



Create and retrieve Snapshot copy policies

ONTAP 9.13.1 REST API reference

NetApp
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Create and retrieve Snapshot copy policies

Storage snapshot-policies endpoint overview

Overview

In ONTAP, scheduled Snapshot copy creation works based on Snapshot copy policies. ONTAP provides three cluster-wide Snapshot copy policies: "default", "default-1weekly" and "none". A Snapshot copy policy can have more than one schedule associated with it. A Snapshot copy policy can be linked to a storage object and based on the schedule in the policy, Snapshot copies will be created on the object at that interval. Each schedule in a Snapshot copy policy has a Snapshot copy name prefix attached to it. Every Snapshot copy created using this policy will have this prefix in its name. There is also a retention count associated with every schedule. This count indicates the maximum number of Snapshot copies that can exist for a given schedule. Once the Snapshot copy count reaches the retention count, on the next create operation, the oldest Snapshot copy is deleted. A retention period can be associated with every schedule. During Snapshot copy creation, this period is set as SnapLock expiry time on Snapshot copy locking enabled volumes.

Snapshot copy policy APIs

The following APIs are used to perform operations related to Snapshot copy policy information:

– POST /api/storage/snapshot-policies

– GET /api/storage/snapshot-policies

– GET /api/storage/snapshot-policies/{uuid}

– PATCH /api/storage/snapshot-policies/{uuid}

– DELETE /api/storage/snapshot-policies/{uuid}

Examples

Creating a Snapshot copy policy

The POST operation is used to create a Snapshot copy policy with the specified attributes.

```
# The API:
/api/storage/snapshot-policies

# The call:
curl -X POST "https://<mgmt-ip>/api/storage/snapshot-policies" -H
"accept: application/hal+json" -d '{"name": "new_policy", "enabled":
"true", "comment": "policy comment", "copies": [{ "schedule": { "name":
"5min" }, "count": "5", "prefix": "xyz" , "retention_period": "PT20M" }],
"svm": { "name": "vs0"} }'
```

```
# The response:
HTTP/1.1 201 Created
Date: Tue, 12 Mar 2019 21:20:24 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Location: /api/storage/snapshot-policies/a69d8173-450c-11e9-aa44-
005056bbc848
Content-Length: 369
Content-Type: application/json
{
  "num_records": 1,
  "records": [
    {
      "uuid": "a69d8173-450c-11e9-aa44-005056bbc848",
      "svm": {
        "name": "vs0"
      },
      "name": "new_policy",
      "comment": "This is a 5min schedule policy",
      "enabled": true,
      "copies": [
        {
          "count": 5,
          "snapmirror_label": "-",
          "retention_period": "PT20M",
          "schedule": {
            "name": "5min"
          }
        }
      ]
    }
  ]
}
```

Retrieving Snapshot copy policy attributes

The GET operation is used to retrieve Snapshot copy policy attributes.

```
# The API:
/api/storage/snapshot-policies

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

# The response:
HTTP/1.1 200 OK
Date: Tue, 12 Mar 2019 21:17:17 GMT
Server: libzapid-http
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 686
Content-Type: application/json
{
"records": [
  {
    "uuid": "0fa7a554-348d-11e9-b55e-005056bbf1c8",
    "name": "spsv0",
    "_links": {
      "self": {
        "href": "/api/storage/snapshot-policies/0fa7a554-348d-11e9-b55e-
005056bbf1c8"
      }
    }
  },
  {
    "uuid": "3c112527-2fe8-11e9-b55e-005056bbf1c8",
    "name": "default",
    "_links": {
      "self": {
        "href": "/api/storage/snapshot-policies/3c112527-2fe8-11e9-b55e-
005056bbf1c8"
      }
    }
  },
  {
    "uuid": "3c1c1656-2fe8-11e9-b55e-005056bbf1c8",
    "name": "default-1weekly",
    "_links": {
      "self": {
```

```

        "href": "/api/storage/snapshot-policies/3c1c1656-2fe8-11e9-b55e-
005056bbf1c8"
    }
}
},
{
    "uuid": "3c228b82-2fe8-11e9-b55e-005056bbf1c8",
    "name": "none",
    "_links": {
        "self": {
            "href": "/api/storage/snapshot-policies/3c228b82-2fe8-11e9-b55e-
005056bbf1c8"
        }
    }
}
],
"num_records": 4,
_links": {
    "self": {
        "href": "/api/storage/snapshot-policies/"
    }
}
}
}

```

Retrieving the attributes of a specific Snapshot copy policy

The GET operation is used to retrieve the attributes of a specific Snapshot copy policy.

```

# The API:
/api/storage/snapshot-policies/{uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/storage/snapshot-policies/3c112527-
2fe8-11e9-b55e-005056bbf1c8" -H "accept: application/hal+json"

# The response:
HTTP/1.1 200 OK
Date: Tue, 12 Mar 2019 21:24:48 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 381
Content-Type: application/json
{
    "uuid": "3c112527-2fe8-11e9-b55e-005056bbf1c8",
    "name": "default",

```

```
"comment": "Default policy with hourly, daily & weekly schedules.",
"enabled": true,
"scope": "cluster",
"copies": [
  {
    "count": 6,
    "prefix": "hourly",
    "schedule": {
      "name": "hourly"
    }
  },
  {
    "count": 2,
    "prefix": "daily",
    "schedule": {
      "name": "daily"
    }
  },
  {
    "count": 2,
    "prefix": "weekly",
    "schedule": {
      "name": "weekly"
    }
  }
],
"_links": {
  "self": {
    "href": "/api/storage/snapshot-policies/3c112527-2fe8-11e9-b55e-005056bbf1c8"
  }
}
}
```

Updating a Snapshot copy policy

The PATCH operation is used to update the specific attributes of a Snapshot copy policy.

```
# The API:
/api/storage/snapshot-policies/{uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/storage/snapshot-policies/ae9e65c4-4506-11e9-aa44-005056bbc848" -d '{"enabled": "false" }' -H "accept: application/hal+json"

# The response:
HTTP/1.1 200 OK
Date: Tue, 12 Mar 2019 21:27:04 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 3
Content-Type: application/json
```

Deleting a Snapshot copy policy

The DELETE operation is used to delete a Snapshot copy policy.

```
# The API:
/api/storage/snapshot-policies/{uuid}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/storage/snapshot-policies/ae9e65c4-4506-11e9-aa44-005056bbc848" -H "accept: application/hal+json"

# The response:
HTTP/1.1 200 OK
Date: Tue, 12 Mar 2019 21:19:04 GMT
Server: libzapid-httpd
X-Content-Type-Options: nosniff
Cache-Control: no-cache,no-store,must-revalidate
Content-Length: 3
Content-Type: application/json
```

Retrieve Snapshot copy policies

GET /storage/snapshot-policies

Introduced In: 9.6

Retrieves a collection of Snapshot copy policies.

Related ONTAP commands

- `snapshot policy show`

Learn more

- [DOC /storage/snapshot-policies](#)

Parameters

Name	Type	In	Required	Description
<code>copies.prefix</code>	string	query	False	Filter by <code>copies.prefix</code>
<code>copies.snapmirror_label</code>	string	query	False	Filter by <code>copies.snapmirror_label</code>
<code>copies.count</code>	integer	query	False	Filter by <code>copies.count</code>
<code>copies.retention_period</code>	string	query	False	Filter by <code>copies.retention_period</code> <ul style="list-style-type: none">• Introduced in: 9.12
<code>copies.schedule.name</code>	string	query	False	Filter by <code>copies.schedule.name</code>
<code>name</code>	string	query	False	Filter by name
<code>uuid</code>	string	query	False	Filter by uuid
<code>comment</code>	string	query	False	Filter by comment
<code>enabled</code>	boolean	query	False	Filter by enabled
<code>scope</code>	string	query	False	Filter by scope
<code>svm.uuid</code>	string	query	False	Filter by <code>svm.uuid</code>
<code>svm.name</code>	string	query	False	Filter by <code>svm.name</code>

Name	Type	In	Required	Description
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"> • Default value: 1
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"> • Default value: 1 • Max value: 120 • Min value: 0
order_by	array[string]	query	False	Order results by specified fields and optional [asc

Response

Status: 200, Ok

Name	Type	Description
_links	_links	
num_records	integer	Number of records
records	array[snapshot_policy]	

Example response

A large, empty rectangular box with a thin, dashed border, occupying most of the page. It is intended for an example response.

```

{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "comment": "string",
      "copies": [
        {
          "prefix": "string",
          "retention_period": "string",
          "schedule": {
            "name": "hourly"
          },
          "snapmirror_label": "string"
        }
      ],
      "enabled": 1,
      "name": "default",
      "scope": "string",
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ]
}

```

Error

Status: Default, Error

Name	Type	Description
error	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
next	href	
self	href	

_links

Name	Type	Description
self	href	

schedule

Name	Type	Description
name	string	Schedule at which Snapshot copies are captured on the volume. Some common schedules already defined in the system are hourly, daily, weekly, at 15 minute intervals, and at 5 minute intervals. Snapshot copy policies with custom schedules can be referenced.

copies

Name	Type	Description
count	integer	The number of Snapshot copies to maintain for this schedule.
prefix	string	The prefix to use while creating Snapshot copies at regular intervals.

Name	Type	Description
retention_period	string	The retention period of Snapshot copies for this schedule. The retention period value represents a duration and must be specified in the ISO-8601 duration format. The retention period can be in years, months, days, hours, and minutes. A period specified for years, months, and days is represented in the ISO-8601 format as "P<num>Y", "P<num>M", "P<num>D" respectively, for example "P10Y" represents a duration of 10 years. A duration in hours and minutes is represented by "PT<num>H" and "PT<num>M" respectively. The period string must contain only a single time element that is, either years, months, days, hours, or minutes. A duration which combines different periods is not supported, for example "P1Y10M" is not supported.
schedule	schedule	
snapmirror_label	string	Label for SnapMirror operations

svm

Name	Type	Description
_links	_links	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

snapshot_policy

The Snapshot copy policy object is associated with a read-write volume used to create and delete Snapshot copies at regular intervals.

Name	Type	Description
_links	_links	

Name	Type	Description
comment	string	A comment associated with the Snapshot copy policy.
copies	array[copies]	
enabled	boolean	Is the Snapshot copy policy enabled?
name	string	Name of the Snapshot copy policy.
scope	string	Set to "svm" when the request is on a data SVM, otherwise set to "cluster".
svm	svm	
uuid	string	

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

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 Snapshot copy policy

POST /storage/snapshot-policies

Introduced In: 9.6

Creates a Snapshot copy policy.

Required properties

- `svm.uuid` or `svm.name` - Existing SVM in which to create the Snapshot copy policy.
- `name` - Name for the Snapshot copy policy.
- `copies.schedule` - Schedule at which Snapshot copies are captured on the volume.
- `copies.count` - Number of Snapshot copies to maintain for this schedule.

Recommended optional properties

- `copies.prefix` - Prefix to use when creating Snapshot copies at regular intervals.
- `copies.snapmirror` - Label for SnapMirror operations.
- `copies.retention` - Retention period for Snapshot copy locking enabled volumes.

Default property values

If not specified in POST, the following default property values are assigned:

- `enabled` - *true*
- `copies.prefix` - Value of `schedule.name`

Related ONTAP commands

- `snapshot policy create`

Learn more

- [DOC /storage/snapshot-policies](#)

Parameters

Name	Type	In	Required	Description
<code>return_records</code>	boolean	query	False	The default is false. If set to true, the records are returned. • Default value:

Request Body

Name	Type	Description
<code>_links</code>	_links	
<code>comment</code>	string	A comment associated with the Snapshot copy policy.

Name	Type	Description
copies	array[copies]	
enabled	boolean	Is the Snapshot copy policy enabled?
name	string	Name of the Snapshot copy policy.
scope	string	Set to "svm" when the request is on a data SVM, otherwise set to "cluster".
svm	svm	
uuid	string	

Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "comment": "string",
  "copies": [
    {
      "prefix": "string",
      "retention_period": "string",
      "schedule": {
        "name": "hourly"
      },
      "snapmirror_label": "string"
    }
  ],
  "enabled": 1,
  "name": "default",
  "scope": "string",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```

Response

Status: 201, Created

Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
1638407	When adding schedule to a Snapshot copy policy, the count for that schedule must be specified.
1638408	When adding schedule to a Snapshot copy policy, the schedule name must be specified.
1638413	Schedule not found.
1638417	Specified policy name is invalid.
1638451	This operation would result in total Snapshot copy count for the policy to exceed maximum supported count.
1638508	Another schedule has the same prefix within this policy.
1638526	This operation is not supported on a node Vserver.
1638527	Policy name already exists.
1638528	This operation is not supported in a mixed-version cluster.
1638531	This operation is not supported because specified policy is owned by the cluster admin.

Name	Type	Description
error	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	

schedule

Name	Type	Description
name	string	Schedule at which Snapshot copies are captured on the volume. Some common schedules already defined in the system are hourly, daily, weekly, at 15 minute intervals, and at 5 minute intervals. Snapshot copy policies with custom schedules can be referenced.

copies

Name	Type	Description
count	integer	The number of Snapshot copies to maintain for this schedule.
prefix	string	The prefix to use while creating Snapshot copies at regular intervals.

Name	Type	Description
retention_period	string	The retention period of Snapshot copies for this schedule. The retention period value represents a duration and must be specified in the ISO-8601 duration format. The retention period can be in years, months, days, hours, and minutes. A period specified for years, months, and days is represented in the ISO-8601 format as "P<num>Y", "P<num>M", "P<num>D" respectively, for example "P10Y" represents a duration of 10 years. A duration in hours and minutes is represented by "PT<num>H" and "PT<num>M" respectively. The period string must contain only a single time element that is, either years, months, days, hours, or minutes. A duration which combines different periods is not supported, for example "P1Y10M" is not supported.
schedule	schedule	
snapmirror_label	string	Label for SnapMirror operations

svm

Name	Type	Description
_links	_links	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

snapshot_policy

The Snapshot copy policy object is associated with a read-write volume used to create and delete Snapshot copies at regular intervals.

Name	Type	Description
_links	_links	

Name	Type	Description
comment	string	A comment associated with the Snapshot copy policy.
copies	array[copies]	
enabled	boolean	Is the Snapshot copy policy enabled?
name	string	Name of the Snapshot copy policy.
scope	string	Set to "svm" when the request is on a data SVM, otherwise set to "cluster".
svm	svm	
uuid	string	

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

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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