



# Storage class

## Astra Automation

NetApp  
March 07, 2024

# Table of Contents

- Storage class ..... 1
  - Storage class overview ..... 1
  - List the storage classes for a cloud ..... 1
  - Retrieve a storage class for a cloud ..... 12
  - List the storage classes for a cluster ..... 20
  - Retrieve a storage class for a cluster ..... 31
  - List the storage classes for a managed cluster ..... 39
  - Retrieve a storage class for a managed cluster ..... 50

# Storage class

## Storage class overview

The Storage Class API describes storage classes known to a given cluster.

## List the storage classes for a cloud

GET

```
/accounts/{account_id}/topology/v1/clouds/{cloud_id}/clusters/{cluster_id}/storageClasses
```

Returns a JSON array of all matching resources in the collection. If individual fields are specified in the request, the items JSON array will contain the fields requested for each matching resource in the order specified.

### Parameters

Name	Type	In	Required	Description
account_id	string	path	True	ID of the containing account resource <ul style="list-style-type: none"><li>example: {{.Account}}</li></ul>
cloud_id	string	path	True	ID of the containing cloud resource
cluster_id	string	path	True	ID of the containing cluster resource
include	string	query	False	Indicates which fields should be returned when listing a collection.  URL examples: "include=id", "include=id,name"  OpenAPI examples: "id" <ul style="list-style-type: none"><li>example: id,name</li></ul>

Name	Type	In	Required	Description
limit	string	query	False	Indicates the maximum number of resources to return when listing a collection.  URL examples: "limit=2"  OpenAPI examples: "2"

## Response

Status: 200, Returns a JSON array of all matching resources in the collection. If individual fields are specified in the request, the items JSON array will contain the fields requested for each matching resource in the order specified.

Name	Type	Required	Description
items	array[Any of: <a href="#">storageClass_1.1_get_response_body</a> , array[]]	True	
metadata	<a href="#">type_astra_metadata_list</a>	True	

## Example response

```
{
  "type": "application/astra-storageClasses",
  "version": "1.1",
  "items": [
    [
      "e280ff62-be35-4f31-a31b-a210a1ad1b33",
      "my-storage-class"
    ],
    [
      "e8507dad-d33f-44b3-9c15-ec55ba6f6473",
      "standard"
    ]
  ],
  "metadata": {
    "labels": [],
    "creationTimestamp": "2022-10-06T20:58:16.305662Z",
    "modificationTimestamp": "2022-10-06T20:58:16.305662Z",
    "createdBy": "8f84cf09-8036-51e4-b579-bd30cb07b269"
  }
}
```

## Response

Status: 401, Unauthorized

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example response

```
{
  "type": "https://astra.netapp.io/problems/3",
  "title": "Missing bearer token",
  "detail": "The request is missing the required bearer token.",
  "status": "401"
}
```

### Response

Status: 400, Bad request

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	
invalidParams	array[invalidParams]	False	List of invalid query parameters

### Example response

```
{
  "type": "https://astra.netapp.io/problems/5",
  "title": "Invalid query parameters",
  "detail": "The supplied query parameters are invalid.",
  "status": "400"
}
```

### Response

Status: 403, Forbidden

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example response

```
{
  "type": "https://astra.netapp.io/problems/11",
  "title": "Operation not permitted",
  "detail": "The requested operation isn't permitted.",
  "status": "403"
}
```

### Error

Status: 404, Not found

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example error response

```
{
  "type": "https://astra.netapp.io/problems/2",
  "title": "Collection not found",
  "detail": "The collection specified in the request URI wasn't
found.",
  "status": "404"
}
```

# Definitions



## See Definitions

type\_astra\_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type\_astra\_metadata

Client and service-specified metadata associated with the resource. Defined values are:

- Conforms to the Astra Metadata Schema

Name	Type	Required	Description
labels	array[type_astra_label]	True	
creationTimestamp	string	True	
modificationTimestamp	string	True	
createdBy	string	True	
modifiedBy	string	False	

storageClass\_1.1\_get\_response\_body

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"><li>• "application/astra-storageClass"</li></ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"><li>• "1.0"</li><li>• "1.1"</li></ul>
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"><li>• Conforms to the UUIDv4 Schema</li></ul>

Name	Type	Required	Description
name	string	True	<p>JSON string containing a value indicating the name of the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
provisioner	string	True	<p>JSON string containing a value indicating the provisioner associated with the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
available	string	True	<p>JSON string indicating whether the storage class is available for the cluster or is eligible to be added to the cluster when under management. Defined values are:</p> <ul style="list-style-type: none"> <li>• "available" - The storage class is available for use</li> <li>• "eligible" - The storage class is eligible to be used by the cluster when it is under management</li> <li>• "ineligible" - The storage class is ineligible to be used by the cluster when it is under management</li> </ul>

Name	Type	Required	Description
allowVolumeExpansion	string	True	<p>JSON string indicating whether the storage class allows volume expansion. Defined values are:</p> <ul style="list-style-type: none"> <li>• "true" - The storage class allows volume expansion</li> <li>• "false" - The storage class does not allow volume expansion</li> <li>• "unavailable" - It is unknown whether the storage class allows volume expansion</li> </ul>
reclaimPolicy	string	True	<p>JSON string containing a cloud-specific value indicating the retention policy of the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
volumeBindingMode	string	True	<p>JSON string containing a cloud-specific value indicating the binding mode for the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
isDefault	string	False	<p>JSON string indicating whether the storage class contains the default annotation. Defined values are:</p> <ul style="list-style-type: none"> <li>• "true" - The storage class contains the default annotation</li> </ul>

Name	Type	Required	Description
maxSnapshotCount	number	False	JSON number indicating how many snapshots are supported. This information is attached to storage classes provided by NetApp.
maxBackupCount	number	False	JSON number indicating how many backups are supported. This information is attached to storage classes provided by NetApp.
price	string	False	JSON string indicating the currency units per unit of time for the storage class. This information is attached to storage classes provided by NetApp. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> </ul>
currency	string	False	JSON string indicating the ISO 4217 three-letter code for the currency that the price is measured in. This information is attached to storage classes provided by NetApp. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
performance	number	False	JSON number indicating the performance service-level objective (SLO) in MBps. This information is attached to storage classes provided by NetApp.

Name	Type	Required	Description
resilience	string	False	<p>JSON string indicating the resilience configuration for the storage. This information is attached to storage classes provided by NetApp. Defined values are:</p> <ul style="list-style-type: none"> <li>"regional" - The volume will become unavailable if a given region becomes unavailable</li> <li>"multisite" - The volume will continue to be available if a given region becomes unavailable</li> </ul>
metadata	<a href="#">type_astra_metadata</a>	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> <li>Conforms to the Astra Metadata Schema</li> </ul>

#### type\_astra\_metadata\_list

Name	Type	Required	Description
continue	string	False	
count	number	False	
labels	array[ <a href="#">type_astra_label</a> ]	False	
creationTimestamp	string	False	
modificationTimestamp	string	False	
createdBy	string	False	
modifiedBy	string	False	

#### invalidParams

Name	Type	Required	Description
name	string	True	Name of the invalid query parameter
reason	string	True	Reason why the query parameter is invalid

## Retrieve a storage class for a cloud

GET

/accounts/{account\_id}/topology/v1/clouds/{cloud\_id}/clusters/{cluster\_id}/storageClasses/{storageClass\_id}

Returns the stored Storage Class API resource in the JSON response body.

### Parameters

Name	Type	In	Required	Description
account_id	string	path	True	ID of the containing account resource  • example: {{.Account}}
cloud_id	string	path	True	ID of the containing cloud resource
cluster_id	string	path	True	ID of the containing cluster resource
storageClass_id	string	path	True	ID of the storageClass collection to list

### Response

Status: 200, Returns the stored Storage Class API resource in the JSON response body.

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"> <li>• "application/astra-storageClass"</li> </ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"> <li>• "1.0"</li> <li>• "1.1"</li> </ul>
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> <li>• Conforms to the UUIDv4 Schema</li> </ul>
name	string	True	JSON string containing a value indicating the name of the storage class. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
provisioner	string	True	JSON string containing a value indicating the provisioner associated with the storage class. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>

Name	Type	Required	Description
available	string	True	<p>JSON string indicating whether the storage class is available for the cluster or is eligible to be added to the cluster when under management. Defined values are:</p> <ul style="list-style-type: none"> <li>• "available" - The storage class is available for use</li> <li>• "eligible" - The storage class is eligible to be used by the cluster when it is under management</li> <li>• "ineligible" - The storage class is ineligible to be used by the cluster when it is under management</li> </ul>
allowVolumeExpansion	string	True	<p>JSON string indicating whether the storage class allows volume expansion. Defined values are:</p> <ul style="list-style-type: none"> <li>• "true" - The storage class allows volume expansion</li> <li>• "false" - The storage class does not allow volume expansion</li> <li>• "unavailable" - It is unknown whether the storage class allows volume expansion</li> </ul>
reclaimPolicy	string	True	<p>JSON string containing a cloud-specific value indicating the retention policy of the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>



Name	Type	Required	Description
volumeBindingMode	string	True	<p>JSON string containing a cloud-specific value indicating the binding mode for the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
isDefault	string	False	<p>JSON string indicating whether the storage class contains the default annotation. Defined values are:</p> <ul style="list-style-type: none"> <li>• "true" - The storage class contains the default annotation</li> </ul>
maxSnapshotCount	number	False	<p>JSON number indicating how many snapshots are supported. This information is attached to storage classes provided by NetApp.</p>
maxBackupCount	number	False	<p>JSON number indicating how many backups are supported. This information is attached to storage classes provided by NetApp.</p>
price	string	False	<p>JSON string indicating the currency units per unit of time for the storage class. This information is attached to storage classes provided by NetApp. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> </ul>

Name	Type	Required	Description
currency	string	False	<p>JSON string indicating the ISO 4217 three-letter code for the currency that the price is measured in. This information is attached to storage classes provided by NetApp. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
performance	number	False	<p>JSON number indicating the performance service-level objective (SLO) in MBps. This information is attached to storage classes provided by NetApp.</p>
resilience	string	False	<p>JSON string indicating the resilience configuration for the storage. This information is attached to storage classes provided by NetApp. Defined values are:</p> <ul style="list-style-type: none"> <li>• "regional" - The volume will become unavailable if a given region becomes unavailable</li> <li>• "multisite" - The volume will continue to be available if a given region becomes unavailable</li> </ul>
metadata	<a href="#">type_astra_metadata</a>	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Metadata Schema</li> </ul>

## Example response

```
{
  "type": "application/astra-storageClass",
  "version": "1.1",
  "id": "ad9be22b-53c7-540c-8647-76afe2878952",
  "name": "my-storage-class",
  "provisioner": "csi.trident.netapp.io",
  "available": "eligible",
  "allowVolumeExpansion": "true",
  "reclaimPolicy": "recycle",
  "volumeBindingMode": "immediate",
  "isDefault": "true",
  "metadata": {
    "labels": [],
    "creationTimestamp": "2022-10-06T20:58:16.305662Z",
    "modificationTimestamp": "2022-10-06T20:58:16.305662Z",
    "createdBy": "8f84cf09-8036-51e4-b579-bd30cb07b269"
  }
}
```

## Response

Status: 401, Unauthorized

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example response

```
{
  "type": "https://astra.netapp.io/problems/3",
  "title": "Missing bearer token",
  "detail": "The request is missing the required bearer token.",
  "status": "401"
}
```

### Response

Status: 400, Bad request

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	
invalidParams	array[invalidParams]	False	List of invalid query parameters

### Example response

```
{
  "type": "https://astra.netapp.io/problems/5",
  "title": "Invalid query parameters",
  "detail": "The supplied query parameters are invalid.",
  "status": "400"
}
```

### Response

Status: 403, Forbidden

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example response

```
{
  "type": "https://astra.netapp.io/problems/11",
  "title": "Operation not permitted",
  "detail": "The requested operation isn't permitted.",
  "status": "403"
}
```

### Error

Status: 404, Not found

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example error response

```
{
  "type": "https://astra.netapp.io/problems/2",
  "title": "Collection not found",
  "detail": "The collection specified in the request URI wasn't
found.",
  "status": "404"
}
```

## Definitions

### See Definitions

type\_astra\_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type\_astra\_metadata

Client and service-specified metadata associated with the resource. Defined values are:

- Conforms to the Astra Metadata Schema

Name	Type	Required	Description
labels	array[type_astra_label]	True	
creationTimestamp	string	True	
modificationTimestamp	string	True	
createdBy	string	True	
modifiedBy	string	False	

invalidParams

Name	Type	Required	Description
name	string	True	Name of the invalid query parameter
reason	string	True	Reason why the query parameter is invalid

## List the storage classes for a cluster

GET /accounts/{account\_id}/topology/v1/clusters/{cluster\_id}/storageClasses

Returns a JSON array of all matching resources in the collection. If individual fields are specified in the request, the items JSON array will contain the fields requested for each matching resource in the order specified.

### Parameters

Name	Type	In	Required	Description
account_id	string	path	True	ID of the containing account resource <ul style="list-style-type: none"> <li>example: <code>{{.Account}}</code></li> </ul>
cluster_id	string	path	True	ID of the containing cluster resource
include	string	query	False	Indicates which fields should be returned when listing a collection.  URL examples: "include=id", "include=id,name"  OpenAPI examples: "id"  • example: id,name
limit	string	query	False	Indicates the maximum number of resources to return when listing a collection.  URL examples: "limit=2"  OpenAPI examples: "2"

## Response

Status: 200, Returns a JSON array of all matching resources in the collection. If individual fields are specified in the request, the items JSON array will contain the fields requested for each matching resource in the order specified.

Name	Type	Required	Description
items	array[Any of: <a href="#">storageClass_1.1_get_response_body</a> , array[]]	True	

Name	Type	Required	Description
metadata	<a href="#">type_astra_metadata_list</a>	True	

### Example response

```
{
  "type": "application/astra-storageClasses",
  "version": "1.1",
  "items": [
    [
      "e280ff62-be35-4f31-a31b-a210a1ad1b33",
      "my-storage-class"
    ],
    [
      "e8507dad-d33f-44b3-9c15-ec55ba6f6473",
      "standard"
    ]
  ],
  "metadata": {
    "labels": [],
    "creationTimestamp": "2022-10-06T20:58:16.305662Z",
    "modificationTimestamp": "2022-10-06T20:58:16.305662Z",
    "createdBy": "8f84cf09-8036-51e4-b579-bd30cb07b269"
  }
}
```

### Response

Status: 401, Unauthorized

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	



### Example response

```
{
  "type": "https://astra.netapp.io/problems/3",
  "title": "Missing bearer token",
  "detail": "The request is missing the required bearer token.",
  "status": "401"
}
```

### Response

Status: 400, Bad request

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	
invalidParams	array[invalidParams]	False	List of invalid query parameters

### Example response

```
{
  "type": "https://astra.netapp.io/problems/5",
  "title": "Invalid query parameters",
  "detail": "The supplied query parameters are invalid.",
  "status": "400"
}
```

### Response

Status: 403, Forbidden

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example response

```
{
  "type": "https://astra.netapp.io/problems/11",
  "title": "Operation not permitted",
  "detail": "The requested operation isn't permitted.",
  "status": "403"
}
```

### Error

Status: 404, Not found

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example error response

```
{
  "type": "https://astra.netapp.io/problems/2",
  "title": "Collection not found",
  "detail": "The collection specified in the request URI wasn't
found.",
  "status": "404"
}
```

# Definitions

## See Definitions

### type\_astra\_label

Name	Type	Required	Description
name	string	True	
value	string	True	

### type\_astra\_metadata

Client and service-specified metadata associated with the resource. Defined values are:

- Conforms to the Astra Metadata Schema

Name	Type	Required	Description
labels	array[type_astra_label]	True	
creationTimestamp	string	True	
modificationTimestamp	string	True	
createdBy	string	True	
modifiedBy	string	False	

### storageClass\_1.1\_get\_response\_body

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"><li>• "application/astra-storageClass"</li></ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"><li>• "1.0"</li><li>• "1.1"</li></ul>
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"><li>• Conforms to the UUIDv4 Schema</li></ul>

Name	Type	Required	Description
name	string	True	<p>JSON string containing a value indicating the name of the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
provisioner	string	True	<p>JSON string containing a value indicating the provisioner associated with the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
available	string	True	<p>JSON string indicating whether the storage class is available for the cluster or is eligible to be added to the cluster when under management. Defined values are:</p> <ul style="list-style-type: none"> <li>• "available" - The storage class is available for use</li> <li>• "eligible" - The storage class is eligible to be used by the cluster when it is under management</li> <li>• "ineligible" - The storage class is ineligible to be used by the cluster when it is under management</li> </ul>

Name	Type	Required	Description
allowVolumeExpansion	string	True	<p>JSON string indicating whether the storage class allows volume expansion. Defined values are:</p> <ul style="list-style-type: none"> <li>• "true" - The storage class allows volume expansion</li> <li>• "false" - The storage class does not allow volume expansion</li> <li>• "unavailable" - It is unknown whether the storage class allows volume expansion</li> </ul>
reclaimPolicy	string	True	<p>JSON string containing a cloud-specific value indicating the retention policy of the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
volumeBindingMode	string	True	<p>JSON string containing a cloud-specific value indicating the binding mode for the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
isDefault	string	False	<p>JSON string indicating whether the storage class contains the default annotation. Defined values are:</p> <ul style="list-style-type: none"> <li>• "true" - The storage class contains the default annotation</li> </ul>

Name	Type	Required	Description
maxSnapshotCount	number	False	JSON number indicating how many snapshots are supported. This information is attached to storage classes provided by NetApp.
maxBackupCount	number	False	JSON number indicating how many backups are supported. This information is attached to storage classes provided by NetApp.
price	string	False	JSON string indicating the currency units per unit of time for the storage class. This information is attached to storage classes provided by NetApp. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> </ul>
currency	string	False	JSON string indicating the ISO 4217 three-letter code for the currency that the price is measured in. This information is attached to storage classes provided by NetApp. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
performance	number	False	JSON number indicating the performance service-level objective (SLO) in MBps. This information is attached to storage classes provided by NetApp.

Name	Type	Required	Description
resilience	string	False	<p>JSON string indicating the resilience configuration for the storage. This information is attached to storage classes provided by NetApp. Defined values are:</p> <ul style="list-style-type: none"> <li>• "regional" - The volume will become unavailable if a given region becomes unavailable</li> <li>• "multisite" - The volume will continue to be available if a given region becomes unavailable</li> </ul>
metadata	<a href="#">type_astra_metadata</a>	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Metadata Schema</li> </ul>

#### type\_astra\_metadata\_list

Name	Type	Required	Description
continue	string	False	
count	number	False	
labels	array[ <a href="#">type_astra_label</a> ]	False	
creationTimestamp	string	False	
modificationTimestamp	string	False	
createdBy	string	False	
modifiedBy	string	False	

#### invalidParams



Name	Type	Required	Description
name	string	True	Name of the invalid query parameter
reason	string	True	Reason why the query parameter is invalid

## Retrieve a storage class for a cluster

GET

/accounts/{account\_id}/topology/v1/clusters/{cluster\_id}/storageClasses/{storageClass\_id}

Returns the stored Storage Class API resource in the JSON response body.

### Parameters

Name	Type	In	Required	Description
account_id	string	path	True	ID of the containing account resource <ul style="list-style-type: none"> <li>example: <code>{{.Account}}</code></li> </ul>
cluster_id	string	path	True	ID of the containing cluster resource
storageClass_id	string	path	True	ID of the storageClass collection to list

### Response

Status: 200, Returns the stored Storage Class API resource in the JSON response body.

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"> <li>"application/astra-storageClass"</li> </ul>

Name	Type	Required	Description
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"> <li>• "1.0"</li> <li>• "1.1"</li> </ul>
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> <li>• Conforms to the UUIDv4 Schema</li> </ul>
name	string	True	JSON string containing a value indicating the name of the storage class. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
provisioner	string	True	JSON string containing a value indicating the provisioner associated with the storage class. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>

Name	Type	Required	Description
available	string	True	<p>JSON string indicating whether the storage class is available for the cluster or is eligible to be added to the cluster when under management. Defined values are:</p> <ul style="list-style-type: none"> <li>• "available" - The storage class is available for use</li> <li>• "eligible" - The storage class is eligible to be used by the cluster when it is under management</li> <li>• "ineligible" - The storage class is ineligible to be used by the cluster when it is under management</li> </ul>
allowVolumeExpansion	string	True	<p>JSON string indicating whether the storage class allows volume expansion. Defined values are:</p> <ul style="list-style-type: none"> <li>• "true" - The storage class allows volume expansion</li> <li>• "false" - The storage class does not allow volume expansion</li> <li>• "unavailable" - It is unknown whether the storage class allows volume expansion</li> </ul>
reclaimPolicy	string	True	<p>JSON string containing a cloud-specific value indicating the retention policy of the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>

Name	Type	Required	Description
volumeBindingMode	string	True	JSON string containing a cloud-specific value indicating the binding mode for the storage class. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
isDefault	string	False	JSON string indicating whether the storage class contains the default annotation. Defined values are: <ul style="list-style-type: none"> <li>• "true" - The storage class contains the default annotation</li> </ul>
maxSnapshotCount	number	False	JSON number indicating how many snapshots are supported. This information is attached to storage classes provided by NetApp.
maxBackupCount	number	False	JSON number indicating how many backups are supported. This information is attached to storage classes provided by NetApp.
price	string	False	JSON string indicating the currency units per unit of time for the storage class. This information is attached to storage classes provided by NetApp. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> </ul>

Name	Type	Required	Description
currency	string	False	<p>JSON string indicating the ISO 4217 three-letter code for the currency that the price is measured in. This information is attached to storage classes provided by NetApp. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
performance	number	False	<p>JSON number indicating the performance service-level objective (SLO) in MBps. This information is attached to storage classes provided by NetApp.</p>
resilience	string	False	<p>JSON string indicating the resilience configuration for the storage. This information is attached to storage classes provided by NetApp. Defined values are:</p> <ul style="list-style-type: none"> <li>• "regional" - The volume will become unavailable if a given region becomes unavailable</li> <li>• "multisite" - The volume will continue to be available if a given region becomes unavailable</li> </ul>
metadata	<a href="#">type_astra_metadata</a>	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Metadata Schema</li> </ul>

## Example response

```
{
  "type": "application/astra-storageClass",
  "version": "1.1",
  "id": "ad9be22b-53c7-540c-8647-76afe2878952",
  "name": "my-storage-class",
  "provisioner": "csi.trident.netapp.io",
  "available": "eligible",
  "allowVolumeExpansion": "true",
  "reclaimPolicy": "recycle",
  "volumeBindingMode": "immediate",
  "isDefault": "true",
  "metadata": {
    "labels": [],
    "creationTimestamp": "2022-10-06T20:58:16.305662Z",
    "modificationTimestamp": "2022-10-06T20:58:16.305662Z",
    "createdBy": "8f84cf09-8036-51e4-b579-bd30cb07b269"
  }
}
```

## Response

Status: 401, Unauthorized

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example response

```
{
  "type": "https://astra.netapp.io/problems/3",
  "title": "Missing bearer token",
  "detail": "The request is missing the required bearer token.",
  "status": "401"
}
```

### Response

Status: 400, Bad request

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	
invalidParams	array[invalidParams]	False	List of invalid query parameters

### Example response

```
{
  "type": "https://astra.netapp.io/problems/5",
  "title": "Invalid query parameters",
  "detail": "The supplied query parameters are invalid.",
  "status": "400"
}
```

### Response

Status: 403, Forbidden

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example response

```
{
  "type": "https://astra.netapp.io/problems/11",
  "title": "Operation not permitted",
  "detail": "The requested operation isn't permitted.",
  "status": "403"
}
```

### Error

Status: 404, Not found

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example error response

```
{
  "type": "https://astra.netapp.io/problems/2",
  "title": "Collection not found",
  "detail": "The collection specified in the request URI wasn't
found.",
  "status": "404"
}
```



## Definitions

### See Definitions

type\_astra\_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type\_astra\_metadata

Client and service-specified metadata associated with the resource. Defined values are:

- Conforms to the Astra Metadata Schema

Name	Type	Required	Description
labels	array[type_astra_label]	True	
creationTimestamp	string	True	
modificationTimestamp	string	True	
createdBy	string	True	
modifiedBy	string	False	

invalidParams

Name	Type	Required	Description
name	string	True	Name of the invalid query parameter
reason	string	True	Reason why the query parameter is invalid

## List the storage classes for a managed cluster

GET

/accounts/{account\_id}/topology/v1/managedClusters/{managedCluster\_id}/storageClasses

Returns a JSON array of all matching resources in the collection. If individual fields are specified in the request, the items JSON array will contain the fields requested for each matching resource in the order specified.

### Parameters

Name	Type	In	Required	Description
account_id	string	path	True	ID of the containing account resource  • example: {{.Account}}
managedCluster_id	string	path	True	ID of the containing managedCluster resource
include	string	query	False	Indicates which fields should be returned when listing a collection.  URL examples: "include=id", "include=id,name"  OpenAPI examples: "id"  • example: id,name
limit	string	query	False	Indicates the maximum number of resources to return when listing a collection.  URL examples: "limit=2"  OpenAPI examples: "2"

## Response

Status: 200, Returns a JSON array of all matching resources in the collection. If individual fields are specified in the request, the items JSON array will contain the fields requested for each matching resource in the order specified.

Name	Type	Required	Description
items	array[Any of: <a href="#">storageClass_1.1_get_response_body</a> , array[]]	True	
metadata	<a href="#">type_astra_metadata_list</a>	True	

### Example response

```
{
  "type": "application/astra-storageClasses",
  "version": "1.1",
  "items": [
    [
      "e280ff62-be35-4f31-a31b-a210a1ad1b33",
      "my-storage-class"
    ],
    [
      "e8507dad-d33f-44b3-9c15-ec55ba6f6473",
      "standard"
    ]
  ],
  "metadata": {
    "labels": [],
    "creationTimestamp": "2022-10-06T20:58:16.305662Z",
    "modificationTimestamp": "2022-10-06T20:58:16.305662Z",
    "createdBy": "8f84cf09-8036-51e4-b579-bd30cb07b269"
  }
}
```

### Response

Status: 401, Unauthorized

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

## Example response

```
{
  "type": "https://astra.netapp.io/problems/3",
  "title": "Missing bearer token",
  "detail": "The request is missing the required bearer token.",
  "status": "401"
}
```

## Response

Status: 400, Bad request

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	
invalidParams	array[invalidParams]	False	List of invalid query parameters

## Example response

```
{
  "type": "https://astra.netapp.io/problems/5",
  "title": "Invalid query parameters",
  "detail": "The supplied query parameters are invalid.",
  "status": "400"
}
```

## Response

Status: 403, Forbidden

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example response

```
{
  "type": "https://astra.netapp.io/problems/11",
  "title": "Operation not permitted",
  "detail": "The requested operation isn't permitted.",
  "status": "403"
}
```

### Error

Status: 404, Not found

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example error response

```
{
  "type": "https://astra.netapp.io/problems/2",
  "title": "Collection not found",
  "detail": "The collection specified in the request URI wasn't
found.",
  "status": "404"
}
```

# Definitions

## See Definitions

### type\_astra\_label

Name	Type	Required	Description
name	string	True	
value	string	True	

### type\_astra\_metadata

Client and service-specified metadata associated with the resource. Defined values are:

- Conforms to the Astra Metadata Schema

Name	Type	Required	Description
labels	array[type_astra_label]	True	
creationTimestamp	string	True	
modificationTimestamp	string	True	
createdBy	string	True	
modifiedBy	string	False	

### storageClass\_1.1\_get\_response\_body

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"><li>• "application/astra-storageClass"</li></ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"><li>• "1.0"</li><li>• "1.1"</li></ul>
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"><li>• Conforms to the UUIDv4 Schema</li></ul>

Name	Type	Required	Description
name	string	True	<p>JSON string containing a value indicating the name of the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
provisioner	string	True	<p>JSON string containing a value indicating the provisioner associated with the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
available	string	True	<p>JSON string indicating whether the storage class is available for the cluster or is eligible to be added to the cluster when under management. Defined values are:</p> <ul style="list-style-type: none"> <li>• "available" - The storage class is available for use</li> <li>• "eligible" - The storage class is eligible to be used by the cluster when it is under management</li> <li>• "ineligible" - The storage class is ineligible to be used by the cluster when it is under management</li> </ul>



Name	Type	Required	Description
allowVolumeExpansion	string	True	<p>JSON string indicating whether the storage class allows volume expansion. Defined values are:</p> <ul style="list-style-type: none"> <li>• "true" - The storage class allows volume expansion</li> <li>• "false" - The storage class does not allow volume expansion</li> <li>• "unavailable" - It is unknown whether the storage class allows volume expansion</li> </ul>
reclaimPolicy	string	True	<p>JSON string containing a cloud-specific value indicating the retention policy of the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
volumeBindingMode	string	True	<p>JSON string containing a cloud-specific value indicating the binding mode for the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
isDefault	string	False	<p>JSON string indicating whether the storage class contains the default annotation. Defined values are:</p> <ul style="list-style-type: none"> <li>• "true" - The storage class contains the default annotation</li> </ul>

Name	Type	Required	Description
maxSnapshotCount	number	False	JSON number indicating how many snapshots are supported. This information is attached to storage classes provided by NetApp.
maxBackupCount	number	False	JSON number indicating how many backups are supported. This information is attached to storage classes provided by NetApp.
price	string	False	JSON string indicating the currency units per unit of time for the storage class. This information is attached to storage classes provided by NetApp. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> </ul>
currency	string	False	JSON string indicating the ISO 4217 three-letter code for the currency that the price is measured in. This information is attached to storage classes provided by NetApp. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
performance	number	False	JSON number indicating the performance service-level objective (SLO) in MBps. This information is attached to storage classes provided by NetApp.

Name	Type	Required	Description
resilience	string	False	<p>JSON string indicating the resilience configuration for the storage. This information is attached to storage classes provided by NetApp. Defined values are:</p> <ul style="list-style-type: none"> <li>"regional" - The volume will become unavailable if a given region becomes unavailable</li> <li>"multisite" - The volume will continue to be available if a given region becomes unavailable</li> </ul>
metadata	<a href="#">type_astra_metadata</a>	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> <li>Conforms to the Astra Metadata Schema</li> </ul>

#### type\_astra\_metadata\_list

Name	Type	Required	Description
continue	string	False	
count	number	False	
labels	array[ <a href="#">type_astra_label</a> ]	False	
creationTimestamp	string	False	
modificationTimestamp	string	False	
createdBy	string	False	
modifiedBy	string	False	

#### invalidParams

Name	Type	Required	Description
name	string	True	Name of the invalid query parameter
reason	string	True	Reason why the query parameter is invalid

## Retrieve a storage class for a managed cluster

GET

/accounts/{account\_id}/topology/v1/managedClusters/{managedCluster\_id}/storageClasses/{storageClass\_id}

Returns the stored Storage Class API resource in the JSON response body.

### Parameters

Name	Type	In	Required	Description
account_id	string	path	True	ID of the containing account resource  • example: {{.Account}}
managedCluster_id	string	path	True	ID of the containing managedCluster resource
storageClass_id	string	path	True	ID of the storageClass collection to list

### Response

Status: 200, Returns the stored Storage Class API resource in the JSON response body.

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"> <li>• "application/astra-storageClass"</li> </ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"> <li>• "1.0"</li> <li>• "1.1"</li> </ul>
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> <li>• Conforms to the UUIDv4 Schema</li> </ul>
name	string	True	JSON string containing a value indicating the name of the storage class. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
provisioner	string	True	JSON string containing a value indicating the provisioner associated with the storage class. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>

Name	Type	Required	Description
available	string	True	<p>JSON string indicating whether the storage class is available for the cluster or is eligible to be added to the cluster when under management. Defined values are:</p> <ul style="list-style-type: none"> <li>• "available" - The storage class is available for use</li> <li>• "eligible" - The storage class is eligible to be used by the cluster when it is under management</li> <li>• "ineligible" - The storage class is ineligible to be used by the cluster when it is under management</li> </ul>
allowVolumeExpansion	string	True	<p>JSON string indicating whether the storage class allows volume expansion. Defined values are:</p> <ul style="list-style-type: none"> <li>• "true" - The storage class allows volume expansion</li> <li>• "false" - The storage class does not allow volume expansion</li> <li>• "unavailable" - It is unknown whether the storage class allows volume expansion</li> </ul>
reclaimPolicy	string	True	<p>JSON string containing a cloud-specific value indicating the retention policy of the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>

Name	Type	Required	Description
volumeBindingMode	string	True	<p>JSON string containing a cloud-specific value indicating the binding mode for the storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
isDefault	string	False	<p>JSON string indicating whether the storage class contains the default annotation. Defined values are:</p> <ul style="list-style-type: none"> <li>• "true" - The storage class contains the default annotation</li> </ul>
maxSnapshotCount	number	False	<p>JSON number indicating how many snapshots are supported. This information is attached to storage classes provided by NetApp.</p>
maxBackupCount	number	False	<p>JSON number indicating how many backups are supported. This information is attached to storage classes provided by NetApp.</p>
price	string	False	<p>JSON string indicating the currency units per unit of time for the storage class. This information is attached to storage classes provided by NetApp. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> </ul>

Name	Type	Required	Description
currency	string	False	<p>JSON string indicating the ISO 4217 three-letter code for the currency that the price is measured in. This information is attached to storage classes provided by NetApp. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 255</li> </ul>
performance	number	False	<p>JSON number indicating the performance service-level objective (SLO) in MBps. This information is attached to storage classes provided by NetApp.</p>
resilience	string	False	<p>JSON string indicating the resilience configuration for the storage. This information is attached to storage classes provided by NetApp. Defined values are:</p> <ul style="list-style-type: none"> <li>• "regional" - The volume will become unavailable if a given region becomes unavailable</li> <li>• "multisite" - The volume will continue to be available if a given region becomes unavailable</li> </ul>
metadata	<a href="#">type_astra_metadata</a>	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Metadata Schema</li> </ul>



## Example response

```
{
  "type": "application/astra-storageClass",
  "version": "1.1",
  "id": "ad9be22b-53c7-540c-8647-76afe2878952",
  "name": "my-storage-class",
  "provisioner": "csi.trident.netapp.io",
  "available": "eligible",
  "allowVolumeExpansion": "true",
  "reclaimPolicy": "recycle",
  "volumeBindingMode": "immediate",
  "isDefault": "true",
  "metadata": {
    "labels": [],
    "creationTimestamp": "2022-10-06T20:58:16.305662Z",
    "modificationTimestamp": "2022-10-06T20:58:16.305662Z",
    "createdBy": "8f84cf09-8036-51e4-b579-bd30cb07b269"
  }
}
```

## Response

Status: 401, Unauthorized

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example response

```
{
  "type": "https://astra.netapp.io/problems/3",
  "title": "Missing bearer token",
  "detail": "The request is missing the required bearer token.",
  "status": "401"
}
```

### Response

Status: 400, Bad request

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	
invalidParams	array[invalidParams]	False	List of invalid query parameters

### Example response

```
{
  "type": "https://astra.netapp.io/problems/5",
  "title": "Invalid query parameters",
  "detail": "The supplied query parameters are invalid.",
  "status": "400"
}
```

### Response

Status: 403, Forbidden

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example response

```
{
  "type": "https://astra.netapp.io/problems/11",
  "title": "Operation not permitted",
  "detail": "The requested operation isn't permitted.",
  "status": "403"
}
```

### Error

Status: 404, Not found

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	

### Example error response

```
{
  "type": "https://astra.netapp.io/problems/2",
  "title": "Collection not found",
  "detail": "The collection specified in the request URI wasn't
found.",
  "status": "404"
}
```

## Definitions

### See Definitions

type\_astra\_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type\_astra\_metadata

Client and service-specified metadata associated with the resource. Defined values are:

- Conforms to the Astra Metadata Schema

Name	Type	Required	Description
labels	array[type_astra_label]	True	
creationTimestamp	string	True	
modificationTimestamp	string	True	
createdBy	string	True	
modifiedBy	string	False	

invalidParams

Name	Type	Required	Description
name	string	True	Name of the invalid query parameter
reason	string	True	Reason why the query parameter is invalid

## 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.