



# Manage volume snapshots

REST API reference

NetApp

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# Manage volume snapshots

## Manage volume snapshots

### Overview

A snapshot is the view of the filesystem as it exists at the time when the snapshot is created.

In ONTAP, different types of snapshots are supported, such as scheduled snapshots, user requested snapshots, SnapMirror snapshots, and so on.

ONTAP snapshot APIs allow you to create, modify, delete and retrieve snapshots.

ONTAP Bulk snapshot APIs allow you to create, modify, delete and retrieve snapshots on multiple volumes in one request.

### Snapshot APIs

The following APIs are used to perform operations related to snapshots.

&ndash; POST /api/storage/volumes/{volume.uuid}/snapshots

&ndash; GET /api/storage/volumes/{volume.uuid}/snapshots

&ndash; GET /api/storage/volumes/{volume.uuid}/snapshots/{uuid}

&ndash; PATCH /api/storage/volumes/{volume.uuid}/snapshots/{uuid}

&ndash; DELETE /api/storage/volumes/{volume.uuid}/snapshots/{uuid} The following APIs are used to perform bulk operations related to snapshots.

&ndash; POST /api/storage/volumes/\*/snapshots

&ndash; GET /api/storage/volumes/\*/snapshots

&ndash; PATCH /api/storage/volumes/\*/snapshots/{uuid}

&ndash; DELETE /api/storage/volumes/\*/snapshots/{uuid}

### Examples

#### Creating a snapshot

The POST operation is used to create a snapshot with the specified attributes.

```
# The API:  
/api/storage/volumes/{volume.uuid}/snapshots  
  
# The call:  
curl -X POST "https://<mgmt-  
ip>/api/storage/volumes/{volume.uuid}/snapshots" -H "accept:
```

```

application/hal+json" -d '{"name": "snapshot_copy", "comment": "Store this
copy." }'

# The response:
HTTP/1.1 202 Accepted
Date: Wed, 13 Mar 2019 22:43:34 GMT
Server: libzapid-httpt
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/storage/volumes/0353dc05-405f-11e9-acb6-
005056bbc848/snapshots/?name=snapshot_copy
Content-Length: 189
Content-Type: application/json
{
  "num_records": 1,
  "records": [
    {
      "volume": {
        "name": "v2"
      },
      "svm": {
        "uuid": "8139f958-3c6e-11e9-a45f-005056bbc848",
        "name": "vs0"
      },
      "name": "snapshot_copy",
      "comment": "Store this copy."
    }
  ],
  "job": {
    "uuid": "6f68c85b-45e1-11e9-8fc7-005056bbc848",
    "_links": {
      "self": {
        "href": "/api/cluster/jobs/6f68c85b-45e1-11e9-8fc7-005056bbc848"
      }
    }
  }
}

# The Job:
HTTP/1.1 200 OK
Date: Wed, 13 Mar 2019 22:43:57 GMT
Server: libzapid-httpt
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 224
Content-Type: application/json

```

```
{
  "uuid": "6f68c85b-45e1-11e9-8fc7-005056bbc848",
  "description": "POST /api/storage/volumes/0353dc05-405f-11e9-acb6-005056bbc848/snapshots/?name=snapshot_copy",
  "state": "success",
  "message": "success",
  "code": 0
}
```

## Retrieving snapshot attributes

The GET operation is used to retrieve snapshot attributes.

```
# The API:
/api/storage/volumes/{volume.uuid}/snapshots

# The call:
curl -X GET "https://<mgmt-
ip>/api/storage/volumes/{volume.uuid}/snapshots" -H "accept:
application/hal+json"

# The response:
HTTP/1.1 200 OK
Date: Wed, 13 Mar 2019 21:14:06 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Type: application/json
Transfer-Encoding: chunked
{
  "records": [
    {
      "uuid": "402b6c73-73a0-4e89-a58a-75ee0ab3e8c0",
      "name": "hourly.2019-03-13_1305",
      "_links": {
        "self": {
          "href": "/api/storage/volumes/0353dc05-405f-11e9-acb6-005056bbc848/snapshots/402b6c73-73a0-4e89-a58a-75ee0ab3e8c0"
        }
      }
    },
    {
      "uuid": "f0dd497f-eфе8-44b7-a4f4-bdd3890bc0c8",
      "name": "hourly.2019-03-13_1405",
      "_links": {
        "self": {

```

```

        "href": "/api/storage/volumes/0353dc05-405f-11e9-acb6-
005056bbc848/snapshots/f0dd497f-efe8-44b7-a4f4-bdd3890bc0c8"
    }
}
},
{
"uuid": "02701900-51bd-46b8-9c77-47d9a9e2ce1d",
"name": "hourly.2019-03-13_1522",
"_links": {
"self": {
"href": "/api/storage/volumes/0353dc05-405f-11e9-acb6-
005056bbc848/snapshots/02701900-51bd-46b8-9c77-47d9a9e2ce1d"
}
}
}
],
"num_records": 3,
"_links": {
"self": {
"href": "/api/storage/volumes/0353dc05-405f-11e9-acb6-
005056bbc848/snapshots"
}
}
}

```

## Creating bulk snapshots

The POST operation is used to create a snapshot with the same name on multiple volumes in one request. This operation accepts a volume UUID or volume name and SVM, and a snapshot name. This operation only supports SnapMirror label attributes to be added to snapshots during creation.

```

# The API:
/api/storage/volumes/*/snapshots

# The call:
curl -k -u admin -X POST "https://<mgmt-
ip>/api/storage/volumes/*/snapshots" -H 'accept: application/hal+json' -d
'{"records": [{"volume.uuid":"e8815adb-5209-11ec-b4ad-005056bbc3e8",
"name":"snapshot_copy"}, {"volume.uuid":"efda9101-5209-11ec-b4ad-
005056bbc3e8", "name":"snapshot_copy"}]}'

# The response:
HTTP/1.1 202 Accepted
Date: Tue, 14 Dec 2021 20:18:13 GMT
Server: libzapid-httdp
X-Content-Type-Options: nosniff

```

```

Cache-Control: no-cache,no-store,must-revalidate
Content-Security-Policy: default-src 'self'; script-src 'self' 'unsafe-inline'; style-src 'self' 'unsafe-inline'; img-src 'self' data:; frame-ancestors: 'self'
Location: /api/storage/volumes/*/snapshots/
Content-Length: 209
Content-Type: application/json
{
  "num_records": 2,
  "job": {
    "uuid": "f7130fc0-5d1a-11ec-b78c-005056bbb467",
    "_links": {
      "self": {
        "href": "/api/cluster/jobs/f7130fc0-5d1a-11ec-b78c-005056bbb467"
      }
    }
  }
}

# The Job:
HTTP/1.1 200 OK
Date: Tue, 14 Dec 2021 20:20:54 GMT
Server: libzapid-httdp
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Security-Policy: default-src 'self'; script-src 'self' 'unsafe-inline'; style-src 'self' 'unsafe-inline'; img-src 'self' data:; frame-ancestors: 'self'
Content-Length: 258
Content-Type: application/json
Vary: Accept-Encoding
{
  "uuid": "f7130fc0-5d1a-11ec-b78c-005056bbb467",
  "description": "POST /api/storage/volumes/*/snapshots/",
  "state": "success",
  "message": "success",
  "code": 0,
  "start_time": "2021-12-14T15:18:13-05:00",
  "end_time": "2021-12-14T15:18:13-05:00"
}

```

## Retrieving snapshot advanced attributes

A collection GET request is used to calculate the amount of snapshot reclaimable space. When the advanced privilege field 'reclaimable space' is requested, the API returns the amount of reclaimable space for the queried list of snapshots.

```

# The API:
/api/storage/volumes/{volume.uuid}/snapshots?fields=reclaimable_space

# The call:
curl -X GET "https://<mgmt-
ip>/api/storage/volumes/{volume.uuid}/snapshots?fields=reclaimable_space&n
ame=hourly.2019-03-13_1305&hourly.2019-03-13_1405&hourly.2019-
03-13_1522" -H "accept: application/hal+json"

# The response:
HTTP/1.1 200 OK
Date: Wed, 13 Mar 2019 21:14:06 GMT
Server: libzapid-httfd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Type: application/json
Transfer-Encoding: chunked
{
"records": [
{
"uuid": "402b6c73-73a0-4e89-a58a-75ee0ab3e8c0",
"name": "hourly.2019-03-13_1305",
"_links": {
"self": {
"href": "/api/storage/volumes/0353dc05-405f-11e9-acb6-
005056bbc848/snapshots/402b6c73-73a0-4e89-a58a-75ee0ab3e8c0"
}
}
},
{
"uuid": "f0dd497f-efe8-44b7-a4f4-bdd3890bc0c8",
"name": "hourly.2019-03-13_1405",
"_links": {
"self": {
"href": "/api/storage/volumes/0353dc05-405f-11e9-acb6-
005056bbc848/snapshots/f0dd497f-efe8-44b7-a4f4-bdd3890bc0c8"
}
}
},
{
"uuid": "02701900-51bd-46b8-9c77-47d9a9e2ce1d",
"name": "hourly.2019-03-13_1522",
"_links": {
"self": {
"href": "/api/storage/volumes/0353dc05-405f-11e9-acb6-
005056bbc848/snapshots/02701900-51bd-46b8-9c77-47d9a9e2ce1d"
}
}
}
]
}

```

```

        }
    }
}

],
"num_records": 3,
"reclaimable_space": 1567832,
"_links": {
    "self": {
        "href": "/api/storage/volumes/0353dc05-405f-11e9-acb6-005056bbc848/snapshots"
    }
}
}
}

```

## Retrieving snapshot advanced attributes

A collection GET request is used to calculate the delta between two snapshots. When the advanced privilege field 'delta' is requested, the API returns the delta between the queried snapshots.

```

# The API:
/api/storage/volumes/{volume.uuid}/snapshots?fields=delta

# The call:
curl -X GET "https://<mgmt-
ip>/api/storage/volumes/{volume.uuid}/snapshots?fields=delta&name=hourly.2
022-06-29_1105,hourly.2022-06-29_1205" -H "accept: application/hal+json"

# The response:
HTTP/1.1 200 OK
Connection: Keep-Alive
Content-Encoding: gzip
Content-Length: 378
Content-Security-Policy: default-src 'self'; script-src 'self' 'unsafe-
inline'; style-src 'self' 'unsafe-inline'; img-src 'self' data:; frame-
ancestors: 'self'
Content-Type: application/hal+json
Date: Wed, 29 Jun 2022 18:37:11 GMT
Keep-Alive: timeout=5, max=99
Server: libzapid-httdp
Vary: Accept-Encoding
X-Content-Type-Options: nosniff
{
"records": [
{
    "uuid": "52a2247a-7735-4a92-bc3c-e51df1fe502f",
    "name": "hourly.2022-06-29_1105",
}
]
}

```

```

    "delta": {
      "size_consumed": 675840,
      "time_elapsed": "PT3H27M45S"
    },
  },
  {
    "uuid": "b399eb34-44fe-4689-9fb5-c8f72162dd77",
    "name": "hourly.2022-06-29_1205",
    "delta": {
      "size_consumed": 507904,
      "time_elapsed": "PT2H27M45S"
    }
  }
],
"num_records": 2,
"delta": {
  "size_consumed": 167936,
  "time_elapsed": "PT1H"
}
}

```

## Retrieving the attributes of a specific snapshot

The GET operation is used to retrieve the attributes of a specific snapshot.

```

# The API:
/api/storage/volumes/{volume.uuid}/snapshots/{uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/storage/volumes/0353dc05-405f-11e9-
acb6-005056bbc848/snapshots/402b6c73-73a0-4e89-a58a-75ee0ab3e8c0" -H
"accept: application/hal+json"

# The response:
HTTP/1.1 200 OK
Date: Wed, 13 Mar 2019 22:39:26 GMT
Server: libzapid-httdp
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 308
Content-Type: application/json
{
  "volume": {
    "uuid": "0353dc05-405f-11e9-acb6-005056bbc848",
    "name": "v2",
    "_links": {

```

```

    "self": {
        "href": "/api/storage/volumes/0353dc05-405f-11e9-acb6-005056bbc848"
    }
},
"uuid": "402b6c73-73a0-4e89-a58a-75ee0ab3e8c0",
"svm": {
    "uuid": "8139f958-3c6e-11e9-a45f-005056bbc848",
    "name": "vs0",
    "_links": {
        "self": {
            "href": "/api/svm/svms/8139f958-3c6e-11e9-a45f-005056bbc848"
        }
    }
},
"name": "hourly.2019-03-13_1305",
"create_time": "2019-03-13T13:05:00-04:00",
"size": 122880,
"_links": {
    "self": {
        "href": "/api/storage/volumes/0353dc05-405f-11e9-acb6-005056bbc848/snapshots/402b6c73-73a0-4e89-a58a-75ee0ab3e8c0"
    }
}
}
}

```

## Retrieving the advanced attributes of a specific snapshot

The GET operation is used to retrieve the attributes of a specific snapshot. Snapshot reclaimable space can be requested during a GET request. When the advanced privilege field reclaimable space is requested, the API returns the amount of reclaimable space for the snapshot.

```

# The API:
/api/storage/volumes/{volume.uuid}/snapshots/{uuid}?fields=reclaimable_space

# The call:
curl -X GET "https://<mgmt-ip>/api/storage/volumes/0353dc05-405f-11e9-acb6-005056bbc848/snapshots/402b6c73-73a0-4e89-a58a-75ee0ab3e8c0?fields=**" -H "accept: application/hal+json"

# The response:
HTTP/1.1 200 OK
Date: Wed, 13 Mar 2019 22:39:26 GMT
Server: libzapid-httdp
X-Content-Type-Options: nosniff

```

```

Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 308
Content-Type: application/json
{
  "volume": {
    "uuid": "0353dc05-405f-11e9-acb6-005056bbc848",
    "name": "v2",
    "_links": {
      "self": {
        "href": "/api/storage/volumes/0353dc05-405f-11e9-acb6-005056bbc848"
      }
    }
  },
  "uuid": "402b6c73-73a0-4e89-a58a-75ee0ab3e8c0",
  "svm": {
    "uuid": "8139f958-3c6e-11e9-a45f-005056bbc848",
    "name": "vs0",
    "_links": {
      "self": {
        "href": "/api/svm/svms/8139f958-3c6e-11e9-a45f-005056bbc848"
      }
    }
  },
  "name": "hourly.2019-03-13_1305",
  "reclaimable_space": 167832,
  "_links": {
    "self": {
      "href": "/api/storage/volumes/0353dc05-405f-11e9-acb6-005056bbc848/snapshots/402b6c73-73a0-4e89-a58a-75ee0ab3e8c0"
    }
  }
}

```

## Retrieving snapshot advanced attributes

A collection GET request is used to calculate the delta between two snapshots. When the advanced privilege field 'delta' is requested, the API returns the delta between the queried snapshots.

```

# The API:
/api/storage/volumes/{volume.uuid}/snapshots?fields=delta

# The call:
curl -X GET "https://<mgmt-
ip>/api/storage/volumes/{volume.uuid}/snapshots?fields=delta&name=hourly.2
022-06-29_1105,hourly.2022-06-29_1205" -H "accept: application/hal+json"

```

```

# The response:
HTTP/1.1 200 OK
Connection: Keep-Alive
Content-Encoding: gzip
Content-Length: 378
Content-Security-Policy: default-src 'self'; script-src 'self' 'unsafe-
inline'; style-src 'self' 'unsafe-inline'; img-src 'self' data:; frame-
ancestors: 'self'
Content-Type: application/hal+json
Date: Wed, 29 Jun 2022 18:37:11 GMT
Keep-Alive: timeout=5, max=99
Server: libzapid-httdp
Vary: Accept-Encoding
X-Content-Type-Options: nosniff
{
  "records": [
    {
      "uuid": "52a2247a-7735-4a92-bc3c-e51df1fe502f",
      "name": "hourly.2022-06-29_1105",
      "delta": {
        "size_consumed": 675840,
        "time_elapsed": "PT3H27M45S"
      }
    },
    {
      "uuid": "b399eb34-44fe-4689-9fb5-c8f72162dd77",
      "name": "hourly.2022-06-29_1205",
      "delta": {
        "size_consumed": 507904,
        "time_elapsed": "PT2H27M45S"
      }
    }
  ],
  "num_records": 2,
  "delta": {
    "size_consumed": 167936,
    "time_elapsed": "PT1H"
  }
}

```

## Retrieving bulk snapshots

The bulk GET operation is used to retrieve snapshot attributes across all volumes.

```

# The API:
/api/storage/volumes/*/*snapshots

```

```

# The call:
curl -X GET "https://<mgmt-ip>/api/storage/volumes/*/snapshots" -H
"accept: application/hal+json"

# The response:
HTTP/1.1 200 OK
{
"records": [
{
"volume": {
"uuid": "966c285f-47f7-11ec-8407-005056bbc08f",
"name": "v1"
},
"uuid": "3edba912-5507-4535-adce-e12fe5c0e31c",
"name": "daily.2021-11-18_0010"
},
{
"volume": {
"uuid": "966c285f-47f7-11ec-8407-005056bbc08f",
"name": "v1"
},
"uuid": "3ad61153-d5ef-495d-8e0e-5c3b8bbaf5e6",
"name": "hourly.2021-11-18_0705"
},
{
"volume": {
"uuid": "99c974e3-47f7-11ec-8407-005056bbc08f",
"name": "v2"
},
"uuid": "3dd0fa97-65d9-41ea-a99d-5ceb9d2f55c5",
"name": "daily.2021-11-18_0010"
},
{
"volume": {
"uuid": "99c974e3-47f7-11ec-8407-005056bbc08f",
"name": "v2"
},
"uuid": "6ca20a52-c342-4753-8865-3693fa9b7e23",
"name": "hourly.2021-11-18_0705"
},
],
"num_records": 4
}

```

## Updating a snapshot

The PATCH operation is used to update the specific attributes of a snapshot.

```

# The API:
/api/storage/volumes/{volume.uuid}/snapshots/{uuid}

# The call:
curl -X PATCH  "https://<mgmt-ip>/api/storage/volumes/0353dc05-405f-11e9-
acb6-005056bbc848/snapshots/16f7008c-18fd-4a7d-8485-a0e290d9db7f" -d
'{"name": "snapshot_copy_new"}' -H "accept: application/hal+json"

# The response:
HTTP/1.1 202 Accepted
Date: Wed, 13 Mar 2019 22:50:44 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 189
Content-Type: application/json
{
"job": {
  "uuid": "6f7c3a82-45e2-11e9-8fc7-005056bbc848",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/6f7c3a82-45e2-11e9-8fc7-005056bbc848"
    }
  }
}
}

# The Job:
HTTP/1.1 200 OK
Date: Wed, 13 Mar 2019 22:54:16 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 242
Content-Type: application/json
{
"uuid": "6f7c3a82-45e2-11e9-8fc7-005056bbc848",
"description": "PATCH /api/storage/volumes/0353dc05-405f-11e9-acb6-
005056bbc848/snapshots/16f7008c-18fd-4a7d-8485-a0e290d9db7f",
"state": "success",
"message": "success",
"code": 0
}

```

## Updating bulk snapshots

The bulk PATCH operation is used to update the specific attributes of snapshots across volumes in a single request.

```
# The API:  
/api/storage/volumes/*/snapshots  
  
# The call:  
curl -X PATCH "https://<mgmt-ip>/api/storage/volumes/*/snapshots" -d  
'{"records": [{"volume.uuid": "e8815adb-5209-11ec-b4ad-005056bbc3e8",  
"svm.uuid": "d0e6def5-5209-11ec-b4ad-005056bbc3e8", "uuid": "f9b7714d-1166-  
410a-b143-874f27969db6", "comment": "yay"}, {"volume.uuid": "efda9101-5209-  
11ec-b4ad-005056bbc3e8", "svm.uuid": "d0e6def5-5209-11ec-b4ad-  
005056bbc3e8", "uuid": "514c82a7-bff7-48e2-a13c-5337b09ed41e",  
"comment": "yay"}]}' -H "accept: application/hal+json"  
  
# The response:  
HTTP/1.1 202 Accepted  
{  
"job": {  
"uuid": "1e9a561f-520f-11ec-b4ad-005056bbc3e8",  
"_links": {  
"self": {  
"href": "/api/cluster/jobs/1e9a561f-520f-11ec-b4ad-005056bbc3e8"  
},  
"results": {  
"href": "/api/storage/volumes/*/snapshots?job_results_uuid=1e9a561f-  
520f-11ec-b4ad-005056bbc3e8"  
}  
}  
}  
}  
  
# The Job:  
curl -u admin:<password> -k -X GET --header 'Content-Type:  
application/json' --header 'Accept: application/json' 'https://<mgmt-  
ip>/api/storage/volumes/*/snapshots?job_results_uuid=1e9a561f-520f-11ec-  
b4ad-005056bbc3e8'  
HTTP/1.1 200 OK  
{  
"records": [  
{  
"volume": {  
"uuid": "e8815adb-5209-11ec-b4ad-005056bbc3e8",  
"name": "v1"  
},  
]
```

```
"uuid": "f9b7714d-1166-410a-b143-874f27969db6",
"svm": {
  "uuid": "d0e6def5-5209-11ec-b4ad-005056bbc3e8"
},
{
  "name": "s1",
  "comment": "yay"
},
{
  "volume": {
    "uuid": "efda9101-5209-11ec-b4ad-005056bbc3e8",
    "name": "v2"
  },
  "uuid": "514c82a7-bff7-48e2-a13c-5337b09ed41e",
  "svm": {
    "uuid": "d0e6def5-5209-11ec-b4ad-005056bbc3e8"
  },
  "name": "s1",
  "comment": "yay"
}
],
"num_records": 2
}
```

## Deleting a snapshot

The DELETE operation is used to delete a snapshot.

```

# The API:
/api/storage/volumes/{volume.uuid}/snapshots/{uuid}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/storage/volumes/0353dc05-405f-11e9-
acb6-005056bbc848/snapshots/16f7008c-18fd-4a7d-8485-a0e290d9db7f" -H
"accept: application/hal+json"

# The response:
HTTP/1.1 202 Accepted
Date: Wed, 13 Mar 2019 22:57:51 GMT
Server: libzapid-httppd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 189
Content-Type: application/json
{
"job": {
  "uuid": "6da1dfdd-45e3-11e9-8fc7-005056bbc848",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/6da1dfdd-45e3-11e9-8fc7-005056bbc848"
    }
  }
}
}

# The Job:
HTTP/1.1 200 OK
Date: Wed, 13 Mar 2019 23:02:46 GMT
Server: libzapid-httppd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 243
Content-Type: application/json
{
"uuid": "6da1dfdd-45e3-11e9-8fc7-005056bbc848",
"description": "DELETE /api/storage/volumes/0353dc05-405f-11e9-acb6-
005056bbc848/snapshots/16f7008c-18fd-4a7d-8485-a0e290d9db7f",
"state": "success",
"message": "success",
"code": 0
}

```

## Deleting bulk snapshots

The bulk DELETE operation is used to delete a snapshots across volumes in a single request.

```
# The API:  
/api/storage/volumes/*/snapshots  
  
# The call:  
curl -X DELETE "https://<mgmt-ip>/api/storage/volumes/*/snapshots" -d  
'{"records": [{"volume.uuid": "e8815adb-5209-11ec-b4ad-005056bbc3e8",  
"uuid": "f9b7714d-1166-410a-b143-874f27969db6"}, {"volume.uuid": "efda9101-  
5209-11ec-b4ad-005056bbc3e8", "uuid": "1d55c97a-25f3-4366-bfa8-  
9ea75c255469"}]}' -H "accept: application/hal+json"  
  
# The response:  
HTTP/1.1 202 Accepted  
{  
"job": {  
"uuid": "fe114ed7-520f-11ec-b4ad-005056bbc3e8",  
"_links": {  
"self": {  
"href": "/api/cluster/jobs/fe114ed7-520f-11ec-b4ad-005056bbc3e8"  
},  
"results": {  
"href": "/api/storage/volumes/*/snapshots?job_results_uuid=fe114ed7-  
520f-11ec-b4ad-005056bbc3e8"  
}  
}  
}  
}  
  
# The Job:  
HTTP/1.1 200 OK  
curl -u admin:<password> -k -X GET --header 'Content-Type:  
application/json' --header 'Accept: application/json' 'https://<mgmt-  
ip>/api/storage/volumes/*/snapshots?job_results_uuid=fe114ed7-520f-11ec-  
b4ad-005056bbc3e8'  
{  
"records": [  
],  
"num_records": 0  
}
```

# Retrieve volume snapshots

GET /storage/volumes/{volume.uuid}/snapshots

**Introduced In:** 9.6

Retrieves a collection of volume snapshots.

## Expensive properties

There is an added computational cost to retrieving the amount of reclaimable space for snapshots, as the calculation is done on demand based on the list of snapshots provided.

- reclaimable\_space
- delta

## Related ONTAP commands

- snapshot show
- snapshot compute-reclaimable
- snapshot show-delta

## Learn more

- [DOC /storage/volumes/{volume.uuid}/snapshots](#)

## Parameters

Name	Type	In	Required	Description
volume.uuid	string	path	True	Volume
version_uuid	string	query	False	Filter by version_uuid <ul style="list-style-type: none"><li>• Introduced in: 9.11</li></ul>
comment	string	query	False	Filter by comment
owners	string	query	False	Filter by owners <ul style="list-style-type: none"><li>• Introduced in: 9.7</li></ul>
volume.name	string	query	False	Filter by volume.name

Name	Type	In	Required	Description
uuid	string	query	False	Filter by uuid
size	integer	query	False	Filter by size <ul style="list-style-type: none"> <li>• Introduced in: 9.9</li> </ul>
name	string	query	False	Filter by name
state	string	query	False	Filter by state
dedup_savings	integer	query	False	Filter by dedup_savings <ul style="list-style-type: none"> <li>• Introduced in: 9.17</li> </ul>
snapmirror_label	string	query	False	Filter by snapmirror_label <ul style="list-style-type: none"> <li>• Introduced in: 9.8</li> </ul>
delta.size_consumed	integer	query	False	Filter by delta.size_consumed <ul style="list-style-type: none"> <li>• Introduced in: 9.12</li> </ul>
delta.time_elapsed	string	query	False	Filter by delta.time_elapsed <ul style="list-style-type: none"> <li>• Introduced in: 9.12</li> </ul>
reclaimable_space	integer	query	False	Filter by reclaimable_space <ul style="list-style-type: none"> <li>• Introduced in: 9.10</li> </ul>
create_time	string	query	False	Filter by create_time
expiry_time	string	query	False	Filter by expiry_time

Name	Type	In	Required	Description
compress_savings	integer	query	False	Filter by compress_savings • Introduced in: 9.17
vbn0_savings	integer	query	False	Filter by vbn0_savings • Introduced in: 9.17
svm.name	string	query	False	Filter by svm.name
svm.uuid	string	query	False	Filter by svm.uuid
provenance_volume. uuid	string	query	False	Filter by provenance_volume .uuid • Introduced in: 9.11
logical_size	integer	query	False	Filter by logical_size • Introduced in: 9.12
snaplock_expiry_time	string	query	False	Filter by snaplock_expiry_time
snaplock.expiry_time	string	query	False	Filter by snaplock.expiry_time • Introduced in: 9.15
snaplock.time_until_expiry	string	query	False	Filter by snaplock.time_until_expiry • Introduced in: 9.15

Name	Type	In	Required	Description
snaplock.expired	boolean	query	False	Filter by snaplock.expired <ul style="list-style-type: none"> <li>Introduced in: 9.15</li> </ul>
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.
return_records	boolean	query	False	The default is true for GET calls. When set to false, only the number of records is returned. <ul style="list-style-type: none"> <li>Default value: 1</li> </ul>
return_timeout	integer	query	False	The number of seconds to allow the call to execute before returning. When iterating over a collection, the default is 15 seconds. ONTAP returns earlier if either max records or the end of the collection is reached. <ul style="list-style-type: none"> <li>Default value: 15</li> <li>Max value: 120</li> <li>Min value: 0</li> </ul>
order_by	array[string]	query	False	Order results by specified fields and optional [asc]

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">_links</a>	
delta	<a href="#">snapshot_delta</a>	Reports the amount of space consumed between two WAFL file systems, in bytes. The two WAFL file systems should be specified in a comma-separated format using the "name" parameter. To determine the space consumed between a snapshot and the Active File System, only the snapshot name needs to be mentioned.
num_records	integer	Number of records
reclaimable_space	integer	Space reclaimed when the snapshot is deleted, in bytes.
records	array[ <a href="#">snapshot</a> ]	

## Example response

```
{  
  "_links": {  
    "next": {  
      "href": "/api/resourcelink"  
    },  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "delta": {  
    "_links": {  
      "self": {  
        "href": "/api/resourcelink"  
      }  
    },  
    "size_consumed": 0,  
    "time_elapsed": "string"  
  },  
  "num_records": 1,  
  "records": [  
    {  
      "_links": {  
        "self": {  
          "href": "/api/resourcelink"  
        }  
      },  
      "comment": "string",  
      "compress_savings": 1131223,  
      "create_time": "2019-02-04 19:00:00 +0000",  
      "dedup_savings": 1131223,  
      "delta": {  
        "_links": {  
          "self": {  
            "href": "/api/resourcelink"  
          }  
        },  
        "size_consumed": 0,  
        "time_elapsed": "string"  
      },  
      "expiry_time": "2019-02-04 19:00:00 +0000",  
      "logical_size": 1228800,  
      "name": "this_snapshot",  
      "owners": [  
        "string"  
      ]  
    }  
  ]  
}
```

```

] ,
"provenance_volume": {
  "uuid": "4cd8a442-86d1-11e0-ae1c-125648563413"
},
"size": "122880",
"snaplock": {
  "expired": 1,
  "expiry_time": "2019-02-04 19:00:00 +0000",
  "time_until_expiry": "PT3H27M45S"
},
"snaplock_expiry_time": "2019-02-04 19:00:00 +0000",
"snapmirror_label": "string",
"state": "string",
"svm": {
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "svm1",
  "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"uuid": "1cd8a442-86d1-11e0-ae1c-123478563412",
"vbn0_savings": 1131223,
"version_uuid": "1cd8a442-86d1-11e0-ae1c-123478563412",
"volume": {
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "volume1",
  "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
}
}
]
}
}

```

## Error

Status: Default

ONTAP Error Response Code

Error Code	Description
918235	The specified volume is invalid.
9437613	The operation is not supported on FlexCache Volumes.

Name	Type	Description
error	<a href="#">returned_error</a>	

## Example error

```
{
  "error": {
    "arguments": [
      {
        "code": "string",
        "message": "string"
      }
    ],
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}
```

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

Name	Type	Description
next	href	
self	href	

\_links

Name	Type	Description
self	href	

snapshot\_delta

Reports the amount of space consumed between two WAFL file systems, in bytes. The two WAFL file systems should be specified in a comma-separated format using the "name" parameter. To determine the space consumed between a snapshot and the Active File System, only the snapshot name needs to be mentioned.

Name	Type	Description
_links	_links	
size_consumed	integer	Indicates the space that has changed between two specified WAFL file systems, in bytes.
time_elapsed	string	Time elapsed between two specified WAFL file systems.

provenance\_volume

Name	Type	Description
uuid	string	UUID for the volume that is used to identify the source volume in a mirroring relationship. When the mirroring relationship is broken, a volume's Instance UUID and Provenance UUID are made identical. An unmirrored volume's Provenance UUID is the same as its Instance UUID. This field is valid for flexible volumes only.

## snaplock

Name	Type	Description
expired	boolean	Indicates whether a SnapLock snapshot has expired.
expiry_time	string	SnapLock expiry time for the snapshot, if the snapshot is taken on a SnapLock volume. A snapshot is not allowed to be deleted or renamed until the SnapLock ComplianceClock time goes beyond this retention time. This option can be set during snapshot POST and snapshot PATCH on snapshot locking enabled volumes. It can also be used to extend the expiry time of a locked snapshot on a SnapLock for SnapVault destination consistency-group.
time_until_expiry	string	Indicates the remaining SnapLock expiry time of a locked snapshot, in seconds. This field is set only when the remaining time interval is less than 136 years.

## svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
_links	<a href="#">_links</a>	

Name	Type	Description
name	string	The name of the SVM. This field cannot be specified in a PATCH method.
uuid	string	The unique identifier of the SVM. This field cannot be specified in a PATCH method.

## volume

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the volume. This field cannot be specified in a PATCH method.
uuid	string	Unique identifier for the volume. This corresponds to the instance-uuid that is exposed in the CLI and ONTAPI. It does not change due to a volume move. <ul style="list-style-type: none"> <li>example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>Introduced in: 9.6</li> <li>x-nullible: true</li> </ul>

## snapshot

The snapshot object represents a point in time snapshot of a volume.

Name	Type	Description
_links	<a href="#">_links</a>	
comment	string	A comment associated with the snapshot. This is an optional attribute for POST or PATCH.
compress_savings	integer	Savings due to compression at the time the snapshot was taken in bytes.
create_time	string	Creation time of the snapshot. It is the volume access time when the snapshot was created.

Name	Type	Description
dedup_savings	integer	Savings due to dedup at the time the snapshot was taken in bytes.
delta	<a href="#">snapshot_delta</a>	Reports the amount of space consumed between two WAFL file systems, in bytes. The two WAFL file systems should be specified in a comma-separated format using the "name" parameter. To determine the space consumed between a snapshot and the Active File System, only the snapshot name needs to be mentioned.
expiry_time	string	The expiry time for the snapshot. This is an optional attribute for POST or PATCH. Snapshots with an expiry time set are not allowed to be deleted until the retention time is reached.
logical_size	integer	Size of the logical used file system at the time the snapshot is captured.
name	string	Snapshot. Valid in POST or PATCH.
owners	array[string]	
provenance_volume	<a href="#">provenance_volume</a>	
reclaimable_space	integer	Space reclaimed when the snapshot is deleted, in bytes.
size	integer	Size of the active file system at the time the snapshot is captured. The actual size of the snapshot also includes those blocks trapped by other snapshots. On a snapshot deletion, the "size" amount of blocks is the maximum number of blocks available. On a snapshot restore, the "afs-used size" value will match the snapshot "size" value.
snaplock	<a href="#">snaplock</a>	

Name	Type	Description
snaplock_expiry_time	string	SnapLock expiry time for the snapshot, if the snapshot is taken on a SnapLock volume. A snapshot is not allowed to be deleted or renamed until the SnapLock ComplianceClock time goes beyond this retention time. This option can be set during snapshot POST and snapshot PATCH on snapshot locking enabled volumes. This field will no longer be supported in a future release. Use snaplock.expiry_time instead.
snapmirror_label	string	Label for SnapMirror operations
state	string	State of the FlexGroup volume snapshot. In the "pre_conversion" state, the snapshot was created before converting the FlexVol to a FlexGroup volume. A recently created snapshot can be in the "unknown" state while the system is calculating the state. In the "partial" state, the snapshot is consistent but exists only on the subset of the constituents that existed prior to the FlexGroup's expansion. Partial snapshots cannot be used for a snapshot restore operation. A snapshot is in an "invalid" state when it is present in some FlexGroup constituents but not in others. At all other times, a snapshot is valid.
svm	svm	SVM, applies only to SVM-scoped objects.
uuid	string	The UUID of the snapshot in the volume that uniquely identifies the snapshot in that volume.
vbn0_savings	integer	Savings due vbn0 at the time the snapshot was taken in bytes.

Name	Type	Description
version_uuid	string	The 128 bit identifier that uniquely identifies a snapshot and its logical data layout.
volume	volume	

error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned\_error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

## Create a volume snapshot

POST /storage/volumes/{volume.uuid}/snapshots

**Introduced In:** 9.6

Creates a volume snapshot.

### Required properties

- name - Name of the snapshot to be created.

### Recommended optional properties

- comment - Comment associated with the snapshot.
- expiry\_time - snapshots with an expiry time set are not allowed to be deleted until the retention time is reached.
- snapmirror\_label - Label for SnapMirror operations.

- `snaplock_expiry_time` - Expiry time for snapshot locking enabled volumes.

## Related ONTAP commands

- `snapshot create`

## Learn more

- [DOC /storage/volumes/{volume.uuid}/snapshots](#)

## Parameters

Name	Type	In	Required	Description
volume.uuid	string	path	True	Volume UUID
return_timeout	integer	query	False	<p>The number of seconds to allow the call to execute before returning. When doing a POST, PATCH, or DELETE operation on a single record, the default is 0 seconds. This means that if an asynchronous operation is started, the server immediately returns HTTP code 202 (Accepted) along with a link to the job. If a non-zero value is specified for POST, PATCH, or DELETE operations, ONTAP waits that length of time to see if the job completes so it can return something other than 202.</p> <ul style="list-style-type: none"> <li>• Default value: 0</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>

Name	Type	In	Required	Description
return_records	boolean	query	False	<p>The default is false. If set to true, the records are returned.</p> <ul style="list-style-type: none"> <li>• Default value:</li> </ul>

## Request Body

Name	Type	Description
comment	string	A comment associated with the snapshot. This is an optional attribute for POST or PATCH.
compress_savings	integer	Savings due to compression at the time the snapshot was taken in bytes.
create_time	string	Creation time of the snapshot. It is the volume access time when the snapshot was created.
dedup_savings	integer	Savings due to dedup at the time the snapshot was taken in bytes.
delta	snapshot_delta	Reports the amount of space consumed between two WAFL file systems, in bytes. The two WAFL file systems should be specified in a comma-separated format using the "name" parameter. To determine the space consumed between a snapshot and the Active File System, only the snapshot name needs to be mentioned.
expiry_time	string	The expiry time for the snapshot. This is an optional attribute for POST or PATCH. Snapshots with an expiry time set are not allowed to be deleted until the retention time is reached.
logical_size	integer	Size of the logical used file system at the time the snapshot is captured.

Name	Type	Description
name	string	Snapshot. Valid in POST or PATCH.
owners	array[string]	
provenance_volume	<a href="#">provenance_volume</a>	
reclaimable_space	integer	Space reclaimed when the snapshot is deleted, in bytes.
size	integer	Size of the active file system at the time the snapshot is captured. The actual size of the snapshot also includes those blocks trapped by other snapshots. On a snapshot deletion, the "size" amount of blocks is the maximum number of blocks available. On a snapshot restore, the "afs-used size" value will match the snapshot "size" value.
snaplock	<a href="#">snaplock</a>	
snaplock_expiry_time	string	SnapLock expiry time for the snapshot, if the snapshot is taken on a SnapLock volume. A snapshot is not allowed to be deleted or renamed until the SnapLock ComplianceClock time goes beyond this retention time. This option can be set during snapshot POST and snapshot PATCH on snapshot locking enabled volumes. This field will no longer be supported in a future release. Use snaplock.expiry_time instead.
snapmirror_label	string	Label for SnapMirror operations

Name	Type	Description
state	string	State of the FlexGroup volume snapshot. In the "pre_conversion" state, the snapshot was created before converting the FlexVol to a FlexGroup volume. A recently created snapshot can be in the "unknown" state while the system is calculating the state. In the "partial" state, the snapshot is consistent but exists only on the subset of the constituents that existed prior to the FlexGroup's expansion. Partial snapshots cannot be used for a snapshot restore operation. A snapshot is in an "invalid" state when it is present in some FlexGroup constituents but not in others. At all other times, a snapshot is valid.
svm	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.
uuid	string	The UUID of the snapshot in the volume that uniquely identifies the snapshot in that volume.
vbn0_savings	integer	Savings due vbn0 at the time the snapshot was taken in bytes.
version_uuid	string	The 128 bit identifier that uniquely identifies a snapshot and its logical data layout.
volume	<a href="#">volume</a>	

## Example request

```
{  
    "comment": "string",  
    "compress_savings": 1131223,  
    "create_time": "2019-02-04 19:00:00 +0000",  
    "dedup_savings": 1131223,  
    "delta": {  
        "size_consumed": 0,  
        "time_elapsed": "string"  
    },  
    "expiry_time": "2019-02-04 19:00:00 +0000",  
    "logical_size": 1228800,  
    "name": "this_snapshot",  
    "owners": [  
        "string"  
    ],  
    "provenance_volume": {  
        "uuid": "4cd8a442-86d1-11e0-ae1c-125648563413"  
    },  
    "size": 122880,  
    "snaplock": {  
        "expired": 1,  
        "expiry_time": "2019-02-04 19:00:00 +0000",  
        "time_until_expiry": "PT3H27M45S"  
    },  
    "snaplock_expiry_time": "2019-02-04 19:00:00 +0000",  
    "snapmirror_label": "string",  
    "state": "string",  
    "svm": {  
        "name": "svml",  
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"  
    },  
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412",  
    "vbn0_savings": 1131223,  
    "version_uuid": "1cd8a442-86d1-11e0-ae1c-123478563412",  
    "volume": {  
        "name": "volume1",  
        "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"  
    }  
}
```

## Response

Status: 202, Accepted

Name	Type	Description
job	job_link	

### Example response

```
{  
  "job": {  
    "uuid": "string"  
  }  
}
```

## Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

## Response

Status: 201, Created

## Error

Status: Default

### ONTAP Error Response Code

Error Code	Description
524479	The specified volume is not online or does not have enough space to create a snapshot.
1520351	Snapshot operation is not allowed.
525062	Cannot exceed maximum number of snapshots.
2621462	The specified SVM name does not exist.
525059	A snapshot with the specified name already exists.

Error Code	Description
1638461	Snapshots can only be created on read/write (RW) volumes.
1638477	User-created snapshot names cannot begin with the specified prefix.
1638518	The specified snapshot name is invalid.
1638532	Failed to create the snapshot on the specified volume because a revert operation is in progress.
1638537	Cannot determine the status of the snapshot create operation for the specified volume.
1638574	The "expiry-time" parameter is not supported for FlexGroup volumes.
1638616	Bulk snapshot create is not supported with multiple snapshot names.
1638617	Bulk snapshot create is not supported with volume names in a mixed-version cluster.
1638618	The property cannot be specified for snapshot create.
1638630	Snapshot create operation is not supported on destination of SnapMirror active sync relationship with policy-type "automated-failover-duplex".
1638644	POST, DELETE, and PATCH requests on the snapshot session endpoint are not supported on this platform.
92405873	Unable to create the snapshot for object store volumes.

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

snapshot\_delta

Reports the amount of space consumed between two WAFL file systems, in bytes. The two WAFL file systems should be specified in a comma-separated format using the "name" parameter. To determine the space consumed between a snapshot and the Active File System, only the snapshot name needs to be mentioned.

Name	Type	Description
size_consumed	integer	Indicates the space that has changed between two specified WAFL file systems, in bytes.
time_elapsed	string	Time elapsed between two specified WAFL file systems.

provenance\_volume

Name	Type	Description
uuid	string	UUID for the volume that is used to identify the source volume in a mirroring relationship. When the mirroring relationship is broken, a volume's Instance UUID and Provenance UUID are made identical. An unmirrored volume's Provenance UUID is the same as its Instance UUID. This field is valid for flexible volumes only.

snaplock

Name	Type	Description
expired	boolean	Indicates whether a SnapLock snapshot has expired.

Name	Type	Description
expiry_time	string	SnapLock expiry time for the snapshot, if the snapshot is taken on a SnapLock volume. A snapshot is not allowed to be deleted or renamed until the SnapLock ComplianceClock time goes beyond this retention time. This option can be set during snapshot POST and snapshot PATCH on snapshot locking enabled volumes. It can also be used to extend the expiry time of a locked snapshot on a SnapLock for SnapVault destination consistency-group.
time_until_expiry	string	Indicates the remaining SnapLock expiry time of a locked snapshot, in seconds. This field is set only when the remaining time interval is less than 136 years.

## svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
name	string	The name of the SVM. This field cannot be specified in a PATCH method.
uuid	string	The unique identifier of the SVM. This field cannot be specified in a PATCH method.

## volume

Name	Type	Description
name	string	The name of the volume. This field cannot be specified in a PATCH method.

Name	Type	Description
uuid	string	<p>Unique identifier for the volume. This corresponds to the instance-uuid that is exposed in the CLI and ONTAPI. It does not change due to a volume move.</p> <ul style="list-style-type: none"> <li>example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>Introduced in: 9.6</li> <li>x-nullable: true</li> </ul>

## snapshot

The snapshot object represents a point in time snapshot of a volume.

Name	Type	Description
comment	string	A comment associated with the snapshot. This is an optional attribute for POST or PATCH.
compress_savings	integer	Savings due to compression at the time the snapshot was taken in bytes.
create_time	string	Creation time of the snapshot. It is the volume access time when the snapshot was created.
dedup_savings	integer	Savings due to dedup at the time the snapshot was taken in bytes.
delta	<a href="#">snapshot_delta</a>	Reports the amount of space consumed between two WAFL file systems, in bytes. The two WAFL file systems should be specified in a comma-separated format using the "name" parameter. To determine the space consumed between a snapshot and the Active File System, only the snapshot name needs to be mentioned.

Name	Type	Description
expiry_time	string	The expiry time for the snapshot. This is an optional attribute for POST or PATCH. Snapshots with an expiry time set are not allowed to be deleted until the retention time is reached.
logical_size	integer	Size of the logical used file system at the time the snapshot is captured.
name	string	Snapshot. Valid in POST or PATCH.
owners	array[string]	
provenance_volume	<a href="#">provenance_volume</a>	
reclaimable_space	integer	Space reclaimed when the snapshot is deleted, in bytes.
size	integer	Size of the active file system at the time the snapshot is captured. The actual size of the snapshot also includes those blocks trapped by other snapshots. On a snapshot deletion, the "size" amount of blocks is the maximum number of blocks available. On a snapshot restore, the "afs-used size" value will match the snapshot "size" value.
snaplock	<a href="#">snaplock</a>	
snaplock_expiry_time	string	SnapLock expiry time for the snapshot, if the snapshot is taken on a SnapLock volume. A snapshot is not allowed to be deleted or renamed until the SnapLock ComplianceClock time goes beyond this retention time. This option can be set during snapshot POST and snapshot PATCH on snapshot locking enabled volumes. This field will no longer be supported in a future release. Use snaplock.expiry_time instead.

Name	Type	Description
snapmirror_label	string	Label for SnapMirror operations
state	string	State of the FlexGroup volume snapshot. In the "pre_conversion" state, the snapshot was created before converting the FlexVol to a FlexGroup volume. A recently created snapshot can be in the "unknown" state while the system is calculating the state. In the "partial" state, the snapshot is consistent but exists only on the subset of the constituents that existed prior to the FlexGroup's expansion. Partial snapshots cannot be used for a snapshot restore operation. A snapshot is in an "invalid" state when it is present in some FlexGroup constituents but not in others. At all other times, a snapshot is valid.
svm	svm	SVM, applies only to SVM-scoped objects.
uuid	string	The UUID of the snapshot in the volume that uniquely identifies the snapshot in that volume.
vbn0_savings	integer	Savings due vbn0 at the time the snapshot was taken in bytes.
version_uuid	string	The 128 bit identifier that uniquely identifies a snapshot and its logical data layout.
volume	volume	

job\_link

Name	Type	Description
uuid	string	The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation.

error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned\_error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

## Delete a volume snapshot

DELETE /storage/volumes/{volume.uuid}/snapshots/{uuid}

**Introduced In:** 9.6

Deletes a Volume snapshot.

### Related ONTAP commands

- snapshot delete

### Learn more

- [DOC /storage/volumes/{volume.uuid}/snapshots](#)

### Parameters

Name	Type	In	Required	Description
volume.uuid	string	path	True	Volume UUID
uuid	string	path	True	Snapshot UUID

Name	Type	In	Required	Description
return_timeout	integer	query	False	<p>The number of seconds to allow the call to execute before returning. When doing a POST, PATCH, or DELETE operation on a single record, the default is 0 seconds. This means that if an asynchronous operation is started, the server immediately returns HTTP code 202 (Accepted) along with a link to the job. If a non-zero value is specified for POST, PATCH, or DELETE operations, ONTAP waits that length of time to see if the job completes so it can return something other than 202.</p> <ul style="list-style-type: none"> <li>• Default value: 0</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>

## Response

Status: 200, Ok

Name	Type	Description
job	<a href="#">job_link</a>	

## Example response

```
{  
  "job": {  
    "_links": {  
      "self": {  
        "href": "/api/resourcelink"  
      }  
    },  
    "uuid": "string"  
  }  
}
```

## Response

Status: 202, Accepted

## Error

Status: Default

### ONTAP Error Response Code

Error Code	Description
2	An invalid value was entered for one of the fields.
524481	Snapshot was not deleted because the associated volume is locked or fenced.
1638521	Snapshots can only be deleted on read/write (RW) volumes.
1638538	Cannot determine the status of the snapshot delete operation for the specified volume.
1638543	Failed to delete snapshot because it has an owner.
1638555	The specified snapshot has not expired or is locked.
1638600	The snapshot does not exist.
1638644	POST, DELETE, and PATCH requests on the snapshot session endpoint are not supported on this platform.

Name	Type	Description
error	returned_error	

## Example error

```
{  
  "error": {  
    "arguments": [  
      {  
        "code": "string",  
        "message": "string"  
      }  
    ],  
    "code": "4",  
    "message": "entry doesn't exist",  
    "target": "uuid"  
  }  
}
```

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

Name	Type	Description
self	href	

job\_link

Name	Type	Description
_links	_links	
uuid	string	The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation.

error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned\_error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

## Retrieve volume snapshot details

GET /storage/volumes/{volume.uuid}/snapshots/{uuid}

**Introduced In:** 9.6

Retrieves details of a specific volume snapshot.

## Related ONTAP commands

- snapshot show

## Learn more

- [DOC /storage/volumes/{volume.uuid}/snapshots](#)

## Parameters

Name	Type	In	Required	Description
volume.uuid	string	path	True	Volume UUID
uuid	string	path	True	Snapshot UUID
fields	array[string]	query	False	Specify the fields to return.

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">_links</a>	
comment	string	A comment associated with the snapshot. This is an optional attribute for POST or PATCH.
compress_savings	integer	Savings due to compression at the time the snapshot was taken in bytes.
create_time	string	Creation time of the snapshot. It is the volume access time when the snapshot was created.
dedup_savings	integer	Savings due to dedup at the time the snapshot was taken in bytes.

Name	Type	Description
delta	<a href="#">snapshot_delta</a>	Reports the amount of space consumed between two WAFL file systems, in bytes. The two WAFL file systems should be specified in a comma-separated format using the "name" parameter. To determine the space consumed between a snapshot and the Active File System, only the snapshot name needs to be mentioned.
expiry_time	string	The expiry time for the snapshot. This is an optional attribute for POST or PATCH. Snapshots with an expiry time set are not allowed to be deleted until the retention time is reached.
logical_size	integer	Size of the logical used file system at the time the snapshot is captured.
name	string	Snapshot. Valid in POST or PATCH.
owners	array[string]	
provenance_volume	<a href="#">provenance_volume</a>	
reclaimable_space	integer	Space reclaimed when the snapshot is deleted, in bytes.
size	integer	Size of the active file system at the time the snapshot is captured. The actual size of the snapshot also includes those blocks trapped by other snapshots. On a snapshot deletion, the "size" amount of blocks is the maximum number of blocks available. On a snapshot restore, the "afs-used size" value will match the snapshot "size" value.
snaplock	<a href="#">snaplock</a>	

Name	Type	Description
snaplock_expiry_time	string	SnapLock expiry time for the snapshot, if the snapshot is taken on a SnapLock volume. A snapshot is not allowed to be deleted or renamed until the SnapLock ComplianceClock time goes beyond this retention time. This option can be set during snapshot POST and snapshot PATCH on snapshot locking enabled volumes. This field will no longer be supported in a future release. Use snaplock.expiry_time instead.
snapmirror_label	string	Label for SnapMirror operations
state	string	State of the FlexGroup volume snapshot. In the "pre_conversion" state, the snapshot was created before converting the FlexVol to a FlexGroup volume. A recently created snapshot can be in the "unknown" state while the system is calculating the state. In the "partial" state, the snapshot is consistent but exists only on the subset of the constituents that existed prior to the FlexGroup's expansion. Partial snapshots cannot be used for a snapshot restore operation. A snapshot is in an "invalid" state when it is present in some FlexGroup constituents but not in others. At all other times, a snapshot is valid.
svm	svm	SVM, applies only to SVM-scoped objects.
uuid	string	The UUID of the snapshot in the volume that uniquely identifies the snapshot in that volume.
vbn0_savings	integer	Savings due vbn0 at the time the snapshot was taken in bytes.
version_uuid	string	The 128 bit identifier that uniquely identifies a snapshot and its logical data layout.

Name	Type	Description
volume	volume	

## Example response

```

    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412",
  "vbn0_savings": 1131223,
  "version_uuid": "1cd8a442-86d1-11e0-ae1c-123478563412",
  "volume": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "volume1",
    "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"
  }
}

```

## Error

Status: Default

### ONTAP Error Response Code

Error Code	Description
2	An invalid value was entered for one of the fields.
262197	An invalid field was specified in the request.
1638473	Snapshot tag not found.
1638503	The snapshot does not exist on the specified volume.
1638600	The snapshot does not exist.
1638615	Bulk operations for snapshots are not supported on multiple SVMs.

Name	Type	Description
error	returned_error	

## Example error

```
{  
  "error": {  
    "arguments": [  
      {  
        "code": "string",  
        "message": "string"  
      }  
    ],  
    "code": "4",  
    "message": "entry doesn't exist",  
    "target": "uuid"  
  }  
}
```

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

Name	Type	Description
self	href	

snapshot\_delta

Reports the amount of space consumed between two WAFL file systems, in bytes. The two WAFL file systems should be specified in a comma-separated format using the "name" parameter. To determine the space consumed between a snapshot and the Active File System, only the snapshot name needs to be mentioned.

Name	Type	Description
_links	_links	
size_consumed	integer	Indicates the space that has changed between two specified WAFL file systems, in bytes.
time_elapsed	string	Time elapsed between two specified WAFL file systems.

provenance\_volume

Name	Type	Description
uuid	string	UUID for the volume that is used to identify the source volume in a mirroring relationship. When the mirroring relationship is broken, a volume's Instance UUID and Provenance UUID are made identical. An unmirrored volume's Provenance UUID is the same as its Instance UUID. This field is valid for flexible volumes only.

snaplock

Name	Type	Description
expired	boolean	Indicates whether a SnapLock snapshot has expired.
expiry_time	string	SnapLock expiry time for the snapshot, if the snapshot is taken on a SnapLock volume. A snapshot is not allowed to be deleted or renamed until the SnapLock ComplianceClock time goes beyond this retention time. This option can be set during snapshot POST and snapshot PATCH on snapshot locking enabled volumes. It can also be used to extend the expiry time of a locked snapshot on a SnapLock for SnapVault destination consistency-group.
time_until_expiry	string	Indicates the remaining SnapLock expiry time of a locked snapshot, in seconds. This field is set only when the remaining time interval is less than 136 years.

## svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM. This field cannot be specified in a PATCH method.
uuid	string	The unique identifier of the SVM. This field cannot be specified in a PATCH method.

## volume

Name	Type	Description
_links	<a href="#">_links</a>	

Name	Type	Description
name	string	The name of the volume. This field cannot be specified in a PATCH method.
uuid	string	Unique identifier for the volume. This corresponds to the instance-uuid that is exposed in the CLI and ONTAPI. It does not change due to a volume move. <ul style="list-style-type: none"> <li>example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>Introduced in: 9.6</li> <li>x-nullable: true</li> </ul>

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### returned\_error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

## Update a volume snapshot

PATCH /storage/volumes/{volume.uuid}/snapshots/{uuid}

**Introduced In:** 9.6

Updates a Volume snapshot.

## Related ONTAP commands

- `snapshot modify`
- `snapshot rename`

## Learn more

- [DOC /storage/volumes/{volume.uuid}/snapshots](#)

## Parameters

Name	Type	In	Required	Description
volume.uuid	string	path	True	Volume UUID
uuid	string	path	True	Snapshot UUID
return_timeout	integer	query	False	<p>The number of seconds to allow the call to execute before returning. When doing a POST, PATCH, or DELETE operation on a single record, the default is 0 seconds. This means that if an asynchronous operation is started, the server immediately returns HTTP code 202 (Accepted) along with a link to the job. If a non-zero value is specified for POST, PATCH, or DELETE operations, ONTAP waits that length of time to see if the job completes so it can return something other than 202.</p> <ul style="list-style-type: none"><li>• Default value: 0</li><li>• Max value: 120</li><li>• Min value: 0</li></ul>

## Request Body

Name	Type	Description
comment	string	A comment associated with the snapshot. This is an optional attribute for POST or PATCH.
compress_savings	integer	Savings due to compression at the time the snapshot was taken in bytes.
create_time	string	Creation time of the snapshot. It is the volume access time when the snapshot was created.
dedup_savings	integer	Savings due to dedup at the time the snapshot was taken in bytes.
delta	<a href="#">snapshot_delta</a>	Reports the amount of space consumed between two WAFL file systems, in bytes. The two WAFL file systems should be specified in a comma-separated format using the "name" parameter. To determine the space consumed between a snapshot and the Active File System, only the snapshot name needs to be mentioned.
expiry_time	string	The expiry time for the snapshot. This is an optional attribute for POST or PATCH. Snapshots with an expiry time set are not allowed to be deleted until the retention time is reached.
logical_size	integer	Size of the logical used file system at the time the snapshot is captured.
name	string	Snapshot. Valid in POST or PATCH.
owners	array[string]	
provenance_volume	<a href="#">provenance_volume</a>	
reclaimable_space	integer	Space reclaimed when the snapshot is deleted, in bytes.

Name	Type	Description
size	integer	Size of the active file system at the time the snapshot is captured. The actual size of the snapshot also includes those blocks trapped by other snapshots. On a snapshot deletion, the "size" amount of blocks is the maximum number of blocks available. On a snapshot restore, the "afs-used size" value will match the snapshot "size" value.
snaplock	<a href="#">snaplock</a>	
snaplock_expiry_time	string	SnapLock expiry time for the snapshot, if the snapshot is taken on a SnapLock volume. A snapshot is not allowed to be deleted or renamed until the SnapLock ComplianceClock time goes beyond this retention time. This option can be set during snapshot POST and snapshot PATCH on snapshot locking enabled volumes. This field will no longer be supported in a future release. Use snaplock.expiry_time instead.
snapmirror_label	string	Label for SnapMirror operations
state	string	State of the FlexGroup volume snapshot. In the "pre_conversion" state, the snapshot was created before converting the FlexVol to a FlexGroup volume. A recently created snapshot can be in the "unknown" state while the system is calculating the state. In the "partial" state, the snapshot is consistent but exists only on the subset of the constituents that existed prior to the FlexGroup's expansion. Partial snapshots cannot be used for a snapshot restore operation. A snapshot is in an "invalid" state when it is present in some FlexGroup constituents but not in others. At all other times, a snapshot is valid.

Name	Type	Description
svm	<a href="#">svm</a>	SVM, applies only to SVM-scoped objects.
uuid	string	The UUID of the snapshot in the volume that uniquely identifies the snapshot in that volume.
vbn0_savings	integer	Savings due vbn0 at the time the snapshot was taken in bytes.
version_uuid	string	The 128 bit identifier that uniquely identifies a snapshot and its logical data layout.
volume	<a href="#">volume</a>	

## Example request

```
{  
    "comment": "string",  
    "compress_savings": 1131223,  
    "create_time": "2019-02-04 19:00:00 +0000",  
    "dedup_savings": 1131223,  
    "delta": {  
        "size_consumed": 0,  
        "time_elapsed": "string"  
    },  
    "expiry_time": "2019-02-04 19:00:00 +0000",  
    "logical_size": 1228800,  
    "name": "this_snapshot",  
    "owners": [  
        "string"  
    ],  
    "provenance_volume": {  
        "uuid": "4cd8a442-86d1-11e0-ae1c-125648563413"  
    },  
    "size": "122880",  
    "snaplock": {  
        "expired": 1,  
        "expiry_time": "2019-02-04 19:00:00 +0000",  
        "time_until_expiry": "PT3H27M45S"  
    },  
    "snaplock_expiry_time": "2019-02-04 19:00:00 +0000",  
    "snapmirror_label": "string",  
    "state": "string",  
    "svm": {  
        "name": "svml1",  
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"  
    },  
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412",  
    "vbn0_savings": 1131223,  
    "version_uuid": "1cd8a442-86d1-11e0-ae1c-123478563412",  
    "volume": {  
        "name": "volumel1",  
        "uuid": "028baa66-41bd-11e9-81d5-00a0986138f7"  
    }  
}
```

## Response

Status: 200, Ok

Name	Type	Description
job	job_link	

### Example response

```
{  
  "job": {  
    "uuid": "string"  
  }  
}
```

## Response

Status: 202, Accepted

## Error

Status: Default

### ONTAP Error Response Code

Error Code	Description
524508	The snapshot was not renamed because the name entered is not valid.
542797	The specified file or snapshot does not exist.
1638455	Failed to set comment for snapshot.
1638476	You cannot rename a snapshot created for use as a reference snapshot by other jobs.
1638477	User-created snapshot names cannot begin with the specified prefix.
1638518	The specified snapshot name is invalid.
1638522	Snapshots can only be renamed on read/write (RW) volumes.

Error Code	Description
1638523	Failed to set the specified SnapMirror label for the snapshot.
1638524	Adding SnapMirror labels is not allowed in a mixed version cluster.
1638539	Cannot determine the status of the snapshot rename operation for the specified volume.
1638554	Failed to set expiry time for the snapshot.
1638600	The snapshot does not exist.
1638644	POST, DELETE, and PATCH requests on the snapshot session endpoint are not supported on this platform.

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

snapshot\_delta

Reports the amount of space consumed between two WAFL file systems, in bytes. The two WAFL file systems should be specified in a comma-separated format using the "name" parameter. To determine the space consumed between a snapshot and the Active File System, only the snapshot name needs to be mentioned.

Name	Type	Description
size_consumed	integer	Indicates the space that has changed between two specified WAFL file systems, in bytes.
time_elapsed	string	Time elapsed between two specified WAFL file systems.

provenance\_volume

Name	Type	Description
uuid	string	UUID for the volume that is used to identify the source volume in a mirroring relationship. When the mirroring relationship is broken, a volume's Instance UUID and Provenance UUID are made identical. An unmirrored volume's Provenance UUID is the same as its Instance UUID. This field is valid for flexible volumes only.

snaplock

Name	Type	Description
expired	boolean	Indicates whether a SnapLock snapshot has expired.

Name	Type	Description
expiry_time	string	SnapLock expiry time for the snapshot, if the snapshot is taken on a SnapLock volume. A snapshot is not allowed to be deleted or renamed until the SnapLock ComplianceClock time goes beyond this retention time. This option can be set during snapshot POST and snapshot PATCH on snapshot locking enabled volumes. It can also be used to extend the expiry time of a locked snapshot on a SnapLock for SnapVault destination consistency-group.
time_until_expiry	string	Indicates the remaining SnapLock expiry time of a locked snapshot, in seconds. This field is set only when the remaining time interval is less than 136 years.

## svm

SVM, applies only to SVM-scoped objects.

Name	Type	Description
name	string	The name of the SVM. This field cannot be specified in a PATCH method.
uuid	string	The unique identifier of the SVM. This field cannot be specified in a PATCH method.

## volume

Name	Type	Description
name	string	The name of the volume. This field cannot be specified in a PATCH method.

Name	Type	Description
uuid	string	<p>Unique identifier for the volume. This corresponds to the instance-uuid that is exposed in the CLI and ONTAPI. It does not change due to a volume move.</p> <ul style="list-style-type: none"> <li>example: 028baa66-41bd-11e9-81d5-00a0986138f7</li> <li>Introduced in: 9.6</li> <li>x-nullable: true</li> </ul>

## snapshot

The snapshot object represents a point in time snapshot of a volume.

Name	Type	Description
comment	string	A comment associated with the snapshot. This is an optional attribute for POST or PATCH.
compress_savings	integer	Savings due to compression at the time the snapshot was taken in bytes.
create_time	string	Creation time of the snapshot. It is the volume access time when the snapshot was created.
dedup_savings	integer	Savings due to dedup at the time the snapshot was taken in bytes.
delta	<a href="#">snapshot_delta</a>	Reports the amount of space consumed between two WAFL file systems, in bytes. The two WAFL file systems should be specified in a comma-separated format using the "name" parameter. To determine the space consumed between a snapshot and the Active File System, only the snapshot name needs to be mentioned.

Name	Type	Description
expiry_time	string	The expiry time for the snapshot. This is an optional attribute for POST or PATCH. Snapshots with an expiry time set are not allowed to be deleted until the retention time is reached.
logical_size	integer	Size of the logical used file system at the time the snapshot is captured.
name	string	Snapshot. Valid in POST or PATCH.
owners	array[string]	
provenance_volume	<a href="#">provenance_volume</a>	
reclaimable_space	integer	Space reclaimed when the snapshot is deleted, in bytes.
size	integer	Size of the active file system at the time the snapshot is captured. The actual size of the snapshot also includes those blocks trapped by other snapshots. On a snapshot deletion, the "size" amount of blocks is the maximum number of blocks available. On a snapshot restore, the "afs-used size" value will match the snapshot "size" value.
snaplock	<a href="#">snaplock</a>	
snaplock_expiry_time	string	SnapLock expiry time for the snapshot, if the snapshot is taken on a SnapLock volume. A snapshot is not allowed to be deleted or renamed until the SnapLock ComplianceClock time goes beyond this retention time. This option can be set during snapshot POST and snapshot PATCH on snapshot locking enabled volumes. This field will no longer be supported in a future release. Use snaplock.expiry_time instead.

Name	Type	Description
snapmirror_label	string	Label for SnapMirror operations
state	string	State of the FlexGroup volume snapshot. In the "pre_conversion" state, the snapshot was created before converting the FlexVol to a FlexGroup volume. A recently created snapshot can be in the "unknown" state while the system is calculating the state. In the "partial" state, the snapshot is consistent but exists only on the subset of the constituents that existed prior to the FlexGroup's expansion. Partial snapshots cannot be used for a snapshot restore operation. A snapshot is in an "invalid" state when it is present in some FlexGroup constituents but not in others. At all other times, a snapshot is valid.
svm	svm	SVM, applies only to SVM-scoped objects.
uuid	string	The UUID of the snapshot in the volume that uniquely identifies the snapshot in that volume.
vbn0_savings	integer	Savings due vbn0 at the time the snapshot was taken in bytes.
version_uuid	string	The 128 bit identifier that uniquely identifies a snapshot and its logical data layout.
volume	volume	

job\_link

Name	Type	Description
uuid	string	The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation.

error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

returned\_error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

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