



## **Manage cloud targets**

### **ONTAP 9.12.1 REST API reference**

NetApp

February 13, 2024

This PDF was generated from [https://docs.netapp.com/us-en/ontap-restapi-9121/ontap/cloud\\_targets\\_endpoint\\_overview.html](https://docs.netapp.com/us-en/ontap-restapi-9121/ontap/cloud_targets_endpoint_overview.html) on February 13, 2024. Always check docs.netapp.com for the latest.

# Table of Contents

- Manage cloud targets. . . . . 1
  - Cloud targets endpoint overview . . . . . 1
  - Retrieve cloud targets in the cluster. . . . . 1
  - Create a cloud target . . . . . 12
  - Delete a cloud target . . . . . 27
  - Retrieve a cloud target. . . . . 30
  - Update a cloud target. . . . . 38

# Manage cloud targets

## Cloud targets endpoint overview

### Retrieving a collection of cloud targets

The cloud targets GET API retrieves all cloud targets defined in the cluster.

### Creating cloud targets

The cluster administrator tells ONTAP how to connect to a cloud target. The following pre-requisites must be met before creating an object store configuration in ONTAP. A valid data bucket or container must be created with the object store provider. This assumes that the user has valid account credentials with the object store provider to access the data bucket. The ONTAP node must be able to connect to the object store.

This includes:

- Fast, reliable connectivity to the object store.
- An inter-cluster LIF (logical interface) must be configured on the cluster. ONTAP verifies connectivity prior to saving this configuration information.
- If SSL/TLS authentication is required, then valid certificates must be installed.
- FabricPool license (required for all object stores except SGWS).

### Deleting cloud targets

If a cloud target is used by an aggregate, then the aggregate must be deleted before the cloud target can be deleted.

## Retrieve cloud targets in the cluster

GET /cloud/targets

**Introduced In:** 9.6

Retrieves the collection of cloud targets in the cluster.

### Related ONTAP commands

- `storage aggregate object-store config show`

### Parameters

Name	Type	In	Required	Description
svm.uuid	string	query	False	Filter by svm.uuid
svm.name	string	query	False	Filter by svm.name

Name	Type	In	Required	Description
certificate_validation_enabled	boolean	query	False	Filter by certificate_validation_enabled
cluster.name	string	query	False	Filter by cluster.name  • Introduced in: 9.7
cluster.uuid	string	query	False	Filter by cluster.uuid  • Introduced in: 9.7
access_key	string	query	False	Filter by access_key
scope	string	query	False	Filter by scope  • Introduced in: 9.12
cap_url	string	query	False	Filter by cap_url
owner	string	query	False	Filter by owner
ssl_enabled	boolean	query	False	Filter by ssl_enabled
provider_type	string	query	False	Filter by provider_type
server	string	query	False	Filter by server
uuid	string	query	False	Filter by uuid
azure_account	string	query	False	Filter by azure_account
container	string	query	False	Filter by container
url_style	string	query	False	Filter by url_style  • Introduced in: 9.8

Name	Type	In	Required	Description
ipspace.uuid	string	query	False	Filter by ipspace.uuid
ipspace.name	string	query	False	Filter by ipspace.name
name	string	query	False	Filter by name
used	integer	query	False	Filter by used
use_http_proxy	boolean	query	False	Filter by use_http_proxy <ul style="list-style-type: none"> <li>Introduced in: 9.7</li> </ul>
snapmirror_use	string	query	False	Filter by snapmirror_use
port	integer	query	False	Filter by port
authentication_type	string	query	False	Filter by authentication_type
server_side_encryption	string	query	False	Filter by server_side_encryption <ul style="list-style-type: none"> <li>Introduced in: 9.7</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>

Name	Type	In	Required	Description
return_timeout	integer	query	False	<p>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.</p> <ul style="list-style-type: none"> <li>• Default value: 1</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>	
num_records	integer	Number of records
records	array[ <a href="#">cloud_target</a> ]	

## Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "authentication_type": "key",
    "cap_url":
    "https://123.45.67.89:1234/CAP/api/v1/credentials?agency=myagency&mission=mymission&role=myrole",
    "container": "bucket1",
    "ipspace": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "exchange",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "owner": "fabricpool",
    "scope": "cluster",
    "server_side_encryption": "none",
    "snapmirror_use": "data",
    "svm": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "svm1",
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    },
    "url_style": "path_style",
  },
}
```

```
    "used": 0,  
    "uuid": "string"  
  }  
}
```

## 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	<a href="#">href</a>	
self	<a href="#">href</a>	

\_links

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

cluster

Name	Type	Description
name	string	The name of the cluster that owns the cloud target. For POST, this accepts the name of the peer cluster only if the cluster is in switchover state.
uuid	string	The UUID of the cluster that owns the cloud target. For POST, this accepts the UUID of the peer cluster only if the cluster is in switchover state.

ipspace

IPspace to use in order to reach the cloud target.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	IPspace UUID

svm

This field is only applicable when used for SnapMirror and FabricLink. For POST and PATCH, SVM

information is required for SnapMirror and FabricLink targets and not allowed for FabricPool targets.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

cloud\_target

Name	Type	Description
_links	<a href="#">_links</a>	
access_key	string	Access key ID for AWS_S3 and other S3 compatible provider types.
authentication_type	string	Authentication used to access the target. SnapMirror does not yet support CAP. Required in POST.
azure_account	string	Azure account
azure_private_key	string	Azure access key
azure_sas_token	string	Shared access signature token to access Azure containers and blobs.
cap_url	string	This parameter is available only when auth-type is CAP. It specifies a full URL of the request to a CAP server for retrieving temporary credentials (access-key, secret-password, and session token) for accessing the object store.
certificate_validation_enabled	boolean	Is SSL/TLS certificate validation enabled? The default value is true. This can only be modified for SGWS, IBM_COS, and ONTAP_S3 provider types. <ul style="list-style-type: none"><li>Introduced in: 9.6</li></ul>
cluster	<a href="#">cluster</a>	

Name	Type	Description
container	string	<p>Data bucket/container name. For FabricLink, a wildcard character "*" can also be specified to indicate that all the buckets in an SVM can use the same target information. However, for containers other than ONTAP, an exact name should be specified.</p> <ul style="list-style-type: none"> <li>• example: bucket1</li> <li>• Introduced in: 9.6</li> <li>• readCreate: 1</li> </ul>
ipspace	<a href="#">ipspace</a>	IPspace to use in order to reach the cloud target.
name	string	Cloud target name
owner	string	Owner of the target. Allowed values are FabricPool, SnapMirror or S3_SnapMirror. A target can be used by only one feature.
port	integer	<p>Port number of the object store that ONTAP uses when establishing a connection. Required in POST.</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.6</li> </ul>
provider_type	string	<p>Type of cloud provider. Allowed values depend on owner type. For FabricPool, AliCloud, AWS_S3, Azure_Cloud, GoggleCloud, IBM_COS, SGWS, and ONTAP_S3 are allowed. For SnapMirror, the valid values are AWS_S3 or SGWS. For FabricLink, AWS_S3, SGWS, S3_Compatible, S3EMU, LOOPBACK and ONTAP_S3 are allowed.</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.6</li> <li>• readCreate: 1</li> </ul>

Name	Type	Description
scope	string	If the cloud target is owned by a data SVM, then the scope is set to svm. Otherwise it will be set to cluster.
secret_password	string	Secret access key for AWS_S3 and other S3 compatible provider types.
server	string	Fully qualified domain name of the object store server. Required on POST. For Amazon S3, server name must be an AWS regional endpoint in the format s3.amazonaws.com or s3-<region>.amazonaws.com, for example, s3-us-west-2.amazonaws.com. The region of the server and the bucket must match. For Azure, if the server is a "blob.core.windows.net" or a "blob.core.usgovcloudapi.net", then a value of azure-account followed by a period is added in front of the server.</region>
server_side_encryption	string	<p>Encryption of data at rest by the object store server for AWS_S3 and other S3 compatible provider types. This is an advanced property. In most cases it is best not to change default value of "sse_s3" for object store servers which support SSE-S3 encryption. The encryption is in addition to any encryption done by ONTAP at a volume or at an aggregate level. Note that changing this option does not change encryption of data which already exist in the object store.</p> <ul style="list-style-type: none"> <li>• enum: ["none", "sse_s3"]</li> <li>• Introduced in: 9.7</li> </ul>
snapmirror_use	string	Use of the cloud target by SnapMirror.
ssl_enabled	boolean	SSL/HTTPS enabled or not

Name	Type	Description
svm	<a href="#">svm</a>	This field is only applicable when used for SnapMirror and FabricLink. For POST and PATCH, SVM information is required for SnapMirror and FabricLink targets and not allowed for FabricPool targets.
url_style	string	URL style used to access S3 bucket.
use_http_proxy	boolean	Use HTTP proxy when connecting to the object store.
used	integer	The amount of cloud space used by all the aggregates attached to the target, in bytes. This field is only populated for FabricPool targets. The value is recalculated once every 5 minutes.
uuid	string	Cloud target UUID

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

# Create a cloud target

POST /cloud/targets

Introduced In: 9.6

Creates a cloud target.

## Required properties

- `name` - Name for the cloud target.
- `owner` - Owner of the target: *fabricpool*, *snapmirror*.
- `provider_type` - Type of cloud provider: *AWS\_S3*, *Azure\_Cloud*, *SGWS*, *IBM\_COS*, *AliCloud*, *GoogleCloud*, *ONTAP\_S3*.
- `server` - Fully qualified domain name of the object store server. Required when `provider_type` is one of the following: *SGWS*, *IBM\_COS*, *AliCloud*.
- `container` - Data bucket/container name.
- `access_key` - Access key ID if `provider_type` is not *Azure\_Cloud* and `authentication_type` is *key*.
- `secret_password` - Secret access key if `provider_type` is not *Azure\_Cloud* and `authentication_type` is *key*.
- `azure_account` - Azure account if `provider_type` is *Azure\_Cloud*.
- `azure_private_key` - Azure access key if `provider_type` is *Azure\_Cloud*.
- `cap_url` - Full URL of the request to a CAP server for retrieving temporary credentials if `authentication_type` is *cap*.
- `snapmirror_use` - Use of the cloud target if `owner` is *snapmirror*: data, metadata.

## Recommended optional properties

- `authentication_type` - Authentication used to access the target: *key*, *cap*, *ec2\_iam*, *gcp\_sa*, *azure\_msi*.
- `ssl_enabled` - SSL/HTTPS enabled or disabled.
- `port` - Port number of the object store that ONTAP uses when establishing a connection.
- `ipspace` - IPspace to use in order to reach the cloud target.
- `use_http_proxy` - Use the HTTP proxy when connecting to the object store server.
- `azure_sas_token` - Shared access signature to grant limited access to Azure storage account resources.
- `svm.name` or `svm.uuid` - Name or UUID of SVM if `owner` is *snapmirror*.

## Default property values

- `authentication_type`

- *ec2\_iam* - if running in Cloud Volumes ONTAP in AWS
- *gcp\_sa* - if running in Cloud Volumes ONTAP in GCP
- *azure\_msi* - if running in Cloud Volumes ONTAP in Azure
- *key* - in all other cases.
- *server*
- *s3.amazonaws.com* - if *provider\_type* is *AWS\_S3*
- *blob.core.windows.net* - if *provider\_type* is *Azure\_Cloud*
- *storage.googleapis.com* - if *provider\_type* is *GoogleCloud*
- *ssl\_enabled* - *true*
- *port*
- *443* if *ssl\_enabled* is *true*
- *80* if *ssl\_enabled* is *false* and *provider\_type* is not *SGWS*
- *8084* if *ssl\_enabled* is *false* and *provider\_type* is *SGWS*
- *ipspace* - *Default*
- *certificate\_validation\_enabled* - *true*
- *ignore\_warnings* - *false*
- *check\_only* - *false*
- *use\_http\_proxy* - *false*
- *server\_side\_encryption*
- *none* - if *provider\_type* is *ONTAP\_S3*
- *sse\_s3* - if *provider\_type* is not *ONTAP\_S3*
- *url\_style*
- *path\_style* - if *provider\_type* is neither *AWS\_S3* nor *AliCloud*
- *virtual\_hosted\_style* - if *provider\_type* is either *AWS\_S3* or *AliCloud*

## Related ONTAP commands

- `storage aggregate object-store config create`

## Parameters

Name	Type	In	Required	Description
<code>ignore_warnings</code>	boolean	query	False	Specifies whether or not warning codes should be ignored.

Name	Type	In	Required	Description
check_only	boolean	query	False	Do not create the target configuration, only check that the POST request succeeds.
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: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>
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
_links	<a href="#">_links</a>	
access_key	string	Access key ID for AWS_S3 and other S3 compatible provider types.
authentication_type	string	Authentication used to access the target. SnapMirror does not yet support CAP. Required in POST.
azure_account	string	Azure account
azure_private_key	string	Azure access key
azure_sas_token	string	Shared access signature token to access Azure containers and blobs.
cap_url	string	This parameter is available only when auth-type is CAP. It specifies a full URL of the request to a CAP server for retrieving temporary credentials (access-key, secret-password, and session token) for accessing the object store.
certificate_validation_enabled	boolean	Is SSL/TLS certificate validation enabled? The default value is true. This can only be modified for SGWS, IBM_COS, and ONTAP_S3 provider types.  <ul style="list-style-type: none"> <li>Introduced in: 9.6</li> </ul>
cluster	<a href="#">cluster</a>	
container	string	Data bucket/container name. For FabricLink, a wildcard character "*" can also be specified to indicate that all the buckets in an SVM can use the same target information. However, for containers other than ONTAP, an exact name should be specified.  <ul style="list-style-type: none"> <li>example: bucket1</li> <li>Introduced in: 9.6</li> <li>readCreate: 1</li> </ul>

Name	Type	Description
ipspace	<a href="#">ipspace</a>	IPspace to use in order to reach the cloud target.
name	string	Cloud target name
owner	string	Owner of the target. Allowed values are FabricPool, SnapMirror or S3_SnapMirror. A target can be used by only one feature.
port	integer	Port number of the object store that ONTAP uses when establishing a connection. Required in POST. <ul style="list-style-type: none"> <li>Introduced in: 9.6</li> </ul>
provider_type	string	Type of cloud provider. Allowed values depend on owner type. For FabricPool, AliCloud, AWS_S3, Azure_Cloud, GoggleCloud, IBM_COS, SGWS, and ONTAP_S3 are allowed. For SnapMirror, the valid values are AWS_S3 or SGWS. For FabricLink, AWS_S3, SGWS, S3_Compatible, S3EMU, LOOPBACK and ONTAP_S3 are allowed. <ul style="list-style-type: none"> <li>Introduced in: 9.6</li> <li>readCreate: 1</li> </ul>
scope	string	If the cloud target is owned by a data SVM, then the scope is set to svm. Otherwise it will be set to cluster.
secret_password	string	Secret access key for AWS_S3 and other S3 compatible provider types.

Name	Type	Description
server	string	Fully qualified domain name of the object store server. Required on POST. For Amazon S3, server name must be an AWS regional endpoint in the format s3.amazonaws.com or s3-<region>.amazonaws.com, for example, s3-us-west-2.amazonaws.com. The region of the server and the bucket must match. For Azure, if the server is a "blob.core.windows.net" or a "blob.core.usgovcloudapi.net", then a value of azure-account followed by a period is added in front of the server.</region>
server_side_encryption	string	<p>Encryption of data at rest by the object store server for AWS_S3 and other S3 compatible provider types. This is an advanced property. In most cases it is best not to change default value of "sse_s3" for object store servers which support SSE-S3 encryption. The encryption is in addition to any encryption done by ONTAP at a volume or at an aggregate level. Note that changing this option does not change encryption of data which already exist in the object store.</p> <ul style="list-style-type: none"> <li>enum: ["none", "sse_s3"]</li> <li>Introduced in: 9.7</li> </ul>
snapmirror_use	string	Use of the cloud target by SnapMirror.
ssl_enabled	boolean	SSL/HTTPS enabled or not
svm	svm	This field is only applicable when used for SnapMirror and FabricLink. For POST and PATCH, SVM information is required for SnapMirror and FabricLink targets and not allowed for FabricPool targets.

Name	Type	Description
url_style	string	URL style used to access S3 bucket.
use_http_proxy	boolean	Use HTTP proxy when connecting to the object store.
used	integer	The amount of cloud space used by all the aggregates attached to the target, in bytes. This field is only populated for FabricPool targets. The value is recalculated once every 5 minutes.
uuid	string	Cloud target UUID

## Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "authentication_type": "key",
  "cap_url":
  "https://123.45.67.89:1234/CAP/api/v1/credentials?agency=myagency&mission=mymission&role=myrole",
  "container": "bucket1",
  "ipspace": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    }
  },
  "name": "exchange",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"owner": "fabricpool",
"scope": "cluster",
"server_side_encryption": "none",
"snapmirror_use": "data",
"svm": {
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  }
},
"name": "svm1",
"uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"url_style": "path_style",
"used": 0,
"uuid": "string"
}
```

## Response

Status: 202, Accepted

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

#### Example response

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

#### Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

#### Error

Status: Default, Error

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

cluster

Name	Type	Description
name	string	The name of the cluster that owns the cloud target. For POST, this accepts the name of the peer cluster only if the cluster is in switchover state.
uuid	string	The UUID of the cluster that owns the cloud target. For POST, this accepts the UUID of the peer cluster only if the cluster is in switchover state.

ipspace

IPspace to use in order to reach the cloud target.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	IPspace UUID

svm

This field is only applicable when used for SnapMirror and FabricLink. For POST and PATCH, SVM information is required for SnapMirror and FabricLink targets and not allowed for FabricPool targets.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM.



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

cloud\_target

Name	Type	Description
_links	<a href="#">_links</a>	
access_key	string	Access key ID for AWS_S3 and other S3 compatible provider types.
authentication_type	string	Authentication used to access the target. SnapMirror does not yet support CAP. Required in POST.
azure_account	string	Azure account
azure_private_key	string	Azure access key
azure_sas_token	string	Shared access signature token to access Azure containers and blobs.
cap_url	string	This parameter is available only when auth-type is CAP. It specifies a full URL of the request to a CAP server for retrieving temporary credentials (access-key, secret-pasword, and session token) for accessing the object store.
certificate_validation_enabled	boolean	Is SSL/TLS certificate validation enabled? The default value is true. This can only be modified for SGWS, IBM_COS, and ONTAP_S3 provider types.  • Introduced in: 9.6
cluster	<a href="#">cluster</a>	

Name	Type	Description
container	string	<p>Data bucket/container name. For FabricLink, a wildcard character "*" can also be specified to indicate that all the buckets in an SVM can use the same target information. However, for containers other than ONTAP, an exact name should be specified.</p> <ul style="list-style-type: none"> <li>• example: bucket1</li> <li>• Introduced in: 9.6</li> <li>• readCreate: 1</li> </ul>
ipspace	<a href="#">ipspace</a>	IPspace to use in order to reach the cloud target.
name	string	Cloud target name
owner	string	Owner of the target. Allowed values are FabricPool, SnapMirror or S3_SnapMirror. A target can be used by only one feature.
port	integer	<p>Port number of the object store that ONTAP uses when establishing a connection. Required in POST.</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.6</li> </ul>
provider_type	string	<p>Type of cloud provider. Allowed values depend on owner type. For FabricPool, AliCloud, AWS_S3, Azure_Cloud, GoggleCloud, IBM_COS, SGWS, and ONTAP_S3 are allowed. For SnapMirror, the valid values are AWS_S3 or SGWS. For FabricLink, AWS_S3, SGWS, S3_Compatible, S3EMU, LOOPBACK and ONTAP_S3 are allowed.</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.6</li> <li>• readCreate: 1</li> </ul>

Name	Type	Description
scope	string	If the cloud target is owned by a data SVM, then the scope is set to svm. Otherwise it will be set to cluster.
secret_password	string	Secret access key for AWS_S3 and other S3 compatible provider types.
server	string	Fully qualified domain name of the object store server. Required on POST. For Amazon S3, server name must be an AWS regional endpoint in the format s3.amazonaws.com or s3-<region>.amazonaws.com, for example, s3-us-west-2.amazonaws.com. The region of the server and the bucket must match. For Azure, if the server is a "blob.core.windows.net" or a "blob.core.usgovcloudapi.net", then a value of azure-account followed by a period is added in front of the server.</region>
server_side_encryption	string	<p>Encryption of data at rest by the object store server for AWS_S3 and other S3 compatible provider types. This is an advanced property. In most cases it is best not to change default value of "sse_s3" for object store servers which support SSE-S3 encryption. The encryption is in addition to any encryption done by ONTAP at a volume or at an aggregate level. Note that changing this option does not change encryption of data which already exist in the object store.</p> <ul style="list-style-type: none"> <li>• enum: ["none", "sse_s3"]</li> <li>• Introduced in: 9.7</li> </ul>
snapmirror_use	string	Use of the cloud target by SnapMirror.
ssl_enabled	boolean	SSL/HTTPS enabled or not

Name	Type	Description
svm	<a href="#">svm</a>	This field is only applicable when used for SnapMirror and FabricLink. For POST and PATCH, SVM information is required for SnapMirror and FabricLink targets and not allowed for FabricPool targets.
url_style	string	URL style used to access S3 bucket.
use_http_proxy	boolean	Use HTTP proxy when connecting to the object store.
used	integer	The amount of cloud space used by all the aggregates attached to the target, in bytes. This field is only populated for FabricPool targets. The value is recalculated once every 5 minutes.
uuid	string	Cloud target UUID

#### job\_link

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

#### error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments

Name	Type	Description
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

## Delete a cloud target

DELETE /cloud/targets/{uuid}

**Introduced In:** 9.6

Deletes the cloud target specified by the UUID. This request starts a job and returns a link to that job.

### Related ONTAP commands

- `storage aggregate object-store config delete`

### Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Cloud target 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: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>

## Response

Status: 202, Accepted

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

## Example response

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

## 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
self	<a href="#">href</a>	

job\_link

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

error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

## Retrieve a cloud target

GET /cloud/targets/{uuid}



**Introduced In:** 9.6

Retrieves the cloud target specified by the UUID.

## Related ONTAP commands

- `storage aggregate object-store config show`

## Parameters

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

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">_links</a>	
access_key	string	Access key ID for AWS_S3 and other S3 compatible provider types.
authentication_type	string	Authentication used to access the target. SnapMirror does not yet support CAP. Required in POST.
azure_account	string	Azure account
azure_private_key	string	Azure access key
azure_sas_token	string	Shared access signature token to access Azure containers and blobs.
cap_url	string	This parameter is available only when auth-type is CAP. It specifies a full URL of the request to a CAP server for retrieving temporary credentials (access-key, secret-password, and session token) for accessing the object store.

Name	Type	Description
certificate_validation_enabled	boolean	Is SSL/TLS certificate validation enabled? The default value is true. This can only be modified for SGWS, IBM_COS, and ONTAP_S3 provider types. <ul style="list-style-type: none"> <li>Introduced in: 9.6</li> </ul>
cluster	<a href="#">cluster</a>	
container	string	Data bucket/container name. For FabricLink, a wildcard character "*" can also be specified to indicate that all the buckets in an SVM can use the same target information. However, for containers other than ONTAP, an exact name should be specified. <ul style="list-style-type: none"> <li>example: bucket1</li> <li>Introduced in: 9.6</li> <li>readCreate: 1</li> </ul>
ipspace	<a href="#">ipspace</a>	IPspace to use in order to reach the cloud target.
name	string	Cloud target name
owner	string	Owner of the target. Allowed values are FabricPool, SnapMirror or S3_SnapMirror. A target can be used by only one feature.
port	integer	Port number of the object store that ONTAP uses when establishing a connection. Required in POST. <ul style="list-style-type: none"> <li>Introduced in: 9.6</li> </ul>

Name	Type	Description
provider_type	string	<p>Type of cloud provider. Allowed values depend on owner type. For FabricPool, AliCloud, AWS_S3, Azure_Cloud, GoggleCloud, IBM_COS, SGWS, and ONTAP_S3 are allowed. For SnapMirror, the valid values are AWS_S3 or SGWS. For FabricLink, AWS_S3, SGWS, S3_Compatible, S3EMU, LOOPBACK and ONTAP_S3 are allowed.</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.6</li> <li>• readCreate: 1</li> </ul>
scope	string	If the cloud target is owned by a data SVM, then the scope is set to svm. Otherwise it will be set to cluster.
secret_password	string	Secret access key for AWS_S3 and other S3 compatible provider types.
server	string	<p>Fully qualified domain name of the object store server. Required on POST. For Amazon S3, server name must be an AWS regional endpoint in the format s3.amazonaws.com or s3-&lt;region&gt;.amazonaws.com, for example, s3-us-west-2.amazonaws.com. The region of the server and the bucket must match. For Azure, if the server is a "blob.core.windows.net" or a "blob.core.usgovcloudapi.net", then a value of azure-account followed by a period is added in front of the server.&lt;/region&gt;</p>

Name	Type	Description
server_side_encryption	string	<p>Encryption of data at rest by the object store server for AWS_S3 and other S3 compatible provider types. This is an advanced property. In most cases it is best not to change default value of "sse_s3" for object store servers which support SSE-S3 encryption. The encryption is in addition to any encryption done by ONTAP at a volume or at an aggregate level. Note that changing this option does not change encryption of data which already exist in the object store.</p> <ul style="list-style-type: none"> <li>enum: ["none", "sse_s3"]</li> <li>Introduced in: 9.7</li> </ul>
snapmirror_use	string	Use of the cloud target by SnapMirror.
ssl_enabled	boolean	SSL/HTTPS enabled or not
svm	<a href="#">svm</a>	This field is only applicable when used for SnapMirror and FabricLink. For POST and PATCH, SVM information is required for SnapMirror and FabricLink targets and not allowed for FabricPool targets.
url_style	string	URL style used to access S3 bucket.
use_http_proxy	boolean	Use HTTP proxy when connecting to the object store.
used	integer	The amount of cloud space used by all the aggregates attached to the target, in bytes. This field is only populated for FabricPool targets. The value is recalculated once every 5 minutes.
uuid	string	Cloud target UUID

## Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "authentication_type": "key",
  "cap_url":
  "https://123.45.67.89:1234/CAP/api/v1/credentials?agency=myagency&mission=mymission&role=myrole",
  "container": "bucket1",
  "ipspace": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    }
  },
  "name": "exchange",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"owner": "fabricpool",
"scope": "cluster",
"server_side_encryption": "none",
"snapmirror_use": "data",
"svm": {
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  }
},
"name": "svm1",
"uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"url_style": "path_style",
"used": 0,
"uuid": "string"
}
```

## 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
self	<a href="#">href</a>	

cluster

Name	Type	Description
name	string	The name of the cluster that owns the cloud target. For POST, this accepts the name of the peer cluster only if the cluster is in switchover state.
uuid	string	The UUID of the cluster that owns the cloud target. For POST, this accepts the UUID of the peer cluster only if the cluster is in switchover state.

ipspace

IPspace to use in order to reach the cloud target.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	IPspace UUID

svm

This field is only applicable when used for SnapMirror and FabricLink. For POST and PATCH, SVM information is required for SnapMirror and FabricLink targets and not allowed for FabricPool targets.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM.

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

error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

## Update a cloud target

PATCH /cloud/targets/{uuid}

**Introduced In:** 9.6

Updates the cloud target specified by the UUID with the fields in the body. This request starts a job and returns a link to that job.

### Related ONTAP commands

- `storage aggregate object-store config modify`

### Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Cloud target UUID



Name	Type	In	Required	Description
ignore_warnings	boolean	query	False	Specifies whether or not warnings should be ignored.
check_only	boolean	query	False	Do not modify the configuration, only check that the PATCH request succeeds.
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: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>

## Request Body

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

Name	Type	Description
access_key	string	Access key ID for AWS_S3 and other S3 compatible provider types.
authentication_type	string	Authentication used to access the target. SnapMirror does not yet support CAP. Required in POST.
azure_account	string	Azure account
azure_private_key	string	Azure access key
azure_sas_token	string	Shared access signature token to access Azure containers and blobs.
cap_url	string	This parameter is available only when auth-type is CAP. It specifies a full URL of the request to a CAP server for retrieving temporary credentials (access-key, secret-password, and session token) for accessing the object store.
certificate_validation_enabled	boolean	Is SSL/TLS certificate validation enabled? The default value is true. This can only be modified for SGWS, IBM_COS, and ONTAP_S3 provider types.  <ul style="list-style-type: none"> <li>Introduced in: 9.6</li> </ul>
cluster	cluster	
container	string	Data bucket/container name. For FabricLink, a wildcard character "*" can also be specified to indicate that all the buckets in an SVM can use the same target information. However, for containers other than ONTAP, an exact name should be specified.  <ul style="list-style-type: none"> <li>example: bucket1</li> <li>Introduced in: 9.6</li> <li>readCreate: 1</li> </ul>
ipspace	ipspace	IPspace to use in order to reach the cloud target.

Name	Type	Description
name	string	Cloud target name
owner	string	Owner of the target. Allowed values are FabricPool, SnapMirror or S3_SnapMirror. A target can be used by only one feature.
port	integer	Port number of the object store that ONTAP uses when establishing a connection. Required in POST. <ul style="list-style-type: none"> <li>Introduced in: 9.6</li> </ul>
provider_type	string	Type of cloud provider. Allowed values depend on owner type. For FabricPool, AliCloud, AWS_S3, Azure_Cloud, GoggleCloud, IBM_COS, SGWS, and ONTAP_S3 are allowed. For SnapMirror, the valid values are AWS_S3 or SGWS. For FabricLink, AWS_S3, SGWS, S3_Compatible, S3EMU, LOOPBACK and ONTAP_S3 are allowed. <ul style="list-style-type: none"> <li>Introduced in: 9.6</li> <li>readCreate: 1</li> </ul>
scope	string	If the cloud target is owned by a data SVM, then the scope is set to svm. Otherwise it will be set to cluster.
secret_password	string	Secret access key for AWS_S3 and other S3 compatible provider types.

Name	Type	Description
server	string	Fully qualified domain name of the object store server. Required on POST. For Amazon S3, server name must be an AWS regional endpoint in the format s3.amazonaws.com or s3-<region>.amazonaws.com, for example, s3-us-west-2.amazonaws.com. The region of the server and the bucket must match. For Azure, if the server is a "blob.core.windows.net" or a "blob.core.usgovcloudapi.net", then a value of azure-account followed by a period is added in front of the server.</region>
server_side_encryption	string	<p>Encryption of data at rest by the object store server for AWS_S3 and other S3 compatible provider types. This is an advanced property. In most cases it is best not to change default value of "sse_s3" for object store servers which support SSE-S3 encryption. The encryption is in addition to any encryption done by ONTAP at a volume or at an aggregate level. Note that changing this option does not change encryption of data which already exist in the object store.</p> <ul style="list-style-type: none"> <li>enum: ["none", "sse_s3"]</li> <li>Introduced in: 9.7</li> </ul>
snapmirror_use	string	Use of the cloud target by SnapMirror.
ssl_enabled	boolean	SSL/HTTPS enabled or not
svm	svm	This field is only applicable when used for SnapMirror and FabricLink. For POST and PATCH, SVM information is required for SnapMirror and FabricLink targets and not allowed for FabricPool targets.

Name	Type	Description
url_style	string	URL style used to access S3 bucket.
use_http_proxy	boolean	Use HTTP proxy when connecting to the object store.
used	integer	The amount of cloud space used by all the aggregates attached to the target, in bytes. This field is only populated for FabricPool targets. The value is recalculated once every 5 minutes.
uuid	string	Cloud target UUID

## Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "authentication_type": "key",
  "cap_url":
  "https://123.45.67.89:1234/CAP/api/v1/credentials?agency=myagency&mission=mymission&role=myrole",
  "container": "bucket1",
  "ipspace": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    }
  },
  "name": "exchange",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
},
"owner": "fabricpool",
"scope": "cluster",
"server_side_encryption": "none",
"snapmirror_use": "data",
"svm": {
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  }
},
"name": "svm1",
"uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"url_style": "path_style",
"used": 0,
"uuid": "string"
}
```

## Response

Status: 202, Accepted

Name	Type	Description
job	job_link	

#### Example response

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

## 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
self	<a href="#">href</a>	

cluster

Name	Type	Description
name	string	The name of the cluster that owns the cloud target. For POST, this accepts the name of the peer cluster only if the cluster is in switchover state.
uuid	string	The UUID of the cluster that owns the cloud target. For POST, this accepts the UUID of the peer cluster only if the cluster is in switchover state.

ipspace

IPspace to use in order to reach the cloud target.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	IPspace name
uuid	string	IPspace UUID

svm

This field is only applicable when used for SnapMirror and FabricLink. For POST and PATCH, SVM information is required for SnapMirror and FabricLink targets and not allowed for FabricPool targets.

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM.



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

cloud\_target

Name	Type	Description
_links	<a href="#">_links</a>	
access_key	string	Access key ID for AWS_S3 and other S3 compatible provider types.
authentication_type	string	Authentication used to access the target. SnapMirror does not yet support CAP. Required in POST.
azure_account	string	Azure account
azure_private_key	string	Azure access key
azure_sas_token	string	Shared access signature token to access Azure containers and blobs.
cap_url	string	This parameter is available only when auth-type is CAP. It specifies a full URL of the request to a CAP server for retrieving temporary credentials (access-key, secret-pasword, and session token) for accessing the object store.
certificate_validation_enabled	boolean	Is SSL/TLS certificate validation enabled? The default value is true. This can only be modified for SGWS, IBM_COS, and ONTAP_S3 provider types.  • Introduced in: 9.6
cluster	<a href="#">cluster</a>	

Name	Type	Description
container	string	<p>Data bucket/container name. For FabricLink, a wildcard character "*" can also be specified to indicate that all the buckets in an SVM can use the same target information. However, for containers other than ONTAP, an exact name should be specified.</p> <ul style="list-style-type: none"> <li>• example: bucket1</li> <li>• Introduced in: 9.6</li> <li>• readCreate: 1</li> </ul>
ipspace	<a href="#">ipspace</a>	IPspace to use in order to reach the cloud target.
name	string	Cloud target name
owner	string	Owner of the target. Allowed values are FabricPool, SnapMirror or S3_SnapMirror. A target can be used by only one feature.
port	integer	<p>Port number of the object store that ONTAP uses when establishing a connection. Required in POST.</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.6</li> </ul>
provider_type	string	<p>Type of cloud provider. Allowed values depend on owner type. For FabricPool, AliCloud, AWS_S3, Azure_Cloud, GoggleCloud, IBM_COS, SGWS, and ONTAP_S3 are allowed. For SnapMirror, the valid values are AWS_S3 or SGWS. For FabricLink, AWS_S3, SGWS, S3_Compatible, S3EMU, LOOPBACK and ONTAP_S3 are allowed.</p> <ul style="list-style-type: none"> <li>• Introduced in: 9.6</li> <li>• readCreate: 1</li> </ul>

Name	Type	Description
scope	string	If the cloud target is owned by a data SVM, then the scope is set to svm. Otherwise it will be set to cluster.
secret_password	string	Secret access key for AWS_S3 and other S3 compatible provider types.
server	string	Fully qualified domain name of the object store server. Required on POST. For Amazon S3, server name must be an AWS regional endpoint in the format s3.amazonaws.com or s3-<region>.amazonaws.com, for example, s3-us-west-2.amazonaws.com. The region of the server and the bucket must match. For Azure, if the server is a "blob.core.windows.net" or a "blob.core.usgovcloudapi.net", then a value of azure-account followed by a period is added in front of the server.</region>
server_side_encryption	string	<p>Encryption of data at rest by the object store server for AWS_S3 and other S3 compatible provider types. This is an advanced property. In most cases it is best not to change default value of "sse_s3" for object store servers which support SSE-S3 encryption. The encryption is in addition to any encryption done by ONTAP at a volume or at an aggregate level. Note that changing this option does not change encryption of data which already exist in the object store.</p> <ul style="list-style-type: none"> <li>• enum: ["none", "sse_s3"]</li> <li>• Introduced in: 9.7</li> </ul>
snapmirror_use	string	Use of the cloud target by SnapMirror.
ssl_enabled	boolean	SSL/HTTPS enabled or not

Name	Type	Description
svm	<a href="#">svm</a>	This field is only applicable when used for SnapMirror and FabricLink. For POST and PATCH, SVM information is required for SnapMirror and FabricLink targets and not allowed for FabricPool targets.
url_style	string	URL style used to access S3 bucket.
use_http_proxy	boolean	Use HTTP proxy when connecting to the object store.
used	integer	The amount of cloud space used by all the aggregates attached to the target, in bytes. This field is only populated for FabricPool targets. The value is recalculated once every 5 minutes.
uuid	string	Cloud target UUID

#### job\_link

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

#### error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments

Name	Type	Description
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

## Copyright information

Copyright © 2024 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

## Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.