    }
  },

```

```

    "newestSnapshotName": "snapmirror.e7179420-5e45-11eb-8f27-
d7fea0402bd2_2150573386.2021-01-25_123451",
    "newestSnapshotCreated": 1611578092,
    "lastTransferInfo": {
      "transferType": "update",
      "transferSize": {
        "size": 6240.0,
        "unit": "Byte"
      },
      "transferDuration": {
        "length": 4,
        "unit": "SECONDS"
      },
      "transferEnded": 1611578097,
      "transferError": null
    },
    "currentTransferInfo": {
      "transferType": null,
      "transferPriority": null,
      "transferError": null
    },
    "totalTransferTime": {
      "length": 6,
      "unit": "SECONDS"
    },
    "totalTransferSize": {
      "size": 23792.0,
      "unit": "Byte"
    },
    "volumeUsedSize": {
      "size": 1032192.0,
      "unit": "Byte"
    },
    "volumeCapacityTier": {
      "size": 0.0,
      "unit": "Byte"
    }
  }
]

```

### Get status of the replication relationships for a working environment

You can use this workflow to retrieve the status of all the SnapMirror replication relationships for a specific working environment.



This workflow varies slightly depending on the cloud provider you are using.

## 1. Select the working environment

Based on the cloud provider, you need to perform a workflow to get the identifier for the working environment as shown in the following table.

Provider	Workflow
AWS	Perform the workflow <a href="#">Get working environments</a> and choose the <code>publicId</code> value for the <code>workingEnvironmentId</code> query parameter.

## 2. Get the status of the relationships

HTTP method	Path
GET	/occm/api/replication/status/{workingEnvironmentId}

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/replication/status/<WORKING_ENV_ID>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

### Input

Path parameters:

- <WORKING\_ENV\_ID> (`workingEnvironmentId`)

### Output

The JSON output example includes the list of all the SnapMirror relationships with status for a specific working environment.

### JSON output example

```
[
  {
    "source": {
      "workingEnvironmentId": "vsaworkingenvironment-sfrf3wvj",
      "workingEnvironmentType": "VSA",
      "workingEnvironmentStatus": "ON",
      "clusterName": "zivgcp01we02",
      "region": "us-west1-b",
      "availabilityZone": null,
      "svmName": "svm_zivgcp01we02",
      "nodeName": null,
      "volumeName": "zivagg01vol01"
    },
    "destination": {
      "workingEnvironmentId": "vsaworkingenvironment-2qkd75xv",
```

```

    "workingEnvironmentType": "VSA",
    "workingEnvironmentStatus": "ON",
    "clusterName": "zivgcp01we03",
    "region": "us-west1-b",
    "availabilityZone": null,
    "svmName": "svm_zivgcp01we03",
    "nodeName": "zivgcp01we03-01",
    "volumeName": "zivagg01vol01_copy"
  },
  "mirrorState": "snapmirrored",
  "relationshipType": "extended_data_protection",
  "relationshipStatus": "idle",
  "relationshipProgress": null,
  "policy": "MirrorAllSnapshots",
  "policyType": "async_mirror",
  "schedule": "daily",
  "maxTransferRate": {
    "size": 102400.0,
    "unit": "KB"
  },
  "networkCompressionRatio": "1:1",
  "healthy": true,
  "unhealthyReason": null,
  "lagTime": {
    "length": 14886,
    "unit": "SECONDS"
  },
  "newestSnapshotName": "snapmirror.e7179420-5e45-11eb-8f27-d7fea0402bd2_2150573386.2021-01-25_123451",
  "newestSnapshotCreated": 1611578092,
  "lastTransferInfo": {
    "transferType": "update",
    "transferSize": {
      "size": 6240.0,
      "unit": "Byte"
    },
    "transferDuration": {
      "length": 4,
      "unit": "SECONDS"
    },
    "transferEnded": 1611578097,
    "transferError": null
  },
  "currentTransferInfo": {
    "transferType": null,
    "transferPriority": null,

```

```

        "transferError": null
    },
    "totalTransferTime": {
        "length": 6,
        "unit": "SECONDS"
    },
    "totalTransferSize": {
        "size": 23792.0,
        "unit": "Byte"
    },
    "volumeUsedSize": {
        "size": 1032192.0,
        "unit": "Byte"
    },
    "volumeCapacityTier": {
        "size": 0.0,
        "unit": "Byte"
    }
}
]

```

## Get the intercluster LIFs

You can use this workflow to retrieve the intercluster LIFs used in a cluster peering relationship.



This workflow varies slightly depending on the cloud provider you are using.

### 1. Select the working environment

Based on the cloud provider, you need to perform a workflow to get the identifier for the working environment as shown in the following table.

Provider	Workflow
AWS	Perform the workflow <a href="#">Get working environments</a> and choose the <code>publicId</code> values for the working environment query parameters.

### 2. Get the intercluster LIFs

HTTP method	Path
GET	/occm/api/replication/intercluster-lifs

#### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/replication/interclusterlifs?workingEnvironmentId=<WORKING_ENV_ID>&peerWorkingEnvironmentId=<WORKING_ENV_ID>' --header 'Content-Type: application/json' --header 'x-agent-id: <AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

## Input

Query parameters:

- <WORKING\_ENV\_ID> (workingEnvironmentId)
- <WORKING\_ENV\_ID> (peerWorkingEnvironmentId)

## Output

The JSON output example includes the list of LIFs.

### JSON output example

```
{
  "interClusterLifs": [
    {
      "name": "intercluster",
      "address": "10.138.0.154",
      "netmaskLength": 32,
      "port": "e0a",
      "node": "zivgcp01we03-01",
      "status": "up",
      "isPeered": true
    }
  ],
  "peerInterClusterLifs": [
    {
      "name": "intercluster",
      "address": "10.138.0.147",
      "netmaskLength": 32,
      "port": "e0a",
      "node": "zivgcp01we02-01",
      "status": "up",
      "isPeered": true
    }
  ]
}
```

## Get the replication schedules

You can use this workflow to retrieve the replication schedules used for a specific working

environment.



This workflow varies slightly depending on the cloud provider you are using.

## 1. Select the working environment

Based on the cloud provider, you need to perform a workflow to get the identifier for the working environment as shown in the following table.

Provider	Workflow
AWS	Perform the workflow <a href="#">Get working environments</a> and choose the <code>publicId</code> value for the working environment path parameter.

## 2. Get the schedules

HTTP method	Path
GET	/occm/api/replication/schedules/{workingEnvironmentId}

### curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/replication/schedules/<WORKING_ENV_ID>' --header 'Content-Type: application/json' --header 'x-agent-id:<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

### Input

Path parameter <WORKING\_ENV\_ID> (`workingEnvironment`)

### Output

The JSON output example includes the list of replication schedules.

### JSON output example

```
[
  {
    "name": "10min",
    "description": "@:00,:10,:20,:30,:40,:50",
    "cronJobSchedule": {
      "months": [],
      "days": [],
      "weekDays": [],
      "hours": [],
      "minutes": [
        0,
        10,
        20,
        30,
        40,
        50
      ]
    }
  },
  {
    "name": "5min",
    "description": "@:00,:05,:10,:15,:20,:25,:30,:35,:40,:45,:50,:55",
    "cronJobSchedule": {
      "months": [],
      "days": [],
      "weekDays": [],
      "hours": [],
      "minutes": [
        0,
        5,
        10,
        15,
        20,
        25,
        30,
        35,
        40,
        45,
        50,
        55
      ]
    }
  }
]
```



# API reference

This section contains the details of the Cloud Volumes ONTAP REST API calls, including resources, endpoints, parameters, and status codes. You can refer to this content when developing applications that use the REST API.

## Resources

This section describes the API calls available for each resource.

### Accounts

**Creates an AWS account.**

```
POST /accounts/aws
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		true	<a href="#">AwsAccountRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AwsAccountResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves an Nss account by public Id.**

```
GET /accounts/nss/{cloudProviderAccountId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	cloudProviderAccountId	Public Id of Nss account	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">NssAccountResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Updates an existing Nss account.**

```
PUT /accounts/nss/{cloudProviderAccountId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	cloudProviderAccountId	Public Id of Nss account	true	string	
BodyParameter	body		false	<a href="#">NssAccountRequest</a>	

## Responses

HTTP Code	Description	Schema
200	success	<a href="#">NssAccountResponse</a>
404	Nss Account with the given account id does not exist	No Content

## Consumes

- application/json

## Produces

- application/json

**get aws cloud account id for the given creds.**

```
POST /accounts/aws/validate-creds
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		true	<a href="#">AwsAccountRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	string

## Consumes

- application/json

## Produces

- application/json

**Retrieves all accounts that are only for cloud (AWS, AZURE, GCP).**

```
GET /accounts/cloud-providers
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	providerType		false	enum (AWS, AZURE, GCP)	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CloudProviderAccountResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Deletes an existing account. It is not possible to delete an account that has working environments attached to it.**

```
DELETE /accounts/{cloudProviderAccountId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	cloudProviderAccountId	Public Id of the account to be deleted	true	string	

## Responses

HTTP Code	Description	Schema
404	Account with the given account id does not exist	No Content

## Consumes

- application/json

## Produces

- application/json

## Retrieves accounts.

```
GET /accounts
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	providerType		false	enum (AWS, AZURE, GCP, NSS)	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CloudProviderAccountResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Retrieve Gcp Storage account by public Id.

```
GET /accounts/gcp/{cloudProviderAccountId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	cloudProviderAccountId	Public Id of Gcp Storage account	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpAccountResponse</a>

### Consumes

- application/json

### Produces

- application/json

## Updates an existing Gcp storage account.

```
PUT /accounts/gcp/{cloudProviderAccountId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	cloudProviderAccountId	Public Id of Gcp storage account	true	string	
BodyParameter	body		false	<a href="#">GcpStorageAccountRequest</a>	

### Responses

HTTP Code	Description	Schema
200	success	<a href="#">GcpAccountResponse</a>
404	Gcp Storage Account with the given account does not exist	No Content

### Consumes

- application/json

### Produces

- application/json

Retrieves an AWS account by public Id.

```
GET /accounts/aws/{cloudProviderAccountId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	cloudProviderAccountId	Public Id of AWS account	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AwsAccountResponse</a>

### Consumes

- application/json

### Produces

- application/json

Updates an existing AWS account.

```
PUT /accounts/aws/{cloudProviderAccountId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	cloudProviderAccountId	Public Id of AWS account	true	string	
BodyParameter	body		false	<a href="#">AwsAccountRequest</a>	

### Responses

HTTP Code	Description	Schema
200	success	<a href="#">AwsAccountResponse</a>
404	AWS Account with the given account id does not exist	No Content

### Consumes

- application/json

### Produces

- application/json

**Retrieves an Azure account by public Id.**

```
GET /accounts/azure/{cloudProviderAccountId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	cloudProviderAccountId	Public Id of Azure account	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureAccountResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Updates an existing Azure account.**

```
PUT /accounts/azure/{cloudProviderAccountId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	cloudProviderAccountId	Public Id of Azure account	true	string	

Type	Name	Description	Required	Schema	Default
BodyParameter	body		false	<a href="#">AzureAccountRequest</a>	

## Responses

HTTP Code	Description	Schema
200	success	<a href="#">AzureAccountResponse</a>
404	Azure Account with the given account id does not exist	No Content

## Consumes

- application/json

## Produces

- application/json

**Create a Gcp Storage account.**

```
POST /accounts/gcp
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		true	<a href="#">GcpStorageAccountRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpAccountResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Creates an Azure account.**

```
POST /accounts/azure
```



### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		true	<a href="#">AzureAccountRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureAccountResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Validate an Azure account request.

```
POST /accounts/azure/validate-creds
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		true	<a href="#">AzureAccountRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AssociatedSubscription</a> array

### Consumes

- application/json

### Produces

- application/json

### Creates a Nss account.

```
POST /accounts/nss
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		true	<a href="#">NssAccountRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">NssAccountResponse</a>

## Consumes

- application/json

## Produces

- application/json

**validate gcp account request.**

```
POST /accounts/gcp/validate-creds
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		true	<a href="#">GcpStorageAccountRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	string

## Consumes

- application/json

## Produces

- application/json

**Updates vsa list of an existing Nss account.**

```
PUT /accounts/nss/set-vsa-list/{cloudProviderAccountId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	cloudProviderAccountId	Public Id of Nss account	true	string	
BodyParameter	body		false	<a href="#">NssAccountVsalistRequest</a>	

## Responses

HTTP Code	Description	Schema
200	success	<a href="#">NssAccountResponse</a>
404	Nss Account with the given account id does not exist	No Content

## Consumes

- application/json

## Produces

- application/json

## Audit

Retrieves the audit group entry for the specific request ID.

```
GET /audit/{requestId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	requestId	Retrieve audit group entries for this request ID	true	string	
QueryParameter	records	with records	false	boolean	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AuditGroupSummary</a> array

## Consumes

- application/json

## Produces

- application/json

Retrieves timeline filter options for local UI.

```
GET /audit/local/audit/{accountId}/options
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CloudCentralAuditOptionsResponse</a>

## Consumes

- application/json

## Produces

- application/json

Retrieves audit record for given request id for local UI.

```
GET /audit/local/audit/{accountId}/{service}/{requestId}/records
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	requestId	request ID	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CloudCentralAuditRecordResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieve active task for this request ID.**

```
GET /audit/activeTask/{requestId}
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	requestId	request ID	true	string	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">TaskCacheEntry</a>

#### Consumes

- application/json

#### Produces

- application/json

**Retrieves audit group entries optionally filtered by query parameters for local UI.**

```
GET /audit/local/audit/{accountId}
```

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">CloudCentralAuditGroupResponse</a> array

#### Consumes

- application/json

#### Produces

- application/json

**Retrieves audit group entries optionally filtered by query parameters.**

```
GET /audit
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	limit	Limit entries to specific amount	false	integer (int32)	
QueryParameter	after	Filter entries after specific date	false	integer (int64)	
QueryParameter	workingEnvironmentId	Filter entries by working environment public ID	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AuditGroupSummary</a> array

## Consumes

- application/json

## Produces

- application/json

Retrieves audit groups and group records optionally filtered by query parameters.

```
GET /audit/auditserver
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AuditGroupSummary</a> array

## Consumes

- application/json

## Produces

- application/json

**Aws-ha:aggregates**

## Creates a new aggregate

POST /aws/ha/aggregates

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create Aggregate Request	true	<a href="#">VsaAggregateCreateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

## Retrieves aggregates

GET /aws/ha/aggregates

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Public Id of working environment	false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AggregateResponse</a> array

### Consumes

- application/json

### Produces

- application/json

## Adds disks to an existing aggregate

```
POST /aws/ha/aggregates/{workingEnvironmentId}/{aggregateName}/disks
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	aggregateName	Name of aggregate to be updated	true	string	
BodyParameter	body	Add disk to aggregate request	true	<a href="#">AddDisksToAggregateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Deletes an existing aggregate

```
DELETE /aws/ha/aggregates/{workingEnvironmentId}/{aggregateName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	aggregateName	Name of aggregate to be deleted	true	string	

### Consumes

- application/json

### Produces

- application/json



Retrieves a list of discovered working environments visible to the current user in the specified AWS region.

```
GET /aws/ha/discovery/discover
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region	Region to discover working environments	true	string	
QueryParameter	cloudProviderAccountId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">DiscoveredAwsHaResponse</a> array

### Consumes

- application/json

### Produces

- application/json

Saves a previously discovered Cloud Volumes ONTAP working environment to the Cloud Manager database.

```
POST /aws/ha/discovery/recover
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Working environment	true	<a href="#">RecoverVsaRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaWorkingEnvironmentResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Aws-ha:encryption

### Updates the key manager CA certificate on the Cloud Volumes ONTAP system

```
POST /aws/ha/encryption/{workingEnvironmentId}/update-key-manager-ca-certificate
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Update Cloud Volumes ONTAP key manager CA certificate request parameters	true	<a href="#">UpdateKeyManagerCaCertificateRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Updates the client certificate on the Cloud Volumes ONTAP system

```
POST /aws/ha/encryption/{workingEnvironmentId}/update-client-certificate
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Adds a key manager to the Cloud Volumes ONTAP system

```
POST /aws/ha/encryption/{workingEnvironmentId}/key-managers/{keyManagerIp}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	keyManagerIp	Key manager IP address	true	string	

## Consumes

- application/json

## Produces

- application/json

## Deletes a key manager from the Cloud Volumes ONTAP system

```
DELETE /aws/ha/encryption/{workingEnvironmentId}/key-managers/{keyManagerIp}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	keyManagerIp	Key manager IP address	true	string	

## Consumes

- application/json

## Produces

- application/json

## Aws-ha:metadata

## Retrieves VPCs

```
GET /aws/ha/metadata/vpcs
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	roleArn		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VpcExtendedResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieves the minimum number of required IPs for a single Cloud Volumes ONTAP system, an HA node, and HA mediator**

```
GET /aws/ha/metadata/network-requirements
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">NetworkRequirementsResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves AWS user Key Pairs for all regions**

```
GET /aws/ha/metadata/key-pairs-by-region
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	roleArn		false	string	
QueryParameter	cloudProviderAccountid		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">KeyPairsByRegionResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves AWS user Key Pairs for specific region**

```
GET /aws/ha/metadata/key-pairs
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	roleArn		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	string array

## Consumes

- application/json

## Produces

- application/json

## Retrieves all the Tag names

```
GET /aws/ha/metadata/tag-keys
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	roleArn		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">TagKeyResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves supported capacity tiers for EBS volume types

```
GET /aws/ha/metadata/supported-capacity-tiers
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	ontapVersion		true	string	
QueryParameter	dataEncryptionType		true	string	
QueryParameter	licenseType		true	string	
QueryParameter	instanceType		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportedCapacityTiers</a>

### Consumes

- application/json

### Produces

- application/json

## Retrieves packages configuration

```
GET /aws/ha/metadata/packages
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">PackageInfoResponse</a> array

### Consumes

- application/json

### Produces

- application/json

### Retrieves default snapshot policies available on a cluster

```
GET /aws/ha/metadata/default-snapshot-policies
```

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotPolicy</a> array

#### Consumes

- application/json

#### Produces

- application/json

Retrieves all Cloud Manager manifests. Refer to the API Developers Guide in order to understand how to extract valid region codes, license types, instance types and Cloud Volumes ONTAP version parameters for the creation of a Cloud Volumes ONTAP working environment.

```
GET /aws/ha/metadata/manifests
```

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">MetadataResponse</a>

#### Consumes

- application/json

#### Produces

- application/json

### Retrieves AWS encryption keys for specific region

```
GET /aws/ha/metadata/aws-encryption-keys
```

#### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	roleArn		false	string	



Type	Name	Description	Required	Schema	Default
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AwsEncryptionKey</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieve all S3 buckets

```
GET /aws/ha/metadata/buckets
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	tagsRequired		false	boolean	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">S3BucketInfo</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves all Cloud Volumes ONTAP configurations.

```
GET /aws/ha/metadata/permutations
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region	Filter by region	false	string	
QueryParameter	version	Filter by version	false	string	
QueryParameter	license	Filter by license	false	string	
QueryParameter	instance_type	Filter by instance type	false	string	
QueryParameter	default_instance_type	Filter by default instance type	false	string	
QueryParameter	feature	Filter by feature	false	string	
QueryParameter	latest_only	Filter latest only	false	string	
QueryParameter	ami	Filter by ami id	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">Configuration</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieves route tables per vpc and their subnet associations.**

```
GET /aws/ha/metadata/route-tables
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	vpclId		true	string	
QueryParameter	roleArn		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">RouteTableResponse</a> array

#### Consumes

- application/json

#### Produces

- application/json

#### Create new S3 bucket

```
POST /aws/ha/metadata/create-bucket
```

#### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	bucketName		true	string	

#### Consumes

- application/json

#### Produces

- application/json

#### Retrieve all S3 buckets with additional info

```
GET /aws/ha/metadata/get-buckets-details
```

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">S3BucketsSummary</a>

#### Consumes

- application/json

#### Produces

- application/json

## Retrieves AWS instance profiles

```
GET /aws/ha/metadata/instance-profiles
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	roleArn		false	string	
QueryParameter	cloudProviderAccountId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">InstanceProfileResponse</a> array

### Consumes

- application/json

### Produces

- application/json

## Retrieves instance types not supporting acceleration and capacity tiering

```
GET /aws/ha/metadata/instance-types-not-supporting-acceleration-and-capacity-tiering
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">InstanceTypesNotSupportingAccelerationAndCapacityTieringResponse</a>

### Consumes

- application/json

### Produces

- application/json

## Retrieves supported features

```
GET /aws/ha/metadata/supported-features
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	ontapVersion		true	string	
QueryParameter	dataEncryptionType		true	string	
QueryParameter	licenseType		true	string	
QueryParameter	instanceType		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportedFeaturesResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Retrieves supported EBS volume types

```
GET /aws/ha/metadata/ebs-volume-types
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">EbsVolumeType</a> array

### Consumes

- application/json

### Produces

- application/json

## Retrieves AWS regions over which an Cloud Volumes ONTAP working environment may be created

```
GET /aws/ha/metadata/regions
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">Region</a> array

### Consumes

- application/json

### Produces

- application/json

## Retrieve S3 buckets policy status and tiering level

```
POST /aws/ha/metadata/get-buckets-application-info
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Request for retrieving Buckets Additional info	true	<a href="#">BucketsPolicyAndTieringInfoRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">BucketAdditionalData</a> array

### Consumes

- application/json

### Produces

- application/json

## Validate HA floating IPs.

```
POST /aws/ha/metadata/validate-floating-ips
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Validate HA floating IPs request	true	<a href="#">AwsHaFloatingIpValidationData</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AwsHaFloatingIpValidationResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Validates the current user is subscribed to Cloud Volumes ONTAP product in Amazon marketplace**

```
POST /aws/ha/metadata/validate-subscribed-to-ontap-cloud
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Validate subscribed to Cloud Volumes ONTAP request	true	<a href="#">AwsValidateSubscribedToOntapCloudRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AwsValidateSubscribedToOntapCloudResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Retrieve S3 buckets summary

```
GET /aws/ha/metadata/s3-summary
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">S3Summary</a>

### Consumes

- application/json

### Produces

- application/json

### Aws-ha:volumes

**Retrieves volumes for Backup Activation.**Operation may only be performed on working environments whose status is: **ON**, **DEGRADED**

```
GET /aws/ha/volumes/volumes-for-backup
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	
QueryParameter	offset	offset	false	integer (int32)	
QueryParameter	limit	limit	false	integer (int32)	
QueryParameter	search	search	false	string	
QueryParameter	filterBy	filterBy should be of the form field:value. For multiple filters use comma separator.	false	ref	
QueryParameter	sortBy	sortBy should be of the form field:Asc or field:Desc. For multiple sorting use comma separator.	false	ref	



## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumesListForBackup</a>

## Consumes

- application/json

## Produces

- application/json

**Change underlying volume tier.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /aws/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/change-tier
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">ChangeVolumeTierRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Create snapshot manually.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /aws/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotCreateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Delete snapshot manually.** Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
DELETE
/aws/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotDeleteRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Return a list of snapshot descriptions for the volume.** Operation may only be performed on working environments whose status is: **ON, DEGRADED**

GET

/aws/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshots

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotResponse</a> array

### Consumes

- application/json

### Produces

- application/json

### Add iSCSI initiator.

POST /aws/ha/volumes/initiator

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	iSCSI initiator request	true	<a href="#">Initiator</a>	

### Consumes

- application/json

### Produces

- application/json

### Get all iSCSI initiators.

```
GET /aws/ha/volumes/initiator
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">InitiatorEntry</a> array

## Consumes

- application/json

## Produces

- application/json

**Creates a new volume. If the properties aggregateName and maxNumOfDisksApprovedToAdd are not filled in, then the response will fail with a suggested aggregate name and the number of disks that will need to be created in order to fulfill the request. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
POST /aws/ha/volumes
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	createAggregateIfNotFound	On create volume request, allow creating not-found aggregate	false	boolean	
BodyParameter	body	Create volume request	true	<a href="#">VsaVolumeCreateRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Retrieves volumes. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
GET /aws/ha/volumes
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumeResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Get all igroups.

```
GET /aws/ha/volumes/igroups/{workingEnvironmentId}/{svmName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">IGroup</a> array

## Consumes

- application/json

## Produces

- application/json

**Move an existing volume.**Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
POST /aws/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/move
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">VolumeMoveRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Quotes a new volume. Returns a resource quote needed to satisfy the requested volume.**Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
POST /aws/ha/volumes/quote
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Quote volume request	true	<a href="#">VsaVolumeQuoteRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaVolumeQuoteResponse</a>

### Consumes

- application/json

## Produces

- application/json

**Clones an existing volume.** Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /aws/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/clone
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">VolumeCloneRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Modify an existing volume.** Operation may only be performed on working environments whose status is: ON, DEGRADED

```
PUT /aws/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	ref	
BodyParameter	body	Modify volume request	true	<a href="#">VolumeModifyRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Deletes an existing volume.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
DELETE /aws/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	

## Consumes

- application/json

## Produces

- application/json

## Aws-ha:working-environments

### Register extra capacity license

```
POST /aws/ha/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity licenses(s)	true	<a href="#">LicensesContent</a>	

## Consumes

- application/json



## Produces

- application/json

## Get extra capacity licenses for cvo

```
GET /aws/ha/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	

## Consumes

- application/json

## Produces

- application/json

## Update extra capacity license

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity license(s)	true	<a href="#">LicensesContent</a>	

## Consumes

- application/json

## Produces

- application/json

## Uploads a Cloud license file content on the provided Cloud Volumes ONTAP

```
POST /aws/ha/working-environments/{workingEnvironmentId}/upload-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	license file content request	true	<a href="#">LicenseFileContent</a>	

### Consumes

- application/json

### Produces

- application/json

## Activate FPolicy for ransomware files

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/activate-fpolicy
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

### Consumes

- application/json

### Produces

- application/json

## Disable FPolicy for ransomware files

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/disable-fpolicy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Consumes

- application/json

## Produces

- application/json

## Modify the net port broadcast domain mtu of the Cloud Volumes ONTAP

```
PUT /aws/ha/working-  
environments/{workingEnvironmentId}/networkOptimization
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Use optimization	true	<a href="#">ChangeNetworkOptimizationRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Setup NTP server

```
POST /aws/ha/working-environments/{workingEnvironmentId}/ntp
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	NTP Configuration request	true	<a href="#">NTPConfigurationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Retrieves editable tags for cloud resources of a given Cloud Volumes ONTAP instance

```
GET /aws/ha/working-environments/{workingEnvironmentId}/user-tags
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">UserTagsResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Modify user tags for cloud resources of a given Cloud Volumes ONTAP instance

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/user-tags
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Modify user tags request	true	<a href="#">ModifyUserTagsRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Retrieves images already installed on the Cloud Volumes ONTAP

```
GET /aws/ha/working-environments/{workingEnvironmentId}/ontap-available-images
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">UpdateLocalImage</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves an HA Cloud Volumes ONTAP working environment.

```
GET /aws/ha/working-environments/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
PathParameter	workingEnvironmentId		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaWorkingEnvironmentResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Deletes an existing Cloud Volumes ONTAP working environment, including all Cloud resources created for this working environment (unless the localDelete flag is set to true)**

```
DELETE /aws/ha/working-environments/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	localDelete	If true, the Cloud Volumes ONTAP instance is not terminated in Cloud, but Cloud Manager no longer manages the working environment.	false	boolean	false

Type	Name	Description	Required	Schema	Default
QueryParameter	forceDelete	If true, the working environment will be deleted even if it is part of one or more SnapMirror relationships.	false	boolean	false

### Consumes

- application/json

### Produces

- application/json

### Register extra capacity serials

```
POST /aws/ha/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	licenses serial(s)	true	<a href="#">LicensesSerials</a>	

### Consumes

- application/json

### Produces

- application/json

### Update extra capacity serials

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity serial(s)	true	<a href="#">LicensesSerials</a>	

### Consumes

- application/json

### Produces

- application/json

### Delete extra capacity licenses by serials

```
DELETE /aws/ha/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity serial(s)	true	<a href="#">LicensesSerials</a>	

### Consumes

- application/json

### Produces

- application/json

### Change tier level

```
POST /aws/ha/working-environments/{workingEnvironmentId}/change-tier-level
```

### Parameters



Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Change tier level request	true	<a href="#">ChangeTierLevelRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

#### Stops a specific Cloud Volumes ONTAP instance

```
POST /aws/ha/working-environments/{workingEnvironmentId}/stop
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	takeSnapshots	Take snapshots before stopping Cloud Volumes ONTAP	true	boolean	true

#### Consumes

- application/json

#### Produces

- application/json

#### Setup a new CIFS using workgroup configuration to an existing Cloud Volumes ONTAP working environment

```
POST /aws/ha/working-environments/{workingEnvironmentId}/cifs-workgroup
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSWorkgroup ConfigurationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Modify the svm name of the Cloud Volumes ONTAP

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/svm
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Svm name modification request	true	<a href="#">SvmNameModificationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Updates default vscan file operation profile. Profile on existing CIFS shares will change only on writes-only mode**

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/vscan-file-op
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Vscan file-operation Request	true	<a href="#">VscanFileOpRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Starts a specific Cloud Volumes ONTAP instance

```
POST /aws/ha/working-environments/{workingEnvironmentId}/start
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Consumes

- application/json

### Produces

- application/json

### Checks for the presence of non-persistent locks held on CIFS Sessions.

```
GET /aws/ha/working-environments/{workingEnvironmentId}/cifs-locks-exist
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Responses

HTTP Code	Description	Schema
default	success	boolean

## Consumes

- application/json

## Produces

- application/json

## Activate snapshot policy assignment to all not protected rw volumes

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/activate-snapshot-policy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	

## Consumes

- application/json

## Produces

- application/json

## Retrieves a list of versions to which this Cloud Volumes ONTAP can be upgraded

```
GET /aws/ha/working-environments/{workingEnvironmentId}/occm-provided-upgrade-versions
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">OntapUpdateImageMetadata</a> array

## Consumes

- application/json

## Produces

- application/json

## Working Environment Ontap Saving

```
GET /aws/ha/working-environments/{workingEnvironmentId}/ontap-saving
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkingEnvironmentOntapSavingResponse</a>

## Consumes

- application/json

## Produces

- application/json

Updates mediator of the specified Cloud Volumes ONTAP with the given version. Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /aws/ha/working-environments/{workingEnvironmentId}/update-mediator
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

#### Consumes

- application/json

#### Produces

- application/json

#### Setup a new CIFS Configuration to an existing Cloud Volumes ONTAP working environment

```
POST /aws/ha/working-environments/{workingEnvironmentId}/cifs
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSConfigurationRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

#### Retrieves CIFS Configuration to an existing Cloud Volumes ONTAP working environment

```
GET /aws/ha/working-environments/{workingEnvironmentId}/cifs
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	svm		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CIFSConfigurationResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Working Environment Cost And Usage

```
GET /aws/ha/working-environments/{workingEnvironmentId}/cost-and-usage
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	start	cost and usage start period	false	string	
QueryParameter	end	cost and usage end period	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkingEnvironmentCostAndUsageResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Sets the writing speed for Cloud Volumes ONTAP

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/writing-speed
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Writing speed request	true	<a href="#">WritingSpeedRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Activate offbox configuration

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/offbox
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Consumes

- application/json

## Produces

- application/json

## Performs a complete image update operation on the single node of the specified Cloud Volumes ONTAP

```
POST /aws/ha/working-environments/{workingEnvironmentId}/update-image
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	



Type	Name	Description	Required	Schema	Default
BodyParameter	body	Update system image request	true	<a href="#">UpdateSystemImageRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

#### Updates Cloud Manager password of a specific Cloud Volumes ONTAP

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/update-credentials
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Update Cloud Manager password request	true	<a href="#">UpdateCredentialsRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

#### Delete CIFS Configuration of an existing Cloud Volumes ONTAP working environment

```
POST /aws/ha/working-environments/{workingEnvironmentId}/delete-cifs
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

Type	Name	Description	Required	Schema	Default
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSDeleteRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

#### Create snapshot policy

```
POST /aws/ha/working-environments/{workingEnvironmentId}/snapshot-policy
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
BodyParameter	body	Create snapshot policy request	true	<a href="#">SnapshotPolicyCreateRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

#### Manually triggers subscription sync for all Cloud Volumes ONTAP working environments

```
POST /aws/ha/working-environments/sync-subscription
```

#### Consumes

- application/json

#### Produces

- application/json

## Change serial number of Cloud Volumes ONTAP

```
POST /aws/ha/working-environments/{workingEnvironmentId}/change-serial
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Change serial number request	true	<a href="#">ChangeSerialNumberRequest</a>	

### Consumes

- application/json

### Produces

- application/json

Updates the route tables of an HA Cloud Volumes ONTAP working environment. Operation may only be performed on working environments whose status is: ON, DEGRADED

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/route-tables
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
BodyParameter	body		true	<a href="#">UpdateRouteTablesRequest</a>	

### Consumes

- application/json

### Produces

- application/json

## Delete FPolicy for ransomware files

```
DELETE /aws/ha/working-environments/{workingEnvironmentId}/fpolicy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Consumes

- application/json

## Produces

- application/json

**Retrieves all license types and their associated instance types for a given Cloud Volumes ONTAP instance**

```
GET /aws/ha/working-environments/{workingEnvironmentId}/license-instance-type
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">LicenseAndInstanceType</a> array

## Consumes

- application/json

## Produces

- application/json

**Sets the instance type of a specific Cloud Volumes ONTAP**

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/license-instance-type
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Instance type modification request	true	<a href="#">LicenseAndInstanceTypeModificationRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Creates a new AWS HA Cloud Volumes ONTAP working environment.**

```
POST /aws/ha/working-environments
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Working environment	true	<a href="#">CreateAwsHaWorkingEnvironmentRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaWorkingEnvironmentResponse</a>

## Consumes

- application/json

## Produces

- application/json

**List start-stop schedules for Cloud Volumes ONTAP**

```
GET /aws/ha/working-environments/{workingEnvironmentId}/schedules
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaSchedule</a> array

## Consumes

- application/json

## Produces

- application/json

## Set schedules for Cloud Volumes ONTAP

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/schedules
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Cloud Volumes ONTAP working environment update schedule request	true	<a href="#">VsaSchedulesRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Sets the cluster password of a specific Cloud Volumes ONTAP

```
PUT /aws/ha/working-environments/{workingEnvironmentId}/set-password
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	occmOnly		false	boolean	
BodyParameter	body	Set password request	true	<a href="#">PasswordWrapper</a>	

## Consumes

- application/json

## Produces

- application/json

## Uploads a Cloud license file on the provided Cloud Volumes ONTAP

```
POST /aws/ha/working-environments/{workingEnvironmentId}/upload-license-file
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
HeaderParameter	filename	Cloud license file name	false	string	
BodyParameter	license	license	false	string	

## Consumes

- multipart/form-data

## Produces

- application/json

## Retrieves action parameters used in create request of a given Cloud Volumes ONTAP instance

```
GET /aws/ha/working-environments/{workingEnvironmentId}/create-request-parameters
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CreateRequestParametersResponse</a>

## Consumes

- application/json

## Produces

- application/json

Retrieves eligibility support status of a Cloud Volumes ONTAP system. Valid values - NSS\_NOT\_VALID, NOT\_REGISTERED, IPA\_PROBLEM, VALID, NSS\_NOT\_EXISTS, LICENSE\_EXPIRED

```
GET /aws/ha/working-environments/{workingEnvironmentId}/update-eligibility
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
200	success	<a href="#">EligibilityResponse</a>
400	Working Environment must be ON or UPDATING in order to check eligibility	No Content

## Consumes

- application/json



## Produces

- application/json

## Enable capacity tiering

```
POST /aws/ha/working-environments/{workingEnvironmentId}/enable-capacity-tiering
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Enable capacity tiering request	false	<a href="#">EnableCapacityTieringRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Parses an uploaded Cloud license file

```
POST /aws/ha/working-environments/parse-license-file
```

## Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	filename	Cloud license file name	false	string	
BodyParameter	license	license	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">ProvidedLicenseResponse</a>

## Consumes

- multipart/form-data

## Produces

- application/json

## Registers a Cloud Volumes ONTAP system with NetApp

```
POST /aws/ha/working-environments/{workingEnvironmentId}/support-registration
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	nssAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportRegistrationResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Retrieves the support registration status of a Cloud Volumes ONTAP system

```
GET /aws/ha/working-environments/{workingEnvironmentId}/support-registration
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportRegistrationResponse</a>

#### Consumes

- application/json

#### Produces

- application/json

#### Azure-ha:aggregates

#### Creates a new aggregate

```
POST /azure/ha/aggregates
```

#### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create Aggregate Request	true	<a href="#">VsaAggregateCreateRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

#### Retrieves aggregates

```
GET /azure/ha/aggregates/{workingEnvironmentId}
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AggregateResponse</a> array

### Consumes

- application/json

### Produces

- application/json

### Deletes an existing aggregate

```
DELETE /azure/ha/aggregates/{workingEnvironmentId}/{aggregateName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	aggregateName	Name of aggregate to be deleted	true	string	

### Consumes

- application/json

### Produces

- application/json

### Adds disks to an existing aggregate

```
POST /azure/ha/aggregates/{workingEnvironmentId}/{aggregateName}/disks
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	aggregateName	Name of aggregate to be updated	true	string	
BodyParameter	body	Add disk to aggregate request	true	<a href="#">AddDisksToAggregateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Azure-ha:discovery

Retrieves a list of discovered working environments visible to the current user in the specified Azure region.

```
GET /azure/ha/discovery/discover
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region	Region to discover working environments	true	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">DiscoveredAzureHaResponse</a> array

### Consumes

- application/json

### Produces

- application/json

Saves a previously discovered Cloud Volumes ONTAP working environment to the Cloud Manager database.

```
POST /azure/ha/discovery/recover
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Working environment	true	<a href="#">RecoverAzureHAResponse</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureVsaWorkingEnvironmentResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Azure-ha:metadata

## Retrieves Network Extended Info

```
GET /azure/ha/metadata/vnets
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureNetworkExtendedResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Retrieves all the Tag names

```
GET /azure/ha/metadata/tag-keys
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">TagKeyResponse</a> array

### Consumes

- application/json

### Produces

- application/json

## Retrieve all vaults

```
GET /azure/ha/metadata/vaults
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	
QueryParameter	region		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureKeyVault</a> array

### Consumes

- application/json

## Produces

- application/json

## Create new blob container

```
POST /azure/ha/metadata/create-container
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create blob container request	true	<a href="#">CreateBlobContainerRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Retrieves supported capacity tiers for Azure disk types

```
GET /azure/ha/metadata/supported-capacity-tiers
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	ontapVersion		true	string	
QueryParameter	dataEncryptionType		true	string	
QueryParameter	licenseType		true	string	
QueryParameter	instanceType		true	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportedCapacityTiers</a>



### Consumes

- application/json

### Produces

- application/json

### Retrieve all blob containers

```
GET /azure/ha/metadata/containers
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	
QueryParameter	resourceGroupName		true	string	
QueryParameter	storageAccountName		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureBlobContainer</a> array

### Consumes

- application/json

### Produces

- application/json

### Retrieves associated subscriptions

```
GET /azure/ha/metadata/associated-subscriptions
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AssociatedSubscription</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieve all keys in a vault

```
GET /azure/ha/metadata/keys-vault
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	
QueryParameter	resourceGroupName		true	string	
QueryParameter	vaultName		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureKey</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves Azure regions over which an Cloud Volumes ONTAP working environment may be created

```
GET /azure/ha/metadata/regions
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureRegionResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves instance types not supporting acceleration and capacity tiering

```
GET /azure/ha/metadata/instance-types-not-supporting-acceleration-and-capacity-tiering
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">InstanceTypesNotSupportingAccelerationAndCapacityTieringResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Validates the current user is subscribed to Cloud Volumes ONTAP product in Azure marketplace

```
POST /azure/ha/metadata/validate-subscribed-to-ontap-cloud
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Validate subscribed to Cloud Volumes ONTAP request	true	<a href="#">AzureValidateSubscribedToOntapCloudRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureValidateSubscribedToOntapCloudResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Retrieves Azure resource groups by region

```
GET /azure/ha/metadata/resource-groups
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureResourceGroupByRegionResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves Azure availability zones by region

```
GET /azure/ha/metadata/availability-zones
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureAvailabilityZoneResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves default snapshot policies available on a cluster

```
GET /azure/ha/metadata/default-snapshot-policies
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotPolicy</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieves all ONTAP Cloud configurations.**

```
GET /azure/ha/metadata/permutations
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region	Filter by region	false	string	
QueryParameter	version	Filter by version	false	string	
QueryParameter	license	Filter by license	false	string	
QueryParameter	instance_type	Filter by instance type	false	string	
QueryParameter	default_instance_type	Filter by default instance type	false	string	
QueryParameter	feature	Filter by feature	false	string	
QueryParameter	latest_only	Filter latest only	false	string	
QueryParameter	marketplace_version	Filter by marketplace version	false	string	
QueryParameter	marketplace_sku	Filter by marketplace sku	false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">Configuration</a> array

### Consumes

- application/json

### Produces

- application/json

**Retrieves the minimum number of required IPs for a Cloud Volumes ONTAP system**

```
GET /azure/ha/metadata/network-requirements
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureNetworkRequirementsResponse</a>

#### Consumes

- application/json

#### Produces

- application/json

#### Retrieves supported Azure storage account types

```
GET /azure/ha/metadata/storage-account-types
```

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureStorageAccountTypeResponse</a> array

#### Consumes

- application/json

#### Produces

- application/json

#### Retrieves supported features

```
GET /azure/ha/metadata/supported-features
```

#### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	ontapVersion		true	string	
QueryParameter	dataEncryptionType		true	string	
QueryParameter	licenseType		true	string	
QueryParameter	instanceType		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportedFeaturesResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Retrieves packages configuration

```
GET /azure/ha/metadata/packages
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">PackageInfoResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Azure-ha:volumes

## Add ISCSI initiator.

```
POST /azure/ha/volumes/initiator
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	ISCSI initiator request	true	<a href="#">Initiator</a>	

## Consumes

- application/json



## Produces

- application/json

## Get all ISCSI initiators.

```
GET /azure/ha/volumes/initiator
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">InitiatorEntry</a> array

## Consumes

- application/json

## Produces

- application/json

**Change underlying volume tier.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST
/azure/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/change-
tier
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">ChangeVolumeTierRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Retrieves volumes for Backup Activation.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
GET /azure/ha/volumes/volumes-for-backup
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	
QueryParameter	offset	offset	false	integer (int32)	
QueryParameter	limit	limit	false	integer (int32)	
QueryParameter	search	search	false	string	
QueryParameter	filterBy	filterBy should be of the form field:value. For multiple filters use comma separator.	false	ref	
QueryParameter	sortBy	sortBy should be of the form field:Asc or field:Desc. For multiple sorting use comma separator.	false	ref	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumesListForBackup</a>

### Consumes

- application/json

### Produces

- application/json

**Clones an existing volume.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /azure/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/clone
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">VolumeCloneRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Move an existing volume.**Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
POST /azure/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/move
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">VolumeMoveRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Get all igroups.**

```
GET /azure/ha/volumes/igroups/{workingEnvironmentId}/{svmName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">IGroup</a> array

## Consumes

- application/json

## Produces

- application/json

**Modify an existing volume.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
PUT /azure/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	ref	
BodyParameter	body	Modify volume request	true	<a href="#">VolumeModifyRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Deletes an existing volume.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
DELETE /azure/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	

### Consumes

- application/json

### Produces

- application/json

**Creates a new volume. If the properties aggregateName and maxNumOfDisksApprovedToAdd are not filled in, then the response will fail with a suggested aggregate name and the number of disks that will need to be created in order to fulfill the request. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
POST /azure/ha/volumes
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	createAggregateIfNotFound	On create volume request, allow creating not-found aggregate	false	boolean	
BodyParameter	body	Create volume request	true	<a href="#">VsaVolumeCreateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Retrieves volumes.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
GET /azure/ha/volumes
```

#### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumeResponse</a> array

#### Consumes

- application/json

#### Produces

- application/json

**Quotes a new volume.** Returns a resource quote needed to satisfy the requested volume.Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /azure/ha/volumes/quote
```

#### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Quote volume request	true	<a href="#">VsaVolumeQuoteRequest</a>	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaVolumeQuoteResponse</a>

#### Consumes

- application/json

## Produces

- application/json

**Create snapshot manually.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST
/azure/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotCreate Request</a>	

## Consumes

- application/json

## Produces

- application/json

**Delete snapshot manually.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
DELETE
/azure/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotDelete Request</a>	

### Consumes

- application/json

### Produces

- application/json

**Return a list of snapshot descriptions for the volume.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
GET
/azure/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshots
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotResponse</a> array

### Consumes

- application/json

### Produces

- application/json

### Azure-ha:working-environments

**Manually triggers subscription sync for all Cloud Volumes ONTAP working environments**

```
POST /azure/ha/working-environments/sync-subscription
```

### Consumes

- application/json



## Produces

- application/json

## Create snapshot policy

```
POST /azure/ha/working-environments/{workingEnvironmentId}/snapshot-policy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
BodyParameter	body	Create snapshot policy request	true	<a href="#">SnapshotPolicyCreateRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Setup NTP server

```
POST /azure/ha/working-environments/{workingEnvironmentId}/ntp
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	NTP Configuration request	true	<a href="#">NTPConfigurationRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## List start-stop schedules for Cloud Volumes ONTAP

```
GET /azure/ha/working-environments/{workingEnvironmentId}/schedules
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaSchedule</a> array

### Consumes

- application/json

### Produces

- application/json

## Set schedules for Cloud Volumes ONTAP

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/schedules
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Cloud Volumes ONTAP working environment update schedule request	true	<a href="#">VsaSchedulesRequest</a>	

### Consumes

- application/json

## Produces

- application/json

## Modify the svm name of the Cloud Volumes ONTAP

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/svm
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Svm name modification request	true	<a href="#">SvmNameModificationRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Change tier level

```
POST /azure/ha/working-environments/{workingEnvironmentId}/change-tier-level
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Change tier level request	true	<a href="#">ChangeTierLevelRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Setup a new CIFS using workgroup configuration to an existing Cloud Volumes ONTAP working environment

```
POST /azure/ha/working-environments/{workingEnvironmentId}/cifs-workgroup
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSWorkgroup ConfigurationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Checks for the presence of non-persistent locks held on CIFS Sessions.

```
GET /azure/ha/working-environments/{workingEnvironmentId}/cifs-locks-exist
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

### Responses

HTTP Code	Description	Schema
default	success	boolean

### Consumes

- application/json

### Produces

- application/json

## Starts a specific Cloud Volumes ONTAP instance

```
POST /azure/ha/working-environments/{workingEnvironmentId}/start
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Consumes

- application/json

### Produces

- application/json

**Updates default vscan file operation profile. Profile on existing CIFS shares will change only on writes-only mode**

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/vscan-file-op
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Vscan file-operation Request	true	<a href="#">VscanFileOpRequest</a>	

### Consumes

- application/json

### Produces

- application/json

## Delete CIFS Configuration of an existing Cloud Volumes ONTAP working environment

```
POST /azure/ha/working-environments/{workingEnvironmentId}/delete-cifs
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSDeleteRequest</a>	

## Consumes

- application/json

## Produces

- application/json

Returns true if a resource group with that name already exists, false otherwise

```
GET /azure/ha/working-environments/resource-group-exists/{resourceGroupName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	resourceGroupName	resource group name	true	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	boolean

## Consumes

- application/json

## Produces

- application/json

## Stops a specific Cloud Volumes ONTAP instance

```
POST /azure/ha/working-environments/{workingEnvironmentId}/stop
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	takeSnapshots	Take snapshots before stopping Cloud Volumes ONTAP	true	boolean	true

### Consumes

- application/json

### Produces

- application/json

## Enable capacity tiering

```
POST /azure/ha/working-environments/{workingEnvironmentId}/enable-capacity-tiering
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Enable capacity tiering request	false	<a href="#">EnableCapacityTieringRequest</a>	

### Consumes

- application/json

### Produces

- application/json

## Retrieves a list of versions to which this Cloud Volumes ONTAP can be upgraded

```
GET /azure/ha/working-environments/{workingEnvironmentId}/occm-provided-upgrade-versions
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">OntapUpdateImageMetadata</a> array

### Consumes

- application/json

### Produces

- application/json

## Disable FPolicy for ransomware files

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/disable-fpolicy
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

### Consumes

- application/json

### Produces

- application/json

## Retrieves images already installed on the Cloud Volumes ONTAP



```
GET /azure/ha/working-environments/{workingEnvironmentId}/ontap-available-images
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">UpdateLocalImage</a> array

### Consumes

- application/json

### Produces

- application/json

**Creates a new Azure HA Cloud Volumes ONTAP working environment.**

```
POST /azure/ha/working-environments
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Working environment	true	<a href="#">CreateAzureVSAWorkingEnvironmentRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureVsaWorkingEnvironmentResponse</a>

### Consumes

- application/json

## Produces

- application/json

**Retrieves Cloud Volumes ONTAP working environments visible to the currently logged in user**

```
GET /azure/ha/working-environments
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
QueryParameter	tenantId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureVsaWorkingEnvironmentResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Activate snapshot policy assignment to all not protected rw volumes**

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/activate-snapshot-policy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Consumes

- application/json

## Produces

- application/json

**Retrieves number of available ip addresses in the Cloud Volumes ONTAP working environment's subnet**

```
GET /azure/ha/working-environments/{workingEnvironmentId}/available-ips-in-subnet
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AvailableIpsResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Sets the writing speed for Cloud Volumes ONTAP**

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/writing-speed
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
BodyParameter	body	Writing speed request	true	<a href="#">WritingSpeedRe quest</a>	

## Consumes

- application/json

## Produces

- application/json

## Retrieves editable tags for cloud resources of a given Cloud Volumes ONTAP instance

```
GET /azure/ha/working-environments/{workingEnvironmentId}/user-tags
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">UserTagsResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Modify user tags for cloud resources of a given Cloud Volumes ONTAP instance

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/user-tags
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Modify user tags request	true	<a href="#">ModifyUserTagsRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Register extra capacity serials

```
POST /azure/ha/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	licenses serial(s)	true	<a href="#">LicensesSerials</a>	

## Consumes

- application/json

## Produces

- application/json

## Update extra capacity serials

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity serial(s)	true	<a href="#">LicensesSerials</a>	

## Consumes

- application/json

## Produces

- application/json

## Delete extra capacity licenses by serials

```
DELETE /azure/ha/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity serial(s)	true	<a href="#">LicensesSerials</a>	

### Consumes

- application/json

### Produces

- application/json

## Register extra capacity license

```
POST /azure/ha/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity licenses(s)	true	<a href="#">LicensesContent</a>	

### Consumes

- application/json

### Produces

- application/json

## Get extra capacity licenses for cvo

```
GET /azure/ha/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Consumes

- application/json

### Produces

- application/json

## Update extra capacity license

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity license(s)	true	<a href="#">LicensesContent</a>	

### Consumes

- application/json

### Produces

- application/json

## Performs a complete image update operation on the single node of the specified Cloud Volumes ONTAP

```
POST /azure/ha/working-environments/{workingEnvironmentId}/update-image
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Update system image request	true	<a href="#">UpdateSystemImageRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Change serial number of Cloud Volumes ONTAP

```
POST /azure/ha/working-environments/{workingEnvironmentId}/change-serial
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Change serial number request	true	<a href="#">ChangeSerialNumberRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Setup a new CIFS Configuration to an existing Cloud Volumes ONTAP working environment

```
POST /azure/ha/working-environments/{workingEnvironmentId}/cifs
```

## Parameters



Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSConfigurationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Retrieves CIFS Configuration to an existing Cloud Volumes ONTAP working environment

```
GET /azure/ha/working-environments/{workingEnvironmentId}/cifs
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	svm		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">CIFSConfigurationResponse</a> array

### Consumes

- application/json

### Produces

- application/json

### Retrieves an Cloud Volumes ONTAP working environment

```
GET /azure/ha/working-environments/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
PathParameter	workingEnvironmentId		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureVsaWorkingEnvironmentResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Deletes an existing Cloud Volumes ONTAP working environment, including all Cloud resources created for this working environment (unless the localDelete flag is set to true)**

```
DELETE /azure/ha/working-environments/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	localDelete	If true, the Cloud Volumes ONTAP instance is not terminated in Cloud, but Cloud Manager no longer manages the working environment.	false	boolean	false

Type	Name	Description	Required	Schema	Default
QueryParameter	forceDelete	If true, the working environment will be deleted even if it is part of one or more SnapMirror relationships.	false	boolean	false

#### Consumes

- application/json

#### Produces

- application/json

#### Uploads a Cloud license file content on the provided Cloud Volumes ONTAP

```
POST /azure/ha/working-environments/{workingEnvironmentId}/upload-licenses
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	license file content request	true	<a href="#">LicenseFileContent</a>	

#### Consumes

- application/json

#### Produces

- application/json

**Retrieves eligibility support status of a Cloud Volumes ONTAP system. Valid values - NSS\_NOT\_VALID, NOT\_REGISTERED, IPA\_PROBLEM, VALID, NSS\_NOT\_EXISTS, LICENSE\_EXPIRED**

```
GET /azure/ha/working-environments/{workingEnvironmentId}/update-eligibility
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
200	success	<a href="#">EligibilityResponse</a>
400	Working Environment must be ON or UPDATING in order to check eligibility	No Content

## Consumes

- application/json

## Produces

- application/json

## Parses an uploaded Cloud license file

```
POST /azure/ha/working-environments/parse-license-file
```

## Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	filename	Cloud license file name	false	string	
BodyParameter	license	license	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">ProvidedLicenseResponse</a>

## Consumes

- multipart/form-data

## Produces

- application/json

## Delete FPolicy for ransomware files

```
DELETE /azure/ha/working-environments/{workingEnvironmentId}/fpolicy
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

### Consumes

- application/json

### Produces

- application/json

## Working Environment Ontap Saving

```
GET /azure/ha/working-environments/{workingEnvironmentId}/ontap-saving
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkingEnvironmentOntapSavingResponse</a>

### Consumes

- application/json

### Produces

- application/json

## Registers a Cloud Volumes ONTAP system with NetApp

```
POST /azure/ha/working-environments/{workingEnvironmentId}/support-
registration
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	nssAccountId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportRegistrationResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves the support registration status of a Cloud Volumes ONTAP system**

```
GET /azure/ha/working-environments/{workingEnvironmentId}/support-
registration
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportRegistrationResponse</a>

### Consumes

- application/json

## Produces

- application/json

## Activate FPolicy for ransomware files

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/activate-fpolicy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Consumes

- application/json

## Produces

- application/json

## Working Environment Cost And Usage

```
GET /azure/ha/working-environments/{workingEnvironmentId}/cost-and-usage
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	start	cost and usage start period	false	string	
QueryParameter	end	cost and usage end period	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkingEnvironmentCostAndUsageResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Modify the net port broadcast domain mtu of the Cloud Volumes ONTAP

```
PUT /azure/ha/working-  
environments/{workingEnvironmentId}/networkOptimization
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
BodyParameter	body	Use optimization	true	<a href="#">ChangeNetwork OptimizationReq uest</a>	

## Consumes

- application/json

## Produces

- application/json

## Sets the cluster password of a specific Cloud Volumes ONTAP

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/set-password
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
QueryParameter	occmOnly		false	boolean	
BodyParameter	body	Set password request	true	<a href="#">PasswordWrapp er</a>	

## Consumes

- application/json



## Produces

- application/json

## Updates Cloud Manager password of a specific Cloud Volumes ONTAP

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/update-credentials
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Update Cloud Manager password request	true	<a href="#">UpdateCredentialsRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Retrieves action parameters used in create request of a given Cloud Volumes ONTAP instance

```
GET /azure/ha/working-environments/{workingEnvironmentId}/create-request-parameters
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CreateRequestParametersResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Activate offbox configuration

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/offbox
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	

### Consumes

- application/json

### Produces

- application/json

### Retrieves all license types and their associated instance types for a given Cloud Volumes ONTAP instance

```
GET /azure/ha/working-environments/{workingEnvironmentId}/license-  
instance-type
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">LicenseAndInstanceType</a> array

### Consumes

- application/json

### Produces

- application/json

### Sets the instance type of a specific Cloud Volumes ONTAP

```
PUT /azure/ha/working-environments/{workingEnvironmentId}/license-instance-type
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Instance type modification request	true	<a href="#">LicenseAndInstanceTypeModificationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Uploads a Cloud license file on the provided Cloud Volumes ONTAP

```
POST /azure/ha/working-environments/{workingEnvironmentId}/upload-license-file
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
HeaderParameter	filename	Cloud license file name	false	string	
BodyParameter	license	license	false	string	

## Consumes

- multipart/form-data

## Produces

- application/json

## Azure-vsa:aggregates

Retrieves aggregates. Operation may only be performed on working environments whose status is: ON, INITIALIZING, DEGRADED

```
GET /azure/vsa/aggregates/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AggregateResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Adds disks to an existing aggregate

```
POST /azure/vsa/aggregates/{workingEnvironmentId}/{aggregateName}/disks
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	aggregateName	Name of aggregate to be updated	true	string	

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Add disk to aggregate request	true	<a href="#">AddDisksToAggregateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Creates a new aggregate

```
POST /azure/vsa/aggregates
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create Aggregate Request	true	<a href="#">VsaAggregateCreateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Deletes an existing aggregate

```
DELETE /azure/vsa/aggregates/{workingEnvironmentId}/{aggregateName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	aggregateName	Name of aggregate to be deleted	true	string	

### Consumes

- application/json

### Produces

- application/json

### Azure-vsa:discovery

Retrieves a list of discovered working environments visible to the current user in the specified Azure region.

```
GET /azure/vsa/discover
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region	Region to discover working environments	true	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">DiscoveredAzureVSAResponse</a> array

### Consumes

- application/json

### Produces

- application/json

Saves a previously discovered Cloud Volumes ONTAP working environment to the Cloud Manager database.

```
POST /azure/vsa/recover
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Working environment	true	<a href="#">RecoverAzureVSARequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureVsaWorkingEnvironmentResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Azure-vsa:metadata

### Retrieve all vaults.

```
GET /azure/vsa/metadata/vaults
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	
QueryParameter	region		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureKeyVault</a> array

## Consumes

- application/json

## Produces

- application/json

Retrieves supported capacity tiers for Azure disk types.

```
GET /azure/vsa/metadata/supported-capacity-tiers
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	ontapVersion		true	string	
QueryParameter	dataEncryptionType		true	string	
QueryParameter	licenseType		true	string	
QueryParameter	instanceType		true	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportedCapacityTiers</a>

### Consumes

- application/json

### Produces

- application/json

Retrieve all blob containers.

```
GET /azure/vsa/metadata/containers
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	
QueryParameter	resourceGroupName		true	string	



Type	Name	Description	Required	Schema	Default
QueryParameter	storageAccountName		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureBlobContainer</a> array

### Consumes

- application/json

### Produces

- application/json

**Retrieves Azure resource groups by region.**

```
GET /azure/vsa/metadata/resource-groups
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureResourceGroupByRegionResponse</a> array

### Consumes

- application/json

### Produces

- application/json

**Validates the current user is subscribed to Cloud Volumes ONTAP product in Azure marketplace.**

```
POST /azure/vsa/metadata/validate-subscribed-to-ontap-cloud
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Validate subscribed to Cloud Volumes ONTAP request	true	<a href="#">AzureValidateSubscribedToOntapCloudRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureValidateSubscribedToOntapCloudResponse</a>

### Consumes

- application/json

### Produces

- application/json

Retrieve all keys in a vault.

```
GET /azure/vsa/metadata/keys-vault
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	
QueryParameter	resourceGroupName		true	string	
QueryParameter	vaultName		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureKey</a> array

### Consumes

- application/json

### Produces

- application/json

**Retrieves associated subscriptions.**

```
GET /azure/vsa/metadata/associated-subscriptions
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	cloudProviderAccountId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AssociatedSubscription</a> array

### Consumes

- application/json

### Produces

- application/json

**Retrieves all Cloud Volumes ONTAP configurations.**

```
GET /azure/vsa/metadata/permutations
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region	Filter by region	false	string	
QueryParameter	version	Filter by version	false	string	
QueryParameter	license	Filter by license	false	string	
QueryParameter	instance_type	Filter by instance type	false	string	
QueryParameter	default_instance_type	Filter by default instance type	false	string	

Type	Name	Description	Required	Schema	Default
QueryParameter	feature	Filter by feature	false	string	
QueryParameter	latest_only	Filter latest only	false	string	
QueryParameter	marketplace_version	Filter by marketplace version	false	string	
QueryParameter	marketplace_sku	Filter by marketplace sku	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">Configuration</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieves Azure availability zones by region.**

```
GET /azure/vsa/metadata/availability-zones
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureAvailabilityZoneResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves Network Extended Info.

```
GET /azure/vsa/metadata/vnets
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureNetworkExtendedResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Retrieves packages configuration

```
GET /azure/vsa/metadata/packages
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">PackageInfoResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves supported features

```
GET /azure/vsa/metadata/supported-features
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	ontapVersion		true	string	
QueryParameter	dataEncryptionType		true	string	
QueryParameter	licenseType		true	string	
QueryParameter	instanceType		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportedFeaturesResponse</a>

### Consumes

- application/json

### Produces

- application/json

Retrieves Azure regions over which an Cloud Volumes ONTAP working environment may be created.

```
GET /azure/vsa/metadata/regions
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureRegionResponse</a> array

#### Consumes

- application/json

#### Produces

- application/json

**Retrieves the minimum number of required IPs for a Cloud Volumes ONTAP system.**

```
GET /azure/vsa/metadata/network-requirements
```

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureNetworkRequirementsResponse</a>

#### Consumes

- application/json

#### Produces

- application/json

**Retrieves instance types not supporting acceleration and capacity tiering**

```
GET /azure/vsa/metadata/instance-types-not-supporting-acceleration-and-capacity-tiering
```

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">InstanceTypesNotSupportingAccelerationAndCapacityTieringResponse</a>

#### Consumes

- application/json

## Produces

- application/json

Retrieves all the Tag names.

```
GET /azure/vsa/metadata/tag-keys
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">TagKeyResponse</a> array

## Consumes

- application/json

## Produces

- application/json

Retrieves supported Azure storage account types.

```
GET /azure/vsa/metadata/storage-account-types
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureStorageAccountTypeResponse</a> array

## Consumes

- application/json

## Produces

- application/json



Create new blob container.

```
POST /azure/vsa/metadata/create-container
```

Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create blob container request	true	CreateBlobContainerRequest	

Consumes

- application/json

Produces

- application/json

Retrieves default snapshot policies available on a cluster

```
GET /azure/vsa/metadata/default-snapshot-policies
```

Responses

HTTP Code	Description	Schema
default	success	SnapshotPolicy array

Consumes

- application/json

Produces

- application/json

Azure-vsa:volumes

Return a list of snapshot descriptions for the volume.Operation may only be performed on working environments whose status is: ON, DEGRADED

```
GET /azure/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshots
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Move an existing volume.**Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
POST /azure/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/move
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">VolumeMoveReq uest</a>	

## Consumes

- application/json

## Produces

- application/json

**Retrieves volumes for Backup Activation.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
GET /azure/vsa/volumes/volumes-for-backup
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	
QueryParameter	offset	offset	false	integer (int32)	
QueryParameter	limit	limit	false	integer (int32)	
QueryParameter	search	search	false	string	
QueryParameter	filterBy	filterBy should be of the form field:value. For multiple filters use comma separator.	false	ref	
QueryParameter	sortBy	sortBy should be of the form field:Asc or field:Desc. For multiple sorting use comma separator.	false	ref	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumesListForBackup</a>

### Consumes

- application/json

### Produces

- application/json

**Clones an existing volume.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST
/azure/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/clone
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">VolumeCloneRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Quotes a new volume. Returns a resource quote needed to satisfy the requested volume.Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
POST /azure/vsa/volumes/quote
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Quote volume request	true	<a href="#">VsaVolumeQuoteRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaVolumeQuoteResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Modify an existing volume.Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
PUT /azure/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	ref	
BodyParameter	body	Modify volume request	true	<a href="#">VolumeModifyRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Deletes an existing volume.** Operation may only be performed on working environments whose status is: ON, DEGRADED

```
DELETE /azure/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	

## Consumes

- application/json

## Produces

- application/json

**Creates a new volume.** If the properties aggregateName and maxNumOfDisksApprovedToAdd are not filled in, then the response will fail with a suggested aggregate name and the number of disks that will need to be created in order to fulfill the request. Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /azure/vsa/volumes
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	createAggregateIfNotFound	On create volume request, allow creating not-found aggregate	false	boolean	
BodyParameter	body	Create volume request	true	<a href="#">VsaVolumeCreateRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Retrieves volumes.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
GET /azure/vsa/volumes
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumeResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Add ISCSI initiator.

```
POST /azure/vsa/volumes/initiator
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	ISCSI initiator request	true	<a href="#">Initiator</a>	

## Consumes

- application/json

## Produces

- application/json

## Get all ISCSI initiators.

```
GET /azure/vsa/volumes/initiator
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">InitiatorEntry</a> array

## Consumes

- application/json

## Produces

- application/json

## Create snapshot manually.Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST
/azure/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotCreateRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

**Delete snapshot manually.**Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
DELETE
/azure/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotDeleteRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

**Get all igroups.**

```
GET /azure/vsa/volumes/igroups/{workingEnvironmentId}/{svmName}
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	



Type	Name	Description	Required	Schema	Default
PathParameter	svmName		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">IGroup</a> array

## Consumes

- application/json

## Produces

- application/json

**Change underlying volume tier.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST
/azure/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/change-tier
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">ChangeVolumeTierRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Azure-vsa:working-environments**

**Creates a new Cloud Volumes ONTAP working environment.**

```
POST /azure/vsa/working-environments
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Working environment	true	<a href="#">CreateAzureVSAWorkingEnvironmentRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureVsaWorkingEnvironmentResponse</a>

### Consumes

- application/json

### Produces

- application/json

Retrieves Cloud Volumes ONTAP working environments visible to the currently logged in user

```
GET /azure/vsa/working-environments
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
QueryParameter	tenantId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureVsaWorkingEnvironmentResponse</a> array

### Consumes

- application/json

## Produces

- application/json

## Working Environment Ontap Saving

```
GET /azure/vsa/working-environments/{workingEnvironmentId}/ontap-saving
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkingEnvironmentOntapSavingResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Stops a specific Cloud Volumes ONTAP instance

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/stop
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	takeSnapshots	Take snapshots before stopping Cloud Volumes ONTAP	true	boolean	true

### Consumes

- application/json

### Produces

- application/json

### Uploads a Cloud license file on the provided Cloud Volumes ONTAP

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/upload-  
license-file
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
HeaderParameter	filename	Cloud license file name	false	string	
BodyParameter	license	license	false	string	

### Consumes

- multipart/form-data

### Produces

- application/json

### Register extra capacity license

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/extra-  
capacity-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity licenses(s)	true	<a href="#">LicensesContent</a>	

### Consumes

- application/json

### Produces

- application/json

### Get extra capacity licenses for cvo

```
GET /azure/vsa/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Consumes

- application/json

### Produces

- application/json

### Update extra capacity license

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity license(s)	true	<a href="#">LicensesContent</a>	

### Consumes

- application/json

## Produces

- application/json

**Retrieves all license types and their associated instance types for a given Cloud Volumes ONTAP instance**

```
GET /azure/vsa/working-environments/{workingEnvironmentId}/license-instance-type
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">LicenseAndInstanceType</a> array

## Consumes

- application/json

## Produces

- application/json

**Sets the instance type of a specific Cloud Volumes ONTAP**

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/license-instance-type
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Instance type modification request	true	<a href="#">LicenseAndInstanceTypeModificationRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Create snapshot policy

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/snapshot-policy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
BodyParameter	body	Create snapshot policy request	true	<a href="#">SnapshotPolicyCreateRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Registers a Cloud Volumes ONTAP system with NetApp

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/support-registration
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	nssAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportRegistrationResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Retrieves the support registration status of a Cloud Volumes ONTAP system

```
GET /azure/vsa/working-environments/{workingEnvironmentId}/support-  
registration
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportRegistrationResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Disable FPolicy for ransomware files

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/disable-fpolicy
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

### Consumes

- application/json



## Produces

- application/json

**Retrieves a list of versions to which this Cloud Volumes ONTAP can be upgraded**

```
GET /azure/vsa/working-environments/{workingEnvironmentId}/occm-provided-upgrade-versions
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">OntapUpdateImageMetadata</a> array

## Consumes

- application/json

## Produces

- application/json

**Updates default vscan file operation profile. Profile on existing CIFS shares will change only on writes-only mode**

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/vscan-file-op
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Vscan file-operation Request	true	<a href="#">VscanFileOpRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Sets the cluster password of a specific Cloud Volumes ONTAP

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/set-password
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	occmOnly		false	boolean	
BodyParameter	body	Set password request	true	<a href="#">PasswordWrapper</a>	

### Consumes

- application/json

### Produces

- application/json

### Returns true if a resource group with that name already exists, false otherwise

```
GET /azure/vsa/working-environments/resource-group-exists/{resourceGroupName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	resourceGroupName	resource group name	true	string	
QueryParameter	subscriptionId		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	boolean

## Consumes

- application/json

## Produces

- application/json

**Retrieves action parameters used in create request of a given Cloud Volumes ONTAP instance**

```
GET /azure/vsa/working-environments/{workingEnvironmentId}/create-request-parameters
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CreateRequestParametersResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Delete FPolicy for ransomware files**

```
DELETE /azure/vsa/working-environments/{workingEnvironmentId}/fpolicy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

#### Consumes

- application/json

#### Produces

- application/json

#### Activate FPolicy for ransomware files

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/activate-fpolicy
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

#### Consumes

- application/json

#### Produces

- application/json

#### Register extra capacity serials

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	licenses serial(s)	true	<a href="#">LicensesSerials</a>	

### Consumes

- application/json

### Produces

- application/json

### Update extra capacity serials

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity serial(s)	true	<a href="#">LicensesSerials</a>	

### Consumes

- application/json

### Produces

- application/json

### Delete extra capacity licenses by serials

```
DELETE /azure/vsa/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity serial(s)	true	<a href="#">LicensesSerials</a>	

### Consumes

- application/json

### Produces

- application/json

### Setup NTP server

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/ntp
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	NTP Configuration request	true	<a href="#">NTPConfigurationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Sets the writing speed for Cloud Volumes ONTAP

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/writing-speed
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Writing speed request	true	<a href="#">WritingSpeedRequest</a>	

### Consumes

- application/json

## Produces

- application/json

## Delete CIFS Configuration of an existing Cloud Volumes ONTAP working environment

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/delete-cifs
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSDeleteRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Activate offbox configuration

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/offbox
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Consumes

- application/json

## Produces

- application/json

## Enable capacity tiering

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/enable-capacity-tiering
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Enable capacity tiering request	false	<a href="#">EnableCapacityTieringRequest</a>	

### Consumes

- application/json

### Produces

- application/json

## Retrieves images already installed on the Cloud Volumes ONTAP

```
GET /azure/vsa/working-environments/{workingEnvironmentId}/ontap-available-images
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">UpdateLocalImage</a> array

### Consumes

- application/json

### Produces

- application/json



## Manually triggers subscription sync for all Cloud Volumes ONTAP working environments

```
POST /azure/vsa/working-environments/sync-subscription
```

### Consumes

- application/json

### Produces

- application/json

Retrieves eligibility support status of a Cloud Volumes ONTAP system. Valid values - NSS\_NOT\_VALID, NOT\_REGISTERED, IPA\_PROBLEM, VALID, NSS\_NOT\_EXISTS, LICENSE\_EXPIRED

```
GET /azure/vsa/working-environments/{workingEnvironmentId}/update-eligibility
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
200	success	<a href="#">EligibilityResponse</a>
400	Working Environment must be ON or UPDATING in order to check eligibility	No Content

### Consumes

- application/json

### Produces

- application/json

## Updates Cloud Manager password of a specific Cloud Volumes ONTAP

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/update-credentials
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Update Cloud Manager password request	true	<a href="#">UpdateCredentialsRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Change tier level

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/change-tier-level
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Change tier level request	true	<a href="#">ChangeTierLevelRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Starts a specific Cloud Volumes ONTAP instance

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/start
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Consumes

- application/json

## Produces

- application/json

## Change serial number of Cloud Volumes ONTAP

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/change-serial
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Change serial number request	true	<a href="#">ChangeSerialNumberRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## List start-stop schedules for Cloud Volumes ONTAP

```
GET /azure/vsa/working-environments/{workingEnvironmentId}/schedules
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaSchedule</a> array

## Consumes

- application/json

## Produces

- application/json

## Set schedules for Cloud Volumes ONTAP

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/schedules
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Cloud Volumes ONTAP working environment update schedule request	true	<a href="#">VsaSchedulesRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Retrieves an Cloud Volumes ONTAP working environment

```
GET /azure/vsa/working-environments/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AzureVsaWorkingEnvironmentResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Deletes an existing Cloud Volumes ONTAP working environment, including all Cloud resources created for this working environment (unless the localDelete flag is set to true)**

```
DELETE /azure/vsa/working-environments/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	localDelete	If true, the Cloud Volumes ONTAP instance is not terminated in Cloud, but Cloud Manager no longer manages the working environment.	false	boolean	false
QueryParameter	forceDelete	If true, the working environment will be deleted even if it is part of one or more SnapMirror relationships.	false	boolean	false

## Consumes

- application/json

## Produces

- application/json

## Activate snapshot policy assignment to all not protected rw volumes

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/activate-snapshot-policy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Consumes

- application/json

## Produces

- application/json

## Working Environment Cost And Usage

```
GET /azure/vsa/working-environments/{workingEnvironmentId}/cost-and-usage
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	start	cost and usage start period	false	string	
QueryParameter	end	cost and usage end period	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkingEnvironmentCostAndUsageResponse</a>

#### Consumes

- application/json

#### Produces

- application/json

### Setup a new CIFS using workgroup configuration to an existing Cloud Volumes ONTAP working environment

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/cifs-workgroup
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSWorkgroupConfigurationRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

### Uploads a Cloud license file content on the provided Cloud Volumes ONTAP

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/upload-licenses
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

Type	Name	Description	Required	Schema	Default
BodyParameter	body	license file content request	true	<a href="#">LicenseFileContent</a>	

#### Consumes

- application/json

#### Produces

- application/json

#### Modify the svm name of the Cloud Volumes ONTAP

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/svm
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Svm name modification request	true	<a href="#">SvmNameModificationRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

#### Parses an uploaded Cloud license file

```
POST /azure/vsa/working-environments/parse-license-file
```

#### Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	filename	Cloud license file name	false	string	
BodyParameter	license	license	false	string	



## Responses

HTTP Code	Description	Schema
default	success	<a href="#">ProvidedLicenseResponse</a>

## Consumes

- multipart/form-data

## Produces

- application/json

**Performs a complete image update operation on the single node of the specified Cloud Volumes ONTAP**

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/update-image
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Update system image request	true	<a href="#">UpdateSystemImageRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Retrieves number of available ip addresses in the Cloud Volumes ONTAP working environment's subnet**

```
GET /azure/vsa/working-environments/{workingEnvironmentId}/available-ips-in-subnet
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AvailableIpsResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Setup a new CIFS Configuration to an existing Cloud Volumes ONTAP working environment

```
POST /azure/vsa/working-environments/{workingEnvironmentId}/cifs
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSConfigurationRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Retrieves CIFS Configuration to an existing Cloud Volumes ONTAP working environment

```
GET /azure/vsa/working-environments/{workingEnvironmentId}/cifs
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	svm		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CIFSConfigurationResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Modify the net port broadcast domain mtu of the Cloud Volumes ONTAP

```
PUT /azure/vsa/working-  
environments/{workingEnvironmentId}/networkOptimization
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
BodyParameter	body	Use optimization	true	<a href="#">ChangeNetwork OptimizationReq uest</a>	

## Consumes

- application/json

## Produces

- application/json

## Retrieves editable tags for cloud resources of a given Cloud Volumes ONTAP instance

```
GET /azure/vsa/working-environments/{workingEnvironmentId}/user-tags
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">UserTagsResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Modify user tags for cloud resources of a given Cloud Volumes ONTAP instance

```
PUT /azure/vsa/working-environments/{workingEnvironmentId}/user-tags
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Modify user tags request	true	<a href="#">ModifyUserTagsRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Cloud-compliance

## Retrieve Cloud Compliance info.

```
GET /cloud-compliance/info
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CloudComplianceInfoResponse</a>

## Produces

- application/json

## Disable scan.

```
POST /cloud-compliance/{serviceId}/disable-service-scan
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	serviceId	Service ID	true	enum (ANF, S3)	

## Produces

- application/json

## Disable scan.

```
POST /cloud-compliance/{workingEnvironmentId}/disable-scan
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Produces

- application/json

## Deploy Cloud Compliance instance by working environments.

```
POST /cloud-compliance/deploy-by-working-environments
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	deploy Cloud Compliance request	true	<a href="#">CreateCloudComplianceByWesRequest</a>	

## Produces

- application/json

## Enable scan.

```
POST /cloud-compliance/{workingEnvironmentId}/enable-onprem-scan
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of onprem working environment	true	string	

## Produces

- application/json

## Enable scan.

```
POST /cloud-compliance/{workingEnvironmentId}/enable-scan
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Produces

- application/json

## Retrieve service Cloud Compliance status.

```
GET /cloud-compliance/fsx/{fileSystemId}/compliance-status
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	fileSystemId	File System ID	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CloudComplianceStatusResponse</a>

## Produces

- application/json

## Enable scan.

```
POST /cloud-compliance/{serviceId}/enable-service-scan
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	serviceId	Service ID	true	enum (ANF, S3)	
BodyParameter	body	Enable Cloud Compliance request	false	<a href="#">EnableServiceScanRequest</a>	

## Produces

- application/json

## Retrieve service Cloud Compliance status.

```
GET /cloud-compliance/{serviceId}/compliance-status
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	serviceId	Service ID	true	enum (ANF, S3)	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CloudComplianceStatusResponse</a>

## Produces

- application/json

### Disable onprem scan.

```
POST /cloud-compliance/{workingEnvironmentId}/disable-onprem-scan
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of onprem working environment	true	string	

#### Produces

- application/json

### Enable scan.

```
POST /cloud-compliance/fsx/{fileSystemId}/enable-scan
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	fileSystemId	File System ID	true	string	

#### Produces

- application/json

### Disable scan.

```
POST /cloud-compliance/fsx/{fileSystemId}/disable-scan
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	fileSystemId	File System ID	true	string	

#### Produces

- application/json

### Cloudsync



### Retrieve all S3 buckets.

```
GET /cloudsync/buckets
```

#### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	userId	User ID of the working environment creator	true	string	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">S3BucketInfo</a> array

#### Consumes

- application/json

#### Produces

- application/json

### List S3 bucket's sub directories.

```
GET /cloudsync/buckets/{bucketName}/sub-directories
```

#### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	userId	User ID of the working environment creator	true	string	
QueryParameter	fullPath	Full path to list sub directories	false	string	
PathParameter	bucketName	Bucket name to get sub directories from	true	string	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">BucketInformation</a>

#### Consumes

- application/json

#### Produces

- application/json

**Get Cloud Sync Service url, according to the current environment.**

```
GET /cloudsync/service-url
```

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">ServiceUrl</a>

#### Consumes

- application/json

#### Produces

- application/json

**Retrieves AWS user Key Pairs for working environment's account and region.**

```
GET /cloudsync/key-pairs-by-vsa/{workingEnvironmentId}
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of VSA working environment	true	string	

#### Responses

HTTP Code	Description	Schema
default	success	string array

### Consumes

- application/json

### Produces

- application/json

**Create sync of OnPrem working environment with Cloud Sync service.**Operation may only be performed on working environments whose status is: ON

```
POST /cloudsync/sync/onprem/{workingEnvironmentId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of OnPrem working environment	true	string	
BodyParameter	body	Create sync request	true	<a href="#">CreateSyncRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Delete sync of OnPrem working environment to Cloud Sync service.**Operation may only be performed on working environments whose status is: ON

```
DELETE /cloudsync/sync/onprem/{workingEnvironmentId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of OnPrem working environment	true	string	

### Consumes

- application/json

## Produces

- application/json

**Create sync of VSA working environment with Cloud Sync service.** Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /cloudsync/sync/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of VSA working environment	true	string	
BodyParameter	body	Create sync request	true	<a href="#">CreateSyncRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Delete sync of VSA working environment to Cloud Sync service.** Operation may only be performed on working environments whose status is: ON, DEGRADED

```
DELETE /cloudsync/sync/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of VSA working environment	true	string	

## Consumes

- application/json

## Produces

- application/json

### List S3 bucket's sub directories in working environment's account.

```
GET /cloudsync/buckets/{bucketName}/sub-directories/{workingEnvironmentId}
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of VSA working environment	true	string	
QueryParameter	fullPath	Full path to list sub directories	false	string	
PathParameter	bucketName	Bucket name to get sub directories from	true	string	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">BucketInformation</a>

#### Consumes

- application/json

#### Produces

- application/json

### Retrieve all S3 buckets in working environment's account.

```
GET /cloudsync/buckets/{workingEnvironmentId}
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of VSA working environment	true	string	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">S3BucketInfo</a> array

### Consumes

- application/json

### Produces

- application/json

**Add Cloud Sync relationship to an OnPrem volume.**Operation may only be performed on working environments whose status is: ON

```
POST /cloudsync/relationship/onprem/{workingEnvironmentId}/{volumeName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of OnPrem working environment	true	string	
PathParameter	volumeName		true	ref	

### Consumes

- application/json

### Produces

- application/json

**Delete Cloud Sync relationship from an OnPrem volume.**Operation may only be performed on working environments whose status is: ON

```
DELETE /cloudsync/relationship/onprem/{workingEnvironmentId}/{volumeName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of OnPrem working environment	true	string	
PathParameter	volumeName		true	ref	

### Consumes

- application/json

## Produces

- application/json

**Add Cloud Sync relationship to a VSA volume.** Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /cloudsync/relationship/{workingEnvironmentId}/{volumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of VSA working environment	true	string	
PathParameter	volumeName		true	ref	

## Consumes

- application/json

## Produces

- application/json

**Delete Cloud Sync relationship from a VSA volume.** Operation may only be performed on working environments whose status is: ON, DEGRADED

```
DELETE /cloudsync/relationship/{workingEnvironmentId}/{volumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of VSA working environment	true	string	
PathParameter	volumeName		true	ref	

## Consumes

- application/json

## Produces

- application/json

**Retrieves VPCs for working environment's account and region.**

```
GET /cloudsync/vpcs-by-vsa/{workingEnvironmentId}
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of VSA working environment	true	string	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VpcExtendedResponse</a> array

#### Consumes

- application/json

#### Produces

- application/json

#### Filesystem

**Register OCCM in StoutBroker.**

```
POST /aws/filesystem/register-occm
```

#### Consumes

- application/json

#### Produces

- application/json

**List available software versions, both CVO and mediator.**

```
GET /aws/filesystem/software-versions
```

#### Responses



HTTP Code	Description	Schema
default	success	<a href="#">SoftwareVersionsResponse</a>

#### Consumes

- application/json

#### Produces

- application/json

**Configure S3 bucket name and prefix destination for metrics uploading.**

```
POST /aws/filesystem/s3-config
```

#### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		true	<a href="#">ConfigureS3Request</a>	

#### Consumes

- application/json

#### Produces

- application/json

**List region to AMI mapping for software version.**

```
GET /aws/filesystem/software-metadata/{version}/ami
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	version	version	true	string	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SoftwareVersionAmisResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Modify region to AMI mapping for software version.**

```
PUT /aws/filesystem/software-metadata/{version}/ami
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	version	version	true	string	
BodyParameter	body		true	<a href="#">ModifyMappingRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Creates a new SVM on AWS HA Cloud Volumes ONTAP filesystem. Operation may only be performed on working environments whose status is: ON**

```
POST /aws/filesystem/ha/{workingEnvironmentId}/svm
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
BodyParameter	body		true	<a href="#">CreateSvmHaRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Add supported instance types for software version.

```
PUT /aws/filesystem/software-metadata/{version}/instance-types
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	version	version	true	string	
BodyParameter	body		true	<a href="#">AddInstanceTypesRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

### Creates a new AWS HA Cloud Volumes ONTAP filesystem.

```
POST /aws/filesystem/ha
```

#### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		true	<a href="#">CreateFilesystemRequest</a>	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaWorkingEnvironmentResponse</a>

#### Consumes

- application/json

#### Produces

- application/json

### Add supported AWS regions.

```
PUT /aws/filesystem/software-metadata/regions
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		true	<a href="#">AddAwsRegionsRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Fsx:volumes

### Creates a new volume.

```
POST /fsx/volumes
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create volume request	true	<a href="#">FsxVolumeCreateRequest</a>	

## Consumes

- application/json

## Produces

- application/json

### Retrieves volumes.

```
GET /fsx/volumes
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fileSystemId	Filter volumes by this file system	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumeResponse</a> array

### Consumes

- application/json

### Produces

- application/json

**Clones an existing volume.**

```
POST /fsx/volumes/{fileSystemId}/{svmName}/{volumeName}/clone
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	fileSystemId	File System Id	true	string	
PathParameter	svmName	SVM name	true	string	
PathParameter	volumeName	Name of volume to be cloned	true	string	
BodyParameter	body	Clone volume request	true	<a href="#">VolumeCloneRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Return a list of snapshot descriptions for the volume.**

```
GET /fsx/volumes/{fileSystemId}/{svmName}/{volumeName}/snapshots
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	fileSystemId	File System Id	true	string	
PathParameter	svmName	SVM name	true	string	

Type	Name	Description	Required	Schema	Default
PathParameter	volumeName	Filter snapshot descriptions for specified volume	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Modify an existing volume.

```
PUT /fsx/volumes/{fileSystemId}/{svmName}/{volumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	fileSystemId	File System Id	true	string	
PathParameter	svmName	SVM name	true	string	
PathParameter	volumeName	Name of volume to be modified	true	ref	
BodyParameter	body	Modify volume request	true	<a href="#">FsxVolumeModifyRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Deletes an existing volume.

```
DELETE /fsx/volumes/{fileSystemId}/{svmName}/{volumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	fileSystemId	File System Id	true	string	
PathParameter	svmName	SVM name	true	string	
PathParameter	volumeName	Name of volume to be deleted	true	string	

## Consumes

- application/json

## Produces

- application/json

## Create snapshot manually.

```
POST /fsx/volumes/{fileSystemId}/{svmName}/{volumeName}/snapshot
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	fileSystemId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotCreate Request</a>	

## Consumes

- application/json

## Produces

- application/json

## Delete snapshot manually.

```
DELETE /fsx/volumes/{fileSystemId}/{svmName}/{volumeName}/snapshot
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	fileSystemId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Delete snapshot request	true	<a href="#">SnapshotDeleteRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Fsx:working-environments

Setup a new CIFS Configuration for existing FSx working environment.

```
POST /fsx/working-environments/{fileSystemId}/cifs
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	fileSystemId	File System Id	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSConfigurationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

Retrieves CIFS Configuration for existing FSx working environment.

```
GET /fsx/working-environments/{fileSystemId}/cifs
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	fileSystemId	File System Id	true	string	



Type	Name	Description	Required	Schema	Default
QueryParameter	svm		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CIFSConfigurationResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieves SVM list for existing FSx working environment.**

```
GET /fsx/working-environments/{fileSystemId}/svms
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	fileSystemId	File System Id	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">Svm</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieve snapshot policies for existing FSx working environment.**

```
GET /fsx/working-environments/{fileSystemId}/snapshot-policies
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	fileSystemId	File System Id	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotPolicy</a> array

## Consumes

- application/json

## Produces

- application/json

**Validate provided credentials for existing FSx working environment.**

```
POST /fsx/working-environments/validate-credentials
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	FSx credentials	true	<a href="#">ZapiCredentials</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">FsxCredentialsStatusResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Gcp-ha:aggregates**

**Deletes an existing aggregate**

```
DELETE /gcp/ha/aggregates/{workingEnvironmentId}/{aggregateName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	aggregateName	Name of aggregate to be deleted	true	string	

## Consumes

- application/json

## Produces

- application/json

## Adds disks to an existing aggregate

```
POST /gcp/ha/aggregates/{workingEnvironmentId}/{aggregateName}/disks
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	aggregateName	Name of aggregate to be updated	true	string	
BodyParameter	body	Add disk to aggregate request	true	<a href="#">AddDisksToAggregateRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Creates a new aggregate

```
POST /gcp/ha/aggregates
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create Aggregate Request	true	<a href="#">VsaAggregateCreateRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Retrieves aggregates

```
GET /gcp/ha/aggregates/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AggregateResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Gcp-ha:discovery

**Saves a previously discovered Cloud Volumes ONTAP working environment to the Cloud Manager database.**

```
POST /gcp/ha/discovery/recover
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Working environment	true	<a href="#">RecoverGcpHaRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpVsaWorkingEnvironmentResponse</a>

## Consumes

- application/json

## Produces

- application/json

Retrieves a list of discovered working environments visible to the current user in the specified Gcp region.

```
GET /gcp/ha/discovery/discover
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region	Region to discover working environments	true	string	
QueryParameter	project	Project to discover working environments	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">DiscoveredGcpHaResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieves supported features**

```
GET /gcp/ha/metadata/supported-features
```

**Parameters**

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	ontapVersion		true	string	
QueryParameter	dataEncryptionType		true	string	
QueryParameter	licenseType		true	string	
QueryParameter	instanceType		true	string	

**Responses**

HTTP Code	Description	Schema
default	success	<a href="#">SupportedFeaturesResponse</a>

**Consumes**

- application/json

**Produces**

- application/json

**Retrieves GCP networks and subnetworks over which an Cloud Volumes ONTAP working environment may be created.**

```
GET /gcp/ha/metadata/vpcs
```

**Parameters**

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	project		false	string	

**Responses**

HTTP Code	Description	Schema
default	success	<a href="#">GcpConnectivityResponse</a> array

#### Consumes

- application/json

#### Produces

- application/json

**Retrieves the minimum number of required IPs for a Cloud Volumes ONTAP system**

```
GET /gcp/ha/metadata/network-requirements
```

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpNetworkRequirementsResponse</a>

#### Consumes

- application/json

#### Produces

- application/json

**Retrieves GCP encryption keys for specific region**

```
GET /gcp/ha/metadata/gcp-encryption-keys
```

#### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	project		true	string	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpEncryptionKey</a> array

### Consumes

- application/json

### Produces

- application/json

Retrieves all the Labels in the given project Id and region.

```
GET /gcp/ha/metadata/tag-keys
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	projectId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">TagKeyResponse</a> array

### Consumes

- application/json

### Produces

- application/json

Retrieves list of Service Accounts from the project

```
GET /gcp/ha/metadata/service-accounts
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	project		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpServiceAccountsResponse</a>



### Consumes

- application/json

### Produces

- application/json

**Retrieves list of Projects that the caller has permission on**

```
GET /gcp/ha/metadata/projects
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpProjectsResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves packages configuration**

```
GET /gcp/ha/metadata/packages
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">PackageInfoResponse</a> array

### Consumes

- application/json

### Produces

- application/json

**Retrieves GCP regions over which an Cloud Volumes ONTAP working environment may be created**

```
GET /gcp/ha/metadata/regions
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	project		false	string	
QueryParameter	fields		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpRegionResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves all cloud storage buckets

```
GET /gcp/ha/metadata/buckets
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	projectId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpBucket</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves GCP regions and zones over which an Cloud Volumes ONTAP working environment may be created.

```
GET /gcp/ha/metadata/zones
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	project		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpZonesAndRegionResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieves all Cloud Volumes ONTAP configurations.**

```
GET /gcp/ha/metadata/permutations
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region	Filter by region	false	string	
QueryParameter	version	Filter by version	false	string	
QueryParameter	license	Filter by license	false	string	
QueryParameter	machine_type	Filter by machine type	false	string	
QueryParameter	latest_only	Filter latest only	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">Configuration</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves supported disk types

```
GET /gcp/ha/metadata/gcp-disk-types
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpDiskTypeResponse</a> array

### Consumes

- application/json

### Produces

- application/json

## Retrieves default snapshot policies available on a cluster

```
GET /gcp/ha/metadata/default-snapshot-policies
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotPolicy</a> array

### Consumes

- application/json

### Produces

- application/json

## Create new bucket

```
POST /gcp/ha/metadata/create-bucket
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create new bucket request	true	<a href="#">CreateBucketRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Retrieves instance types not supporting acceleration and capacity tiering

```
GET /gcp/ha/metadata/instance-types-not-supporting-acceleration-and-capacity-tiering
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">InstanceTypesNotSupportingAccelerationAndCapacityTieringResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Retrieves supported capacity tiers for gcp disk types

```
GET /gcp/ha/metadata/supported-capacity-tiers
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	ontapVersion		true	string	
QueryParameter	dataEncryptionType		true	string	
QueryParameter	licenseType		true	string	
QueryParameter	instanceType		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportedCapacityTiers</a>

## Consumes

- application/json

## Produces

- application/json

## Gcp-ha:volumes

### Move an existing volume

```
POST /gcp/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/move
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">VolumeMoveRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Creates a new volume. If the properties aggregateName and maxNumOfDisksApprovedToAdd are not filled in, then the response will fail with a suggested aggregate name and the number of disks that will need to be created in order to fulfill the request**

```
POST /gcp/ha/volumes
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	createAggregateIfNotFound	On create volume request, allow creating not-found aggregate	false	boolean	

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create volume request	true	<a href="#">VsaVolumeCreateRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

#### Retrieves volumes

```
GET /gcp/ha/volumes
```

#### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumeResponse</a> array

#### Consumes

- application/json

#### Produces

- application/json

**Quotes a new volume. Returns a resource quote needed to satisfy the requested volume**

```
POST /gcp/ha/volumes/quote
```

#### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Quote volume request	true	<a href="#">VsaVolumeQuoteRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaVolumeQuoteResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Get all igroups

```
GET /gcp/ha/volumes/igroups/{workingEnvironmentId}/{svmName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">IGroup</a> array

## Consumes

- application/json

## Produces

- application/json

## Clones an existing volume

```
POST /gcp/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/clone
```

## Parameters



Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">VolumeCloneRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Retrieves volumes for Backup Activation

```
GET /gcp/ha/volumes/volumes-for-backup
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	
QueryParameter	offset	offset	false	integer (int32)	
QueryParameter	limit	limit	false	integer (int32)	
QueryParameter	search	search	false	string	
QueryParameter	filterBy	filterBy should be of the form field:value. For multiple filters use comma separator.	false	ref	
QueryParameter	sortBy	sortBy should be of the form field:Asc or field:Desc. For multiple sorting use comma separator.	false	ref	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumesListForBackup</a>

## Consumes

- application/json

## Produces

- application/json

## Change underlying volume tier

```
POST /gcp/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/change-tier
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">ChangeVolumeT ierRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Create snapshot manually

```
POST  
/gcp/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotCreateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Delete snapshot manually

```
DELETE
/gcp/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotDeleteRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Add ISCSI initiator

```
POST /gcp/ha/volumes/initiator
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	ISCSI initiator request	true	<a href="#">Initiator</a>	

## Consumes

- application/json

## Produces

- application/json

## Get all ISCSI initiators

```
GET /gcp/ha/volumes/initiator
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">InitiatorEntry</a> array

## Consumes

- application/json

## Produces

- application/json

## Modify an existing volume

```
PUT /gcp/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	ref	
BodyParameter	body	Modify volume request	true	<a href="#">VolumeModifyRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Deletes an existing volume

```
DELETE /gcp/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	

### Consumes

- application/json

### Produces

- application/json

### Return a list of snapshot descriptions for the volume

```
GET  
/gcp/ha/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshots
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Gcp-ha:working-environments

### Activate snapshot policy assignment to all not protected rw volumes

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/activate-snapshot-policy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	

## Consumes

- application/json

## Produces

- application/json

### Performs a complete image update operation on the single node of the specified Cloud Volumes ONTAP

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/update-image
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
BodyParameter	body	Update system image request	true	<a href="#">UpdateSystemIm ageRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Working Environment Cost And Usage

```
GET /gcp/ha/working-environments/{workingEnvironmentId}/cost-and-usage
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	start	cost and usage start period	false	string	
QueryParameter	end	cost and usage end period	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkingEnvironmentCostAndUsageResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Retrieves a list of versions to which this Cloud Volumes ONTAP can be upgraded

```
GET /gcp/ha/working-environments/{workingEnvironmentId}/occm-provided-upgrade-versions
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">OntapUpdateImageMetadata</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves an Cloud Volumes ONTAP working environment

```
GET /gcp/ha/working-environments/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
PathParameter	workingEnvironm entId		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpVsaWorkingEnvironmentRespo nse</a>

## Consumes

- application/json

## Produces

- application/json

## Deletes an existing Cloud Volumes ONTAP working environment, including all Cloud resources created for this working environment (unless the localDelete flag is set to true)

```
DELETE /gcp/ha/working-environments/{workingEnvironmentId}
```

## Parameters



Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	localDelete	If true, the Cloud Volumes ONTAP instance is not terminated in Cloud, but Cloud Manager no longer manages the working environment.	false	boolean	false
QueryParameter	forceDelete	If true, the working environment will be deleted even if it is part of one or more SnapMirror relationships.	false	boolean	false

#### Consumes

- application/json

#### Produces

- application/json

#### Setup a new CIFS Configuration to an existing Cloud Volumes ONTAP working environment

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/cifs
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSConfigurationRequest</a>	

#### Consumes

- application/json

## Produces

- application/json

## Retrieves CIFS Configuration to an existing Cloud Volumes ONTAP working environment

```
GET /gcp/ha/working-environments/{workingEnvironmentId}/cifs
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	svm		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CIFSConfigurationResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Creates a new Cloud Volumes ONTAP GCP HA working environment.

```
POST /gcp/ha/working-environments
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Working environment	true	<a href="#">CreateGcpVsaWorkingEnvironmentRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpVsaWorkingEnvironmentResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves Cloud Volumes ONTAP working environments visible to the currently logged in user**

```
GET /gcp/ha/working-environments
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
QueryParameter	tenantId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpVsaWorkingEnvironmentResponse</a> array

### Consumes

- application/json

### Produces

- application/json

**Delete FPolicy for ransomware files**

```
DELETE /gcp/ha/working-environments/{workingEnvironmentId}/fpolicy
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

### Consumes

- application/json

## Produces

- application/json

## Modify the net port broadcast domain mtu of the Cloud Volumes ONTAP

```
PUT /gcp/ha/working-  
environments/{workingEnvironmentId}/networkOptimization
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
BodyParameter	body	Use optimization	true	<a href="#">ChangeNetwork OptimizationReq uest</a>	

## Consumes

- application/json

## Produces

- application/json

## Starts a specific Cloud Volumes ONTAP instance

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/start
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	

## Consumes

- application/json

## Produces

- application/json

## List start-stop schedules for Cloud Volumes ONTAP

```
GET /gcp/ha/working-environments/{workingEnvironmentId}/schedules
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaSchedule</a> array

### Consumes

- application/json

### Produces

- application/json

## Set schedules for Cloud Volumes ONTAP

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/schedules
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Cloud Volumes ONTAP working environment update schedule request	true	<a href="#">VsaSchedulesRequest</a>	

### Consumes

- application/json

## Produces

- application/json

## Change tier level

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/change-tier-level
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Change tier level request	true	<a href="#">ChangeTierLevelRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Setup NTP server

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/ntp
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	NTP Configuration request	true	<a href="#">NTPConfigurationRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Parses an uploaded Cloud license file

```
POST /gcp/ha/working-environments/parse-license-file
```

### Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	filename	Cloud license file name	false	string	
BodyParameter	license	license	false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">ProvidedLicenseResponse</a>

### Consumes

- multipart/form-data

### Produces

- application/json

## Register extra capacity serials

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	licenses serial(s)	true	<a href="#">LicensesSerials</a>	

### Consumes

- application/json

### Produces

- application/json

## Update extra capacity serials

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity serial(s)	true	<a href="#">LicensesSerials</a>	

### Consumes

- application/json

### Produces

- application/json

## Delete extra capacity licenses by serials

```
DELETE /gcp/ha/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity serial(s)	true	<a href="#">LicensesSerials</a>	

### Consumes

- application/json

### Produces

- application/json



## Disable FPolicy for ransomware files

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/disable-fpolicy
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	

### Consumes

- application/json

### Produces

- application/json

## Delete CIFS Configuration of an existing Cloud Volumes ONTAP working environment

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/delete-cifs
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSDeleteRequ est</a>	

### Consumes

- application/json

### Produces

- application/json

## Working Environment Ontap Saving

```
GET /gcp/ha/working-environments/{workingEnvironmentId}/ontap-saving
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkingEnvironmentOntapSavingResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Retrieves images already installed on the Cloud Volumes ONTAP

```
GET /gcp/ha/working-environments/{workingEnvironmentId}/ontap-available-images
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">UpdateLocalImage</a> array

## Consumes

- application/json

## Produces

- application/json

## Uploads a Cloud license file content on the provided Cloud Volumes ONTAP

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/upload-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	license file content request	true	<a href="#">LicenseFileContent</a>	

### Consumes

- application/json

### Produces

- application/json

## Registers a Cloud Volumes ONTAP system with NetApp

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/support-registration
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	nssAccountId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportRegistrationResponse</a>

### Consumes

- application/json

## Produces

- application/json

## Retrieves the support registration status of a Cloud Volumes ONTAP system

```
GET /gcp/ha/working-environments/{workingEnvironmentId}/support-registration
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportRegistrationResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Change serial number of Cloud Volumes ONTAP

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/change-serial
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Change serial number request	true	<a href="#">ChangeSerialNumberRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Stops a specific Cloud Volumes ONTAP instance

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/stop
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	takeSnapshots	Take snapshots before stopping Cloud Volumes ONTAP	true	boolean	true

## Consumes

- application/json

## Produces

- application/json

## Sets the writing speed for Cloud Volumes ONTAP

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/writing-speed
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Writing speed request	true	<a href="#">WritingSpeedRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Register extra capacity license

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity licenses(s)	true	<a href="#">LicensesContent</a>	

### Consumes

- application/json

### Produces

- application/json

## Get extra capacity licenses for cvo

```
GET /gcp/ha/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Consumes

- application/json

### Produces

- application/json

## Update extra capacity license

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity license(s)	true	<a href="#">LicensesContent</a>	

### Consumes

- application/json

### Produces

- application/json

### Create snapshot policy

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/snapshot-policy
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
BodyParameter	body	Create snapshot policy request	true	<a href="#">SnapshotPolicyCreateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Modify the svm name of the Cloud Volumes ONTAP

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/svm
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Svm name modification request	true	<a href="#">SvmNameModificationRequest</a>	

## Consumes

- application/json

## Produces

- application/json

Retrieves eligibility support status of a Cloud Volumes ONTAP system. Valid values - NSS\_NOT\_VALID, NOT\_REGISTERED, IPA\_PROBLEM, VALID, NSS\_NOT\_EXISTS, LICENSE\_EXPIRED

```
GET /gcp/ha/working-environments/{workingEnvironmentId}/update-eligibility
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
200	success	<a href="#">EligibilityResponse</a>
400	Working Environment must be ON or UPDATING in order to check eligibility	No Content

## Consumes

- application/json

## Produces

- application/json



**Updates default vscan file operation profile. Profile on existing CIFS shares will change only on writes-only mode**

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/vscan-file-op
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Vscan file-operation Request	true	<a href="#">VscanFileOpRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Enable capacity tiering

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/enable-capacity-tiering
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Enable capacity tiering request	false	<a href="#">EnableCapacityTieringRequest</a>	

### Consumes

- application/json

### Produces

- application/json

## Sets the cluster password of a specific Cloud Volumes ONTAP

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/set-password
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	occmOnly		false	boolean	
BodyParameter	body	Set password request	true	<a href="#">PasswordWrapper</a>	

### Consumes

- application/json

### Produces

- application/json

## Uploads a Cloud license file on the provided Cloud Volumes ONTAP

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/upload-license-file
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
HeaderParameter	filename	Cloud license file name	false	string	
BodyParameter	license	license	false	string	

### Consumes

- multipart/form-data

### Produces

- application/json

## Retrieves editable tags for cloud resources of a given Cloud Volumes ONTAP instance

```
GET /gcp/ha/working-environments/{workingEnvironmentId}/user-tags
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">UserTagsResponse</a>

### Consumes

- application/json

### Produces

- application/json

## Modify user tags for cloud resources of a given Cloud Volumes ONTAP instance

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/user-tags
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Modify user tags request	true	<a href="#">ModifyUserTagsRequest</a>	

### Consumes

- application/json

### Produces

- application/json

## Activate offbox configuration

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/offbox
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	

### Consumes

- application/json

### Produces

- application/json

## Manually triggers subscription sync for all Cloud Volumes ONTAP working environments

```
POST /gcp/ha/working-environments/sync-subscription
```

### Consumes

- application/json

### Produces

- application/json

## Retrieves action parameters used in create request of a given Cloud Volumes ONTAP instance

```
GET /gcp/ha/working-environments/{workingEnvironmentId}/create-request-  
parameters
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">CreateRequestParametersResponse</a>

#### Consumes

- application/json

#### Produces

- application/json

#### Updates Cloud Manager password of a specific Cloud Volumes ONTAP

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/update-credentials
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Update Cloud Manager password request	true	<a href="#">UpdateCredentialsRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

#### Activate FPolicy for ransomware files

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/activate-fpolicy
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Consumes

- application/json

## Produces

- application/json

**Setup a new CIFS using workgroup configuration to an existing Cloud Volumes ONTAP working environment**

```
POST /gcp/ha/working-environments/{workingEnvironmentId}/cifs-workgroup
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSWorkgroup ConfigurationRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Checks for the presence of non-persistent locks held on CIFS Sessions.**

```
GET /gcp/ha/working-environments/{workingEnvironmentId}/cifs-locks-exist
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Responses

HTTP Code	Description	Schema
default	success	boolean

### Consumes

- application/json

### Produces

- application/json

**Retrieves all license types and their associated instance types for a given Cloud Volumes ONTAP instance**

```
GET /gcp/ha/working-environments/{workingEnvironmentId}/license-instance-type
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">LicenseAndInstanceType</a> array

### Consumes

- application/json

### Produces

- application/json

**Sets the instance type of a specific Cloud Volumes ONTAP**

```
PUT /gcp/ha/working-environments/{workingEnvironmentId}/license-instance-type
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Instance type modification request	true	<a href="#">LicenseAndInstanceTypeModificationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Gcp-vsa:aggregates

### Creates a new aggregate

```
POST /gcp/vsa/aggregates
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create Aggregate Request	true	<a href="#">VsaAggregateCreateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Deletes an existing aggregate

```
DELETE /gcp/vsa/aggregates/{workingEnvironmentId}/{aggregateName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	



Type	Name	Description	Required	Schema	Default
PathParameter	aggregateName	Name of aggregate to be deleted	true	string	

### Consumes

- application/json

### Produces

- application/json

### Adds disks to an existing aggregate

```
POST /gcp/vsa/aggregates/{workingEnvironmentId}/{aggregateName}/disks
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	aggregateName	Name of aggregate to be updated	true	string	
BodyParameter	body	Add disk to aggregate request	true	<a href="#">AddDisksToAggregateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Retrieves aggregates.**Operation may only be performed on working environments whose status is: ON, INITIALIZING, DEGRADED

```
GET /gcp/vsa/aggregates/{workingEnvironmentId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AggregateResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Gcp-vsa:discovery

Retrieves a list of discovered working environments visible to the current user in the specified Gcp zone.

```
GET /gcp/vsa/discover
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region	Region to discover working environments	true	string	
QueryParameter	project	Project to discover working environments	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">DiscoveredGcpVsaResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Saves a previously discovered Cloud Volumes ONTAP working environment to the Cloud Manager database.**

```
POST /gcp/vsa/recover
```

#### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Working environment	true	<a href="#">RecoverGcpVsaRequest</a>	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpVsaWorkingEnvironmentResponse</a>

#### Consumes

- application/json

#### Produces

- application/json

#### Gcp-vsa:metadata

**Retrieves GCP regions over which an Cloud Volumes ONTAP working environment may be created.**

```
GET /gcp/vsa/metadata/regions
```

#### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	project		false	string	
QueryParameter	fields		false	string	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpRegionResponse</a> array

#### Consumes

- application/json

## Produces

- application/json

**Retrieves list of Service Accounts from the project.**

```
GET /gcp/vsa/metadata/service-accounts
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	project		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpServiceAccountsResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Retrieves supported disk types.**

```
GET /gcp/vsa/metadata/gcp-disk-types
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpDiskTypeResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieves GCP encryption keys for specific region.**

```
GET /gcp/vsa/metadata/gcp-encryption-keys
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	project		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpEncryptionKey</a> array

### Consumes

- application/json

### Produces

- application/json

Retrieves all Cloud Volumes ONTAP configurations.

```
GET /gcp/vsa/metadata/permutations
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region	Filter by region	false	string	
QueryParameter	version	Filter by version	false	string	
QueryParameter	license	Filter by license	false	string	
QueryParameter	machine_type	Filter by machine type	false	string	
QueryParameter	latest_only	Filter latest only	false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">Configuration</a> array

### Consumes

- application/json

### Produces

- application/json

### Retrieves supported features

```
GET /gcp/vsa/metadata/supported-features
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	ontapVersion		true	string	
QueryParameter	dataEncryptionType		true	string	
QueryParameter	licenseType		true	string	
QueryParameter	instanceType		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportedFeaturesResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Create new bucket.

```
POST /gcp/vsa/metadata/create-bucket
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create new bucket request	true	<a href="#">CreateBucketRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Retrieves instance types not supporting acceleration and capacity tiering**

```
GET /gcp/vsa/metadata/instance-types-not-supporting-acceleration-and-capacity-tiering
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">InstanceTypesNotSupportingAccelerationAndCapacityTieringResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves list of Projects that the caller has permission on.**

```
GET /gcp/vsa/metadata/projects
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpProjectsResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves all cloud storage buckets.**

```
GET /gcp/vsa/metadata/buckets
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	projectId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpBucket</a> array

### Consumes

- application/json

### Produces

- application/json

**Retrieves supported capacity tiers for gcp disk types.**

```
GET /gcp/vsa/metadata/supported-capacity-tiers
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	ontapVersion		true	string	
QueryParameter	dataEncryptionType		true	string	
QueryParameter	licenseType		true	string	
QueryParameter	instanceType		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportedCapacityTiers</a>

### Consumes

- application/json



## Produces

- application/json

Retrieves all the Labels in the given project Id and zone.

```
GET /gcp/vsa/metadata/tag-keys
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	projectId		true	string	
QueryParameter	zone		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">TagKeyResponse</a> array

## Consumes

- application/json

## Produces

- application/json

Retrieves default snapshot policies available on a cluster

```
GET /gcp/vsa/metadata/default-snapshot-policies
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotPolicy</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieves the minimum number of required IPs for a Cloud Volumes ONTAP system.**

```
GET /gcp/vsa/metadata/network-requirements
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpNetworkRequirementsResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves packages configuration**

```
GET /gcp/vsa/metadata/packages
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">PackageInfoResponse</a> array

### Consumes

- application/json

### Produces

- application/json

### Gcp-vsa:volumes

**Creates a new volume. If the properties aggregateName and maxNumOfDisksApprovedToAdd are not filled in, then the response will fail with a suggested aggregate name and the number of disks that will need to be created in order to fulfill the request. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
POST /gcp/vsa/volumes
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	createAggregateIfNotFound	On create volume request, allow creating not-found aggregate	false	boolean	
BodyParameter	body	Create volume request	true	<a href="#">VsaVolumeCreateRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Retrieves volumes.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
GET /gcp/vsa/volumes
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumeResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Create snapshot manually.**Operation may only be performed on working environments whose status is: ON, DEGRADED

POST

/gcp/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotCreate Request</a>	

### Consumes

- application/json

### Produces

- application/json

**Delete snapshot manually.**Operation may only be performed on working environments whose status is: **ON, DEGRADED**

DELETE

/gcp/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotDelete Request</a>	

### Consumes

- application/json

### Produces

- application/json

Clones an existing volume.Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /gcp/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/clone
```

Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">VolumeCloneRe quest</a>	

Consumes

- application/json

Produces

- application/json

Get all igroups.

```
GET /gcp/vsa/volumes/igroups/{workingEnvironmentId}/{svmName}
```

Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	

Responses

HTTP Code	Description	Schema
default	success	<a href="#">IGroup</a> array

Consumes

- application/json

## Produces

- application/json

**Change underlying volume tier.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST
/gcp/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/change-tier
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">ChangeVolumeTierRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Return a list of snapshot descriptions for the volume.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
GET
/gcp/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshots
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotResponse</a> array

#### Consumes

- application/json

#### Produces

- application/json

**Quotes a new volume. Returns a resource quote needed to satisfy the requested volume. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
POST /gcp/vsa/volumes/quote
```

#### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Quote volume request	true	<a href="#">VsaVolumeQuoteRequest</a>	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaVolumeQuoteResponse</a>

#### Consumes

- application/json

#### Produces

- application/json

**Modify an existing volume. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
PUT /gcp/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

Type	Name	Description	Required	Schema	Default
PathParameter	svmName		true	string	
PathParameter	volumeName		true	ref	
BodyParameter	body	Modify volume request	true	<a href="#">VolumeModifyRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Deletes an existing volume.**Operation may only be performed on working environments whose status is: **ON**, **DEGRADED**

```
DELETE /gcp/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	

### Consumes

- application/json

### Produces

- application/json

**Add ISCSI initiator.**

```
POST /gcp/vsa/volumes/initiator
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	ISCSI initiator request	true	<a href="#">Initiator</a>	



### Consumes

- application/json

### Produces

- application/json

### Get all ISCSI initiators.

```
GET /gcp/vsa/volumes/initiator
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">InitiatorEntry</a> array

### Consumes

- application/json

### Produces

- application/json

### Move an existing volume.Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /gcp/vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/move
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">VolumeMoveReq uest</a>	

### Consumes

- application/json

## Produces

- application/json

**Retrieves volumes for Backup Activation.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
GET /gcp/vsa/volumes/volumes-for-backup
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	
QueryParameter	offset	offset	false	integer (int32)	
QueryParameter	limit	limit	false	integer (int32)	
QueryParameter	search	search	false	string	
QueryParameter	filterBy	filterBy should be of the form field:value. For multiple filters use comma separator.	false	ref	
QueryParameter	sortBy	sortBy should be of the form field:Asc or field:Desc. For multiple sorting use comma separator.	false	ref	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumesListForBackup</a>

## Consumes

- application/json

## Produces

- application/json

**Register extra capacity license**

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

**Parameters**

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity licenses(s)	true	<a href="#">LicensesContent</a>	

**Consumes**

- application/json

**Produces**

- application/json

**Get extra capacity licenses for cvo**

```
GET /gcp/vsa/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

**Parameters**

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

**Consumes**

- application/json

**Produces**

- application/json

**Update extra capacity license**

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity license(s)	true	<a href="#">LicensesContent</a>	

### Consumes

- application/json

### Produces

- application/json

### Parses an uploaded Cloud license file

```
POST /gcp/vsa/working-environments/parse-license-file
```

### Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	filename	Cloud license file name	false	string	
BodyParameter	license	license	false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">ProvidedLicenseResponse</a>

### Consumes

- multipart/form-data

### Produces

- application/json

## Setup NTP server

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/ntp
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	NTP Configuration request	true	<a href="#">NTPConfigurationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

## Delete CIFS Configuration of an existing Cloud Volumes ONTAP working environment

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/delete-cifs
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSDeleteRequest</a>	

### Consumes

- application/json

### Produces

- application/json

## Retrieves editable tags for cloud resources of a given Cloud Volumes ONTAP instance

```
GET /gcp/vsa/working-environments/{workingEnvironmentId}/user-tags
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">UserTagsResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Modify user tags for cloud resources of a given Cloud Volumes ONTAP instance

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/user-tags
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Modify user tags request	true	<a href="#">ModifyUserTagsRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Uploads a Cloud license file on the provided Cloud Volumes ONTAP

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/upload-license-file
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
HeaderParameter	filename	Cloud license file name	false	string	
BodyParameter	license	license	false	string	

### Consumes

- multipart/form-data

### Produces

- application/json

### Setup a new CIFS Configuration to an existing Cloud Volumes ONTAP working environment

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/cifs
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSConfigurationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Retrieves CIFS Configuration to an existing Cloud Volumes ONTAP working environment

```
GET /gcp/vsa/working-environments/{workingEnvironmentId}/cifs
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	svm		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">CIFSConfigurationResponse</a> array

### Consumes

- application/json

### Produces

- application/json

### Uploads a Cloud license file content on the provided Cloud Volumes ONTAP

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/upload-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	license file content request	true	<a href="#">LicenseFileContent</a>	

### Consumes

- application/json

### Produces

- application/json



## Sets the writing speed for Cloud Volumes ONTAP

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/writing-speed
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Writing speed request	true	<a href="#">WritingSpeedRequest</a>	

### Consumes

- application/json

### Produces

- application/json

## Register extra capacity serials

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	licenses serial(s)	true	<a href="#">LicensesSerials</a>	

### Consumes

- application/json

### Produces

- application/json

## Update extra capacity serials

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity serial(s)	true	<a href="#">LicensesSerials</a>	

### Consumes

- application/json

### Produces

- application/json

### Delete extra capacity licenses by serials

```
DELETE /gcp/vsa/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity serial(s)	true	<a href="#">LicensesSerials</a>	

### Consumes

- application/json

### Produces

- application/json

### Delete FPolicy for ransomware files

```
DELETE /gcp/vsa/working-environments/{workingEnvironmentId}/fpolicy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Consumes

- application/json

## Produces

- application/json

## Registers a Cloud Volumes ONTAP system with NetApp

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/support-registration
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	nssAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportRegistrationResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Retrieves the support registration status of a Cloud Volumes ONTAP system

```
GET /gcp/vsa/working-environments/{workingEnvironmentId}/support-registration
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportRegistrationResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Modify the net port broadcast domain mtu of the Cloud Volumes ONTAP

```
PUT /gcp/vsa/working-  
environments/{workingEnvironmentId}/networkOptimization
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Use optimization	true	<a href="#">ChangeNetworkOptimizationRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Working Environment Cost And Usage

```
GET /gcp/vsa/working-environments/{workingEnvironmentId}/cost-and-usage
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	start	cost and usage start period	false	string	
QueryParameter	end	cost and usage end period	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkingEnvironmentCostAndUsageResponse</a>

## Consumes

- application/json

## Produces

- application/json

Retrieves a list of versions to which this Cloud Volumes ONTAP can be upgraded

```
GET /gcp/vsa/working-environments/{workingEnvironmentId}/occm-provided-upgrade-versions
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">OntapUpdateImageMetadata</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves images already installed on the Cloud Volumes ONTAP

```
GET /gcp/vsa/working-environments/{workingEnvironmentId}/ontap-available-images
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">UpdateLocalImage</a> array

## Consumes

- application/json

## Produces

- application/json

## Updates Cloud Manager password of a specific Cloud Volumes ONTAP

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/update-credentials
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Update Cloud Manager password request	true	<a href="#">UpdateCredentialsRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### List start-stop schedules for Cloud Volumes ONTAP

```
GET /gcp/vsa/working-environments/{workingEnvironmentId}/schedules
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaSchedule</a> array

### Consumes

- application/json

### Produces

- application/json

### Set schedules for Cloud Volumes ONTAP

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/schedules
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Cloud Volumes ONTAP working environment update schedule request	true	<a href="#">VsaSchedulesRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Starts a specific Cloud Volumes ONTAP instance

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/start
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	

### Consumes

- application/json

### Produces

- application/json

### Stops a specific Cloud Volumes ONTAP instance

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/stop
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
QueryParameter	takeSnapshots	Take snapshots before stopping Cloud Volumes ONTAP	true	boolean	true

### Consumes

- application/json



## Produces

- application/json

## Enable capacity tiering

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/enable-capacity-tiering
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Enable capacity tiering request	false	<a href="#">EnableCapacityTieringRequest</a>	

## Consumes

- application/json

## Produces

- application/json

Retrieves eligibility support status of a Cloud Volumes ONTAP system. Valid values - NSS\_NOT\_VALID, NOT\_REGISTERED, IPA\_PROBLEM, VALID, NSS\_NOT\_EXISTS, LICENSE\_EXPIRED

```
GET /gcp/vsa/working-environments/{workingEnvironmentId}/update-eligibility
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
200	success	<a href="#">EligibilityResponse</a>
400	Working Environment must be ON or UPDATING in order to check eligibility	No Content

### Consumes

- application/json

### Produces

- application/json

### Disable FPolicy for ransomware files

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/disable-fpolicy
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

### Consumes

- application/json

### Produces

- application/json

### Sets the cluster password of a specific Cloud Volumes ONTAP

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/set-password
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	occmOnly		false	boolean	
BodyParameter	body	Set password request	true	<a href="#">PasswordWrapper</a>	

### Consumes

- application/json

### Produces

- application/json

## Manually triggers subscription sync for all Cloud Volumes ONTAP working environments

```
POST /gcp/vsa/working-environments/sync-subscription
```

### Consumes

- application/json

### Produces

- application/json

## Activate offbox configuration

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/offbox
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Consumes

- application/json

### Produces

- application/json

## Performs a complete image update operation on the single node of the specified Cloud Volumes ONTAP

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/update-image
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Update system image request	true	<a href="#">UpdateSystemImageRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Retrieves an Cloud Volumes ONTAP working environment.**

```
GET /gcp/vsa/working-environments/{workingEnvironmentId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
PathParameter	workingEnvironmentId		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpVsaWorkingEnvironmentResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Deletes an existing Cloud Volumes ONTAP working environment, including all Cloud resources created for this working environment (unless the localDelete flag is set to true)**

```
DELETE /gcp/vsa/working-environments/{workingEnvironmentId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

Type	Name	Description	Required	Schema	Default
QueryParameter	localDelete	If true, the Cloud Volumes ONTAP instance is not terminated in Cloud, but Cloud Manager no longer manages the working environment.	false	boolean	false
QueryParameter	forceDelete	If true, the working environment will be deleted even if it is part of one or more SnapMirror relationships.	false	boolean	false

### Consumes

- application/json

### Produces

- application/json

### Change serial number of Cloud Volumes ONTAP

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/change-serial
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Change serial number request	true	<a href="#">ChangeSerialNumberRequest</a>	

### Consumes

- application/json

### Produces

- application/json

## Setup a new CIFS using workgroup configuration to an existing Cloud Volumes ONTAP working environment

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/cifs-workgroup
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSWorkgroupConfigurationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

Retrieves all license types and their associated instance types for a given Cloud Volumes ONTAP instance

```
GET /gcp/vsa/working-environments/{workingEnvironmentId}/license-instance-type
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">LicenseAndInstanceType</a> array

### Consumes

- application/json

## Produces

- application/json

## Sets the instance type of a specific Cloud Volumes ONTAP

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/license-instance-type
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Instance type modification request	true	<a href="#">LicenseAndInstanceTypeModificationRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Create snapshot policy

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/snapshot-policy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
BodyParameter	body	Create snapshot policy request	true	<a href="#">SnapshotPolicyCreateRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Activate snapshot policy assignment to all not protected rw volumes

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/activate-snapshot-policy
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Consumes

- application/json

### Produces

- application/json

## Change tier level

```
POST /gcp/vsa/working-environments/{workingEnvironmentId}/change-tier-level
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Change tier level request	true	<a href="#">ChangeTierLevelRequest</a>	

### Consumes

- application/json

### Produces

- application/json

## Activate FPolicy for ransomware files

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/activate-fpolicy
```



## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Consumes

- application/json

## Produces

- application/json

## Working Environment Ontap Saving

```
GET /gcp/vsa/working-environments/{workingEnvironmentId}/ontap-saving
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkingEnvironmentOntapSavingResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Modify the svm name of the Cloud Volumes ONTAP

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/svm
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Svm name modification request	true	<a href="#">SvmNameModificationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Creates a new Cloud Volumes ONTAP working environment.**

```
POST /gcp/vsa/working-environments
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Working environment	true	<a href="#">CreateGcpVsaWorkingEnvironmentRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpVsaWorkingEnvironmentResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves Cloud Volumes ONTAP working environments visible to the currently logged in user.**

```
GET /gcp/vsa/working-environments
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
QueryParameter	tenantId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">GcpVsaWorkingEnvironmentResponse</a> array

## Consumes

- application/json

## Produces

- application/json

Updates default vscan file operation profile. Profile on existing CIFS shares will change only on writes-only mode

```
PUT /gcp/vsa/working-environments/{workingEnvironmentId}/vscan-file-op
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Vscan file-operation Request	true	<a href="#">VscanFileOpRequest</a>	

## Consumes

- application/json

## Produces

- application/json

Retrieves action parameters used in create request of a given Cloud Volumes ONTAP instance

```
GET /gcp/vsa/working-environments/{workingEnvironmentId}/create-request-parameters
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">CreateRequestParametersResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Monitoring

#### Retrieve Monitoring info.

```
GET /monitoring/info
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">MonitoringInfoResponse</a>

### Produces

- application/json

#### Disable monitoring.

```
POST /monitoring/{workingEnvironmentId}/disable-monitoring
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Produces

- application/json

## Enable monitoring.

```
POST /monitoring/{workingEnvironmentId}/enable-monitoring
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Produces

- application/json

## Deploy monitoring instance by working environments.

```
POST /monitoring/deploy-by-working-environments
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	deploy monitoring request	true	<a href="#">EnableMonitoringRequest</a>	

## Produces

- application/json

## Occm:asup

Downloads a compressed file of all ASUP files from all VSAs.

```
GET /occm/asup/download-ontap-cloud-asups
```

### Produces

- application/json

**Downloads Cloud Manager support data.**

```
GET /occm/asup/download
```

### Produces

- application/json

**Sends Cloud Manager support data to NetApp Support.**

```
POST /occm/asup/send
```

### Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	serial	occm serial number	false	string	

### Produces

- application/json

**Sends Cloud Volumes ONTAP support data to NetApp Support.**

```
POST /occm/asup/send-Cot-Asup
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	sendToOccm	Send Asup to OCCM	true	boolean	false

### Produces

- application/json

## Get Signed URL for Cloud Manager support data.

```
GET /occm/asup/download-signed
```

### Responses

HTTP Code	Description	Schema
default	success	string

### Produces

- application/json

## Retrieves the AutoSupport configuration.

```
GET /occm/asup
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AsupConfiguration</a>

### Produces

- application/json

## Updates the AutoSupport configuration.

```
PUT /occm/asup
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		false	<a href="#">AsupConfigurationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Sends Cloud Volumes ONTAP performance archive support data to NetApp Support.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /occm/asup/send-Cot-performance-Asup/{workingEnvironmentId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Produces

- application/json

**Occm:config**

**Resets to the default simplicator URI. Internal use only.**

```
POST /occm/config/simplicator/reset
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">ConfigResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves Cloud Manager configuration parameters.**

```
GET /occm/config
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">ConfigValuesResponse</a>



### Consumes

- application/json

### Produces

- application/json

**Configures modifiable Cloud Manager parameters.**

```
PUT /occm/config
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		false	<a href="#">ConfigValuesUpdateRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">ConfigValuesResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves the current simplicator URI and status. Internal use only.**

```
GET /occm/config/simplicator
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">ConfigResponse</a>

### Consumes

- application/json

### Produces

- application/json

## Occm:encryption:certificate

Validates and installs the provided certificate. Successive calls will overwrite any previously installed certificate. The certificate must match a previously generated CSR.

```
POST /occm/encryption/certificate
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	The certificate generated for Cloud Manager	true	<a href="#">InstallCertificatesRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

### Consumes

- application/json

### Produces

- application/json

Retrieves the installed certificate, if one exists.

```
GET /occm/encryption/certificate
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

### Consumes

- application/json

### Produces

- application/json

## Occm:encryption:csr

Generates, stores and returns a certificate signing request (CSR). This CSR can be signed by a CA and then installed in Cloud Manager using `/install_certificate`. Successive calls will not overwrite previously generated CSRs.

```
POST /occm/encryption/csr
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">CsrResponse</a>

### Consumes

- application/json

### Produces

- application/json

Retrieves the most recently generated CSR, if any exists.

```
GET /occm/encryption/csr
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">CsrResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Occm:encryption:key-managers**

Returns specific key manager by public Id.

```
GET /occm/encryption/key-managers/{keyManagerId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	keyManagerId	Public Id of the key manager	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">KeyManagerResponse</a>

## Consumes

- application/json

## Produces

- application/json

Updates an existing key manager.

```
PUT /occm/encryption/key-managers/{keyManagerId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Update key manager request parameters	true	<a href="#">KeyManagerRequest</a>	
PathParameter	keyManagerId	Public Id of the key manager to be updated	true	string	

## Responses

HTTP Code	Description	Schema
200	success	<a href="#">KeyManagerResponse</a>
404	Key manager with the given id does not exist	No Content

## Consumes

- application/json

## Produces

- application/json

**Deletes an existing key manager.**

```
DELETE /occm/encryption/key-managers/{keyManagerId}
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	keyManagerId	Public Id of the key manager to be deleted	true	string	

#### Responses

HTTP Code	Description	Schema
404	Key manager with the given id does not exist	No Content

#### Consumes

- application/json

#### Produces

- application/json

**Adds a new key manager.**

```
POST /occm/encryption/key-managers
```

#### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create key manager request parameters	true	<a href="#">KeyManagerRequest</a>	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">KeyManagerResponse</a>

#### Consumes

- application/json

## Produces

- application/json

## Retrieves all key managers.

```
GET /occm/encryption/key-managers
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">KeyManagerResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Occm:encryption:key-managers-ca-certificates

## Adds a new key manager CA certificate.

```
POST /occm/encryption/key-managers-ca-certificates
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Saves a key manager ca certificate request parameters	true	<a href="#">KeyManagerCaCertificateRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Retrieves all key managers CA certificates.**

```
GET /occm/encryption/key-managers-ca-certificates
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieves a specific key manager CA certificate.**

```
GET /occm/encryption/key-managers-ca-  
certificates/{keyManagerCaCertificateId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	keyManagerCaCertificateId	Public Id of the key manager ca certificate	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Deletes an existing key manager CA certificate.**

```
DELETE /occm/encryption/key-managers-ca-
certificates/{keyManagerCaCertificateId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	keyManagerCaCertificateId	Public Id of the key manager ca certificate to be deleted	true	string	

### Responses

HTTP Code	Description	Schema
404	Key manager ca certificate with the given ID does not exist	No Content

### Consumes

- application/json

### Produces

- application/json

### Occm:key-store

**Generate new key pair and self certificate at key store and return a certificate signing request (CSR). This CSR can be signed by a CA.**

```
POST /occm/key-store/external-certificate-file
```

### Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	certificateFilename	Certificate file name	false	string	
HeaderParameter	privateKeyFilename	Private key file name	false	string	
HeaderParameter	algorithm	Private key algorithm	false	string	
BodyParameter	certificate	The CA signed certificate	false	string	



Type	Name	Description	Required	Schema	Default
BodyParameter	privateKey	The private key associated with the CA signed certificate	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

## Consumes

- multipart/form-data

## Produces

- application/json

**Retrieve the self certificate of Cloud Manager key store, if one exists.**

```
GET /occm/key-store/self-certificate
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Validates and installs the provided certificate in trust store.**

```
POST /occm/key-store/trusted-certificate-file
```

## Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	filename	Trusted certificate file name	false	string	

Type	Name	Description	Required	Schema	Default
BodyParameter	certificate	certificate	false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">TrustedCertificateResponse</a>

### Consumes

- multipart/form-data

### Produces

- application/json

**Validates and installs the provided root CA chain. Successive calls will overwrite any previously installed root CA chain.**

```
POST /occm/key-store/signed-certificate
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	The CA signed certificate	true	<a href="#">InstallCertificatesRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieve the CA signed certificate of Cloud Manager key store, if one exists.**

```
GET /occm/key-store/signed-certificate
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Generate new key pair and self certificate at key store and return a certificate signing request (CSR). This CSR can be signed by a CA.**

```
POST /occm/key-store
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		false	<a href="#">CertificateSigningRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CsrResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Validates and installs the provided root CA chain. Successive calls will overwrite any previously installed root CA chain.**

```
POST /occm/key-store/signed-certificate-file
```

## Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	filename	Certificate file name	false	string	
BodyParameter	certificate	The CA signed certificate	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

## Consumes

- multipart/form-data

## Produces

- application/json

**Return existing trusted certificates added by the user from trust store.**

```
GET /occm/key-store/user-trusted-certificates
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">TrustedCertificateResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Generate new key pair and self certificate at key store and return a certificate signing request (CSR). This CSR can be signed by a CA.**

```
POST /occm/key-store/external-certificate
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	The CA signed certificate and an associated private key	true	<a href="#">InstallCertificatesAndPrivateKeyRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Delete existing trusted certificate from trust store.**

```
DELETE /occm/key-store/trusted-certificate/{certificateId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	certificateId	The trusted certificate's ID	true	string	

## Consumes

- application/json

## Produces

- application/json

**Occm:saas-mp-service**

**Attach SaaS subscription to cloud provider account.**

```
PUT /occm/saas-mp-service/attach-subscription/{provider}/{cloudAccountId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	cloudAccountId	Public Id of cloud provider account	true	string	
PathParameter	provider	cloud provider name	true	enum (AWS, AZURE, GCP)	
BodyParameter	body	Update subscription request	true	<a href="#">UpdateSubscriptionRequest</a>	

## Produces

- application/json

Retrieves current SaaS marketplace account and subscriptions.

```
GET /occm/saas-mp-service/account
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SaasMpAccountResponse</a>

## Produces

- application/json

Retrieves SaaS marketplace subscriptions for cvo.

```
GET /occm/saas-mp-service/{workingEnvironmentId}/subscription
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">DescribeCvoSubscriptionResponse</a>

## Produces

- application/json

## Occm:setup

### Validates that Cloud Manager has an active Internet connection

```
POST /occm/setup/validate/connectivity
```

## Consumes

- application/json

## Produces

- application/json

### Validates a given proxy URL.

```
POST /occm/setup/validate/proxy
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Proxy Url	true	<a href="#">ProxyUri</a>	

## Consumes

- application/json

## Produces

- application/json

## Occm:setup-portal

### Setup a given proxy URL.

```
POST /occm/setup-portal/proxy/setup
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Proxy Url	true	<a href="#">SetProxyRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Performs initial setup with NetApp Cloud Central.**

```
POST /occm/setup-portal/init
```

### Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	Authorization		false	string	
BodyParameter	body	Setup data	true	<a href="#">PortalSetupAsServiceConnectorRequest</a>	

### Responses

HTTP Code	Description	Schema
200	success	<a href="#">InitialSetupResponse</a>
400	If setup already performed	No Content

### Consumes

- application/json

### Produces

- application/json

**Register Cloud Manager to NetApp Cloud Central.**

```
POST /occm/setup-portal/register
```

### Responses

HTTP Code	Description	Schema
200	success	<a href="#">RegistrationResponse</a>
412	Cloud Manager is not configured with NetApp Cloud Central	No Content



HTTP Code	Description	Schema
404	Failed Communicating with NetApp Cloud Central	No Content
409	Cloud Manager is already registered to NetApp Cloud Central	No Content

#### Consumes

- application/json

#### Produces

- application/json

**Complete setup which was pending connectivity.**

```
POST /occm/setup-portal/complete-connectivity-pending-setup
```

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">InitialSetupResponse</a>

#### Consumes

- application/json

#### Produces

- application/json

**Performs initial standalone setup with local identity provider.**

```
POST /occm/setup-portal/init-standalone-local-auth
```

#### Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	Authorization		false	string	
BodyParameter	body	Setup data	true	<a href="#">LocalAuthSetupRequest</a>	

## Responses

HTTP Code	Description	Schema
200	success	<a href="#">InitialSetupResponse</a>
400	If setup already performed	No Content

## Consumes

- application/json

## Produces

- application/json

## Register Cloud Manager in dark site.

```
POST /occm/setup-portal/register-in-local-auth
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">RegistrationResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Validates that Cloud Manager has an active Internet connection

```
POST /occm/setup-portal/validate/connectivity
```

## Consumes

- application/json

## Produces

- application/json

## Occm:system

**Retrieves cloud providers supported regions.**

```
GET /occm/system/cloud-provider-regions
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">ProviderSupportedRegions</a>

### Produces

- application/json

**Checks for a new version of Cloud Manager.**

```
GET /occm/system/available-update-versions
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">UpdateInfo</a> array

### Produces

- application/json

**Updates Cloud Manager with the given patch. Backup should be provided in multipart/form-data, with the file at a part named 'patch'.**

```
POST /occm/system/patch
```

### Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	filename		false	string	
BodyParameter	patch	patch	false	string	

### Consumes

- multipart/form-data

## Produces

- application/json

## Manually trigger daily notification sending.

```
POST /occm/system/manually-trigger-send-daily-notification
```

## Produces

- application/json

## Retrieves Cloud Manager feedback configuration.

```
GET /occm/system/external-config
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">OccmExternalConfiguration</a>

## Produces

- application/json

## Manually activate Cloud Volumes ONTAP capacity automatic management cycle.

```
POST /occm/system/manually-activate-auto-vsa-capacity-management-cycle
```

## Produces

- application/json

## Performs fetch and cache of Cloud Volumes ONTAP and Cloud Manager version information files from s3.

```
POST /occm/system/cloud-ontap-update-metadata
```

## Produces

- application/json

## Retrieves Cloud Manager support services information.

```
GET /occm/system/support-services
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportServices</a>

### Produces

- application/json

**Retrieves the region, VPC, and subnet in which the Cloud Manager instance is running.**

```
GET /occm/system/occm-instance-placement
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	clearCache		false	boolean	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">InstancePlacementResponse</a>

### Produces

- application/json

**Updates Cloud Manager to the given version.**

```
POST /occm/system/update
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		false	<a href="#">VersionWrapper</a>	

### Produces

- application/json

**Performs fetch and processing of Cloud Volumes ONTAP image update metadata files.**

```
POST /occm/system/cloud-ontap-update-image-metadata
```

**Produces**

- application/json

**Retrieves Feature Flags.**

```
GET /occm/system/feature-flags
```

**Responses**

HTTP Code	Description	Schema
default	success	<a href="#">FeatureFlag</a>

**Produces**

- application/json

**Restart server.**

```
POST /occm/system/restart-server
```

**Produces**

- application/json

**Retrieves Cloud Manager server information.**

```
GET /occm/system/about
```

**Responses**

HTTP Code	Description	Schema
default	success	<a href="#">About</a>

**Produces**

- application/json

## Occm:tenancy-service

**Retrieves workspaces that are visible to the currently logged in user.**

```
GET /occm/tenancy-service/workspaces
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkspaceResponse</a> array

### Produces

- application/json

**Associate Service Connector to workspace.**

```
POST /occm/tenancy-service/workspaces/{workspaceId}/associate
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workspaceId		true	string	

### Produces

- application/json

**Updates current Cloud Manager service user.**

```
PUT /occm/tenancy-service/users/update-current-user
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		false	<a href="#">UpdateServiceUser</a>	

### Produces

- application/json

## Onprem:aggregates

**Retrieves aggregates.**

```
GET /onprem/aggregates
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter aggregates by this working environment	true	string	
QueryParameter	checkTieringRestrictions	Check tiering restrictions	false	boolean	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">OnPremAggregateResponse</a> array

### Consumes

- application/json

### Produces

- application/json

**Onprem:metadata**

**Verifies the address and credentials of the given cluster by retrieving the cluster info.**

```
GET /onprem/metadata/cluster-info
```

### Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	clusterAddress	Cluster address	true	string	
HeaderParameter	clusterUsername	Cluster username	true	string	
HeaderParameter	clusterPassword	Cluster password	true	string	

### Responses



HTTP Code	Description	Schema
default	success	<a href="#">ClusterInfoResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Onprem:volumes

**Modify an existing volume.**Operation may only be performed on working environments whose status is: ON

```
PUT /onprem/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	svmName	SVM name	true	string	
PathParameter	volumeName	Name of volume to be modified	true	ref	
BodyParameter	body	Modify volume request	true	<a href="#">OnPremVolumeModifyRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Deletes an existing volume.**Operation may only be performed on working environments whose status is: ON

```
DELETE /onprem/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	svmName	SVM name	true	string	
PathParameter	volumeName	Name of volume to be deleted	true	string	

### Consumes

- application/json

### Produces

- application/json

**Clones an existing volume.Operation may only be performed on working environments whose status is: ON**

```
POST /onprem/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/clone
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	svmName	SVM name	true	string	
PathParameter	volumeName	Name of volume to be cloned	true	string	
BodyParameter	body	Clone volume request	true	<a href="#">VolumeCloneRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Creates a new volume.Operation may only be performed on working environments whose status is: ON**

```
POST /onprem/volumes
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create volume request	true	<a href="#">OnPremVolumeCreateRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Retrieves volumes.**Operation may only be performed on working environments whose status is: ON

```
GET /onprem/volumes
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	
QueryParameter	withMinimumCoolingDays	With minimum cooling days info	false	boolean	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumeResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Create snapshot manually.**Operation may only be performed on working environments whose status is: ON

```
POST
/onprem/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotCreateRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Delete snapshot manually.**Operation may only be performed on working environments whose status is: **ON**

```
DELETE
/onprem/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Delete snapshot request	true	<a href="#">SnapshotDeleteRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Retrieves volumes for Backup Activation.**Operation may only be performed on working environments whose status is: **ON**

```
GET /onprem/volumes/volumes-for-backup
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	
QueryParameter	offset	offset	false	integer (int32)	
QueryParameter	limit	limit	false	integer (int32)	
QueryParameter	search	search	false	string	
QueryParameter	filterBy	filterBy should be of the form field:value. For multiple filters use comma separator.	false	ref	
QueryParameter	sortBy	sortBy should be of the form field:Asc or field:Desc. For multiple sorting use comma separator.	false	ref	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumesListForBackup</a>

### Consumes

- application/json

### Produces

- application/json

**Return a list of snapshot descriptions for the volume.**Operation may only be performed on working environments whose status is: ON

```
GET
/onprem/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshots
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	svmName	SVM name	true	string	
PathParameter	volumeName	Filter snapshot descriptions for specified volume	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Onprem:working-environments

**Setup GCP Backup Cloud to Onprem.**Operation may only be performed on working environments whose status is: ON

```
POST /onprem/working-environments/{workingEnvironmentId}/gcp-cloud-backup-setup
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	GCP Create object store config request	true	<a href="#">GcpCloudBackupSetupRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Discovers on-premises working environment in Cloud Manager.**

```
POST /onprem/working-environments
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Working environment	true	<a href="#">OnPremWorkingEnvironmentDiscoverRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">OnPremWorkingEnvironmentResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Retrieves on-premises working environments visible to the currently logged in user.**

```
GET /onprem/working-environments
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
QueryParameter	tenantId	Public Id of tenant	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">OnPremWorkingEnvironmentResponse</a> array

### Consumes

- application/json

### Produces

- application/json

**Setup AWS Backup Cloud to Onprem.**Operation may only be performed on working environments whose status is: ON

```
POST /onprem/working-environments/{workingEnvironmentId}/aws-cloud-backup-setup
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	AWS Create object store config request	true	<a href="#">AwsCloudBackupSetupRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Retrieves IP Space List to an existing Cloud Volumes ONTAP working environment.**Operation may only be performed on working environments whose status is: ON

```
GET /onprem/working-environments/{workingEnvironmentId}/ip-spaces
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	vserver	Vserver name	false	string	



## Responses

HTTP Code	Description	Schema
default	success	<a href="#">IpSpaceResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieves an on-premises ONTAP working environment.**

```
GET /onprem/working-environments/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">OnPremWorkingEnvironmentRespo nse</a>

## Consumes

- application/json

## Produces

- application/json

**Cloud Manager will no longer manage this working environment, but will not affect the Data ONTAP itself.**

```
DELETE /onprem/working-environments/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Consumes

- application/json

## Produces

- application/json

**Setup Azure Backup Cloud to Onprem.**Operation may only be performed on working environments whose status is: ON

```
POST /onprem/working-environments/{workingEnvironmentId}/azure-cloud-backup-setup
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Azure Create object store config request	true	<a href="#">AzureCloudBackupSetupRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Retrieves CIFS Configuration to an existing Cloud Volumes ONTAP working environment.**Operation may only be performed on working environments whose status is: ON

```
GET /onprem/working-environments/{workingEnvironmentId}/cifs
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	vserver	Vserver name	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CIFSConfigurationResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Setup SGWS Backup Cloud to Onprem.Operation may only be performed on working environments whose status is: ON**

```
POST /onprem/working-environments/{workingEnvironmentId}/sgws-cloud-backup-setup
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	SGWS Create object store config request	true	<a href="#">SgwsCloudBackupSetupRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Updates Cloud Manager password for an On Premises working environment.**

```
PUT /onprem/working-environments/{workingEnvironmentId}/update-credentials
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Update Cloud Manager password request	true	<a href="#">UpdateCredentialsRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Replication

Retrieves SnapMirror replication relationship statuses of a specific working environment.

```
GET /replication/status/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">ReplicationStatusResponse</a> array

## Consumes

- application/json

## Produces

- application/json

Retrieves the intercluster LIFs used in a cluster peering relationship.

```
GET /replication/intercluster-lifs
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	peerWorkingEnvironmentId	Public Id of peer working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">ReplicationInterClusterLifs</a>

### Consumes

- application/json

### Produces

- application/json

**Breaks a SnapMirror replication relationship.**

```
POST
/replication/break/{destinationWorkingEnvironmentId}/{destinationSvmName}/{destinationVolumeName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	destinationWorkingEnvironmentId	Public Id of destination working environment	true	string	
PathParameter	destinationSvmName	Destination SVM name	true	string	
PathParameter	destinationVolumeName	Destination volume name	true	string	

## Consumes

- application/json

## Produces

- application/json

**Reversing an existing SnapMirror relationship. This method can only be performed in case the relationship has already been established and is healthy and idle.**

```
POST
/replication/reverse/{destinationWorkingEnvironmentId}/{destinationSvmName}
/{destinationVolumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	destinationWorkingEnvironmentId	Public Id of the working environment with which the SnapMirror relationship has already been established	true	string	
PathParameter	destinationSvmName	Destination SVM name	true	string	
PathParameter	destinationVolumeName	Destination volume name	true	string	
BodyParameter	body		false	<a href="#">SourceSnapmirrorEndpoint</a>	

## Consumes

- application/json

## Produces

- application/json

**Retrieves the status of all SnapMirror relationships.**

```
GET /replication/status
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	tenantId	Public Id of tenant	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">ReplicationStatusResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Initializes an existing SnapMirror relationship. This method can only be performed in case the relationship has already been established and is healthy, yet is idle and uninitialized. For example, if the initial transfer were interrupted, then it can be restarted with this request.**

```
POST
/replication/initialize/{destinationWorkingEnvironmentId}/{destinationSvmName}/{destinationVolumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	destinationWorkingEnvironmentId	Public Id of the working environment with which the SnapMirror relationship has already been established	true	string	
PathParameter	destinationSvmName	Destination SVM name	true	string	
PathParameter	destinationVolumeName	Destination volume name	true	string	

## Consumes

- application/json

## Produces

- application/json

**Retrieves replication schedules of a specific working environment.**

```
GET /replication/schedules/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of destination working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">ReplicationSchedule</a> array

## Consumes

- application/json

## Produces

- application/json

**Creates a new replication to an on-premises working environment.**

```
POST /replication/onprem
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		false	<a href="#">CreateReplicationRequestToOnPrem</a>	

## Consumes

- application/json

## Produces

- application/json



**Updates the destination endpoint of the SnapMirror relationship.**

```
POST
/replication/update/{destinationWorkingEnvironmentId}/{destinationSvmName}
/{destinationVolumeName}
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	destinationWorkingEnvironmentId	Public Id of destination working environment	true	string	
PathParameter	destinationSvmName	Destination SVM name	true	string	
PathParameter	destinationVolumeName	Destination volume name	true	string	

#### Consumes

- application/json

#### Produces

- application/json

**Creates a new replication to an FSx working environment.**

```
POST /replication/fsx
```

#### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		false	<a href="#">CreateReplicationRequestToFsx</a>	

#### Consumes

- application/json

#### Produces

- application/json

## Resyncs a SnapMirror replication relationship.

```
POST
/replication/resync/{destinationWorkingEnvironmentId}/{destinationSvmName}
/{destinationVolumeName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	destinationWorkingEnvironmentId	Public Id of destination working environment	true	string	
PathParameter	destinationSvmName	Destination SVM name	true	string	
PathParameter	destinationVolumeName	Destination volume name	true	string	

### Consumes

- application/json

### Produces

- application/json

**Creates a new replication to an Cloud Volumes ONTAP working environment.**

```
POST /replication/vsa
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		false	<a href="#">CreateReplicationRequestToVsa</a>	

### Consumes

- application/json

### Produces

- application/json

## Return pairs of relationships.

```
GET /replication/all-relationships
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workspaceId	Public Id of workspaceId	false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AllRelationships</a>

### Consumes

- application/json

### Produces

- application/json

## Removes a replication relationship.

```
DELETE
/replication/{destinationWorkingEnvironmentId}/{destinationSvmName}/{destinationVolumeName}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	destinationWorkingEnvironmentId	Public Id of destination working environment	true	string	
PathParameter	destinationSvmName	Destination SVM name	true	string	
PathParameter	destinationVolumeName	Destination volume name	true	string	

### Consumes

- application/json

## Produces

- application/json

## Updates a SnapMirror replication relationship.

```
PUT
/replication/{workingEnvironmentId}/{destinationSvmName}/{destinationVolumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Replication update request	true	<a href="#">ReplicationUpdateRequest</a>	
PathParameter	destinationSvmName	Destination SVM name	true	string	
PathParameter	destinationVolumeName	Destination volume name	true	string	

## Consumes

- application/json

## Produces

- application/json

## Replication:metadata

## retrieves SnapMirror policies based on source and destination Cloud Volumes ONTAP.

```
GET /replication/metadata/snapmirror-svm-policies/{sourceWorkingEnvironmentId}/{svmName}/{targetWorkingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	sourceWorkingEnvironmentId	Public Id of source working environment	true	string	

Type	Name	Description	Required	Schema	Default
PathParameter	svmName	SVM name	true	string	
PathParameter	targetWorkingEnvironmentId	Public Id of destination working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapMirrorPolicyResponse</a> array

## Consumes

- application/json

## Produces

- application/json

retrieves SnapMirror policies based on source and destination Cloud Volumes ONTAP.

```
GET /replication/metadata/snapmirror-
policies/{sourceWorkingEnvironmentId}/{targetWorkingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	sourceWorkingEnvironmentId	Public Id of source working environment	true	string	
PathParameter	targetWorkingEnvironmentId	Public Id of destination working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapMirrorPolicyResponse</a> array

## Consumes

- application/json

## Produces

- application/json

return list of snapshot labels from the volume matching labels in the passed list.Operation may only be performed on working environments whose status is: ON, DEGRADED

```
GET /replication/metadata/snapshot-  
labels/{workingEnvironmentId}/{svmName}/{volumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
PathParameter	svmName	SVM name	true	string	
PathParameter	volumeName	Volume name	true	string	
QueryParameter	labels		false	csv string array	

## Responses

HTTP Code	Description	Schema
default	success	string array

## Consumes

- application/json

## Produces

- application/json

## Tenants

**Creates a new tenant.**

```
POST /tenants
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		true	<a href="#">AddTenantRequ est</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">TenantResponse</a>

## Consumes

- application/json

## Produces

- application/json

Retrieves tenants that are visible to the currently logged in user.

```
GET /tenants
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">TenantResponse</a> array

## Consumes

- application/json

## Produces

- application/json

Retrieves a tenant.

```
GET /tenants/{tenantId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
PathParameter	tenantId	Public Id of tenant	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">TenantResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Updates an existing tenant.**

```
PUT /tenants/{tenantId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	tenantId	Public Id of tenant	true	string	
BodyParameter	body	Tenant update request	true	<a href="#">UpdateTenantRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">TenantResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Deletes an existing tenant. It is not possible to delete a tenant over which working environments exist.**

```
DELETE /tenants/{tenantId}
```

## Parameters



Type	Name	Description	Required	Schema	Default
PathParameter	tenantId	Public Id of the tenant to be deleted	true	string	

#### Consumes

- application/json

#### Produces

- application/json

**Links an existing tenant to a NetApp Support Site account.**

```
PUT /tenants/{tenantId}/nss-keys
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	tenantId	Public Id of the tenant to be updated	true	string	
BodyParameter	body		true	<a href="#">SetNssKeysRequest</a>	

#### Responses

HTTP Code	Description	Schema
default	success	<a href="#">TenantResponse</a>

#### Consumes

- application/json

#### Produces

- application/json

**User-mng:auth**

**Log in to Cloud Manager.**

```
POST /auth/login
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		false	<a href="#">UserPasswordRequest</a>	

## Responses

HTTP Code	Description	Schema
401	Incorrect email/password combination	No Content
408	Failed Communicating with Active Directory	No Content

## Consumes

- application/json

## Produces

- application/json

**Authenticate with local identity provider.**

```
POST /auth/local/authenticate
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		false	<a href="#">AuthRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Retrieves representation of currently logged in user.**

```
GET /auth/current-user
```

## Responses

HTTP Code	Description	Schema
200	success	<a href="#">UserResponse</a>
401	No user is currently logged in	No Content
403	No connectivity - SSL Exception	No Content
409	Setup halted. Internet connectivity required to complete	No Content

#### Consumes

- application/json

#### Produces

- application/json

#### Log out of Cloud Manager.

```
POST /auth/logout
```

#### Responses

HTTP Code	Description	Schema
401	No user is currently logged in	No Content

#### Consumes

- application/json

#### Produces

- application/json

#### Changes the password of the currently logged in user.

```
PUT /auth/current-user/change-password
```

#### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Change current user password request parameters	true	<a href="#">ResetPassword</a>	

## Responses

HTTP Code	Description	Schema
401	No user is currently logged in	No Content

## Consumes

- application/json

## Produces

- application/json

User-mng:users

Retrieves a specific user.

```
GET /users/{userId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	userId	Public Id of user	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">UserResponse</a>

## Consumes

- application/json

## Produces

- application/json

Updates an existing user.

```
PUT /users/{userId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		false	<a href="#">UpdateUserRequest</a>	

Type	Name	Description	Required	Schema	Default
PathParameter	userId	Public Id of user	true	string	

## Responses

HTTP Code	Description	Schema
200	success	<a href="#">UserResponse</a>
404	User with the given user id does not exist	No Content

## Consumes

- application/json

## Produces

- application/json

**Deletes an existing user. It is not possible to delete a user that has created existing working environments. It is not possible to delete the logged in user.**

```
DELETE /users/{userId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	userId	Public Id of the user to be deleted	true	string	

## Responses

HTTP Code	Description	Schema
404	User with the given user id does not exist	No Content

## Consumes

- application/json

## Produces

- application/json

**Creates a new user.**

POST /users

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		true	<a href="#">UserRequest</a>	

### Responses

HTTP Code	Description	Schema
200	success	<a href="#">UserResponse</a>
404	Either the provided tenant or role assigned to the new user does not exist	No Content

### Consumes

- application/json

### Produces

- application/json

Retrieves all users visible to the current user.

GET /users

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">UserResponse</a> array

### Consumes

- application/json

### Produces

- application/json

Add existing NetApp Cloud Central user to Cloud Manager.

POST /users/add-user

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		true	<a href="#">AddPortalUserRequest</a>	

### Responses

HTTP Code	Description	Schema
200	success	<a href="#">UserResponse</a>
404	Either the provided tenant or role assigned to the new user does not exist	No Content

### Consumes

- application/json

### Produces

- application/json

### Remove user from Cloud Manager.

```
DELETE /users/{userId}/remove-user
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	userId	Public Id of user	true	string	

### Consumes

- application/json

### Produces

- application/json

### Resets the password of the given user.

```
PUT /users/{userId}/reset-password
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	userId	Public Id of the user whose password is to be reset	true	string	
BodyParameter	body	Reset password request	true	<a href="#">ResetUserPasswordRequest</a>	

## Responses

HTTP Code	Description	Schema
403	The current user does not have permissions to perform this operation for the given user	No Content

## Consumes

- application/json

## Produces

- application/json

**Grants or revokes permissions to the given user for performing operations over the given working environments.**

```
POST /users/{userId}/working-environments-grant-revoke
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body		false	<a href="#">GrantPermission</a>	
PathParameter	userId	Public Id of the user whose permissions are to be changed	true	string	

## Responses

HTTP Code	Description	Schema
404	User with the given user id does not exist	No Content

## Consumes

- application/json



## Produces

- application/json

## Vsa:aggregates

### Adds disks to an existing aggregate

```
POST /vsa/aggregates/{workingEnvironmentId}/{aggregateName}/disks
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	aggregateName	Name of aggregate to be updated	true	string	
BodyParameter	body	Add disk to aggregate request	true	<a href="#">AddDisksToAggregateRequest</a>	

## Consumes

- application/json

## Produces

- application/json

### Deletes an existing aggregate

```
DELETE /vsa/aggregates/{workingEnvironmentId}/{aggregateName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	aggregateName	Name of aggregate to be deleted	true	string	

### Consumes

- application/json

### Produces

- application/json

### Creates a new aggregate

```
POST /vsa/aggregates
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Create Aggregate Request	true	<a href="#">VsaAggregateCreateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

### Retrieves aggregates

```
GET /vsa/aggregates
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Public Id of working environment	false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">AggregateResponse</a> array

### Consumes

- application/json

## Produces

- application/json

## Vsa:discovery

**Saves a previously discovered Cloud Volumes ONTAP working environment to the Cloud Manager database.**

```
POST /vsa/recover
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Working environment	true	<a href="#">RecoverVsaRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaWorkingEnvironmentResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Retrieves a list of discovered working environments visible to the current user in the specified AWS region.**

```
GET /vsa/discover
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region	Region to discover working environments	true	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">DiscoveredVsaResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Vsa:encryption

### Updates the client certificate on the Cloud Volumes ONTAP system

```
POST /vsa/encryption/{workingEnvironmentId}/update-client-certificate
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

## Consumes

- application/json

## Produces

- application/json

### Adds a key manager to the Cloud Volumes ONTAP system

```
POST /vsa/encryption/{workingEnvironmentId}/key-managers/{keyManagerIp}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	keyManagerIp	Key manager IP address	true	string	

### Consumes

- application/json

### Produces

- application/json

### Deletes a key manager from the Cloud Volumes ONTAP system

```
DELETE /vsa/encryption/{workingEnvironmentId}/key-managers/{keyManagerIp}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
PathParameter	keyManagerIp	Key manager IP address	true	string	

### Consumes

- application/json

### Produces

- application/json

### Updates the key manager CA certificate on the Cloud Volumes ONTAP system

```
POST /vsa/encryption/{workingEnvironmentId}/update-key-manager-ca-certificate
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Update Cloud Volumes ONTAP key manager CA certificate request parameters	true	<a href="#">UpdateKeyManagerCaCertificateRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CertificateResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Vsa:metadata

### Retrieve S3 buckets summary

```
GET /vsa/metadata/s3-summary
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">S3Summary</a>

## Consumes

- application/json

## Produces

- application/json

### Retrieves AWS user Key Pairs for specific region

```
GET /vsa/metadata/key-pairs
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	roleArn		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	string array

## Consumes

- application/json

## Produces

- application/json

## Create new S3 bucket

```
POST /vsa/metadata/create-bucket
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	bucketName		true	string	

## Consumes

- application/json

## Produces

- application/json

## Retrieves instance types not supporting acceleration and capacity tiering

```
GET /vsa/metadata/instance-types-not-supporting-acceleration-and-capacity-tiering
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">InstanceTypesNotSupportingAccelerationAndCapacityTieringResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Retrieves all the Tag names

```
GET /vsa/metadata/tag-keys
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	roleArn		false	string	
QueryParameter	cloudProviderAccountId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">TagKeyResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieve S3 buckets policy status and tiering level

```
POST /vsa/metadata/get-buckets-application-info
```

## Parameters



Type	Name	Description	Required	Schema	Default
BodyParameter	body	Request for retrieving Buckets Additional info	true	<a href="#">BucketsPolicyAndTieringInfoRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">BucketAdditionalData</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieves supported EBS volume types

```
GET /vsa/metadata/ebs-volume-types
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">EbsVolumeType</a> array

## Consumes

- application/json

## Produces

- application/json

Retrieves all Cloud Manager manifests. Refer to the API Developers Guide in order to understand how to extract valid region codes, license types, instance types and Cloud Volumes ONTAP version parameters for the creation of a Cloud Volumes ONTAP working environment.

```
GET /vsa/metadata/manifests
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">MetadataResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves the minimum number of required IPs for a single Cloud Volumes ONTAP system, an HA node, and HA mediator**

```
GET /vsa/metadata/network-requirements
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">NetworkRequirementsResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves AWS instance profiles**

```
GET /vsa/metadata/instance-profiles
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	roleArn		false	string	
QueryParameter	cloudProviderAccountid		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">InstanceProfileResponse</a> array

### Consumes

- application/json

## Produces

- application/json

## Retrieves AWS user Key Pairs for all regions

```
GET /vsa/metadata/key-pairs-by-region
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	roleArn		false	string	
QueryParameter	cloudProviderAc countId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">KeyPairsByRegionResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Retrieves AWS encryption keys for specific region

```
GET /vsa/metadata/aws-encryption-keys
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	roleArn		false	string	
QueryParameter	cloudProviderAc countId		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AwsEncryptionKey</a> array

### Consumes

- application/json

### Produces

- application/json

### Retrieves supported features

```
GET /vsa/metadata/supported-features
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	ontapVersion		true	string	
QueryParameter	dataEncryptionType		true	string	
QueryParameter	licenseType		true	string	
QueryParameter	instanceType		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportedFeaturesResponse</a>

### Consumes

- application/json

### Produces

- application/json

### Validates the current user is subscribed to Cloud Volumes ONTAP product in Amazon marketplace

```
POST /vsa/metadata/validate-subscribed-to-ontap-cloud
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Validate subscribed to Cloud Volumes ONTAP request	true	<a href="#">AwsValidateSubscribedToOntapCloudRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">AwsValidateSubscribedToOntapCloudResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Retrieves default snapshot policies available on a cluster

```
GET /vsa/metadata/default-snapshot-policies
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotPolicy</a> array

## Consumes

- application/json

## Produces

- application/json

## Retrieve all S3 buckets with additional info

```
GET /vsa/metadata/get-buckets-details
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">S3BucketsSummary</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves AWS regions over which an Cloud Volumes ONTAP working environment may be created**

```
GET /vsa/metadata/regions
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">Region</a> array

### Consumes

- application/json

### Produces

- application/json

**Retrieve all S3 buckets**

```
GET /vsa/metadata/buckets
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	tagsRequired		false	boolean	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">S3BucketInfo</a> array

### Consumes

- application/json

### Produces

- application/json

## Retrieves supported capacity tiers for EBS volume types

```
GET /vsa/metadata/supported-capacity-tiers
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	ontapVersion		true	string	
QueryParameter	dataEncryptionType		true	string	
QueryParameter	licenseType		true	string	
QueryParameter	instanceType		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportedCapacityTiers</a>

### Consumes

- application/json

### Produces

- application/json

## Retrieves packages configuration

```
GET /vsa/metadata/packages
```

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">PackageInfoResponse</a> array

### Consumes

- application/json

### Produces

- application/json

**Retrieves all Cloud Volumes ONTAP configurations.**

```
GET /vsa/metadata/permutations
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region	Filter by region	false	string	
QueryParameter	version	Filter by version	false	string	
QueryParameter	license	Filter by license	false	string	
QueryParameter	instance_type	Filter by instance type	false	string	
QueryParameter	default_instance_type	Filter by default instance type	false	string	
QueryParameter	feature	Filter by feature	false	string	
QueryParameter	latest_only	Filter latest only	false	string	
QueryParameter	ami	Filter by ami id	false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">Configuration</a> array

### Consumes

- application/json

### Produces

- application/json

### Retrieves VPCs

```
GET /vsa/metadata/vpcs
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	region		true	string	
QueryParameter	roleArn		false	string	
QueryParameter	cloudProviderAccountid		false	string	



## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VpcExtendedResponse</a> array

## Consumes

- application/json

## Produces

- application/json

## Vsa:volumes

**Quotes a new volume. Returns a resource quote needed to satisfy the requested volume. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
POST /vsa/volumes/quote
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Quote volume request	true	<a href="#">VsaVolumeQuoteRequest</a>	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaVolumeQuoteResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Retrieves volumes for Backup Activation. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
GET /vsa/volumes/volumes-for-backup
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	
QueryParameter	offset	offset	false	integer (int32)	
QueryParameter	limit	limit	false	integer (int32)	
QueryParameter	search	search	false	string	
QueryParameter	filterBy	filterBy should be of the form field:value. For multiple filters use comma separator.	false	ref	
QueryParameter	sortBy	sortBy should be of the form field:Asc or field:Desc. For multiple sorting use comma separator.	false	ref	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumesListForBackup</a>

## Consumes

- application/json

## Produces

- application/json

**Create snapshot manually.** Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
POST /vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	

Type	Name	Description	Required	Schema	Default
PathParameter	volumeName		true	string	
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotCreate Request</a>	

### Consumes

- application/json

### Produces

- application/json

**Delete snapshot manually.**Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
DELETE /vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshot
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body	Create snapshot request	true	<a href="#">SnapshotDelete Request</a>	

### Consumes

- application/json

### Produces

- application/json

**Creates a new volume.** If the properties **aggregateName** and **maxNumOfDisksApprovedToAdd** are not filled in, then the response will fail with a suggested aggregate name and the number of disks that will need to be created in order to fulfill the request.Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
POST /vsa/volumes
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	createAggregateIfNotFound	On create volume request, allow creating not-found aggregate	false	boolean	
BodyParameter	body	Create volume request	true	<a href="#">VsaVolumeCreateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Retrieves volumes.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
GET /vsa/volumes
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	workingEnvironmentId	Filter volumes by this working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VolumeResponse</a> array

### Consumes

- application/json

### Produces

- application/json

### Add ISCSI initiator.

```
POST /vsa/volumes/initiator
```

## Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	ISCSI initiator request	true	<a href="#">Initiator</a>	

## Consumes

- application/json

## Produces

- application/json

## Get all ISCSI initiators.

```
GET /vsa/volumes/initiator
```

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">InitiatorEntry</a> array

## Consumes

- application/json

## Produces

- application/json

## Clones an existing volume.Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/clone
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">VolumeCloneRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Change underlying volume tier.**Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
POST /vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/change-tier
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">ChangeVolumeTierRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Return a list of snapshot descriptions for the volume.**Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
GET /vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/snapshots
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">SnapshotResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Move an existing volume.**Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
POST /vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}/move
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	
BodyParameter	body		true	<a href="#">VolumeMoveRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## Get all igroups.

```
GET /vsa/volumes/igroups/{workingEnvironmentId}/{svmName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

Type	Name	Description	Required	Schema	Default
PathParameter	svmName		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">IGroup</a> array

## Consumes

- application/json

## Produces

- application/json

**Modify an existing volume.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
PUT /vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	ref	
BodyParameter	body	Modify volume request	true	<a href="#">VolumeModifyRe quest</a>	

## Consumes

- application/json

## Produces

- application/json

**Deletes an existing volume.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
DELETE /vsa/volumes/{workingEnvironmentId}/{svmName}/{volumeName}
```



## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	
PathParameter	svmName		true	string	
PathParameter	volumeName		true	string	

## Consumes

- application/json

## Produces

- application/json

**Vsa:working-environments**

**Register extra capacity serials.**

```
POST /vsa/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	licenses serial(s)	true	<a href="#">LicensesSerials</a>	

## Consumes

- application/json

## Produces

- application/json

**Update extra capacity serials.**

```
PUT /vsa/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity serial(s)	true	<a href="#">LicensesSerials</a>	

## Consumes

- application/json

## Produces

- application/json

## Delete extra capacity licenses by serials.

```
DELETE /vsa/working-environments/{workingEnvironmentId}/extra-capacity-serials
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity serial(s)	true	<a href="#">LicensesSerials</a>	

## Consumes

- application/json

## Produces

- application/json

## Starts a specific Cloud Volumes ONTAP instance. Operation may only be performed on working environments whose status is: OFF

```
POST /vsa/working-environments/{workingEnvironmentId}/start
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

#### Consumes

- application/json

#### Produces

- application/json

**Setup a new CIFS Configuration to an existing Cloud Volumes ONTAP working environment. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
POST /vsa/working-environments/{workingEnvironmentId}/cifs
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSConfigurationRequest</a>	

#### Consumes

- application/json

#### Produces

- application/json

**Retrieves CIFS Configuration to an existing Cloud Volumes ONTAP working environment. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
GET /vsa/working-environments/{workingEnvironmentId}/cifs
```

#### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

Type	Name	Description	Required	Schema	Default
QueryParameter	svm		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CIFSConfigurationResponse</a> array

## Consumes

- application/json

## Produces

- application/json

**Retrieves action parameters used in create request of a given Cloud Volumes ONTAP instance.**

```
GET /vsa/working-environments/{workingEnvironmentId}/create-request-parameters
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">CreateRequestParametersResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Delete CIFS Configuration of an existing Cloud Volumes ONTAP working environment. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
POST /vsa/working-environments/{workingEnvironmentId}/delete-cifs
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSDeleteRequest</a>	

## Consumes

- application/json

## Produces

- application/json

## List start-stop schedules for Cloud Volumes ONTAP.

```
GET /vsa/working-environments/{workingEnvironmentId}/schedules
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaSchedule</a> array

## Consumes

- application/json

## Produces

- application/json

## Set schedules for Cloud Volumes ONTAP.

```
PUT /vsa/working-environments/{workingEnvironmentId}/schedules
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Cloud Volumes ONTAP working environment update schedule request	true	<a href="#">VsaSchedulesRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Retrieves a list of versions to which this Cloud Volumes ONTAP can be upgraded. Operation may only be performed on working environments whose status is: ON**

```
GET /vsa/working-environments/{workingEnvironmentId}/occm-provided-upgrade-versions
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">OntapUpdateImageMetadata</a> array

## Consumes

- application/json

## Produces

- application/json

**Disable FPolicy for ransomware files.**Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
PUT /vsa/working-environments/{workingEnvironmentId}/disable-fpolicy
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	

### Consumes

- application/json

### Produces

- application/json

**Creates a new Cloud Volumes ONTAP working environment. Refer to the API Developers Guide in order to understand how to fill in the values for region, licenseType, instanceType and version.**

```
POST /vsa/working-environments
```

### Parameters

Type	Name	Description	Required	Schema	Default
BodyParameter	body	Working environment	true	<a href="#">CreateVSAWorkingEnvironmentRequest</a>	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaWorkingEnvironmentResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves Cloud Volumes ONTAP working environments visible to the currently logged in user.**

```
GET /vsa/working-environments
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
QueryParameter	tenantId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaWorkingEnvironmentResponse</a> array

### Consumes

- application/json

### Produces

- application/json

Retrieves images already installed on the Cloud Volumes ONTAP. Operation may only be performed on working environments whose status is: ON, DEGRADED

```
GET /vsa/working-environments/{workingEnvironmentId}/ontap-available-images
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">UpdateLocalImage</a> array

### Consumes

- application/json



## Produces

- application/json

**Retrieves all license types and their associated instance types for a given Cloud Volumes ONTAP instance.**

```
GET /vsa/working-environments/{workingEnvironmentId}/license-instance-type
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">LicenseAndInstanceType</a> array

## Consumes

- application/json

## Produces

- application/json

**Sets the instance type of a specific Cloud Volumes ONTAP. Operation may only be performed on working environments whose status is: ON, OFF**

```
PUT /vsa/working-environments/{workingEnvironmentId}/license-instance-type
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Instance type modification request	true	<a href="#">LicenseAndInstanceTypeModificationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Create snapshot policy.**Operation may only be performed on working environments whose status is: **ON, DEGRADED**

```
POST /vsa/working-environments/{workingEnvironmentId}/snapshot-policy
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId		true	string	
BodyParameter	body	Create snapshot policy request	true	<a href="#">SnapshotPolicyC reateRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Registers a Cloud Volumes ONTAP system with NetApp.**Operation may only be performed on working environments whose status is: **ON**

```
POST /vsa/working-environments/{workingEnvironmentId}/support-registration
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
QueryParameter	nssAccountId		false	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportRegistrationResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Retrieves the support registration status of a Cloud Volumes ONTAP system.**Operation may only be performed on working environments whose status is: ON

```
GET /vsa/working-environments/{workingEnvironmentId}/support-registration
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">SupportRegistrationResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Enable capacity tiering.**Operation may only be performed on working environments whose status is: ON

```
POST /vsa/working-environments/{workingEnvironmentId}/enable-capacity-tiering
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Enable capacity tiering request	false	<a href="#">EnableCapacityTieringRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Setup NTP server.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /vsa/working-environments/{workingEnvironmentId}/ntp
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
BodyParameter	body	NTP Configuration request	true	<a href="#">NTPConfigurationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Register extra capacity license.**

```
POST /vsa/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity licenses(s)	true	<a href="#">LicensesContent</a>	

### Consumes

- application/json

### Produces

- application/json

### Get extra capacity licenses for cvo.

```
GET /vsa/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Consumes

- application/json

### Produces

- application/json

### Update extra capacity license.

```
PUT /vsa/working-environments/{workingEnvironmentId}/extra-capacity-licenses
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	extra capacity license(s)	true	<a href="#">LicensesContent</a>	

### Consumes

- application/json

## Produces

- application/json

**Stops a specific Cloud Volumes ONTAP instance.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /vsa/working-environments/{workingEnvironmentId}/stop
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	takeSnapshots	Take snapshots before stopping Cloud Volumes ONTAP	true	boolean	true

## Consumes

- application/json

## Produces

- application/json

**Retrieves an Cloud Volumes ONTAP working environment.**

```
GET /vsa/working-environments/{workingEnvironmentId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
PathParameter	workingEnvironmentId		true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">VsaWorkingEnvironmentResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Deletes an existing Cloud Volumes ONTAP working environment, including all Cloud resources created for this working environment (unless the localDelete flag is set to true).**

```
DELETE /vsa/working-environments/{workingEnvironmentId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
QueryParameter	localDelete	If true, the Cloud Volumes ONTAP instance is not terminated in Cloud, but Cloud Manager no longer manages the working environment.	false	boolean	false
QueryParameter	forceDelete	If true, the working environment will be deleted even if it is part of one or more SnapMirror relationships.	false	boolean	false

### Consumes

- application/json

### Produces

- application/json

**Retrieves editable tags for cloud resources of a given Cloud Volumes ONTAP instance. Operation may only be performed on working environments whose status is: ON, DEGRADED, OFF**

```
GET /vsa/working-environments/{workingEnvironmentId}/user-tags
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">UserTagsResponse</a>

## Consumes

- application/json

## Produces

- application/json

**Modify user tags for cloud resources of a given Cloud Volumes ONTAP instance.**Operation may only be performed on working environments whose status is: ON, DEGRADED, OFF

```
PUT /vsa/working-environments/{workingEnvironmentId}/user-tags
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Modify user tags request	true	<a href="#">ModifyUserTagsRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Sets the writing speed for Cloud Volumes ONTAP.**Operation may only be performed on working environments whose status is: ON

```
PUT /vsa/working-environments/{workingEnvironmentId}/writing-speed
```



## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Writing speed request	true	<a href="#">WritingSpeedRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Activate FPolicy for ransomware files.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
PUT /vsa/working-environments/{workingEnvironmentId}/activate-fpolicy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Consumes

- application/json

## Produces

- application/json

**Activate snapshot policy assignment to all not protected rw volumes.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
PUT /vsa/working-environments/{workingEnvironmentId}/activate-snapshot-policy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Consumes

- application/json

### Produces

- application/json

**Modify the svm name of the Cloud Volumes ONTAP.**Operation may only be performed on working environments whose status is: ON

```
PUT /vsa/working-environments/{workingEnvironmentId}/svm
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Svm name modification request	true	<a href="#">SvmNameModificationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Sets the cluster password of a specific Cloud Volumes ONTAP.**

```
PUT /vsa/working-environments/{workingEnvironmentId}/set-password
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

Type	Name	Description	Required	Schema	Default
QueryParameter	occmOnly		false	boolean	
BodyParameter	body	Set password request	true	<a href="#">PasswordWrapper</a>	

### Consumes

- application/json

### Produces

- application/json

**Modify the net port broadcast domain mtu of the Cloud Volumes ONTAP.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
PUT /vsa/working-environments/{workingEnvironmentId}/networkOptimization
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Use optimization	true	<a href="#">ChangeNetworkOptimizationRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Updates Cloud Manager password of a specific Cloud Volumes ONTAP.**Operation may only be performed on working environments whose status is: ON

```
PUT /vsa/working-environments/{workingEnvironmentId}/update-credentials
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Update Cloud Manager password request	true	<a href="#">UpdateCredentialsRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Change serial number of Cloud Volumes ONTAP.**Operation may only be performed on working environments whose status is: ON

```
POST /vsa/working-environments/{workingEnvironmentId}/change-serial
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Change serial number request	true	<a href="#">ChangeSerialNumberRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Setup a new CIFS using workgroup configuration to an existing Cloud Volumes ONTAP working environment.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
POST /vsa/working-environments/{workingEnvironmentId}/cifs-workgroup
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	CIFS Configuration request	true	<a href="#">CIFSWorkgroup ConfigurationRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Parses an uploaded Cloud license file.**

```
POST /vsa/working-environments/parse-license-file
```

## Parameters

Type	Name	Description	Required	Schema	Default
HeaderParameter	filename	Cloud license file name	false	string	
BodyParameter	license	license	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">ProvidedLicenseResponse</a>

## Consumes

- multipart/form-data

## Produces

- application/json

**Activate offbox configuration. Operation may only be performed on working environments whose status is: ON**

```
PUT /vsa/working-environments/{workingEnvironmentId}/offbox
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Consumes

- application/json

## Produces

- application/json

**Updates default vscan file operation profile. Profile on existing CIFS shares will change only on writes-only mode. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
PUT /vsa/working-environments/{workingEnvironmentId}/vscan-file-op
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Vscan file-operation Request	true	<a href="#">VscanFileOpRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Change tier level. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
POST /vsa/working-environments/{workingEnvironmentId}/change-tier-level
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	Change tier level request	true	<a href="#">ChangeTierLevelRequest</a>	

### Consumes

- application/json

### Produces

- application/json

**Working Environment Ontap Saving.**Operation may only be performed on working environments whose status is: ON, DEGRADED

```
GET /vsa/working-environments/{workingEnvironmentId}/ontap-saving
```

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkingEnvironmentOntapSavingResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Uploads a Cloud license file on the provided Cloud Volumes ONTAP.**Operation may only be performed on working environments whose status is: ON

```
POST /vsa/working-environments/{workingEnvironmentId}/upload-license-file
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
HeaderParameter	filename	Cloud license file name	false	string	
BodyParameter	license	license	false	string	

## Consumes

- multipart/form-data

## Produces

- application/json

**Manually triggers subscription sync for all Cloud Volumes ONTAP working environments. Operation may only be performed on working environments whose status is: ON**

```
POST /vsa/working-environments/sync-subscription
```

## Consumes

- application/json

## Produces

- application/json

**Delete FPolicy for ransomware files. Operation may only be performed on working environments whose status is: ON, DEGRADED**

```
DELETE /vsa/working-environments/{workingEnvironmentId}/fpolicy
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId		true	string	

## Consumes

- application/json



## Produces

- application/json

## Working Environment Cost And Usage.

```
GET /vsa/working-environments/{workingEnvironmentId}/cost-and-usage
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
QueryParameter	start	cost and usage start period	false	string	
QueryParameter	end	cost and usage end period	false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkingEnvironmentCostAndUsageResponse</a>

## Consumes

- application/json

## Produces

- application/json

Retrieves eligibility support status of a Cloud Volumes ONTAP system. Valid values - NSS\_NOT\_VALID, NOT\_REGISTERED, IPA\_PROBLEM, VALID, NSS\_NOT\_EXISTS, LICENSE\_EXPIRED. Operation may only be performed on working environments whose status is: ON, UPDATING

```
GET /vsa/working-environments/{workingEnvironmentId}/update-eligibility
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	

## Responses

HTTP Code	Description	Schema
200	success	<a href="#">EligibilityResponse</a>
400	Working Environment must be ON or UPDATING in order to check eligibility	No Content

## Consumes

- application/json

## Produces

- application/json

**Performs a complete image update operation on the single node of the specified Cloud Volumes ONTAP.Operation may only be performed on working environments whose status is: ON**

```
POST /vsa/working-environments/{workingEnvironmentId}/update-image
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironm entId	Public Id of working environment	true	string	
BodyParameter	body	Update system image request	true	<a href="#">UpdateSystemIm ageRequest</a>	

## Consumes

- application/json

## Produces

- application/json

**Uploads a Cloud license file content on the provided Cloud Volumes ONTAP.Operation may only be performed on working environments whose status is: ON**

```
POST /vsa/working-environments/{workingEnvironmentId}/upload-licenses
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentId	Public Id of working environment	true	string	
BodyParameter	body	license file content request	true	<a href="#">LicenseFileContent</a>	

### Consumes

- application/json

### Produces

- application/json

### Working-environments

**Retrieves an Cloud Volumes ONTAP working environment.**

```
GET /working-environments/{workingEnvironmentId}
```

### Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	fields		false	string	
PathParameter	workingEnvironmentId		true	string	

### Responses

HTTP Code	Description	Schema
default	success	<a href="#">GenericVsaWorkingEnvironmentResponse</a>

### Consumes

- application/json

### Produces

- application/json

**Returns true if working environment with that name already exists, false otherwise.**

```
GET /working-environments/exists/{workingEnvironmentName}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	workingEnvironmentName	Working environment name	true	string	

## Responses

HTTP Code	Description	Schema
default	success	boolean

## Consumes

- application/json

## Produces

- application/json

Retrieves all working environments.

```
GET /working-environments
```

## Parameters

Type	Name	Description	Required	Schema	Default
QueryParameter	tenantId	Filter working environments by tenantId. Required for Oncloud Admin if performing operation requesting specific fields	false	string	
QueryParameter	fields		false	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">WorkingEnvironments</a>

## Consumes

- application/json

## Produces

- application/json

Returns all non prem working environment actions required in a given tenant.

```
GET /working-environments/actionRequired/{tenantId}
```

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	tenantId	Public Id of tenant	true	string	

## Responses

HTTP Code	Description	Schema
default	success	<a href="#">TenantActionsRequiredResponse</a>

## Consumes

- application/json

## Produces

- application/json

## Definitions

This section describes existing data format definitions.

### About

Name	Description	Required	Schema	Default
version		true	string	
build		true	string	
buildTimestamp		true	integer (int64)	
systemId		true	string	
environment		true	string	
siteIdentifier		true	<a href="#">SiteIdentifier</a>	
serverTimeZone		true	<a href="#">ServerTimeZone</a>	
beta		true	boolean	
releaseNumber		true	integer (int32)	

Name	Description	Required	Schema	Default
simplicatorUrl		true	string	
migrationPerformed		true	boolean	
demoMode		true	boolean	
usingDockerInfra		true	boolean	
privateIp		true	string	

#### AccountWorkingEnvironmentResponse

Name	Description	Required	Schema	Default
publicId		true	string	
name		true	string	
workingEnvironmentType		true	string	

#### ActionRequired

Name	Description	Required	Schema	Default
actionType	The type of the Action	true	string	
parameters	The relevant parameters of the action	true	<a href="#">ActionRequiredParameters</a>	
severity	Action Severity	true	string	

#### ActionRequiredParameters

Name	Description	Required	Schema	Default
aggregateName	Aggregate name	true	string	
numOfDisks	Number of disks relevant to the action	true	integer (int32)	
diskSize	The size of the disks needed	true	<a href="#">Capacity</a>	
volumeNames	A limited list of volumes on the aggregate	true	string array	
maxCapacity	The maximum capacity of the Cloud Volumes ONTAP instance	true	<a href="#">Capacity</a>	
licenseExpiryDate	License expiry date	true	integer (int64)	

Name	Description	Required	Schema	Default
serialNumber	Platform Serial number	true	string	
volumeMoveParameters	Volume Move Parameters	false	<a href="#">VolumeMoveParameters</a>	
workingEnvironmentId	Working environment public id	true	string	
licenseParameters	License and instance parameters	false	<a href="#">ChangeLicenseParameters</a>	
resourcesToDelete	Resources to delete if not been utilized	false	<a href="#">ResourcesToDelete</a>	
instances	Instances info	true	<a href="#">InstanceNameIdAndType</a> array	
moreInfo	More info	false	string	
providerVolumeType	Provider volume type	false	string	
volumeInfo	volume Information	false	<a href="#">VolumeInfo</a>	
currentInstanceType	Current instance type	false	string	
composite		true	boolean	

#### AddAwsRegionsRequest

Name	Description	Required	Schema	Default
newRegions		true	<a href="#">[List[Region]]</a>	

#### AddDisksToAggregateRequest

Name	Description	Required	Schema	Default
numberOfDisks	Number of Disks	true	integer (int32)	

#### AddInstanceTypesRequest

Name	Description	Required	Schema	Default
newInstanceTypes		true	string array	

#### AddPortalUserRequest

Name	Description	Required	Schema	Default
email	User email address	true	string	
roleId	Role ID of the user	true	string	

Name	Description	Required	Schema	Default
tenantId	Tenant ID of the user	false	string	

#### AddTenantRequest

Name	Description	Required	Schema	Default
name	Tenant name	true	string	
description	Tenant description	false	string	
costCenter	Tenant cost center	false	string	
nssKeys	NSS keys	false	<a href="#">SetNssKeysRequest</a>	

#### AggregateResponse

Name	Description	Required	Schema	Default
name	Aggregate name	true	string	
availableCapacity	Available capacity	true	<a href="#">Capacity</a>	
totalCapacity	Total capacity	true	<a href="#">Capacity</a>	
usedCapacity	Used capacity	true	<a href="#">Capacity</a>	
volumes	Volumes	true	<a href="#">Volume</a> array	
providerVolumes	Provider volumes	true	<a href="#">ProviderVolumeResponse</a> array	
disks	Disks	true	<a href="#">Disk</a> array	
state	State	true	string	
encryptionType	Encryption Type	true	string	
encryptionKeyId	Encryption Key	false	string	
homeNode	Home node	true	string	
ownerNode	Owner node	true	string	
capacityTier	Capacity tier	false	enum (S3, Blob, cloudStorage)	
capacityTierUsed	Object store used	false	<a href="#">Capacity</a>	
sidlEnabled	SIDL enabled	true	boolean	
snaplockType	Snaplock type	true	enum (non_snaplock, compliance, enterprise)	
root		true	boolean	

#### AllRelationships



Name	Description	Required	Schema	Default
relationships		true	<a href="#">SourceTarget</a> array	

#### AllowedValuesForVolumesListFilter

Name	Description	Required	Schema	Default
volumeTypes		true	string array	
diskTypes		true	string array	
svmNames		true	string array	
volumeStatus		true	string array	

#### AssociatedSubscription

Name	Description	Required	Schema	Default
subscriptionId		true	string	
name		true	string	
default		true	boolean	
saasSubscriptionId		false	string	
highAvailabilityEnabled		false	boolean	

#### AssumeRole

Name	Description	Required	Schema	Default
roleName		true	string	
accountId		true	string	
gov		true	boolean	

#### AsupConfiguration

Name	Description	Required	Schema	Default
enabled		true	boolean	
site		true	string	
company		true	string	
hostName		true	string	
os		true	string	
schedule		true	<a href="#">AsupSchedule</a>	
url		true	string	

**AsupConfigurationRequest**

Name	Description	Required	Schema	Default
enabled		true	boolean	
schedule		false	<a href="#">AsupSchedule</a>	

**AsupInterval**

Name	Description	Required	Schema	Default
length		true	integer (int32)	
unit		true	string	

**AsupSchedule**

Name	Description	Required	Schema	Default
dayOfWeek		true	integer (int32)	
hourOfDay		true	integer (int32)	
interval		true	<a href="#">AsupInterval</a>	
minuteOfHour		true	integer (int32)	

**AuditGroupSummary**

Name	Description	Required	Schema	Default
_id		false	integer (int32)	
id	Audit group public ID	false	string	
requestId	Request ID of action associated with audit group	false	string	
startDate	Start date	false	integer (int64)	
endDate	End date	false	integer (int64)	
actionName	Audit group name	false	string	
status	Audit group status	false	string	
userName	Name of user who performed the action	false	string	
tenantName	Name of tenant	false	string	
workingEnvironment Name	Name of working environment related to the user action	false	string	
actionParameters	Parameters of the user action	false	string	

Name	Description	Required	Schema	Default
records	List of audit records	false	<a href="#">AuditGroupSummaryRecord</a> array	
errorMessage	Audit failure information (if relevant)	false	string	
version	Version of Cloud Manager used to create this audit	false	string	
parentId		false	integer (int32)	
userId		false	string	
workingEnvironmentId		false	string	
containsFailedRecords		false	boolean	
containsRecords		false	boolean	

#### AuditGroupSummaryRecord

Name	Description	Required	Schema	Default
id	Audit record public ID	false	string	
date	Date	false	integer (int64)	
actionName	Action	false	string	
status	Status	false	string	
parameters	Action parameters	false	string	
errorMessage	Audit failure information (if relevant)	false	string	
count	Aggregated count of similar records	false	integer (int32)	

#### Auth0Information

Name	Description	Required	Schema	Default
domain		true	string	
audience		true	string	
clientId		true	string	

#### AuthRequest

Name	Description	Required	Schema	Default
email		true	string	
password		true	string	

#### AvailableIpsResponse

Name	Description	Required	Schema	Default
availableIps		true	integer (int32)	

#### AwsAccessKeys

Name	Description	Required	Schema	Default
accessKey		false	string	
secretKey		false	string	

#### AwsAccountRequest

Name	Description	Required	Schema	Default
accountName		true	string	
providerKeys		true	<a href="#">AwsKeysRequest</a>	
subscriptionId		false	string	

#### AwsAccountResponse

Name	Description	Required	Schema	Default
publicId		true	string	
accountName		true	string	
accountType		true	string	
accountId		true	string	
accessKey		true	string	
assumeRole		false	<a href="#">AssumeRole</a>	
occmRole		false	string	
vsaList		true	<a href="#">AccountWorkingEnvironmentResponse</a> array	
subscriptionId		false	string	

#### AwsCloudBackupSetupRequest

Name	Description	Required	Schema	Default
awsAccessKeys	AWS credentials to used by S3 Bucket	true	<a href="#">AwsAccessKeys</a>	
ipSpace	Ip Space	false	string	

#### AwsDisksConstraints

Name	Description	Required	Schema	Default
numReservedDisksSingleNode		true	integer (int32)	
numReservedDisksHa		true	integer (int32)	
maxDisksSingleNode		true	integer (int32)	
maxDisksHa		true	integer (int32)	
numDisksWarnSingleNode		true	integer (int32)	
numDisksWarnHa		true	integer (int32)	
aggregatesNumToDiskSize		true	<a href="#">AggregateNumToDiskSize</a> array	
maxDisksSingleNodeKvm		true	integer (int32)	
maxDisksHaKvm		true	integer (int32)	
deltaDiskWarn		true	integer (int32)	

#### AggregateNumToDiskSize

Name	Description	Required	Schema	Default
from		false	integer (int32)	
to		true	integer (int32)	
stepsUp		true	integer (int32)	

#### AwsEncryption

Name	Description	Required	Schema	Default
kmsKeyId		false	string	
kmsKeyArn		false	string	

#### AwsEncryptionKey

Name	Description	Required	Schema	Default
alias		false	string	
keyId		true	string	
status		true	string	
validTo		false	integer (int64)	
origin		false	string	
default		true	boolean	

#### AwsHaFloatingIpValidationData

Name	Description	Required	Schema	Default
floatingIps		true	<a href="#">AwsHaFloatingIpValidationData:FloatingIps</a>	
routeTableIds		true	string array	
vpclId		true	string	
region		true	string	
roleArn		false	string	
cloudProviderAccountId		false	string	

#### AwsHaFloatingIpValidationResponse

Name	Description	Required	Schema	Default
result		true	boolean	
reasons		true	string array	

#### AwsKeysRequest

Name	Description	Required	Schema	Default
awsAccessKeys		false	<a href="#">AwsAccessKeys</a>	
assumeRoleArn		false	string	

#### AwsProperties

Name	Description	Required	Schema	Default
regionName		true	string	
availabilityZones		true	string array	
instances		true	<a href="#">InstanceResponse</a> array	

Name	Description	Required	Schema	Default
vpc		true	<a href="#">VpcBasicResponse</a>	
accountId		true	string	
roleArn		false	string	
cloudProviderAccountId		false	string	
bootDiskSize		false	integer (int32)	
outpostArn		false	string	
coreDiskExists		false	boolean	

#### AwsTag

Name	Description	Required	Schema	Default
tagKey		true	string	
tagValue		false	string	

#### AwsValidateSubscribedToOntapCloudRequest

Name	Description	Required	Schema	Default
region		true	string	
subnetId		true	string	
vsaMetadata		true	<a href="#">VsaMetadataRequest</a>	
roleArn		false	string	
cloudProviderAccount		false	string	
securityGroupId		false	string	

#### AwsValidateSubscribedToOntapCloudResponse

Name	Description	Required	Schema	Default
failureInfo		false	string	
subscribed		true	boolean	

#### AzureAccountRequest

Name	Description	Required	Schema	Default
accountName		true	string	
providerKeys		true	<a href="#">AzureKeys</a>	

### AzureAccountResponse

Name	Description	Required	Schema	Default
publicId		true	string	
accountName		true	string	
accountType		true	string	
tenantId		true	string	
applicationId		true	string	
occmRole		false	string	
vsList		true	<a href="#">AccountWorkingEnvironmentResponse</a> array	

### AzureAvailabilitySet

Name	Description	Required	Schema	Default
faultDomain		true	integer (int32)	
updateDomain		true	integer (int32)	

### AzureAvailabilityZoneResponse

Name	Description	Required	Schema	Default
region	region value	true	string	
zones	zone values	true	integer (int32) array	

### AzureBlobContainer

Name	Description	Required	Schema	Default
id		true	string	
name		true	string	

### AzureCloudBackupSetupRequest

Name	Description	Required	Schema	Default
rgName	Azure Resource Group Name -by default will create new rg	false	string	
ipSpace	Ip Space	false	string	
region	Region -by default Cloud Manager region	false	string	



Name	Description	Required	Schema	Default
subscriptionId	Subscription Id -by default Cloud Manager azure subscription	false	string	

#### AzureDataDiskResponse

Name	Description	Required	Schema	Default
name		true	string	
diskSizeGB		true	integer (int32)	
lun		true	integer (int32)	
id		true	string	
caching		true	string	
accountType		true	string	
managed		true	boolean	
encryptionSet		false	string	

#### AzureDiskSize

Name	Description	Required	Schema	Default
size		true	<a href="#">Capacity</a>	
description		true	string	
supportedOccmLicenses		true	string array	
default		true	boolean	

#### AzureDisksConstraints

Name	Description	Required	Schema	Default
numReservedDisksSingleNode		true	integer (int32)	

#### AzureEncryption

Name	Description	Required	Schema	Default
key		true	string	
vaultName		true	string	

#### AzureHaNodeInfo

Name	Description	Required	Schema	Default
instanceName		true	string	
instanceId		true	string	
primaryIp		true	string	
state		true	string	
serialNumber		true	string	
availabilitySet		true	<a href="#">AzureAvailabilitySet</a>	

#### AzureHaParameters

Name	Description	Required	Schema	Default
platformSerialNumberNode1		false	string	
platformSerialNumberNode2		false	string	
enableHttps		true	boolean	

#### AzureHaProperties

Name	Description	Required	Schema	Default
loadBalancerName		true	string	
haEnabledOnLbRules		true	boolean	
node1Info		true	<a href="#">AzureHaNodeInfo</a>	
node2Info		true	<a href="#">AzureHaNodeInfo</a>	
applicationSecurityGroupName		false	string	

#### AzureKey

Name	Description	Required	Schema	Default
keyName	key name	true	string	
kid	key id	true	string	

#### AzureKeyVault

Name	Description	Required	Schema	Default
name	vault name	true	string	
resourceGroup	resource group	true	string	
location	location	true	string	

Name	Description	Required	Schema	Default
vaultUri	vault uri	true	string	

#### AzureKeys

Name	Description	Required	Schema	Default
tenantId		true	string	
applicationId		true	string	
applicationKey		true	string	

#### AzureNetworkExtendedResponse

Name	Description	Required	Schema	Default
virtualNetworks		true	<a href="#">AzureVirtualNetworkResponse</a> array	
securityGroups		true	<a href="#">AzureSecurityGroupResponse</a> array	

#### AzureNetworkRequirementsResponse

Name	Description	Required	Schema	Default
vsaMinimumRequire dlps		true	integer (int32)	
haVsaMinimumRequ iredDlps		true	integer (int32)	

#### AzureRegionResponse

Name	Description	Required	Schema	Default
displayName		true	string	
name		true	string	
vnets		false	<a href="#">AzureNetworkExtendedResponse</a>	

#### AzureResourceGroupByRegionResponse

Name	Description	Required	Schema	Default
name		true	string	
id		true	string	

#### AzureResourceGroupResponse

Name	Description	Required	Schema	Default
name		true	string	
location		true	string	
tags		true	Map[string,string]	

#### AzureSecurityGroupResponse

Name	Description	Required	Schema	Default
id	Security Group Id	true	string	
name	Security Group Name	true	string	
resourceGroup	Resource Group	true	string	

#### AzureStorageAccountTypeResponse

Name	Description	Required	Schema	Default
diskType		true	string	
availabilityTypes		true	string array	
sizes		true	<a href="#">AzureDiskSize</a> array	

#### AzureSubnetResponse

Name	Description	Required	Schema	Default
id	Subnet Id	true	string	
cidr	CIDR	true	string	
name	Subnet name	true	string	
availableIps	The number of available IPs on the subnet	true	integer (int32)	
minimumRequiredIps	The minimum needed IP addresses for the Cloud Volumes ONTAP creation	true	integer (int32)	

#### AzureTag

Name	Description	Required	Schema	Default
tagKey		true	string	
tagValue		false	string	

#### AzureValidateSubscribedToOntapCloudRequest

Name	Description	Required	Schema	Default
region		true	string	
vsaMetadata		true	<a href="#">VsaMetadataRequest</a>	
subscriptionId		false	string	
cloudProviderAccount		false	string	

#### AzureValidateSubscribedToOntapCloudResponse

Name	Description	Required	Schema	Default
failureInfo		false	string	
subscribed		true	boolean	

#### AzureVirtualNetworkCidrData

Name	Description	Required	Schema	Default
cidr	CIDR	true	string	
subnets	Subnets	true	<a href="#">AzureSubnetResponse</a> array	

#### AzureVirtualNetworkResponse

Name	Description	Required	Schema	Default
name	Virtual Network Name	true	string	
id	Virtual Network ID	true	string	
cidrs	CIDRs	true	<a href="#">AzureVirtualNetworkCidrData</a> array	
resourceGroup	Resource Group	true	string	
tags	Tags	true	<a href="#">TagResponse</a> array	

#### AzureVsaWorkingEnvironmentResponse

Name	Description	Required	Schema	Default
publicId		true	string	
name		true	string	
tenantId		true	string	
svmName		false	string	
creatorUserEmail		true	string	

Name	Description	Required	Schema	Default
status		false	<a href="#">StatusProperties</a>	
providerProperties		false	<a href="#">ProviderProperties</a>	
reservedSize		false	<a href="#">Capacity</a>	
clusterProperties		false	<a href="#">VsaClusterProperties</a>	
ontapClusterProperties		false	<a href="#">OntapClusterProperties</a>	
cloudProviderName		true	string	
snapshotPolicies		false	<a href="#">SnapshotPolicy</a> array	
actionsRequired		false	<a href="#">ActionRequired</a> array	
activeActions	Actions currently being performed on this working environment	false	string array	
replicationProperties		false	<a href="#">ReplicationProperties</a>	
schedules		false	<a href="#">VsaSchedule</a> array	
svms		false	<a href="#">Svm</a> array	
workingEnvironmentType		true	string	
supportRegistrationProperties		false	<a href="#">SupportRegistrationProperties</a>	
supportRegistrationInformation		false	<a href="#">SupportRegistrationInformation</a> array	
capacityFeatures		false	<a href="#">CapacityFeatures</a>	
encryptionProperties		false	<a href="#">EncryptionProperties</a>	
supportedFeatures		false	<a href="#">SupportedFeatures</a>	
haProperties		false	<a href="#">AzureHaProperties</a>	
fpolicyProperties		false	<a href="#">FpolicyProperties</a>	
saasProperties		false	<a href="#">CvoSaasProperties</a>	
cbsProperties		false	<a href="#">CbsPropertiesWithReason</a>	
complianceProperties		false	<a href="#">CloudComplianceStatusResponse</a>	
monitoringProperties		false	<a href="#">MonitoringStatusResponse</a>	

Name	Description	Required	Schema	Default
licensesInformation		false	<a href="#">LicenseInformation</a> array	
hA		true	boolean	

#### BroadcastDomainInfo

Name	Description	Required	Schema	Default
broadcastDomain		true	string	
ipSpace		true	string	
mtu		true	integer (int32)	

#### BucketAdditionalData

Name	Description	Required	Schema	Default
bucketName		true	string	
tieringLevel		true	string	
accessData		true	string	

#### BucketInformation

Name	Description	Required	Schema	Default
bucketName	Bucket's name	true	string	
fullPath	Object's full path	true	string	

#### BucketsPolicyAndTieringInfoRequest

Name	Description	Required	Schema	Default
buckets		true	string array	

#### CIFSConfigurationRequest

Name	Description	Required	Schema	Default
dnsDomain	DNS domain name	true	string	
ipAddresses	DNS server ip addresses	true	string array	
netBIOS	CIFS server NetBIOS name	true	string	
organizationalUnit	Organizational Unit to register in	true	string	
activeDirectoryDomain	Active Directory domain name	true	string	

Name	Description	Required	Schema	Default
activeDirectoryUsername	Active Directory username	true	string	
activeDirectoryPassword	Active Directory password	true	string	
svmName	SVM name	false	string	

#### CIFSConfigurationResponse

Name	Description	Required	Schema	Default
dnsDomain	DNS domain name	true	string	
activeDirectoryDomain	Active Directory domain name	true	string	
ipAddresses	DNS server ip addresses	true	string array	
netBIOS	CIFS server NetBIOS name	true	string	
organizationalUnit	Organizational Unit to register in	true	string	
authenticationType	Authentication type	true	string	

#### CIFSDeleteRequest

Name	Description	Required	Schema	Default
activeDirectoryUsername	Active Directory username	false	string	
activeDirectoryPassword	Active Directory password	false	string	
svmName	SVM name	false	string	

#### CIFSWorkgroupConfigurationRequest

Name	Description	Required	Schema	Default
serverName	Workgroup name	true	string	
workgroupName	Workgroup name	true	string	
svmName	SVM name	false	string	

#### Capacity

Name	Description	Required	Schema	Default
size	Size	true	number (double)	



Name	Description	Required	Schema	Default
unit	Unit	true	enum (Byte, KB, MB, GB, TB)	

#### CapacityFeatures

Name	Description	Required	Schema	Default
providerVolumesType		true	<a href="#">ProviderVolumeTypeResponse</a> array	
defaultProviderVolumeType		true	<a href="#">DefaultProviderVolume</a>	
supportedCapacityTiers		true	<a href="#">SupportedCapacityTiers</a>	
maxDisksPerAggregate		true	integer (int32)	
existingIops		true	integer (int32) array	

#### CapacityTierInfo

Name	Description	Required	Schema	Default
capacityTierUsedSize		true	<a href="#">Capacity</a>	
s3BucketName		true	string	
tierLevel		true	string	

#### CbsPropertiesWithReason

Name	Description	Required	Schema	Default
cbsBackupStatus		true	string	
cbsRules		true	<a href="#">CbsSchedule</a> array	
numberOfBackedUpVolumes		true	integer (int32)	
objectStoreName		false	string	
providerSpecific		false	<a href="#">ProviderSpecific</a>	
cbsPolicyName		false	string	
usedCapacity		false	<a href="#">Capacity</a>	
ipSpace		false	string	
region		false	string	
providerAccountName		false	string	
exclusionReason		false	string	

### CbsSchedule

Name	Description	Required	Schema	Default
snapmirrorLabel		true	string	
snapshotsToKeep		true	integer (int32)	

### CertificateResponse

Name	Description	Required	Schema	Default
publicId		true	string	
directIssuerName		true	string	
subjectName		true	string	
startDate		true	integer (int64)	
endDate		true	integer (int64)	
serialNumber		true	string	
certificate		true	string	
certificateType		true	string	

### CertificateSigningRequest

Name	Description	Required	Schema	Default
commonName		true	string	

### ChangeLicenseParameters

Name	Description	Required	Schema	Default
newLicenseType		true	<a href="#">OntapLicenseType</a>	
newInstanceType		true	string	

### ChangeNetworkOptimizationRequest

Name	Description	Required	Schema	Default
optimize		true	boolean	

### ChangeSerialNumberRequest

Name	Description	Required	Schema	Default
nodeOne		true	string	
nodeTwo		false	string	

### ChangeTierLevelRequest

Name	Description	Required	Schema	Default
level	Change tier level	true	enum (normal, ia, ia-single, intelligent, cool, nearline, coldline, standard)	

### ChangeVolumeTierRequest

Name	Description	Required	Schema	Default
aggregateName	Target aggregate name	true	string	
numOfDisks	Number of new disks needed	true	integer (int32)	
newAggregate	Is it a newly created aggregate	true	boolean	
newDiskTypeName	New disk type name	true	string	
newCapacityTier	New capacity tier	false	enum (S3, Blob, cloudStorage)	
iops	Provisioned IOPS	false	integer (int32)	
throughput	Provisioned Throughput	false	integer (int32)	
newTieringPolicy	New tiering policy	false	enum (none, snapshot_only, auto, all)	

### CifsShareInfo

Name	Description	Required	Schema	Default
shareName	Share name	true	string	
accessControlList	List of CIFS share permissions	true	<a href="#">CifsShareUserPermissions</a> array	
vscanFileOpPolicy	Vscan file operations profile	false	string	

### CifsShareUserPermissions

Name	Description	Required	Schema	Default
permission	CIFS share permission type	true	string	
users	List of users with the permission	true	string array	

**CloudAccountResponse**

Name	Description	Required	Schema	Default
cloudAccountId		true	string	
provider		true	string	
subscriptionId		false	string	

**CloudCentralAuditGroupResponse**

Name	Description	Required	Schema	Default
accountId		true	string	
principalId		true	string	
agentId		true	string	
agentName		true	string	
resourceId		false	string	
resourceName		false	string	
action		true	string	
startTime		true	integer (int64)	
endTime		false	integer (int64)	
status		true	string	
requestId		true	string	
service		true	string	
errors		false	string array	
requestData		false	string	
hasRecords		true	boolean	
hasFailedRecords		true	boolean	
lastModified		true	integer (int64)	

**CloudCentralAuditOptionsEntryResponse**

Name	Description	Required	Schema	Default
column		true	string	
identifier		true	string	
label		false	string	

**CloudCentralAuditOptionsResponse**

Name	Description	Required	Schema	Default
service		true	CloudCentralAuditOptionsEntryResponse array	
action		true	CloudCentralAuditOptionsEntryResponse array	
agent		true	CloudCentralAuditOptionsEntryResponse array	
resource		true	CloudCentralAuditOptionsEntryResponse array	
user		true	CloudCentralAuditOptionsEntryResponse array	

#### CloudCentralAuditRecordResponse

Name	Description	Required	Schema	Default
creationTime		false	integer (int64)	
action		false	string	
status		false	string	
data		false	string	
errors		false	string array	
recordId		false	integer (int64)	
count		false	integer (int64)	

#### CloudComplianceInfoResponse

Name	Description	Required	Schema	Default
status		true	enum (ACTIVE, DEPLOYING, NOT_ACTIVE, DISABLED)	
widgetUrl		false	string	
privateIp		false	string	
healthy		true	boolean	
lastDeploymentError		false	string	
containerActive		true	boolean	

### CloudComplianceStatusResponse

Name	Description	Required	Schema	Default
scanStatus		true	enum (SCAN_ENABLED, SCAN_DISABLED, DEPLOYING, FEATURE_DISABLED, UNKNOWN)	
complianceStatus		false	<a href="#">ComplianceExtendedStatusResponse</a>	
lastDeploymentError		false	string	
complianceBackupStatus		false	string	

### CloudOntapManifest

Name	Description	Required	Schema	Default
ontap_version		true	string	
ontap_image_versions_allowed_to_upgrade_from		true	string array	
encryption_enabled_instance_types		true	string array	
license_to_ami_mapping		true	<a href="#">LicenseToAmis</a> array	

### CloudProviderAccountResponse

Name	Description	Required	Schema	Default
awsAccounts		true	<a href="#">AwsAccountResponse</a> array	
azureAccounts		true	<a href="#">AzureAccountResponse</a> array	
gcpStorageAccounts		true	<a href="#">GcpAccountResponse</a> array	
nssAccounts		true	<a href="#">NssAccountResponse</a> array	

### CloudResourceTag

Name	Description	Required	Schema	Default
tagKey		true	string	
tagValue		false	string	

### CloudSyncConstants

Name	Description	Required	Schema	Default
reminderPeriod		true	integer (int32)	
warningPeriod		true	integer (int32)	

### CloudSyncLicenseInformation

Name	Description	Required	Schema	Default
cloudSyncLicenseTypes	Cloud Sync License types	true	string array	
licenseExpirationDate	Cloud Sync License Expiration Date	false	integer (int64)	

### CloudSyncProperties

Name	Description	Required	Schema	Default
status		false	<a href="#">CloudSyncStatus</a>	
dataBrokerProperties		false	<a href="#">DataBrokerProperties</a>	
s3Location		false	string	
relationships		true	<a href="#">CloudSyncRelationship</a> array	
synced		true	boolean	

### CloudSyncRelationship

Name	Description	Required	Schema	Default
volumeName		true	string	
svmName		true	string	
relationshipStatus		true	string	
s3Location		true	string	
id		true	string	
progress		true	integer (int32)	
failureMessage		false	string	

### CloudSyncStatus

Name	Description	Required	Schema	Default
status		true	string	
failureMessage		false	string	

### ClusterCredentialsRequest

Name	Description	Required	Schema	Default
userName		true	string	
password		true	string	

### ClusterInfo

Name	Description	Required	Schema	Default
serialNumber		true	string	
clusterName		true	string	
clusterUuid		true	string	

### ClusterInfoResponse

Name	Description	Required	Schema	Default
serialNumber		true	string	
clusterName		true	string	
clusterUuid		true	string	
ontapVersion		true	string	
nodeModels		true	string array	
clusterIp		true	string	
admin		true	boolean	

### ComplianceExtendedStatusResponse

Name	Description	Required	Schema	Default
sensitivePersonalHits		true	integer (int32)	
personalHits		true	integer (int32)	
nonSensitiveHits		true	integer (int32)	
scanStatus		false	<a href="#">ComplianceScanStatusResponse</a>	

### ComplianceScanStatusResponse

Name	Description	Required	Schema	Default
scanned		true	integer (int32)	
notScanned		true	integer (int32)	



Name	Description	Required	Schema	Default
volumes		true	<a href="#">ComplianceScanStatusVolumeResponse</a> array	

#### ComplianceScanStatusVolumeResponse

Name	Description	Required	Schema	Default
name		true	string	
status		true	string	
error		false	string	
scopeld		false	integer (int32)	

#### ConfigResponse

Name	Description	Required	Schema	Default
uri		true	string	
status		true	<a href="#">Status</a>	
redirected		true	boolean	
pollingIntervalSeconds		true	integer (int64)	
debugLogLevel		true	string	
cacheConfig		true	string	
startInstanceDelaySeconds		true	integer (int64)	

#### ConfigValuesResponse

Name	Description	Required	Schema	Default
simplicatorUri		true	string	
proxyUri		true	string	
debugLogLevel		true	string	
cacheConfig		true	string	
keyManagerPort		true	integer (int32)	
ipaManualUrl		true	string	
certificateValidityPeriod		true	integer (int32)	
maxAggregateFreeSpacePercentage		true	integer (int32)	
asupSite		true	string	

Name	Description	Required	Schema	Default
asupCompany		true	string	
maxVolumeGrowSizePercentage		true	integer (int32)	
autoVsaCapacityManagement		true	boolean	
useVolumeViewAsDefault		true	boolean	
proxyUserName		true	string	
proxyPassword		true	string	
proxyDomain		true	string	
autoUpgrade		true	boolean	
cotRollback		true	boolean	
cloudSyncConstants		true	<a href="#">CloudSyncConstants</a>	
licenseMaxCapacityUsedPercentage		true	integer (int32)	
s3EbsRatio		true	integer (int32)	
ebsSizeToPiopsRatio		true	integer (int32)	
autoOntapUpgrade		true	boolean	
overrideCifsLocks		true	boolean	
usePrivateLink		true	boolean	
directApiTraffic		true	boolean	
useAccelerationForImageDownload		true	boolean	
maxDownloadSessions		true	integer (int32)	
rollbackOnAzurePrivateLinkFailure		true	boolean	

#### ConfigValuesUpdateRequest

Name	Description	Required	Schema	Default
simplicatorUri		false	string	
proxyUri		false	string	
debugLogLevel		false	string	
cacheConfig		false	string	
keyManagerPort		false	integer (int32)	

Name	Description	Required	Schema	Default
maxAggregateFreeSpacePercentage		false	integer (int32)	
maxVolumeGrowSizePercentage		false	integer (int32)	
autoVsaCapacityManagement		false	boolean	
proxyUserName		false	string	
proxyPassword		false	string	
proxyDomain		false	string	
autoUpgrade		false	boolean	
cotRollback		false	boolean	
s3EbsRatio		false	integer (int32)	
autoOntapUpgrade		false	boolean	
overrideCifsLocks		false	boolean	
usePrivateLink		false	boolean	
directApiTraffic		false	boolean	
useAccelerationForImageDownload		false	boolean	
maxDownloadSessions		false	integer (int32)	
rollbackOnAzurePrivateLinkFailure		false	boolean	

### Configuration

Name	Description	Required	Schema	Default
ontapVersion		true	string	
license		true	<a href="#">OntapLicenseType</a>	
instanceType		true	string	
region		true	<a href="#">Region</a>	
defaultInstance		true	boolean	
features		true	string array	
upgradeableFrom		true	string array	

### ConfigureS3Request

Name	Description	Required	Schema	Default
bucketName		true	string	

Name	Description	Required	Schema	Default
bucketPrefix		true	string	

#### CostByService

Name	Description	Required	Schema	Default
name	Name of the cost domain (compute, disk/blob storage, object storage, data transfer)	false	string	
total	Saving for this month for that cost domain	false	Money	
costByUsage	Cost domain breakdown	false	CostByUsage array	

#### CostByTime

Name	Description	Required	Schema	Default
start	Cost period start date	false	string	
end	Cost period end date	false	string	
estimated	Is the cost estimated	false	boolean	
total	Total money saved	false	Money	
costByService	Month cost and usage details	false	CostByService array	

#### CostByUsage

Name	Description	Required	Schema	Default
name	Breakdown element name	false	string	
cost	Saving for that breakdown element	false	Money	
usage	Usage details for that breakdown element	false	Usage	

#### CreateAwsHaWorkingEnvironmentRequest

Name	Description	Required	Schema	Default
name		true	string	
svmPassword		true	string	

Name	Description	Required	Schema	Default
username		false	string	
vpclId		true	string	
description		false	string	
region		true	string	
tenantId		true	string	
volume	Optionally create a volume with this working environment	false	<a href="#">VsaVolumeOnNewVsaCreateRequest</a>	
ebsVolumeSize	EBS volume size	true	<a href="#">Capacity</a>	
ebsVolumeType	EBS volume type	true	enum (gp2, st1, io1, gp3)	
vsaMetadata		true	<a href="#">VsaMetadataRequest</a>	
dataEncryptionType	Type of encryption to use for this working environment	true	enum (NONE, AWS, ONTAP)	
ontapEncryptionParameters	Parameters required if using ontap encryption	false	<a href="#">OntapEncryption</a>	
awsEncryptionParameters	Parameters required if using aws encryption	false	<a href="#">AwsEncryption</a>	
haParams		true	<a href="#">HaParameters</a>	
securityGroupId		false	string	
awsTags	Optionally provide up to four key-value pairs with which to tag all AWS entities created by Cloud Manager	false	<a href="#">AwsTag</a> array	
cifsConfigurationRequest		false	<a href="#">CIFSConfigurationRequest</a>	
optimizedNetworkUtilization	Use optimized network utilization	false	boolean	
clusterKeyPairName	Support SSH using key-pair	false	string	
instanceTenancy	Instance tenancy	false	enum (default, dedicated)	
failedToCreateWorkingEnvironmentId	Public ID of failed-to-create working environment	false	string	

Name	Description	Required	Schema	Default
capacityTier	Capacity tier	false	enum (S3)	
iops	Provisioned IOPS	false	integer (int32)	
throughput	Provisioned Throughput	false	integer (int32)	
packageName	Pre-configured package name	false	string	
instanceProfileName	Instance profile name	false	string	
svmName	Svm name	false	string	
wormRequest	WORM request	false	<a href="#">WormRequest</a>	
cloudProviderAccount	Cloud Provider Account	false	string	
nssAccount	Nss Account	false	string	
saasSubscriptionId	SaaS Subscription ID	false	string	
backupVolumesToCbs	Automatically backup all volumes to S3	false	boolean	
tierLevel	Tier Level	false	enum (normal, ia, ia-single, intelligent)	
enableMonitoring	Enable monitoring	true	boolean	
enableServices	Enable services	false	string array	
writingSpeedState	Writing speed state	false	string	
ontapEncryptionDefined		true	boolean	

#### CreateAzureVSAWorkingEnvironmentRequest

Name	Description	Required	Schema	Default
name		true	string	
svmPassword		true	string	
username		false	string	
vnetId		true	string	
cidr		true	string	
description		false	string	
volume	Optionally create a volume with this working environment	false	<a href="#">VsaVolumeOnNewVsaCreateRequest</a>	

Name	Description	Required	Schema	Default
region		true	string	
tenantId		true	string	
subnetId	Subnet ID for a single node cluster	true	string	
dataEncryptionType	Type of encryption to use for this working environment	true	enum (NONE, AZURE, ONTAP)	
ontapEncryptionParameters	Parameters required if using ontap encryption	false	<a href="#">OntapEncryption</a>	
securityGroupId		false	string	
serialNumber		false	string	
cifsConfigurationRequest		false	<a href="#">CIFSConfigurationRequest</a>	
diskSize	Disk size	true	<a href="#">Capacity</a>	
storageType	Storage type	true	enum (Standard_LRS, Premium_LRS, StandardSSD_LRS)	
azureTags	Optionally provide up to four key-value pairs with which to tag the Resource group created by Cloud Manager	false	<a href="#">AzureTag</a> array	
writingSpeedState	Writing speed state	false	string	
vsaMetadata		true	<a href="#">VsaMetadataRequest</a>	
failedToCreateWorkingEnvironmentId	Public ID of failed-to-create working environment	false	string	
packageName	Pre-configured package name	false	string	
vhdImageRequest	Optionally provide parameters for VHD image deployment	false	<a href="#">VhdImageRequest</a>	
resourceGroup	Custom resource group name	false	string	
subscriptionId	Subscription Id	false	string	
capacityTier	Capacity tier	false	enum (Blob)	
haParams		false	<a href="#">AzureHaParameters</a>	

Name	Description	Required	Schema	Default
allowDeployInExistingRg	Allow Deploy In Existing Resource Group	false	boolean	
svmName	Svm name	false	string	
wormRequest	WORM request	false	<a href="#">WormRequest</a>	
cloudProviderAccount	Cloud Provider Account	false	string	
nssAccount	Nss Account	false	string	
saasSubscriptionId	SaaS Subscription ID	false	string	
enableCompliance	Enable compliance	true	boolean	
storageAccountPrefix	Storage Account prefix	false	string	
backupVolumesToClouds	Automatically backup all volumes to cloud	false	boolean	
tierLevel	Tier Level	false	enum (normal, cool)	
availabilityZone	Availability Zone	false	<a href="#">[Object]</a>	
azureEncryptionParameters	Parameters required if using azure encryption with custom key	false	<a href="#">AzureEncryption</a>	
enableServices	Enable services	false	string array	

#### CreateBlobContainerRequest

Name	Description	Required	Schema	Default
subscriptionId		false	string	
cloudProviderAccountId		false	string	
resourceGroupName		true	string	
storageAccountName		true	string	
containerName		true	string	

#### CreateBucketRequest

Name	Description	Required	Schema	Default
projectId		false	string	
bucketName		true	string	



Name	Description	Required	Schema	Default
location		true	string	
storageClass		true	string	
kmsKeyName		false	string	

#### CreateCifsShareInfoRequest

Name	Description	Required	Schema	Default
shareName	Share name	true	string	
accessControl	CIFS share permissions	true	<a href="#">CifsShareUserPermissions</a>	

#### CreateCloudComplianceByWesRequest

Name	Description	Required	Schema	Default
workingEnvironmentIds		true	string array	
enableAnf		true	boolean	

#### CreateFilesystemRequest

Name	Description	Required	Schema	Default
name		true	string	
svmPassword		false	string	
fsxAdminPassword		true	string	
vpclId		true	string	
region		true	string	
ebsVolumeSize	EBS volume size	true	<a href="#">Capacity</a>	
ebsVolumeType	EBS volume type	true	enum (gp2, st1, io1, io2)	
instanceType	Instance Type	true	string	
haParams		true	<a href="#">HaParameters</a>	
node1CustomerDataEni		true	<a href="#">NetworkInterfaceInfo</a>	
node2CustomerDataEni		true	<a href="#">NetworkInterfaceInfo</a>	
node1SerialNumber		true	string	
node2SerialNumber		true	string	

Name	Description	Required	Schema	Default
awsEncryptionParameters	Parameters required if using aws encryption - system	false	<a href="#">AwsEncryption</a>	
dataAwsEncryptionParameters	Parameters required if using aws encryption - data	false	<a href="#">AwsEncryption</a>	
securityGroupIds		false	string	
internalSecurityGroupIds		false	string	
externalSecurityGroupIds		false	string	
iops	Provisioned IOPS	false	integer (int32)	
instanceProfileName	Instance profile name	false	string	
tierLevel	Tier Level	false	enum (normal, ia, ia-single, intelligent)	
customOntapVersion	Custom Ontap Version	false	string	
svmAdminPassword	SVM admin password	false	string	
awsTags	Optionally provide up to four key-value pairs with which to tag all AWS entities created by Cloud Manager	false	<a href="#">AwsTag</a> array	
tieringBucketName	Tiering bucket name	false	string	
mediatorPassword	Mediator password	false	string	

#### CreateGcpVsaWorkingEnvironmentRequest

Name	Description	Required	Schema	Default
name		true	string	
svmPassword		true	string	
username		false	string	
vpId		true	string	
volume	Optionally create a volume with this working environment	false	<a href="#">VsaVolumeOnNewVsaCreateRequest</a>	
region		true	string	
tenantId		true	string	

Name	Description	Required	Schema	Default
subnetPath	Subnet path for a single node cluster	false	string	
subnetId	Subnet ID for a single node cluster	true	string	
firewallRule	Firewall name for a single node cluster	false	string	
firewallTagNameRule	Firewall tag name for a single node cluster	false	string	
dataEncryptionType	Type of encryption to use for this working environment	true	enum (GCP)	
securityGroupId		false	string	
vsaMetadata		true	<a href="#">VsaMetadataRequest</a>	
cifsConfigurationRequest		false	<a href="#">CIFSConfigurationRequest</a>	
serialNumber	Serial number for BYOL	false	string	
gcpVolumeSize	GCP volume size	true	<a href="#">Capacity</a>	
gcpVolumeType	GCP volume type	true	enum (pd-standard, pd-ssd, pd-balanced)	
gcpLabels	Optionally provide up to four key-value pairs with which to all GCP entities created by Cloud Manager	false	<a href="#">GcpLabel</a> array	
writingSpeedState	Writing speed state	false	string	
failedToCreateWorkingEnvironmentId	Public ID of failed-to-create working environment	false	string	
capacityTier	Capacity tier	false	enum (cloudStorage)	
packageName	Pre-configured package name	false	string	
svmName	Svm name	false	string	
wormRequest	WORM request	false	<a href="#">WormRequest</a>	
nssAccount	NSS account	false	string	
gcpStorageAccount	Gcp Storage account	false	string	

Name	Description	Required	Schema	Default
gcpServiceAccount	Gcp Service account	false	string	
tierLevel	Gcp Available storage classes	false	enum (standard, nearline, coldline)	
saasSubscriptionId	SaaS Subscription ID	false	string	
cloudProviderAccount		false	string	
project	Gcp Optional Project	false	string	
gcpEncryptionParameters	Parameters required if using gcp encryption with custom key	false	<a href="#">GcpEncryption</a>	
providedImage	Provided external CVO image	false	string	
providedMediatorImage	Provided external mediator image	false	string	
enableServices	Enable services	false	string array	
backupVolumesToCbs	Automatically backup all volumes to cloud	false	boolean	
haParams	Optional HA parameters for HA deployment	false	<a href="#">GcpHaParameters</a>	
skipSvmManagementLif	SVM management Lif flag	true	boolean	

#### CreateIscsiInfoRequest

Name	Description	Required	Schema	Default
osName	Operating system	true	enum (windows, linux, vmware, windows_2008, windows_gpt)	
igroupCreationRequest	Igroup creation request	false	<a href="#">IgroupCreationRequest</a>	
igroups	Igroups	false	string array	

#### CreateReplicationRequestToFsx

Name	Description	Required	Schema	Default
replicationRequest	Replication Request	true	<a href="#">ReplicationToFsxRequest</a>	

Name	Description	Required	Schema	Default
replicationVolume	Replication volume	true	<a href="#">FsxVolumeRequest</a>	

#### CreateReplicationRequestToOnPrem

Name	Description	Required	Schema	Default
replicationRequest	Replication Request	true	<a href="#">ReplicationRequest</a>	
replicationVolume	Replication volume	true	<a href="#">OnPremVolumeRequest</a>	

#### CreateReplicationRequestToVsa

Name	Description	Required	Schema	Default
replicationRequest	Replication Request	true	<a href="#">ReplicationRequest</a>	
replicationVolume	Replication volume	true	<a href="#">VsaVolumeRequest</a>	

#### CreateRequestParametersResponse

Name	Description	Required	Schema	Default
parameters		false	Map[string,any]	

#### CreateSvmHaRequest

Name	Description	Required	Schema	Default
svmName		true	string	
svmPassword		false	string	
subnet1Cidr		true	string	
subnet2Cidr		true	string	
dataFloatingIp		false	string	
svmMgmtFloatingIp		false	string	

#### CreateSyncRequest

Name	Description	Required	Schema	Default
volumeNames	Volume's name	true	string array	
s3Location	S3 path location (i.e. s3://BucketName/Folder1/Folder11), maximum length - 255 characters	true	string	
dataBrokerNetworkInformation	Data Broker Network information	true	<a href="#">DataBrokerNetworkInformation</a>	

## CreateVSAWorkingEnvironmentRequest

Name	Description	Required	Schema	Default
name		true	string	
svmPassword		true	string	
username		false	string	
vpclId		true	string	
description		false	string	
volume	Optionally create a volume with this working environment	false	<a href="#">VsaVolumeOnNewVsaCreateRequest</a>	
region		true	string	
tenantId		true	string	
subnetId	Subnet ID for a single node cluster	true	string	
dataEncryptionType	Type of encryption to use for this working environment	true	enum (NONE, AWS, ONTAP)	
ontapEncryptionParameters	Parameters required if using ontap encryption	false	<a href="#">OntapEncryption</a>	
awsEncryptionParameters	Parameters required if using aws encryption	false	<a href="#">AwsEncryption</a>	
securityGroupId		false	string	
vsaMetadata		true	<a href="#">VsaMetadataRequest</a>	
cifsConfigurationRequest		false	<a href="#">CIFSConfigurationRequest</a>	
ebsVolumeSize	EBS volume size	true	<a href="#">Capacity</a>	
ebsVolumeType	EBS volume type	true	enum (gp2, gp3, st1, sc1, io1)	
awsTags	Optionally provide up to four key-value pairs with which to tag all AWS entities created by Cloud Manager	false	<a href="#">AwsTag</a> array	
writingSpeedState	Writing speed state	false	string	
optimizedNetworkUtilization	Use optimized network utilization	false	boolean	

Name	Description	Required	Schema	Default
clusterKeyPairName	Support SSH using key-pair	false	string	
instanceTenancy	Instance tenancy	false	enum (default, dedicated)	
failedToCreateWorkingEnvironmentId	Public ID of failed-to-create working environment	false	string	
capacityTier	Capacity tier	false	enum (S3)	
iops	Provisioned IOPS	false	integer (int32)	
throughput	Provisioned Throughput	false	integer (int32)	
packageName	Pre-configured package name	false	string	
instanceProfileName	Instance profile name	false	string	
svmName	Svm name	false	string	
wormRequest	WORM request	false	<a href="#">WormRequest</a>	
cloudProviderAccount	Cloud Provider Account	false	string	
nssAccount	Nss Account	false	string	
saasSubscriptionId	SaaS Subscription ID	false	string	
backupVolumesToCbs	Automatically backup all volumes to S3	false	boolean	
tierLevel	Tier Level	false	enum (normal, ia, ia-single, intelligent)	
enableMonitoring	Enable monitoring	true	boolean	
enableServices	Enable services	false	string array	
ontapEncryptionDefined		true	boolean	

#### CronJobSchedule

Name	Description	Required	Schema	Default
name		true	string	
description		true	string	
months		true	integer (int32) array	
days		true	integer (int32) array	

Name	Description	Required	Schema	Default
weekDays		true	integer (int32) array	
hours		true	integer (int32) array	
minutes		true	integer (int32) array	

#### CronJobScheduleResponse

Name	Description	Required	Schema	Default
months	List of months	true	integer (int32) array	
days	List of days of the month	true	integer (int32) array	
weekDays	List of week days	true	integer (int32) array	
hours	List of hours	true	integer (int32) array	
minutes	List of minutes	true	integer (int32) array	

#### CsrResponse

Name	Description	Required	Schema	Default
csr		true	string	

#### CvoSaasProperties

Name	Description	Required	Schema	Default
subscription		false	<a href="#">SaasSubscription</a>	
freeTrialExpiry		false	integer (int64)	
saasEnabled		false	boolean	
capacityLicensePackage		false	string	

#### CvsRegion

Name	Description	Required	Schema	Default
name		true	string	
code		true	string	
location		true	string	

#### DataBrokerNetworkInformation

Name	Description	Required	Schema	Default
vpclId	Data Broker Vpc Id	true	string	



Name	Description	Required	Schema	Default
subnetId	Data Broker Subnet Id	true	string	
keyPair	Data Broker Key pair	true	string	
region	Data Broker Region	true	string	

#### DataBrokerPlacement

Name	Description	Required	Schema	Default
vpId		true	string	
subnetId		true	string	
instanceType		true	string	
instanceId		true	string	
keyPair		true	string	

#### DataBrokerProperties

Name	Description	Required	Schema	Default
id		true	string	
name		true	string	
dataBrokerPlacement		false	<a href="#">DataBrokerPlacement</a>	

#### DefaultProviderVolume

Name	Description	Required	Schema	Default
size		true	<a href="#">Capacity</a>	
diskType		true	string	
capacityTier		false	string	
iops		false	integer (int32)	

#### DescribeCvoSubscriptionResponse

Name	Description	Required	Schema	Default
subscription		false	<a href="#">SubscriptionResponse</a>	
freeTrialExpiry		false	integer (int64)	

#### DiscoveredAwsHaResponse

Name	Description	Required	Schema	Default
name		true	string	
publicId		true	string	
region		true	string	
vpcName		true	string	
vpcId		true	string	
availabilityZones		true	string array	
subnetIds		true	string array	
stackName		true	string	
stackId		true	string	
clusterAddress		true	string	
recoverable		true	boolean	
byol		true	boolean	
registered		true	boolean	

#### DiscoveredAzureHaResponse

Name	Description	Required	Schema	Default
name		true	string	
publicId		true	string	
region		true	string	
vnetName		true	string	
vnetId		true	string	
subnetId		true	string	
subnetName		true	string	
resourceGroup		true	string	
clusterAddress		true	string	
recoverable		true	boolean	
byol		true	boolean	
registered		true	boolean	

#### DiscoveredAzureVSAResponse

Name	Description	Required	Schema	Default
name		true	string	
id		true	string	

Name	Description	Required	Schema	Default
publicId		true	string	
region		true	string	
vnetName		true	string	
vnetId		true	string	
subnetId		true	string	
subnetName		true	string	
resourceGroup		true	string	
clusterAddress		true	string	
recoverable		true	boolean	
byol		true	boolean	
registered		true	boolean	

#### DiscoveredGcpHaResponse

Name	Description	Required	Schema	Default
name		true	string	
id		true	string	
publicId		true	string	
zones		true	string array	
vpcs		true	string array	
subnetIds		true	string array	
projectName		true	string	
clusterAddress		true	string	
recoverable		true	boolean	

#### DiscoveredGcpVsaResponse

Name	Description	Required	Schema	Default
name		true	string	
id		true	string	
publicId		true	string	
zone		true	string	
vnetName		true	string	
vnetId		true	string	
projectName		true	string	

Name	Description	Required	Schema	Default
subnetName		true	string	
clusterAddress		true	string	
recoverable		true	boolean	

#### DiscoveredVsaResponse

Name	Description	Required	Schema	Default
name		true	string	
publicId		true	string	
region		true	string	
vpcName		true	string	
vpId		true	string	
availabilityZone		true	string	
subnetId		true	string	
stackName		true	string	
stackId		true	string	
clusterAddress		true	string	
recoverable		true	boolean	
registered		true	boolean	
byol		true	boolean	

#### Disk

Name	Description	Required	Schema	Default
name	Name	true	string	
position	Position	true	string	
ownerNode	Owner node	true	string	
device	Device	true	string	
vmDiskProperties	VmDiskProperties	false	<a href="#">VmDiskProperties</a>	

#### DisksConfiguration

Name	Description	Required	Schema	Default
aws		true	<a href="#">AwsDisksConstraints</a>	
azure		true	<a href="#">AzureDisksConstraints</a>	

Name	Description	Required	Schema	Default
gcp		true	<a href="#">GcpDisksConstraints</a>	

#### DisksDetails

Name	Description	Required	Schema	Default
numberOfDisks	Number of disks	true	integer (int32)	
diskSize	Disk size	true	<a href="#">Capacity</a>	
diskType	Disk type	true	string	

#### Duration

Name	Description	Required	Schema	Default
length	Length	true	integer (int64)	
unit	Unit	true	enum (DAYS, HOURS, MINUTES, SECONDS, MILLISECONDS, MICROSECONDS, NANOSECONDS)	

#### EbsVolumeType

Name	Description	Required	Schema	Default
description		true	string	
size		true	<a href="#">Capacity</a>	
supportedVolumeTypes		true	string array	
supportedOccurrences		true	string array	
default		true	boolean	

#### EligibilityResponse

Name	Description	Required	Schema	Default
eligibilityResponse		true	string	

#### EnableCapacityTieringRequest

Name	Description	Required	Schema	Default
instanceProfileName		false	string	
gcpStorageAccountId		false	string	

Name	Description	Required	Schema	Default
storageAccountPrefix		false	string	

#### EnableMonitoringRequest

Name	Description	Required	Schema	Default
workingEnvironmentIds		true	string array	

#### EnableServiceScanRequest

Name	Description	Required	Schema	Default
instanceProfileName	Instance profile name	false	string	

#### EncryptionProperties

Name	Description	Required	Schema	Default
ontapEncryption		true	boolean	
awsVolumeEncryption		true	boolean	
azureVolumeEncryption		true	boolean	
gcpVolumeEncryption		true	boolean	
keyManagers		true	<a href="#">KeyManagerResponse</a> array	
encryptionCertificates		true	<a href="#">CertificateResponse</a> array	
awsEncryptionKey		false	<a href="#">AwsEncryptionKey</a>	

#### EvaluationOntapLicenses

Name	Description	Required	Schema	Default
worm		true	string	

#### EvaluationSerialNumbers

Name	Description	Required	Schema	Default
single_aws		true	string	
single_azure		true	string	
ha_aws_node1		true	string	

Name	Description	Required	Schema	Default
ha_aws_node2		true	string	
ha_azure_node1		true	string	
ha_azure_node2		true	string	
gcp_single		true	string	
ha_gcp_node1		true	string	
ha_gcp_node2		true	string	

#### Expand

Name	Description	Required	Schema	Default
name		false	string	
expands		false	<a href="#">Expand</a> array	

#### Expands

Name	Description	Required	Schema	Default
raw		false	string	
expands		false	<a href="#">Expand</a> array	

#### ExportPolicyInfo

Name	Description	Required	Schema	Default
policyType	Export policy type	true	string	
ips	Custom export policy list of IPs	false	string array	
nfsVersion	Export policy protocol	false	string array	
rules	Export policy rules	false	<a href="#">[ExportPolicyRule]</a> array	

#### ExtendedObjectStoreConfigInfo

Name	Description	Required	Schema	Default
objectStoreConfig		false	<a href="#">ObjectStoreConfigInfo</a>	
tierLevel		false	string	

#### FailureCauses

Name	Description	Required	Schema	Default
invalidOntapCredentials		true	boolean	
noCloudProviderConnection		true	boolean	
invalidCloudProviderCredentials		true	boolean	

#### FeatureFlag

Name	Description	Required	Schema	Default
azure		true	boolean	

#### FeatureProperties

Name	Description	Required	Schema	Default
start		false	string	
end		false	string	
excludedRegions		false	string array	
excludedLicenseTypes		false	string array	

#### FloatingIps

Name	Description	Required	Schema	Default
clusterFloatingIP		true	string	
dataFloatingIP		true	string	
dataFloatingIP2		true	string	

#### AwsHaFloatingIpValidationData:FloatingIps

Name	Description	Required	Schema	Default
clusterFloatingIP		false	string	
dataFloatingIP		false	string	
dataFloatingIP2		false	string	
svmFloatingIP		false	string	

#### FpolicyProperties

Name	Description	Required	Schema	Default
status		true	integer (int32)	



Name	Description	Required	Schema	Default
fPolicyProtocolStatus		true	<a href="#">FpolicyProtocolStatus</a>	
fileExtensions		true	string array	

#### FpolicyProtocolStatus

Name	Description	Required	Schema	Default
nfsv3		true	integer (int32)	
nfsv4		true	integer (int32)	
cifs		true	integer (int32)	

#### FsxCredentialsStatusResponse

Name	Description	Required	Schema	Default
valid		true	boolean	
clusterInfo		false	<a href="#">ClusterInfo</a>	
failureReason		false	enum (no_credentials, invalid_credentials, no_connectivity)	

#### FsxVolumeCreateRequest

Name	Description	Required	Schema	Default
fileSystemId	Target file system ID	true	string	
svmName	SVM name	true	string	
name	Volume name, unique within the SVM	true	string	
size	Size as Capacity	true	<a href="#">PositiveCapacity</a>	
initialSize	Initial size as Capacity. Relevant for thin provisioned volumes only. Default to 0.	false	<a href="#">Capacity</a>	
snapshotPolicyName	Snapshot policy name	true	string	
exportPolicyInfo	NFS protocol parameters	false	<a href="#">ExportPolicyInfo</a>	
shareInfo	CIFS protocol parameters	false	<a href="#">CreateCifsShareInfoRequest</a>	

Name	Description	Required	Schema	Default
ProtocolscsilInfo	ISCSI protocol parameters	false	<a href="#">CreateIscsilInfoRequest</a>	
enableStorageEfficiency	Storage efficiency	true	boolean	
tieringPolicy	Tiering policy	false	enum (none, snapshot_only, auto, all)	

#### FsxVolumeModifyRequest

Name	Description	Required	Schema	Default
snapshotPolicyName	Snapshot Policy name	false	string	
exportPolicyInfo	Export policy info for NFS	false	<a href="#">NamedExportPolicyInfo</a>	
tieringPolicy	Tiering policy	false	enum (none, snapshot_only, auto, backup, all)	
shareInfo	Share names, permissions and users for CIFS	false	<a href="#">CifsShareInfo</a>	

#### FsxVolumeRequest

Name	Description	Required	Schema	Default
sourceSvmName	Source SVM name	true	string	
sourceVolumeName	Source volume name	true	string	
destinationVolumeName	Destination volume name	true	string	
destinationSvmName	Destination SVM name	true	string	
tieringPolicy	Tiering policy	false	enum (none, snapshot_only, auto, all)	

#### GcpAccountResponse

Name	Description	Required	Schema	Default
publicId		true	string	
accountName		true	string	
accountType		true	string	

Name	Description	Required	Schema	Default
accessKey		true	string	
vsaList		true	<a href="#">AccountWorkingEnvironmentResponse</a> array	
occmRole		false	string	

#### GcpBucket

Name	Description	Required	Schema	Default
name		true	string	
location		true	string	
storageClass		true	string	

#### GcpCloudBackupSetupRequest

Name	Description	Required	Schema	Default
project	GCP project id - by default Cloud Manager project	false	string	
region	Region - by default Cloud Manager region	false	string	
accessKey	GCP access Key to used by Cloud Backup Service	true	string	
secretKey	GCP secret key used by Cloud Backup Service	true	string	
ipSpace	Ip Space	false	string	

#### GcpConnectivityResponse

Name	Description	Required	Schema	Default
name	Virtual Network Name	true	string	
vpcPath	Virtual Network path	true	string	
subnets	Subnets	true	<a href="#">GcpSubnetResponse</a> array	
firewalls	Firewalls	true	<a href="#">GcpFirewallResponse</a> array	
isShared	isShared	true	boolean	

### GcpDiskTypeResponse

Name	Description	Required	Schema	Default
size		true	<a href="#">Capacity</a>	
supportedDiskTypes		true	string array	
supportedOccmLicenses		true	string array	

### GcpDisksConstraints

Name	Description	Required	Schema	Default
numReservedDisksSingleNode		true	integer (int32)	
maxDisksSingleNode		true	integer (int32)	
numDisksWarnSingleNode		true	integer (int32)	
deltaDiskWarn		true	integer (int32)	

### GcpEncryption

Name	Description	Required	Schema	Default
key		false	string	

### GcpEncryptionKey

Name	Description	Required	Schema	Default
name		true	string	
id		true	string	
keyRing		true	string	
location		true	string	

### GcpFirewallResponse

Name	Description	Required	Schema	Default
name	Firewall Name	true	string	
vpc	VPC	true	string	

### GcpHaMediatorInfo

Name	Description	Required	Schema	Default
mediatorInstanceName		true	string	

Name	Description	Required	Schema	Default
zone		true	string	
instanceType		true	string	
primaryIp		true	string	
instanceStatus		true	string	
version		true	string	

#### GcpHaNodeInfo

Name	Description	Required	Schema	Default
instanceName		true	string	
zone		true	string	
instanceType		true	string	
primaryIp		true	string	
instanceStatus		true	string	
numOfNics		true	integer (int32)	
labels		true	Map[string,string]	

#### GcpHaParameters

Name	Description	Required	Schema	Default
platformSerialNumbe rNode1	Platform serial number for node 1	false	string	
platformSerialNumbe rNode2	Platform serial number for node 2	false	string	
node1Zone	Zone for node 1	true	string	
node2Zone	Zone for node 2	true	string	
mediatorZone	Zone for mediator	true	string	
vpc0NodeAndDataC onnectivity	VPC path for nic1, required for node and data connectivity	true	string	
vpc1ClusterConnecti vity	VPC path for nic2, required for cluster connectivity	true	string	
vpc2HAConnectivity	VPC path for nic3, required for HA connectivity	true	string	

Name	Description	Required	Schema	Default
vpc3DataReplication	VPC path for nic4, required for data replication	true	string	
subnet0NodeAndDataConnectivity	Subnet path for nic1, required for node and data connectivity	true	string	
subnet1ClusterConnectivity	Subnet path for nic2, required for cluster connectivity	true	string	
subnet2HAConnectivity	Subnet path for nic3, required for HA connectivity	true	string	
subnet3DataReplication	Subnet path for nic4, required for data replication	true	string	
vpc0FirewallRuleName	Optional firewall rule name for vpc1	false	string	
vpc1FirewallRuleName	Optional firewall rule name for vpc2	false	string	
vpc2FirewallRuleName	Optional firewall rule name for vpc3	false	string	
vpc3FirewallRuleName	Optional firewall rule name for vpc4	false	string	
vpc0FirewallRuleTagName	Optional firewall tag name for vpc1	false	string	
vpc1FirewallRuleTagName	Optional firewall tag name for vpc2	false	string	
vpc2FirewallRuleTagName	Optional firewall tag name for vpc3	false	string	
vpc3FirewallRuleTagName	Optional firewall tag name for vpc4	false	string	

#### GcpHaProperties

Name	Description	Required	Schema	Default
mediatorInfo		true	<a href="#">GcpHaMediatorInfo</a>	
node1Info		true	<a href="#">GcpHaNodeInfo</a>	
node2Info		true	<a href="#">GcpHaNodeInfo</a>	
projectName		true	string	

### GcpKeysForCloudStorageWithValidation

Name	Description	Required	Schema	Default
accessKey		true	string	
secretKey		true	string	

### GcpLabel

Name	Description	Required	Schema	Default
labelKey		true	string	
labelValue		true	string	

### GcpNetworkRequirementsResponse

Name	Description	Required	Schema	Default
vsaMinimumRequire dlps		true	integer (int32)	
haVsaMinimumRequ iredlps		true	integer (int32)	

### GcpProjectResponse

Name	Description	Required	Schema	Default
projectNumber		true	string	
projectId		true	string	
lifecycleState		true	string	
name		true	string	
createTime		true	string	
parent		true	Map[string,string]	
subscriptionId		false	string	
default		true	boolean	

### GcpProjectsResponse

Name	Description	Required	Schema	Default
projects		true	<a href="#">GcpProjectResponse</a> array	

### GcpProperties

Name	Description	Required	Schema	Default
name		true	string	

Name	Description	Required	Schema	Default
regionName		true	string	
zoneName		true	string array	
instanceType		true	string	
subnetCidr		true	string	
numOfNics		true	integer (int32)	
labels		true	Map[string,string]	
projectName		true	string	
deploymentName		true	string	

#### GcpRegionResponse

Name	Description	Required	Schema	Default
displayName		true	string	
name		true	string	
zones		true	<a href="#">GcpZoneResponse</a> array	
vpcs		true	<a href="#">GcpVirtualNetworkResponse</a> array	

#### GcpServiceAccountResponse

Name	Description	Required	Schema	Default
name		true	string	
projectId		true	string	
email		true	string	
displayName		true	string	
enabled		true	boolean	

#### GcpServiceAccountsResponse

Name	Description	Required	Schema	Default
accounts		true	<a href="#">GcpServiceAccountResponse</a> array	

#### GcpStorageAccountRequest

Name	Description	Required	Schema	Default
accountName		true	string	



Name	Description	Required	Schema	Default
providerKeys		true	<a href="#">GcpKeysForCloudStorageWithValidation</a>	

#### GcpSubnetResponse

Name	Description	Required	Schema	Default
ipCidrRange	CIDR	true	string	
name	Subnet name	true	string	
path	Subnet path	true	string	
availableIps	The number of available IPs on the subnet	true	integer (int32)	
minimumRequiredIps	The minimum needed IP addresses for the Cloud Volumes ONTAP creation	true	integer (int32)	

#### GcpVirtualNetworkResponse

Name	Description	Required	Schema	Default
name	Virtual Network Name	true	string	
subnets	Subnets	true	<a href="#">GcpSubnetResponse</a> array	
firewalls	Firewalls	true	<a href="#">GcpFirewallResponse</a> array	

#### GcpVsaWorkingEnvironmentResponse

Name	Description	Required	Schema	Default
publicId		true	string	
name		true	string	
tenantId		true	string	
svmName		false	string	
creatorUserEmail		true	string	
status		false	<a href="#">StatusProperties</a>	
providerProperties		false	<a href="#">GcpProperties</a>	
reservedSize		false	<a href="#">Capacity</a>	
clusterProperties		false	<a href="#">VsaClusterProperties</a>	

Name	Description	Required	Schema	Default
ontapClusterProperties		false	<a href="#">OntapClusterProperties</a>	
cloudProviderName		true	string	
snapshotPolicies		false	<a href="#">SnapshotPolicy</a> array	
actionsRequired		false	<a href="#">ActionRequired</a> array	
activeActions	Actions currently being performed on this working environment	false	string array	
replicationProperties		false	<a href="#">ReplicationProperties</a>	
schedules		false	<a href="#">VsaSchedule</a> array	
svms		false	<a href="#">Svm</a> array	
workingEnvironmentType		true	string	
supportRegistrationProperties		false	<a href="#">SupportRegistrationProperties</a>	
supportRegistrationInformation		false	<a href="#">SupportRegistrationInformation</a> array	
capacityFeatures		false	<a href="#">CapacityFeatures</a>	
encryptionProperties		false	<a href="#">EncryptionProperties</a>	
supportedFeatures		false	<a href="#">SupportedFeatures</a>	
haProperties		false	<a href="#">GcpHaProperties</a>	
fpolicyProperties		false	<a href="#">FpolicyProperties</a>	
saasProperties		false	<a href="#">CvoSaasProperties</a>	
cbsProperties		false	<a href="#">CbsPropertiesWithReason</a>	
complianceProperties		false	<a href="#">CloudComplianceStatusResponse</a>	
monitoringProperties		false	<a href="#">MonitoringStatusResponse</a>	
licensesInformation		false	<a href="#">LicenseInformation</a> array	
hA		true	boolean	

## GcpZoneResponse

Name	Description	Required	Schema	Default
name	Zone Name	true	string	

#### GcpZonesAndRegionResponse

Name	Description	Required	Schema	Default
displayName		true	string	
name		true	string	
location		true	string	
zones		true	<a href="#">GcpZoneResponse</a> array	

#### GenericVsaWorkingEnvironmentResponse

Name	Description	Required	Schema	Default
publicId		true	string	
name		true	string	
status		false	<a href="#">StatusProperties</a>	
ontapClusterProperties		false	<a href="#">OntapClusterProperties</a>	
cloudProviderName		true	string	
workingEnvironmentType		true	string	
userTags		true	Map[string,string]	
hA		true	boolean	

#### GlobalManifest

Name	Description	Required	Schema	Default
license_types		true	<a href="#">OntapLicenseType</a> array	
regions		true	<a href="#">Region</a> array	
azureRegions		true	<a href="#">Region</a> array	
gcpRegions		true	<a href="#">Region</a> array	
cot_versions		true	Map[string,Map[string,string array]]	
cot_versions_to_upgrade_to		true	Map[string,Map[string,string array]]	
supportedFeatures		true	Map[string,Map[string, <a href="#">FeatureProperties</a> ]]	

## GrantPermission

Name	Description	Required	Schema	Default
addWorkingEnvironments	List of working environment public IDs for which permissions should be added	true	string array	
removeWorkingEnvironments	List of working environment public IDs for which permissions should be removed	true	string array	

## HaParameters

Name	Description	Required	Schema	Default
node1SubnetId		true	string	
node2SubnetId		true	string	
mediatorSubnetId		true	string	
clusterFloatingIP		false	string	
dataFloatingIP		false	string	
dataFloatingIP2		false	string	
svmFloatingIP		false	string	
mediatorKeyPairName		false	string	
routeTableIds		false	string array	
platformSerialNumberNode1		false	string	
platformSerialNumberNode2		false	string	
providedLicenseNode1		false	string	
providedLicenseNode2		false	string	
failoverMode	HA failover mode	false	enum (FloatingIP, PrivateIP)	
mediatorProxy		false	<a href="#">MediatorProxy</a>	
mediatorAssignPublicIP		false	boolean	
mediatorInstanceProfileName		false	string	

Name	Description	Required	Schema	Default
mediatorSecurityGroupUpd		false	string	

#### HaProperties

Name	Description	Required	Schema	Default
mediatorVersionInfo		true	<a href="#">MediatorVersionInfo</a>	
mediatorStatus		true	<a href="#">MediatorStatus</a>	
routeTables		true	string array	
mediatorVersionsToUpdate		true	<a href="#">MediatorUpdateVersionMetadata</a> array	
failoverMode		true	string	

#### Id

Name	Description	Required	Schema	Default
id		true	string	

#### IGroup

Name	Description	Required	Schema	Default
igroupName	Igroup name	true	string	
osType	osType	true	string	
portsetName	portsetName	true	string	
igroupType	igroupType	true	string	
initiators	Initiators	true	string array	

#### IgroupCreationRequest

Name	Description	Required	Schema	Default
initiators	Initiators	true	string array	
igroupName	Igroup name	true	string	

#### InitialSetupResponse

Name	Description	Required	Schema	Default
upgradeToVersion		false	string	

#### Initiator

Name	Description	Required	Schema	Default
aliasName	Initiator alias	true	string	
iqn	Initiator IQN	true	string	

#### InitiatorEntry

Name	Description	Required	Schema	Default
aliasName		false	string	
iqn		false	string	
publicId		false	string	
id		false	integer (int32)	

#### InstallCertificatesAndPrivateKeyRequest

Name	Description	Required	Schema	Default
occmCertificate		true	string	
privateKey		true	string	
algorithm		false	string	

#### InstallCertificatesRequest

Name	Description	Required	Schema	Default
occmCertificate		true	string	

#### InstanceConfiguration

Name	Description	Required	Schema	Default
mediator		true	Map[string, <a href="#">Instance Configuration Mapping</a> ]	
probes		true	Map[string, <a href="#">Instance Configuration Mapping</a> ]	

#### InstanceConfigurationMapping

Name	Description	Required	Schema	Default
regular		true	string	
dedicated		true	string	

#### InstanceNameIdAndType

Name	Description	Required	Schema	Default
instanceName	Instance name	true	string	
instanceType	Instance type	true	string	
instanceId	Instance Id	true	string	

#### InstancePlacementResponse

Name	Description	Required	Schema	Default
region	Region	true	string	
vpclId	VPC	false	string	
subnetId	Subnet	false	string	
keyPair	KeyPair	false	string	
installLocation	Install Location	true	string	
role	Role	false	string	
providerRoleType	Provider Role Type	false	string	
publicIp	Public IP	false	string	
account	Account	false	string	
govCloud	Gov cloud	true	boolean	
china	China	true	boolean	
instanceType	instanceType	false	string	
darkSite	is dark site	true	boolean	
legacyOs		true	boolean	
legacyInstance		true	boolean	

#### InstanceProfileResponse

Name	Description	Required	Schema	Default
instanceProfileId		true	string	
name		true	string	

#### InstanceResponse

Name	Description	Required	Schema	Default
id	Instance Id	true	string	
name	Instance name	true	string	
instanceType	Instance type	true	string	
state	Instance state	true	string	

Name	Description	Required	Schema	Default
publicIpAddress	Public IP address that is assigned to the instance	true	string	
privateIpAddress	Private IP address that is assigned to the instance	true	string	
publicDnsName	Public DNS	true	string	
privateDnsName	Private DNS name	true	string	
imageId	Image Id	true	string	
subnetId	Subnet Id	true	string	
availabilityZone	Availability Zone	true	string	
tags	Instance tags	true	Map[string,string]	
productCode	Product code	true	string	
tenancy	Instance Tenancy	true	string	
placementGroup	Placement Group	true	string	
keyPairName	Key Pair	true	string	
instanceProfileId	Instance profile ID	false	string	
vsalInstance		true	boolean	
oCCMInstance		true	boolean	

#### InstanceTypeInfo

Name	Description	Required	Schema	Default
instanceType		true	string	
supportsEncryption		true	boolean	
supportedFeatures		true	string array	
default		true	boolean	

#### InstanceTypeRegionMapping

Name	Description	Required	Schema	Default
region		true	string	
instanceType		true	string	

#### InstanceTypeResponse

Name	Description	Required	Schema	Default
instanceType		true	string	



### InstanceTypesNotSupportingAccelerationAndCapacityTieringResponse

Name	Description	Required	Schema	Default
instanceTypes		true	<a href="#">InstanceTypeResponse</a> array	

### InterClusterLif

Name	Description	Required	Schema	Default
name		true	string	
address		true	string	
port		true	string	
node		true	string	
status		true	string	
peered		true	boolean	

### IpSpaceResponse

Name	Description	Required	Schema	Default
ipSpace		true	string	
vservers		true	string array	

### IpaServiceInformation

Name	Description	Required	Schema	Default
url		true	string	

### KeyManagerCaCertificateRequest

Name	Description	Required	Schema	Default
certificate		true	string	

### KeyManagerRequest

Name	Description	Required	Schema	Default
name		true	string	
address		true	string	
usernameField		false	string	
usernameValue		false	string	

### KeyManagerResponse

Name	Description	Required	Schema	Default
publicId		true	string	
name		true	string	
address		true	string	
usernameField		true	string	
usernameValue		true	string	
status		true	string	

#### KeyPairsByRegionResponse

Name	Description	Required	Schema	Default
regionToKeyPairs		true	Map[string,string array]	

#### KpiUnitValue

Name	Description	Required	Schema	Default
value		true	number (double)	
unit		true	string	

#### LegacyInstanceTypes

Name	Description	Required	Schema	Default
instanceTypes		true	<a href="#">ProviderLegacyInstanceTypes</a>	

#### LicenseAndInstanceType

Name	Description	Required	Schema	Default
licenseType		true	string	
name		true	string	
description		true	string	
capacityLimit		true	<a href="#">Capacity</a>	
instanceTypes		true	<a href="#">InstanceTypeInfo</a> array	

#### LicenseAndInstanceTypeModificationRequest

Name	Description	Required	Schema	Default
instanceType	New instance type	true	string	
licenseType	New license type	true	string	

#### LicenseFileContent

Name	Description	Required	Schema	Default
licenseOne		true	string	
licenseTwo		false	string	

#### LicenseInformation

Name	Description	Required	Schema	Default
type		true	string	
useType		false	string	
package		false	string	
serialNumbers		true	string array	
capacityLimit		true	<a href="#">Capacity</a>	
expirations		true	integer (int64) array	

#### LicenseServiceInformation

Name	Description	Required	Schema	Default
url		true	string	

#### LicenseToAmis

Name	Description	Required	Schema	Default
license_type		true	string	
instance_types		true	string array	
amis		true	<a href="#">RegionalAmi</a> array	

#### LicensesContent

Name	Description	Required	Schema	Default
licencesContent		true	string array	

#### LicensesSerials

Name	Description	Required	Schema	Default
serials		true	string array	

#### LifResponse

Name	Description	Required	Schema	Default
ip	Lif ip	true	string	

Name	Description	Required	Schema	Default
netmask	Lif netmask	true	string	
lifType	Lif type	true	string	
dataProtocols	List of supported protocols	true	string array	
nodeName	Node name	true	string	
privateIp	Whether this Lif ip is a private address	true	boolean	

#### LocalAuthSetupRequest

Name	Description	Required	Schema	Default
adminUser		true	<a href="#">LocalAuthSetupUserRequest</a>	
site		true	string	
company		true	string	

#### LocalAuthSetupUserRequest

Name	Description	Required	Schema	Default
email		true	string	
password		true	string	
fullName		true	string	

#### MaxDisksAllow

Name	Description	Required	Schema	Default
numOfDisks		true	integer (int32)	
reason		false	string	

#### MediatorProxy

Name	Description	Required	Schema	Default
url		false	string	
userName		false	string	
password		false	string	

#### MediatorStatus

Name	Description	Required	Schema	Default
statusCode		true	integer (int32)	

Name	Description	Required	Schema	Default
statusMessage		true	string	

#### MediatorUpdateVersionMetadata

Name	Description	Required	Schema	Default
mediatorVersion		true	string	
timeStamp		true	integer (int64)	
metadataFileName		true	string	
major		true	boolean	
manifestFileName		false	string	

#### MediatorUpgradeConfiguration

Name	Description	Required	Schema	Default
dependencies		true	Map[string,string array]	

#### MediatorVersionInfo

Name	Description	Required	Schema	Default
version		true	string	
description		true	string	
state		true	string	
bootVolumeld		true	string	

#### MetadataResponse

Name	Description	Required	Schema	Default
globalManifest	Global Manifest	true	<a href="#">GlobalManifest</a>	
ontapManifests	ONTAP manifests	true	<a href="#">CloudOntapManifest</a> array	

#### ModifyMappingRequest

Name	Description	Required	Schema	Default
newMapping		true	<a href="#">string</a> ]	

#### ModifyUserTagsRequest

Name	Description	Required	Schema	Default
tags		true	<a href="#">CloudResourceTag</a> array	

### Money

Name	Description	Required	Schema	Default
amount	Amount	false	number (double)	
currency	Currency	false	string	

### MonitoringInfo

Name	Description	Required	Schema	Default
averageOps		true	number (double)	
averageLatency		false	<a href="#">KpiUnitValue</a>	
storageAverageThroughput		false	<a href="#">KpiUnitValue</a>	
node1AverageThroughput		false	<a href="#">KpiUnitValue</a>	
node2AverageThroughput		false	<a href="#">KpiUnitValue</a>	

### MonitoringInfoResponse

Name	Description	Required	Schema	Default
status		true	enum (ACTIVE, DEPLOYING, NOT_ACTIVE, DISABLED, TRIAL_EXPIRED)	
healthy		true	boolean	
url		false	string	
lastDeploymentError		false	string	
id		false	string	

### MonitoringStatusResponse

Name	Description	Required	Schema	Default
monitoringStatus		true	enum (MONITORING_ENABLED, MONITORING_DISABLED, DEPLOYING, FEATURE_DISABLED, UNKNOWN, TRIAL_EXPIRED)	
monitoringInfo		false	<a href="#">MonitoringInfo</a>	
tenantUrl		false	string	

#### NTPConfigurationRequest

Name	Description	Required	Schema	Default
ntpServer	NTPS server	true	string	

#### NamedExportPolicyInfo

Name	Description	Required	Schema	Default
name	Export policy name	false	string	
policyType	Export policy type	true	string	
ips	Custom export policy list of IPs	true	string array	
nfsVersion	Export policy protocol	false	string array	
rules	Export policy rules	false	<a href="#">[ExportPolicyRule]</a> array	

#### NetworkInterfaceInfo

Name	Description	Required	Schema	Default
id		true	string	
primaryIpAddress		true	string	
secondaryIpAddresses		true	string array	
subnetCidrBlock		true	string	

#### NetworkRequirementsResponse

Name	Description	Required	Schema	Default
nonHaNodeMinimumRequiredIps		true	integer (int32)	

Name	Description	Required	Schema	Default
haNodeMinimumRequiredIps		true	integer (int32)	
haMediatorMinimumRequiredIps		true	integer (int32)	

#### NotificationServiceInformation

Name	Description	Required	Schema	Default
wsUrl		true	string	
url		true	string	

#### NssAccountCredentials

Name	Description	Required	Schema	Default
nssUserName		true	string	
nssPassword		true	string	

#### NssAccountRequest

Name	Description	Required	Schema	Default
accountName		false	string	
providerKeys		true	<a href="#">NssAccountCredentials</a>	
vsaList		true	string array	

#### NssAccountResponse

Name	Description	Required	Schema	Default
publicId		true	string	
accountName		true	string	
accountType		true	string	
nssUserName		true	string	
vsaList		true	<a href="#">AccountWorkingEnvironmentResponse</a> array	

#### NssAccountVsaListRequest

Name	Description	Required	Schema	Default
vsaList		true	string array	



**ObjectStoreConfigInfo**

Name	Description	Required	Schema	Default
objectStoreName		true	string	
s3Name		true	string	
usedSpace		true	<a href="#">Capacity</a>	
server		true	string	
providerType		true	string	

**OccmExternalConfiguration**

Name	Description	Required	Schema	Default
email		true	string	
aws_product_page		true	string	
cot_aws_product_page		true	string	
ha_cot_aws_product_page		true	string	
intercom_prod_app_id		true	string	
intercom_test_app_id		true	string	
livechat_license		true	string	
features		true	<a href="#">OccmFeaturesFlags</a>	
upgrade_path		true	<a href="#">OnCloudUpgradePath</a> array	
occm_release_notes_url		true	string	
evaluation_serial_numbers		true	<a href="#">EvaluationSerialNumbers</a>	
legacyInstanceTypes		true	<a href="#">LegacyInstanceTypes</a>	
aws_cross_account_tutorial_url		true	string	
disksConfiguration		true	<a href="#">DisksConfiguration</a>	
migration		true	<a href="#">OccmMigration</a>	
evaluation_ontap_licenses		true	<a href="#">EvaluationOntapLicenses</a>	
mediatorUpgradeConfiguration		true	<a href="#">MediatorUpgradeConfiguration</a>	

Name	Description	Required	Schema	Default
instanceConfiguration		true	<a href="#">InstanceConfiguration</a>	
cvsRegions		true	<a href="#">CvsRegion</a> array	
regions		true	Map[string,string array]	
servicesInformation		true	Map[string, <a href="#">ServiceInfo</a> ]	
ontapBackupTokenCreds		true	<a href="#">OntapBackupTokenCreds</a>	

#### OccmFeaturesFlags

Name	Description	Required	Schema	Default
intercom		true	boolean	
aws_environment_collector		true	boolean	

#### OccmMigration

Name	Description	Required	Schema	Default
migrateAll		true	boolean	
blackList		true	string array	

#### OnCloudUpgradePath

Name	Description	Required	Schema	Default
version		true	string	
path		true	string array	

#### OnPremAggregateResponse

Name	Description	Required	Schema	Default
name		true	string	
totalCapacity		true	<a href="#">Capacity</a>	
availableCapacity		true	<a href="#">Capacity</a>	
state		true	string	
objectStoreName		false	string	
usedCapacity		true	<a href="#">Capacity</a>	
tieringRestriction		false	<a href="#">TieringRestriction</a>	
availabilityState		false	string	

Name	Description	Required	Schema	Default
inactiveDataReportingEnabled		true	boolean	
objectStoreAttachEligible		true	boolean	

#### OnPremCapacityFeatures

Name	Description	Required	Schema	Default
objectStoreConfigExtended		false	<a href="#">ExtendedObjectStoreConfigInfo</a>	
performanceTierUsedCapacity		true	<a href="#">Capacity</a>	
inactiveUserData		false	<a href="#">Capacity</a>	
rawCapacity		true	<a href="#">Capacity</a>	
fiveYearSavings		true	number (double)	

#### OnPremClusterProperties

Name	Description	Required	Schema	Default
clusterAddress		true	string	
ontapVersion		true	string	
clusterName		true	string	
serialNumber		true	string	
systemId		true	string	
licenses		true	string array	
systemManagerUrl		true	string	
location		true	enum (ON_PREM, AZURE, AWS, SOFTLAYER, GOOGLE, CLOUD_TIERING)	
clusterUuid		true	string	
nodeModels		true	string array	
lifs		true	<a href="#">LifResponse</a> array	
snapmirrorLicenseExists		true	boolean	

#### OnPremVolumeCreateRequest

Name	Description	Required	Schema	Default
workingEnvironmentId	Target working environment ID	true	string	
svmName	SVM name	true	string	
aggregateName	Aggregate in which to create the volume	true	string	
name	Volume name, unique within the SVM	true	string	
size	Size as Capacity	true	<a href="#">PositiveCapacity</a>	
initialSize	Initial size as Capacity. Relevant for thin provisioned volumes only. Default to 0.	false	<a href="#">Capacity</a>	
snapshotPolicyName	Snapshot policy name	true	string	
exportPolicyInfo	NFS protocol parameters	false	<a href="#">ExportPolicyInfo</a>	
shareInfo	CIFS protocol parameters	false	<a href="#">CreateCifsShareInfoRequest</a>	
enableThinProvisioning	Enable thin provisioning	true	boolean	
enableCompression	Enable compression	true	boolean	
enableDeduplication	Enable deduplication	true	boolean	
syncToS3	Add Cloud Sync relationship	true	boolean	
volumeTags	Optionally provide key-value pairs with which to tag the ONTAP volume using App Template service	false	<a href="#">VolumeTags</a> array	
iscsiInfo		true	<a href="#">CreateIscsiInfoRequest</a>	

#### OnPremVolumeModifyRequest

Name	Description	Required	Schema	Default
snapshotPolicyName	Snapshot Policy name	false	string	

Name	Description	Required	Schema	Default
shareInfo	Share names, permissions and users for CIFS	false	<a href="#">CifsShareInfo</a>	
exportPolicyInfo	Export policy info for NFS	false	<a href="#">NamedExportPolicyInfo</a>	
tieringPolicy	Tiering policy	false	enum (none, snapshot_only, auto, backup, all)	
minimumCoolingDays	Tiering minimum cooling days	false	integer (int32)	

#### OnPremVolumeRequest

Name	Description	Required	Schema	Default
sourceSvmName	Source SVM name	true	string	
sourceVolumeName	Source volume name	true	string	
destinationVolumeName	Destination volume name	true	string	
destinationAggregateName	Destination aggregate name	true	string	
destinationSvmName	Destination SVM name	true	string	
destinationCapacityTier	Destination aggregate capacity tier	false	enum (S3, Blob)	
tieringPolicy	Tiering policy	false	enum (none, auto, all)	

#### OnPremWorkingEnvironmentDiscoverRequest

Name	Description	Required	Schema	Default
tenantId		true	string	
description		false	string	
name		true	string	
clusterAddress		true	string	
clusterUserName		true	string	
clusterPassword		true	string	

Name	Description	Required	Schema	Default
location		true	enum (ON_PREM, AZURE, AWS, SOFTLAYER, GOOGLE, CLOUD_TIERING)	

#### OnPremWorkingEnvironmentResponse

Name	Description	Required	Schema	Default
publicId		true	string	
tenantId		true	string	
description		true	string	
name		true	string	
discoverUserEmail		true	string	
location		true	string	
reservedSize		false	<a href="#">Capacity</a>	
status		false	<a href="#">StatusProperties</a>	
interClusterLifs		false	<a href="#">InterClusterLif</a> array	
cronJobSchedules		false	<a href="#">CronJobSchedule</a> array	
svms		false	<a href="#">Svm</a> array	
snapshotPolicies		false	<a href="#">SnapshotPolicy</a> array	
replicationProperties	Working environments in which a SnapMirror relationship exists between volumes on this working environment	false	<a href="#">ReplicationProperties</a>	
clusterProperties		false	<a href="#">OnPremClusterProperties</a>	
ontapClusterProperties		false	<a href="#">OnPremClusterProperties</a>	
workingEnvironmentType		true	string	
cloudSyncProperties		false	<a href="#">CloudSyncProperties</a>	
actionsRequired		false	<a href="#">ActionRequired</a> array	

Name	Description	Required	Schema	Default
capacityFeatures		false	<a href="#">OnPremCapacityFeatures</a>	
aff		true	boolean	
cbsProperties		false	<a href="#">CbsPropertiesWithReason</a>	
complianceProperties		false	<a href="#">CloudComplianceStatusResponse</a>	
monitoringProperties		false	<a href="#">MonitoringStatusResponse</a>	

#### OntapBackupTokenCreds

Name	Description	Required	Schema	Default
id		true	string	
secret		true	string	

#### OntapClusterProperties

Name	Description	Required	Schema	Default
nodes		true	<a href="#">OntapNodeProperties</a> array	
clusterName		true	string	
clusterUuid		true	string	
ontapVersion		true	string	
systemManagerUrl		true	string	
creationTime		true	integer (int64)	
licenseType		true	<a href="#">VsaLicense</a>	
licensePackageName		false	string	
lastModifiedOffbox		false	integer (int64)	
offboxTarget		true	boolean	
upgradeVersions		false	<a href="#">OntapUpdateImageMetadata</a> array	
writingSpeedState		false	string	
broadcastDomainInfos		true	<a href="#">BroadcastDomainInfo</a> array	
evaluation		true	boolean	
capacityTierInfo		false	<a href="#">CapacityTierInfo</a>	

Name	Description	Required	Schema	Default
canConfigureCapacityTier		true	boolean	
usedCapacity		true	<a href="#">Capacity</a>	
userName		true	string	
wormEnabled		true	boolean	
vscanFileOperationDefaultProfile		true	string	
spaceReportingLogical		true	boolean	
keystoneSubscription		true	boolean	

#### OntapEncryption

Name	Description	Required	Schema	Default
keyManagerIds		true	string array	
keyManagerCaCertificateId		true	string	

#### OntapLicenseType

Name	Description	Required	Schema	Default
type		true	string	
name		true	string	
description		true	string	
subName		true	string	
subDescription		true	string	
capacity_limit		true	string	
platformLicenseRequired		true	boolean	
default		true	boolean	
capacityLimit		true	<a href="#">Capacity</a>	

#### OntapNodeProperties

Name	Description	Required	Schema	Default
name		true	string	
lifs		true	<a href="#">LifResponse</a> array	
serialNumber		true	string	



Name	Description	Required	Schema	Default
systemId		true	string	
platformLicense		false	string	
platformSerialNumber		false	string	
cloudProviderId		true	string	
healthy		true	boolean	
inTakeover		true	boolean	

#### OntapUpdateImageMetadata

Name	Description	Required	Schema	Default
imageVersion		true	string	
lastModified		true	integer (int64)	
autoUpdateAllowed		true	boolean	

#### PackageInfoResponse

Name	Description	Required	Schema	Default
name		true	string	
displayName		true	string	
description		true	string	
licenseType		true	string	
instanceTypeMapping		true	<a href="#">InstanceTypeRegionMapping</a> array	
diskType		true	string	
diskSize		true	<a href="#">Capacity</a>	
capacityTier		false	string	
instanceTenancy		false	string	
writingSpeedState		true	string	
iops		false	integer (int32)	
throughput		false	integer (int32)	

#### PasswordWrapper

Name	Description	Required	Schema	Default
password		true	string	

### PolicySchedule

Name	Description	Required	Schema	Default
frequency	Frequency	true	string	
retention	Retention	true	integer (int32)	

### PortalInformation

Name	Description	Required	Schema	Default
edit_user_url		true	string	
portalBackEnd		true	string	
portalFrontEnd		true	string	

### PortalService

Name	Description	Required	Schema	Default
usePortalAuthentication		true	boolean	
auth0Information		false	<a href="#">Auth0Information</a>	
portalInformation		false	<a href="#">PortalInformation</a>	
saasFrontEnd		true	string	

### PortalSetupAsServiceConnectorRequest

Name	Description	Required	Schema	Default
site	Site	true	string	
company	Company	true	string	
tenancyAccountId	Tenancy account Id	false	string	

### PositiveCapacity

Name	Description	Required	Schema	Default
size	Size	true	number (double)	
unit	Unit	true	string	

### ProvidedLicenseResponse

Name	Description	Required	Schema	Default
license		true	string	
serialNumber		true	string	
contractEndDate		false	integer (int64)	

### ProviderLegacyInstanceTypes

Name	Description	Required	Schema	Default
aws		true	string array	
azure		true	string array	

### ProviderProperties

Name	Description	Required	Schema	Default
regionName		true	string	
resourceGroup	Resource group	true	<a href="#">AzureResourceGroupResponse</a>	
vnetCidr		true	string	
tags		true	Map[string,string]	
subscriptionId		true	string	
deploymentId		true	string	
creationTime		true	integer (int64)	
instanceType		true	string	
numOfNics		true	integer (int32)	
singleNetworkInterface		true	boolean	
subscriptionName		true	string	
cloudProviderAccountId		false	string	
availabilityZone		false	integer (int32)	
dataDisks		false	<a href="#">AzureDataDiskResponse</a> array	

### ProviderSpecific

Name	Description	Required	Schema	Default
azureRgName		false	string	
gcpProjectId		false	string	
gcpRegion		false	string	

### ProviderSupportedRegions

Name	Description	Required	Schema	Default
aws		true	<a href="#">Region</a> array	
azure		true	<a href="#">Region</a> array	

### ProviderVolumeResponse

Name	Description	Required	Schema	Default
id	Id	true	string	
name	Name	true	string	
size	Size	true	<a href="#">Capacity</a>	
state	State	true	string	
device	Device	true	string	
instanceId	InstanceId	true	string	
diskType	Type	true	string	
encrypted	Encrypted	true	boolean	
iops	Provisioned IOPS	false	integer (int32)	
throughput	Provisioned Throughput	false	integer (int32)	

### ProviderVolumeTypeResponse

Name	Description	Required	Schema	Default
size		true	<a href="#">Capacity</a>	
supportedVolumeTypes		true	string array	
maxDisksAllow		true	<a href="#">MaxDisksAllow</a>	

### ProxyUri

Name	Description	Required	Schema	Default
uri		false	string	
proxyUserName		false	string	
proxyPassword		false	string	
proxyDomain		false	string	

### RecoverAzureHAResponse

Name	Description	Required	Schema	Default
region		true	string	
resourceGroupName		true	string	
clusterCredentials		true	<a href="#">ClusterCredentialsRequest</a>	
tenantId		true	string	

Name	Description	Required	Schema	Default
providerAccount	ID of subscription where VSA is located	false	string	
cloudProviderAccount	Cloud Provider Account	false	string	
nssAccountId	Nss Account	false	string	

#### RecoverAzureVSAResponse

Name	Description	Required	Schema	Default
region		true	string	
id		true	string	
resourceGroupName		true	string	
instanceName		true	string	
clusterCredentials		true	<a href="#">ClusterCredentialsRequest</a>	
tenantId		true	string	
providerAccount	ID of subscription where VSA is located	false	string	
cloudProviderAccount	Cloud Provider Account	false	string	
nssAccountId	Nss Account	false	string	

#### RecoverGcpHaRequest

Name	Description	Required	Schema	Default
region		true	string	
name		true	string	
clusterCredentials		true	<a href="#">ClusterCredentialsRequest</a>	
tenantId		true	string	
projectId		false	string	
nssAccountId	Nss Account	false	string	

#### RecoverGcpVsaRequest

Name	Description	Required	Schema	Default
zone		true	string	
instanceName		true	string	

Name	Description	Required	Schema	Default
clusterCredentials		true	<a href="#">ClusterCredentialsRequest</a>	
tenantId		true	string	
projectId		false	string	
nssAccountId	Nss Account	false	string	

#### RecoverVsaRequest

Name	Description	Required	Schema	Default
region		true	string	
stackId		true	string	
clusterCredentials		true	<a href="#">ClusterCredentialsRequest</a>	
tenantId		true	string	
cloudProviderAccount	Cloud Provider Account	false	string	
nssAccountId	Nss Account	false	string	

#### Region

Name	Description	Required	Schema	Default
name		true	string	
code		true	string	
location		true	string	
s3Region		false	string	

#### RegionalAmi

Name	Description	Required	Schema	Default
region		true	string	
ami_id		true	string	
saas_mp		true	boolean	

#### RegistrationResponse

Name	Description	Required	Schema	Default
clientId		true	string	

### ReplicationInterClusterLif

Name	Description	Required	Schema	Default
name	Name	true	string	
address	Address	true	string	
netmaskLength	Netmask Length	true	integer (int32)	
port	Port	true	string	
node	Node	true	string	
status	Status	true	string	
peered		true	boolean	

### ReplicationInterClusterLifs

Name	Description	Required	Schema	Default
interClusterLifs	Working Environment Intercluster Lifs	true	<a href="#">ReplicationInterClusterLif</a> array	
peerInterClusterLifs	Peer Working Environment Intercluster Lifs	true	<a href="#">ReplicationInterClusterLif</a> array	

### ReplicationProperties

Name	Description	Required	Schema	Default
peers		true	string array	
replicationTargets		true	string array	

### ReplicationRequest

Name	Description	Required	Schema	Default
sourceWorkingEnvironmentId	Source working environment Id	true	string	
destinationWorkingEnvironmentId	Destination working environment Id	true	string	
sourceInterclusterLifs	Source intercluster LIF IPs	true	string array	
destinationInterclusterLifs	Destination intercluster LIF IPs	true	string array	
policyName	SnapMirror policy name	true	string	
scheduleName	Schedule name	false	string	

Name	Description	Required	Schema	Default
maxTransferRate	Maximum transfer rate limit (KB/s). Use 0 for no limit, otherwise use number between 1024 and 2,147,482,624	false	integer (int32)	

#### ReplicationSchedule

Name	Description	Required	Schema	Default
name	Name	true	string	
description	Description	false	string	
cronJobSchedule	Cron jobs schedule	true	<a href="#">CronJobScheduleResponse</a>	

#### ReplicationStatusCurrentTransferInfo

Name	Description	Required	Schema	Default
transferType	Current transfer type	true	enum (initialize, update, resync, restore, check, file_restore)	
transferPriority	Current transfer priority	true	enum (low, normal)	
transferError	Current transfer error	true	string	

#### ReplicationStatusLastTransferInfo

Name	Description	Required	Schema	Default
transferType	Last transfer type	true	enum (initialize, update, resync, restore, check, file_restore)	
transferSize	Last transfer size	true	<a href="#">Capacity</a>	
transferDuration	Last transfer duration	true	<a href="#">Duration</a>	
transferEnded	Last transfer end time	true	string (date-time)	
transferError	Last transfer error	true	string	



**ReplicationStatusResponse**

Name	Description	Required	Schema	Default
source	Source Details	true	<a href="#">ReplicationStatusSide</a>	
destination	Destination Details	true	<a href="#">ReplicationStatusSide</a>	
mirrorState	SnapMirror status	true	enum (uninitialized, snapmirrored, brokenoff, undefined)	
relationshipType	SnapMirror relationship type	true	enum (data_protection, load_sharing, vault, restore, transition_data_protection, extended_data_protection)	
relationshipStatus	SnapMirror relationship status	true	enum (idle, transferring, checking, quiescing, quiesced, queued, preparing, finalizing, aborting, breaking)	
relationshipProgress	SnapMirror relationship progress	true	<a href="#">Capacity</a>	
policy	Policy name	true	string	
policyType	Policy type	true	enum (vault, async_mirror, mirror_vault, sync_mirror)	
schedule	Schedule name	true	string	
maxTransferRate	Maximum transfer rate limit	true	<a href="#">Capacity</a>	
networkCompressionRatio	Network compression ratio	true	string	
healthy	SnapMirror healthiness	true	boolean	
unhealthyReason	SnapMirror unhealthiness reason	true	string	
lagTime	Replication lag time	true	<a href="#">Duration</a>	
newestSnapshotName	Newest snapshot name	true	string	

Name	Description	Required	Schema	Default
newestSnapshotCreated	Newest snapshot creation time	true	string (date-time)	
lastTransferInfo	Last transfer Information	true	<a href="#">ReplicationStatusLastTransferInfo</a>	
currentTransferInfo	Current transfer Information	true	<a href="#">ReplicationStatusCurrentTransferInfo</a>	
totalTransferTime	Total transfer time	true	<a href="#">Duration</a>	
totalTransferSize	Total transfer size	true	<a href="#">Capacity</a>	
volumeUsedSize	Volume used size	true	<a href="#">Capacity</a>	
volumeCapacityTier	Volume capacity tier	true	<a href="#">Capacity</a>	

#### ReplicationStatusSide

Name	Description	Required	Schema	Default
workingEnvironmentId	Working environment ID	true	string	
workingEnvironmentType	Working environment type	true	string	
workingEnvironmentStatus	Working environment status	true	string	
clusterName	Cluster name	true	string	
region	AWS region name	false	string	
availabilityZone	AWS availability zone name	false	string	
svmName	Svm name	true	string	
nodeName	Node name	false	string	
volumeName	Volume name	true	string	

#### ReplicationToFsxRequest

Name	Description	Required	Schema	Default
sourceWorkingEnvironmentId	Source working environment Id	true	string	
destinationFsxId	Destination FSx working environment fileSystemId	true	string	
sourceInterclusterLifs	Source intercluster LIF IPs	true	string array	
policyName	SnapMirror policy name	true	string	

Name	Description	Required	Schema	Default
scheduleName	Schedule name	false	string	
maxTransferRate	Maximum transfer rate limit (KB/s). Use 0 for no limit, otherwise use number between 1024 and 2,147,482,624	false	integer (int32)	

#### ReplicationUpdateRequest

Name	Description	Required	Schema	Default
schedule	New replication schedule name	false	string	
maxTransferRate	New maximum transfer rate limit (KB/s). Use 0 for no limit, otherwise use number between 1024 and 2,147,482,624	false	integer (int32)	

#### ResetPassword

Name	Description	Required	Schema	Default
oldPassword	User's current password	true	string	
newPassword	User's new password	true	string	

#### ResetUserPasswordRequest

Name	Description	Required	Schema	Default
password	New password	true	string	

#### ResourcesToDelete

Name	Description	Required	Schema	Default
instanceNameAndType		true	<a href="#">InstanceNameIdAndType</a> array	
numberOfDisksAndDiskSize		true	<a href="#">DisksDetails</a> array	

### RouteTableResponse

Name	Description	Required	Schema	Default
id		true	string	
main		true	boolean	
subnets		true	string array	
tags		true	<a href="#">RouteTableTag</a> array	

### RouteTableTag

Name	Description	Required	Schema	Default
key		true	string	
value		true	string	

### S3BucketInfoDetails

Name	Description	Required	Schema	Default
bucketName		true	string	
region		true	string	
tags		true	Map[string,string]	
tieringTarget		true	boolean	
backupTarget		true	boolean	

### S3BucketsSummary

Name	Description	Required	Schema	Default
s3Buckets		true	<a href="#">S3BucketInfoDetails</a> array	
totalBuckets		true	integer (int32)	
totalRegions		true	integer (int32)	
totalTieringTargets		true	integer (int32)	
totalBackupTargets		true	integer (int32)	

### S3Summary

Name	Description	Required	Schema	Default
numOfBuckets		true	integer (int32)	
numOfRegions		true	integer (int32)	
supportable		true	boolean	

### SaaSMPAccountResponse

Name	Description	Required	Schema	Default
awsSubscriptions	AWS Subscriptions	true	<a href="#">SubscriptionResponse</a> array	
azureSubscriptions	Azure Subscriptions	true	<a href="#">SubscriptionResponse</a> array	
gcpSubscriptions	Gcp Subscriptions	true	<a href="#">SubscriptionResponse</a> array	
eligibleForFreeTrialAWS	Eligible For Free Trial AWS	true	boolean	
eligibleForFreeTrialGcp	Eligible For Free Trial Gcp	true	boolean	
eligibleForFreeTrialAzure	Eligible For Free Trial Azure	true	boolean	
cloudAccounts	Cloud accounts	true	<a href="#">CloudAccountResponse</a> array	

### SaaSMPServiceInformation

Name	Description	Required	Schema	Default
productUrlAWS		true	string	
productUrlGcp		true	string	
url		true	string	
productUrlAzure		true	string	
productUrlAWSContract		true	string	

### SaaSSubscription

Name	Description	Required	Schema	Default
id		true	string	
name		true	string	
active		true	boolean	

### SavingsInfo

Name	Description	Required	Schema	Default
name	Name of saving element	false	string	
monthlySaving	Savings for that element	false	<a href="#">Money</a>	

### SecurityGroupResponse

Name	Description	Required	Schema	Default
securityGroupId	Security group ID	true	string	
description	Description	true	string	
name	Name	true	string	

### ServerTimeZone

Name	Description	Required	Schema	Default
timeZoneName		true	string	
formattedTimeZone		true	string	

### ServiceInfo

Name	Description	Required	Schema	Default
enabled		true	boolean	
requireClientInfra		true	boolean	
cloudProvider		false	string array	
metadata		false	Map[string, string]	

### ServiceUrl

Name	Description	Required	Schema	Default
url	url	true	string	

### SetNssKeysRequest

Name	Description	Required	Schema	Default
nssUserName	NSS username	false	string	
nssPassword	NSS password	false	string	

### SetProxyRequest

Name	Description	Required	Schema	Default
uri		true	string	
proxyUserName		false	string	
proxyPassword		false	string	
proxyDomain		false	string	

### SetupInfo

Name	Description	Required	Schema	Default
needCertificate		true	boolean	
runningInDocker		true	boolean	
setup		true	boolean	
pendingConnectivitySet		true	boolean	

### SgwsCloudBackupSetupRequest

Name	Description	Required	Schema	Default
sgwsCredentials	StorageGRID credentials	true	<a href="#">SgwsCredentialsRequest</a>	
ipSpace	Ip Space	false	string	

### SgwsCredentialsRequest

Name	Description	Required	Schema	Default
accessKey	StorageGRID Access Key	true	string	
secretKey	StorageGRID Secret Key	true	string	
serviceUrl	StorageGRID Endpoint - protocol, FQDN and Port	true	string	

### Sitelfentifier

Name	Description	Required	Schema	Default
company		true	string	
host		true	string	
site		true	string	

### SnapMirrorPolicyResponse

Name	Description	Required	Schema	Default
name		true	string	
comment		true	string	
policyType		true	string	
rules		true	<a href="#">SnapMirrorRuleResponse</a> array	

Name	Description	Required	Schema	Default
reason		false	string	
default		true	boolean	
supported		true	boolean	

#### SnapMirrorRuleResponse

Name	Description	Required	Schema	Default
snapMirrorLabel		true	string	
retention		true	integer (int32)	

#### SnapshotCreateRequest

Name	Description	Required	Schema	Default
snapshotName	Snapshot name	true	string	

#### SnapshotDeleteRequest

Name	Description	Required	Schema	Default
snapshotName	Snapshot name	true	string array	

#### SnapshotPolicy

Name	Description	Required	Schema	Default
name	Name	true	string	
schedules	Schedules	true	<a href="#">PolicySchedule</a> array	
description	Description	true	string	

#### SnapshotPolicyCreateRequest

Name	Description	Required	Schema	Default
snapshotPolicyName	Snapshot policy name	true	string	
schedules	Snapshot policy schedules	true	<a href="#">SnapshotPolicyScheduleRequest</a> array	

#### SnapshotPolicyScheduleRequest

Name	Description	Required	Schema	Default
scheduleType	Snapshot policy schedule type	true	enum (5min, 8hour, hourly, daily, weekly, monthly)	



Name	Description	Required	Schema	Default
retention	Snapshot policy retention	true	integer (int32)	

#### SoftwareVersionAmisResponse

Name	Description	Required	Schema	Default
regionToAmi		true	string]	

#### SoftwareVersionsResponse

Name	Description	Required	Schema	Default
versions		true	string array	

#### SourceSnapmirrorEndpoint

Name	Description	Required	Schema	Default
sourceWorkingEnvironmentId	working environment Id	true	string	
sourceSvmName	SVM name	true	string	
sourceVolumeName	volume name	true	string	

#### SourceTarget

Name	Description	Required	Schema	Default
source		true	Id	
target		true	Id	

#### StartStopRange

Name	Description	Required	Schema	Default
stop		true	TimePoint	
start		true	TimePoint	

#### Status

Name	Description	Required	Schema	Default
status		false	string	

#### StatusProperties

Name	Description	Required	Schema	Default
status		true	string	

Name	Description	Required	Schema	Default
message		true	string	
failureCauses		true	<a href="#">FailureCauses</a>	
extendedFailureReason		false	string	

#### SubnetResponse

Name	Description	Required	Schema	Default
subnetId	Subnet ID	true	string	
cidr	CIDR	true	string	
subnetName	Subnet name	false	string	
availabilityZone	availability zone	true	string	
availableIps	The number of available IPs on the subnet	true	integer (int32)	
minimumRequiredIps	The minimum needed IP addresses for the Cloud Volumes ONTAP creation	true	integer (int32)	
outpostArn	Outpost Arn	false	string	

#### SubscriptionResponse

Name	Description	Required	Schema	Default
id	Id	true	string	
name	Name	true	string	
provider		true	enum (aws, azure, gcp)	
active	Active	true	boolean	
contract	contract	true	boolean	
byNodeMode	By node mode	true	boolean	

#### SupportRegistrationInformation

Name	Description	Required	Schema	Default
supportRegistrationStatus		true	string	
serialNumber		true	string	
licenseExpiryDate		false	integer (int64)	

Name	Description	Required	Schema	Default
cloudLicenseExists		true	boolean	
nssAccountId		false	string	

#### SupportRegistrationProperties

Name	Description	Required	Schema	Default
supportRegistrationStatus		true	string	
licenseExpiryDate		true	integer (int64)	

#### SupportRegistrationResponse

Name	Description	Required	Schema	Default
status		true	string	
licenseExpiryDate		false	integer (int64)	
licenseStartDate		false	integer (int64)	
nssAccountId		false	string	

#### SupportServices

Name	Description	Required	Schema	Default
asupEnabled		true	boolean	
cognitoEnabled		true	boolean	
kinesisEnabled		true	boolean	
intercomEnabled		true	boolean	
liveChatEnabled		true	boolean	
volumeViewEnabled		true	boolean	
portalService		true	<a href="#">PortalService</a>	
intercomAppId		true	string	
tenancyServiceInformation		false	<a href="#">TenancyServiceInformation</a>	
saasMpServiceInformation		false	<a href="#">SaasMpServiceInformation</a>	
cvssInformation		true	string	
complianceEnabled		true	boolean	
ipaServiceInformation		false	<a href="#">IpaServiceInformation</a>	

Name	Description	Required	Schema	Default
licenseServiceInformation		false	<a href="#">LicenseServiceInformation</a>	
servicesInformation		true	Map[string,Map[string,Any]]	
setupInfo		true	<a href="#">SetupInfo</a>	
useCompliancePrivatelpContainerMode		true	boolean	
notificationServiceInformation		false	<a href="#">NotificationServiceInformation</a>	

#### SupportedCapacityTiers

Name	Description	Required	Schema	Default
supportedCapacityTiersPerVolumeType		true	<a href="#">SupportedCapacityTiersResponse</a> array	
capacityTiersDisableReasons		true	string array	
compositeSupported		true	boolean	
forceCompositeVersion		true	boolean	

#### SupportedCapacityTiersResponse

Name	Description	Required	Schema	Default
volumeType		true	string	
supportedCapacityTiers		true	string array	
availableTieringPolicies		true	string array	

#### SupportedFeatures

Name	Description	Required	Schema	Default
supportsMixedAggregates		true	boolean	
supportsTieringWithServiceAccount		true	boolean	
supportsGp3Disk		true	boolean	

#### SupportedFeaturesResponse

Name	Description	Required	Schema	Default
wormSupportedVersion		true	boolean	
cbsSupportedVersion		true	boolean	
httpsStorageAccountSupportedVersion		true	boolean	
tieringWithServiceAccount		true	boolean	
s3CmkEncryptionSupportedVersion		true	boolean	
gp3SupportedVersion		true	boolean	

### Svm

Name	Description	Required	Schema	Default
name		true	string	
state		true	string	
language		true	string	
allowedAggregates		true	string array	
ver3Enabled	NFS Version 3 enabled	true	boolean	
ver4Enabled	NFS Version 4 enabled	true	boolean	

### SvmNameModificationRequest

Name	Description	Required	Schema	Default
svmNewName		true	string	
svmName		false	string	

### TagKeyResponse

Name	Description	Required	Schema	Default
key		true	string	
values		true	string array	

### TagResponse

Name	Description	Required	Schema	Default
key	tag key	true	string	

Name	Description	Required	Schema	Default
value	tag value	true	string	

#### TaskCacheEntry

Name	Description	Required	Schema	Default
status		true	integer (int32)	
closeTime		true	integer (int64)	
actionName		true	string	
error		false	string	

#### TenancyServiceInformation

Name	Description	Required	Schema	Default
accountId		true	string	
url		true	string	
accountWidgetUrl		true	string	
agentsMgmtUrl		true	string	
forwarderUrlOverride		true	string	

#### TenantActionsRequiredResponse

Name	Description	Required	Schema	Default
weActions		true	<a href="#">WeActionRequiredResponse</a> array	

#### TenantResponse

Name	Description	Required	Schema	Default
name		true	string	
publicId		true	string	
workingEnvironmentInformation		false	<a href="#">WorkingEnvironmentInformation</a>	

#### TieringRestriction

Name	Description	Required	Schema	Default
restrictionReason		false	string	
tieringRestricted		true	boolean	

### TimePoint

Name	Description	Required	Schema	Default
day		true	integer (int32)	
hour		true	integer (int32)	
minute		true	integer (int32)	

### TrustedCertificateResponse

Name	Description	Required	Schema	Default
id	ID	true	string	
status	Status	true	enum (ACTIVE, PENDING_DELETE, PENDING_INSTALLED)	
certificateInfo	Certificate Info	true	<a href="#">CertificateResponse</a>	

### UpdateCredentialsRequest

Name	Description	Required	Schema	Default
username	Username	true	string	
password	Password	true	string	

### UpdateInfo

Name	Description	Required	Schema	Default
name		true	string	
date		true	integer (int64)	
releaseNumber		true	integer (int32)	

### UpdateKeyManagerCaCertificateRequest

Name	Description	Required	Schema	Default
keyManagerCaCertificateId		true	string	

### UpdateLocalImage

Name	Description	Required	Schema	Default
name		true	string	
version		true	string	
current		true	boolean	

#### UpdateRouteTablesRequest

Name	Description	Required	Schema	Default
routeTableIds		true	string array	

#### UpdateServiceUser

Name	Description	Required	Schema	Default
cloudManagerNotificationsOptIn		true	boolean	

#### UpdateSubscriptionRequest

Name	Description	Required	Schema	Default
subscriptionId	SaaS Marketplace subscription id	true	string	

#### UpdateSystemImageRequest

Name	Description	Required	Schema	Default
updateType	System update type. System update can be performed by providing either: an external URL from which ONTAP will download the image file, a local image already in ONTAP or a name of an image provided by Cloud Manager	true	enum (EXTERNAL_FILE, LOCAL_IMAGE, OCCM_PROVIDED)	
updateParameter	Parameter specific to the specified update type. External file URL, local image name or Cloud Manager provided image name	true	string	

#### UpdateTenantRequest

Name	Description	Required	Schema	Default
name	Tenant name	true	string	
description	Tenant description	false	string	
costCenter	Tenant cost center	false	string	



### UpdateUserRequest

Name	Description	Required	Schema	Default
firstName	User first name	true	string	
lastName	User last name	true	string	
email	User email	true	string	
ldapUserName	AD user name	false	string	
notificationsOptIn	Email notifications opt-in	false	boolean	

### Usage

Name	Description	Required	Schema	Default
amount	Amount	false	number (double)	
units	Units	false	string	

### UserPasswordRequest

Name	Description	Required	Schema	Default
email	Email address of the user attempting to login	true	string	
password	Password of the user attempting to login	true	string	

### UserRequest

Name	Description	Required	Schema	Default
firstName	User first name	true	string	
lastName	User last name	true	string	
email	User email	true	string	
roleId	Role ID of the user	true	string	
tenantId	Tenant ID of the user	false	string	
password	User password	true	string	
ldapUserName	LDAP User Name	false	string	
notificationsOptIn	Email notifications opt-in	false	boolean	
ldap		true	boolean	

## UserResponse

Name	Description	Required	Schema	Default
publicId	User public ID	true	string	
assignedWorkingEnvironments	List of public IDs of all of the working environments visible to the user	true	string array	
firstName	User first name	true	string	
lastName	User last name	true	string	
email	User email	true	string	
roleId	Role ID of the user	true	string	
tenantId	Tenant ID of the user	true	string	
createdWorkingEnvironments	List of all working environments created by the user	true	<a href="#">UserWorkingEnvironmentResponse</a> array	
cloudSyncLicenseInformation	Cloud Sync license information	false	<a href="#">CloudSyncLicenseInformation</a>	
ldapUserName	LDAP User Name	true	string	
notificationsOptIn	Notification OptIn	true	boolean	
permissions	Permissions	true	string array	
ldap		true	boolean	

## UserTagsResponse

Name	Description	Required	Schema	Default
tags		true	<a href="#">CloudResourceTag</a> array	

## UserWorkingEnvironmentResponse

Name	Description	Required	Schema	Default
publicId	Working environment public ID	true	string	
name	Working environment name	true	string	
workingEnvironmentType	Working environment Type	true	string	

## VersionWrapper

Name	Description	Required	Schema	Default
name		true	string	
date		true	integer (int64)	
releaseNumber		true	integer (int32)	

#### VhdImageRequest

Name	Description	Required	Schema	Default
blobUrl		true	string	

#### VmDiskProperties

Name	Description	Required	Schema	Default
objectName		true	string	
storageAccountName		true	string	
containerName		true	string	

#### Volume

Name	Description	Required	Schema	Default
name	Name	true	string	
totalSize	Volume total size	true	<a href="#">Capacity</a>	
usedSize	Volume used size	true	<a href="#">Capacity</a>	
thinProvisioned	Is volume thin-provisioned	true	boolean	
rootVolume	Is volume the root volume of the SVM	true	boolean	
clone		true	boolean	

#### VolumeCbsInfo

Name	Description	Required	Schema	Default
totalBackups		true	integer (int32)	

#### VolumeCloneRequest

Name	Description	Required	Schema	Default
newVolumeName	New volume name	true	string	
parentSnapshot	Snapshot name to use for clone	false	string	

### VolumeForBackupResponse

Name	Description	Required	Schema	Default
name		true	string	
uuid		true	string	
svmName		true	string	
size		true	<a href="#">Capacity</a>	
usedSize		true	<a href="#">Capacity</a>	
state		true	string	
providerVolumeType		false	string	
volumeType		true	string	
disableReasonBackup		true	string array	
backupOn		true	boolean	

### VolumeInfo

Name	Description	Required	Schema	Default
volumeName		true	string	
svmName		true	string	
newCapacity		true	<a href="#">Capacity</a>	

### VolumeModifyRequest

Name	Description	Required	Schema	Default
snapshotPolicyName	Snapshot Policy name	false	string	
shareInfo	Share names, permissions and users for CIFS	false	<a href="#">CifsShareInfo</a>	
exportPolicyInfo	Export policy info for NFS	false	<a href="#">NamedExportPolicyInfo</a>	
qualityOfService	Quality of service	false	<a href="#">VolumeQualityOfService</a>	
tieringPolicy	Tiering policy	false	enum (none, snapshot_only, auto, all)	
minimumCoolingDays	Tiering minimum cooling days	false	integer (int32)	

### VolumeMoveParameters

Name	Description	Required	Schema	Default
volumeName		true	string	
svmName		true	string	
targetAggregateName		true	string	
homeNode		false	string	
newTargetAggregate		true	boolean	

### VolumeMoveRequest

Name	Description	Required	Schema	Default
targetAggregateName	Target aggregate name	true	string	
numOfDisksToAdd	Target aggregate number of disks to add	true	integer (int32)	
createTargetAggregate	Is new Target aggregate	true	boolean	
newDiskTypeName	Volume's new Disk type	false	string	
newCapacityTier	New capacity tier	false	enum (S3, Blob, cloudStorage)	
newTieringPolicy	New tiering policy	false	enum (none, snapshot_only, auto, all)	

### VolumeQualityOfService

Name	Description	Required	Schema	Default
maxIops		false	integer (int32)	
maxDataRate	Max Data rate per second	false	<a href="#">Capacity</a>	

### VolumeResponse

Name	Description	Required	Schema	Default
name	Volume name	true	string	
uuid	Volume uuid	true	string	
svmName	Volume SVM name	true	string	
size	Volume total size	true	<a href="#">Capacity</a>	

Name	Description	Required	Schema	Default
usedSize	Volume used size	true	<a href="#">Capacity</a>	
junctionPath	The junction path at which this volume is mounted	true	string	
volumeTotalInodes	Total volume inodes size	false	integer (int32)	
volumeUsedInodes	Used volume inodes size	false	integer (int32)	
mountPoint	Mount Point	false	string	
compressionSpaceSaved	The total disk capacity that is saved by compressing blocks	true	<a href="#">Capacity</a>	
deduplicationSpaceSaved	The disk space capacity that is saved by deduplication and file cloning	true	<a href="#">Capacity</a>	
thinProvisioning	Whether thin provisioning is enabled	true	boolean	
compression	Whether compression is enabled	true	boolean	
deduplication	Whether deduplication is enabled	true	boolean	
snapshotPolicy	The name of the Snapshot policy	true	string	
securityStyle	The type of the Security style	true	string	
exportPolicyInfo	The export policy info for NFS	true	<a href="#">NamedExportPolicyInfo</a>	
shareNames	The share names for CIFS	true	string array	
shareInfo	The share names, permissions and users for CIFS	true	<a href="#">CifsShareInfo</a> array	
parentVolumeName	Name of the parent flexible volume for the clone	true	string	

Name	Description	Required	Schema	Default
rootVolume	Flag to indicate if the volume is a SVM root	true	boolean	
state	Volume state	true	string	
volumeType	Volume type	true	string	
aggregateName	Aggregate name	true	string	
parentSnapshot	The snapshot name the volume is based on	false	string	
autoSizeMode	The operating mode of autosize	true	string	
maxGrowSize	The maximum size to which the volume will grow automatically	true	Capacity	
providerVolumeType	Cloud provider volume type	false	string	
cloneNames	Names of cloned copies of the volume	true	string array	
moving	Is Volume during move process	true	boolean	
primaryNoFailoverMountPoint	Primary mount point without failover	false	string	
secondaryNoFailoverMountPoint	Secondary mount point without failover	false	string	
capacityTier	Capacity tier	false	enum ([S3, Blob])	
capacityTierUsedSize	Capacity tier used size	false	Capacity	
cifsShareAccessPoint	CIFS share access point	false	string	
primaryCifsShareAccessPoint	Primary CIFS share access point	false	string	
secondaryCifsShareAccessPoint	Secondary CIFS share access point	false	string	
tieringPolicy	Tiering policy	false	string	
tierInactiveUserData	Tier inactive user data	false	Capacity	
tierInactiveUserDataPercent	Tier inactive user data percent	false	integer (int32)	
comment	Volume comment	false	string	

Name	Description	Required	Schema	Default
qosPolicyGroupName	Quality of service policy group name	false	string	
snaplockType	Snaplock type	false	enum (non_snaplock, compliance, enterprise)	
constituentsAggregates	Aggregates which are used for FlexGroup constituents	true	string array	
snapshotsUsedSize	The size that is used by snapshots in the volume	false	<a href="#">Capacity</a>	
cbsBackupsInfo	Backup to Cloud Service info	false	<a href="#">VolumeCbsInfo</a>	
minimumCoolingDays	Tiering minimum cooling days	false	integer (int32)	
targetName	ISCSI target IQN	true	string	
iscsiEnabled		true	boolean	
flexGroupVolume		true	boolean	

#### VolumeTags

Name	Description	Required	Schema	Default
tagKey		true	string	
tagValue		true	string	

#### VolumesListForBackup

Name	Description	Required	Schema	Default
volumes		true	<a href="#">VolumeForBackupResponse</a> array	
totalNumberOfVolumes		true	integer (int32)	
filteredNumberOfVolumes		false	integer (int32)	
hasNextPage		false	boolean	
allowedValuesForVolumesListFilter		false	<a href="#">AllowedValuesForVolumesListFilter</a>	



### VpcBasicResponse

Name	Description	Required	Schema	Default
vpcId	VPC ID	true	string	
state	VPC state	true	string	
cidrBlock	VPC CIDR block	true	string	
tags	VPC tags	true	<a href="#">VpcTagResponse</a> array	
default	Is the VPC a default one	true	boolean	

### VpcExtendedResponse

Name	Description	Required	Schema	Default
vpcId	VPC ID	true	string	
state	VPC state	true	string	
cidrBlock	VPC CIDR block	true	string	
tags	VPC tags	true	<a href="#">VpcTagResponse</a> array	
default	Is the VPC a default one	true	boolean	
subnets	Subnets associated with vpc	true	<a href="#">SubnetResponse</a> array	
securityGroups	Security groups associated with vpc	true	<a href="#">SecurityGroupResponse</a> array	
tenancy	VPC Tenancy	true	string	

### VpcTagResponse

Name	Description	Required	Schema	Default
key	VPC tag key	true	string	
value	VPC tag value	true	string	

### VsaAggregateCreateRequest

Name	Description	Required	Schema	Default
name		true	string	
workingEnvironmentId		true	string	
numberOfDisks		true	integer (int32)	
diskSize		true	<a href="#">Capacity</a>	

Name	Description	Required	Schema	Default
homeNode		false	string	
providerVolumeType		false	string	
capacityTier		false	enum (S3, Blob, cloudStorage)	
iops	Provisioned IOPS	false	integer (int32)	
throughput	Provisioned Throughput	false	integer (int32)	

#### VsaClusterProperties

Name	Description	Required	Schema	Default
lifs		true	<a href="#">LifResponse</a> array	
serialNumber		true	string	
systemId		true	string	
clusterName		true	string	
ontapVersion		true	string	
accountId		true	string	
productCode		true	string	
amild		true	string	
systemManagerUrl		true	string	
creationTime		true	integer (int64)	
instanceId		true	string	
platformLicense		true	string	
licenseExpiryDate		true	integer (int64)	
instanceType		true	string	
publicIp		false	string	
publicDnsName		false	string	
licenseType		true	<a href="#">VsaLicense</a>	
lastModifiedOffbox		false	integer (int64)	
offboxTarget		true	boolean	
upgradeVersions		false	<a href="#">OntapUpdateImage Metadata</a> array	
writingSpeedState		false	string	

#### VsaLicense

Name	Description	Required	Schema	Default
name	License name	true	string	
capacityLimit	Capacity limit	true	<a href="#">Capacity</a>	

#### VsaMetadataRequest

Name	Description	Required	Schema	Default
ontapVersion	Ontap Version	true	string	
licenseType	License Type	true	string	
instanceType	Instance Type	true	string	
platformSerialNumber	Optional platform Serial Number	false	string	
providedLicense	Optional provided License	false	string	
capacityPackageName	Optional Capacity Based Package	false	enum (Professional, Essential, Freemium)	
keyStoneSubscription	Keystone Subscription Id	false	string	
useLatestVersion	Use Latest Version	false	boolean	

#### VsaSchedule

Name	Description	Required	Schema	Default
name		true	string	
schedule		true	<a href="#">StartStopRange</a> array	
enabled		true	boolean	

#### VsaSchedulesRequest

Name	Description	Required	Schema	Default
schedules		true	<a href="#">VsaSchedule</a> array	

#### VsaVolumeCreateRequest

Name	Description	Required	Schema	Default
workingEnvironmentId	Cloud Volumes ONTAP Working Environment ID	true	string	
svmName	SVM name	true	string	

Name	Description	Required	Schema	Default
aggregateName	Aggregate in which the volume will be created	true	string	
name	Volume name, unique within the SVM	true	string	
size	Size as Capacity	true	<a href="#">PositiveCapacity</a>	
initialSize	Initial size as Capacity. Relevant for thin provisioned volumes only	false	<a href="#">Capacity</a>	
snapshotPolicyName	Snapshot Policy name	true	string	
exportPolicyInfo	NFS protocol parameters	false	<a href="#">ExportPolicyInfo</a>	
shareInfo	CIFS protocol parameters	false	<a href="#">CreateCifsShareInfoRequest</a>	
enableThinProvisioning	Enable thin provisioning	true	boolean	
enableCompression	Enable compression	true	boolean	
enableDeduplication	Enable deduplication	true	boolean	
maxNumOfDisksApprovedToAdd	Maximum number of disks approved to allocate	true	integer (int32)	
providerVolumeType	Provider volume type	false	string	
syncToS3	Add Cloud Sync relationship	true	boolean	
capacityTier	Capacity tier	false	enum (S3, Blob, cloudStorage)	
iops	Provisioned IOPS	false	integer (int32)	
throughput	Provisioned Throughput	false	integer (int32)	
tieringPolicy	Tiering policy	false	enum (none, snapshot_only, auto, all)	
junctionPath	Junction path	false	string	
qualityOfService	Quality of service	false	<a href="#">VolumeQualityOfService</a>	
minimumCoolingDays	Cooling Days	false	integer (int32)	

Name	Description	Required	Schema	Default
volumeTags	Optionally provide key-value pairs with which to tag the ONTAP volume using App Template service	false	<a href="#">VolumeTags</a> array	
iscsiInfo		true	<a href="#">CreateIscsiInfoRequest</a>	

#### VsaVolumeOnNewVsaCreateRequest

Name	Description	Required	Schema	Default
name	Volume name, unique within the SVM	true	string	
size	Size as Capacity	true	<a href="#">PositiveCapacity</a>	
initialSize	Initial size as Capacity. Relevant for thin provisioned volumes only.	false	<a href="#">Capacity</a>	
snapshotPolicyName		true	string	
exportPolicyInfo	NFS protocol parameters	false	<a href="#">ExportPolicyInfo</a>	
shareInfo	CIFS protocol parameters	false	<a href="#">CreateCifsShareInfoRequest</a>	
enableThinProvisioning	Enable thin provisioning	true	boolean	
enableCompression	Enable compression	true	boolean	
enableDeduplication	Enable deduplication	true	boolean	
tieringPolicy	Tiering policy	false	enum (none, snapshot_only, auto, all)	
junctionPath	Junction path	false	string	
qualityOfService	Quality of service	false	<a href="#">VolumeQualityOfService</a>	
iscsiInfo		true	<a href="#">CreateIscsiInfoRequest</a>	

#### VsaVolumeQuoteRequest

Name	Description	Required	Schema	Default
workingEnvironmentId	Cloud Volumes ONTAP Working Environment ID	true	string	
svmName	SVM name	true	string	
aggregateName	Optionally choose in which aggregate to create the volume	false	string	
name	Volume name, unique within the SVM	true	string	
size	Size as Capacity	true	PositiveCapacity	
initialSize	Initial size as Capacity. Relevant for thin provisioned volumes only	false	Capacity	
enableThinProvisioning	Enable thin provisioning	true	boolean	
providerVolumeType	Provider volume type	false	string	
verifyNameUniqueness	Verify volume name uniqueness within the SVM	true	boolean	
capacityTier	Capacity tier	false	enum (S3, Blob, cloudStorage)	
iops	Provisioned IOPS	false	integer (int32)	
throughput	Provisioned Throughput	false	integer (int32)	
tieringPolicy	Tiering policy	false	enum (none, snapshot_only, auto, all)	
replicationFlow		true	boolean	

#### VsaVolumeQuoteResponse

Name	Description	Required	Schema	Default
numOfDisks	Number of new disks needed	true	integer (int32)	
diskSize	New disks size	true	Capacity	
aggregateName	The aggregate on which the requested volume will be created	true	string	

Name	Description	Required	Schema	Default
newAggregate	Is it a newly created aggregate	true	boolean	
autoVsaCapacityManagement	Is auto Cloud Volumes ONTAP capacity management enabled	true	boolean	

#### VsaVolumeRequest

Name	Description	Required	Schema	Default
sourceSvmName	Source SVM name	true	string	
sourceVolumeName	Source volume name	true	string	
destinationVolumeName	Destination volume name	true	string	
destinationAggregateName	Destination aggregate name	true	string	
numOfDisksApprovedToAdd	Maximum number of disks approved to add	true	integer (int32)	
advancedMode	Use advanced allocation for destination volume	true	boolean	
destinationProviderVolumeType	Destination provider volume type	false	string	
destinationCapacityTier	Destination aggregate capacity tier	false	enum (S3, Blob, cloudStorage)	
destinationSvmName	Destination SVM name	false	string	
iops	Provisioned IOPS	false	integer (int32)	
throughput	Provisioned Throughput	false	integer (int32)	
tieringPolicy	Tiering policy	false	enum (none, auto, all)	

#### VsaWorkingEnvironmentResponse

Name	Description	Required	Schema	Default
publicId		true	string	
name		true	string	

Name	Description	Required	Schema	Default
tenantId		true	string	
svmName		false	string	
creatorUserEmail		true	string	
status		false	<a href="#">StatusProperties</a>	
awsProperties		false	<a href="#">AwsProperties</a>	
reservedSize		false	<a href="#">Capacity</a>	
encryptionProperties		false	<a href="#">EncryptionProperties</a>	
clusterProperties		false	<a href="#">VsaClusterProperties</a>	
ontapClusterProperties		false	<a href="#">OntapClusterProperties</a>	
actionsRequired		false	<a href="#">ActionRequired</a> array	
interClusterLifs		false	<a href="#">InterClusterLifs</a> array	
cronJobSchedules		false	<a href="#">CronJobSchedule</a> array	
snapshotPolicies		false	<a href="#">SnapshotPolicy</a> array	
svms		false	<a href="#">Svm</a> array	
activeActions	Actions currently being performed on this working environment	false	string array	
replicationProperties	Working environments in which a SnapMirror relationship exists between volumes on this working environment	false	<a href="#">ReplicationProperties</a>	
schedules		false	<a href="#">VsaSchedule</a> array	
cloudProviderName		true	string	
workingEnvironmentType		true	string	
supportRegistrationProperties		false	<a href="#">SupportRegistrationProperties</a>	
supportRegistrationInformation		false	<a href="#">SupportRegistrationInformation</a> array	
haProperties		false	<a href="#">HaProperties</a>	



Name	Description	Required	Schema	Default
capacityFeatures		false	<a href="#">CapacityFeatures</a>	
cloudSyncProperties		false	<a href="#">CloudSyncProperties</a>	
supportedFeatures		false	<a href="#">SupportedFeatures</a>	
fpolicyProperties		false	<a href="#">FpolicyProperties</a>	
saasProperties		false	<a href="#">CvoSaasProperties</a>	
cbsProperties		false	<a href="#">CbsPropertiesWithReason</a>	
complianceProperties		false	<a href="#">CloudComplianceStatusResponse</a>	
monitoringProperties		false	<a href="#">MonitoringStatusResponse</a>	
licensesInformation		false	<a href="#">LicenseInformation</a> array	
hA		true	boolean	

#### VscanFileOpRequest

Name	Description	Required	Schema	Default
vscanFileOp	Vscan file-operation	true	enum (writes_only, standard)	

#### WeActionRequiredResponse

Name	Description	Required	Schema	Default
publicId		true	string	
actions		true	<a href="#">ActionRequired</a> array	

#### WorkingEnvironmentCostAndUsageResponse

Name	Description	Required	Schema	Default
hasPermissions	Has permissions to view cost and usage details	true	boolean	
costByTime	Working environment cost and usage details	true	<a href="#">CostByTime</a> array	

#### WorkingEnvironmentOntapSavingResponse

Name	Description	Required	Schema	Default
savings	list of savings	true	<a href="#">SavingsInfo</a> array	

#### WorkingEnvironments

Name	Description	Required	Schema	Default
vsaWorkingEnvironments		true	<a href="#">VsaWorkingEnvironmentResponse</a> array	
onPremWorkingEnvironments		true	<a href="#">OnPremWorkingEnvironmentResponse</a> array	
azureVsaWorkingEnvironments		true	<a href="#">AzureVsaWorkingEnvironmentResponse</a> array	
gcpVsaWorkingEnvironments		true	<a href="#">GcpVsaWorkingEnvironmentResponse</a> array	

#### WorkingEnvironmentsInformation

Name	Description	Required	Schema	Default
regionsCount	Number of regions for which working environments exist over this tenant	true	integer (int32)	
totalReservedSize	Total reserved size of all working environments created over this tenant	true	<a href="#">Capacity</a>	
workingEnvironmentsCount	Number of working environments created over this tenant	true	integer (int32)	

#### WorkspaceResponse

Name	Description	Required	Schema	Default
workspacePublicId		true	string	
workspaceName		true	string	
associatedToAgent		true	boolean	

#### WormRequest

Name	Description	Required	Schema	Default
retentionPeriod	WORM Retention period	true	<a href="#">WormRetentionPeriod</a>	

#### WormRetentionPeriod

Name	Description	Required	Schema	Default
length	Length	true	integer (int32)	
unit	Unit	true	enum (years, months, days, hours, minutes, seconds)	

#### WritingSpeedRequest

Name	Description	Required	Schema	Default
writingSpeedState	Writing speed state	true	enum (NORMAL, HIGH)	

#### ZapiCredentials

Name	Description	Required	Schema	Default
ip		true	string	
userName		true	string	
password		true	string	

# Automation technologies

## Overview of Cloud Manager platform automation options

DevOps teams use a variety of tools to automate the setup and administration of their data center runtime environments. NetApp supports many of these technologies for Cloud Manager and Cloud Volumes ONTAP automation. The tools are commonly based on an Infrastructure as Code (IaC) design.

### Terraform

Terraform is an open-source orchestration tool which uses declarative configuration files. NetApp has created a Terraform provider you can use with Cloud Manager to automate and integrate Cloud Volumes ONTAP based on IaC. See [Terraform provider: netapp-cloudmanager](#) for more information.

### Ansible

Ansible is an open-source configuration management tool based on the use of procedural configuration files.

### Related information

- [Infrastructure as Code](#)
- [Terraform](#)
- [Ansible](#)

## Blogs about Cloud Manager platform automation

There are several blog articles available to help you better understand the technologies and approaches available for Cloud Manager automation.

### Using Cloud Manager REST APIs with Federated Access

<https://cloud.netapp.com/blog/using-cloud-manager-rest-apis-with-federated-access>

### Cloud Automation with Cloud Volumes ONTAP and REST

<https://cloud.netapp.com/blog/cloud-automation-with-cloud-volumes-ontap-rest>

### Automated Data Cloning for Cloud-Based Testing of Software Applications

<https://cloud.netapp.com/blog/automated-data-cloning-for-cloud-based-testing>

### Roles for Ansible ONTAP use

<https://netapp.io/2019/03/25/simplicity-at-its-finest-roles-for-ansible-ontap-use>

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