# Aggregates

## Cloud Manager Automation

NetApp
March 05, 2022

This PDF was generated from https://docs.netapp.com/us-en/cloud-manager-automation/cm/wf_gcp_ontap_get_aggrs.html on March 05, 2022. Always check docs.netapp.com for the latest.

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# 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/<WORKIN
G_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": "00000000000000000",
                "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 | occm/api/gcp/vsa/aggregates |

**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/<WORKIN
G_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/<WORKIN
G_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

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