



Cluster node

Astra Automation

NetApp
February 12, 2024

Table of Contents

- Cluster node 1
 - Cluster node overview 1
 - List the cluster nodes for a cloud 1
 - Retrieve a cluster node for a cloud 12
 - List the cluster nodes for a cluster 22
 - Retrieve a cluster node for a cluster 33
 - List the cluster nodes for a managed cluster 43
 - Retrieve a cluster node for a managed cluster 54

Cluster node

Cluster node overview

The Cluster Node API provides CRUD (Create-Read-Update-Delete) access to clusterNode resources in order to provide access to the nodes associated with a cluster.

List the cluster nodes for a cloud

GET

/accounts/{account_id}/topology/v1/clouds/{cloud_id}/clusters/{cluster_id}/clusterNodes

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">example: <code>{{.Account}}</code>
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">example: <code>name,instanceType</code>

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: clusterNode_1.0_get_response_body , array[]]	True	
metadata	type_astra_metadata_list	True	

Example response

```
{
  "type": "application/astra-clusterNodes",
  "version": "1.0",
  "items": [
    [
      "test-0",
      "e2-medium"
    ],
    [
      "test-1",
      "e2-medium"
    ],
    [
      "test-2",
      "e2-medium"
    ],
    [
      "test-3",
      "e2-micro"
    ]
  ],
  "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	False	
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	False	
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	False	
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	False	
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

labels

Name	Type	Required	Description
name	string	True	JSON string containing the label name Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Defined regex is: "<code>^([\S.]{1,253}V)?([a-z0-9A-Z_-]){1,63}\$</code>"
value	string	True	JSON string containing the label value Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Defined regex is: "<code>^[a-z0-9A-Z_-]{1,63}\$</code>"

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	

clusterNode_1.0_get_response_body

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"> "application/astra-clusterNode"
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"> "1.0"
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> Conforms to the UUIDv4 Schema
name	string	True	JSON string containing a value that indicates the Kubernetes name for the node. Defined values are: <ul style="list-style-type: none"> Minimum length: 1 Maximum length: 254
role	string	True	JSON string containing a value that indicates the Kubernetes role for the node. Defined values are: <ul style="list-style-type: none"> Minimum length: 1 Maximum length: 254
labels	array[labels]	True	JSON array of JSON objects, each containing Kubernetes labels associated with the node. If no details are available, this array will be empty. <ul style="list-style-type: none"> Minimum items: 0

Name	Type	Required	Description
creationTime	string	True	JSON string containing an ISO 8601 timestamp that indicates when the node was created. Defined values are: <ul style="list-style-type: none"> • Conforms to the ISO-8601 Date Time Schema
externalIP	string	True	JSON string containing a value that indicates the internal IP address for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
internalIP	string	True	JSON string containing a value that indicates the external IP address for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
zone	string	True	JSON string containing a value that indicates the Kubernetes zone for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
region	string	True	JSON string containing a value that indicates the Kubernetes region for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254

Name	Type	Required	Description
instanceType	string	True	<p>JSON string containing a value that indicates the Kubernetes instance type for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
kernelVersion	string	True	<p>JSON string containing a value that indicates the kernel version used by the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
osImage	string	True	<p>JSON string containing a value that indicates the operating system image used by the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
numCpus	string	True	<p>JSON string containing a value that indicates the number of CPUs assigned to the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254

Name	Type	Required	Description
memory	string	True	<p>JSON string containing a value that indicates the amount of memory assigned to the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
state	string	True	<p>JSON string containing a value indicating the operational state of the node. Defined values are:</p> <ul style="list-style-type: none"> • "running" - The node is running normally • "provisioning" - The node is in the process of being provisioned • "discovering" - Aspects of the node are in the process of being discovered • "pending" - The node is scheduled for discovery • "failed" - The node is in a failure state • "unknown" - The state of the node cannot be determined
metadata	type_astra_metadata	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Metadata Schema

[type_astra_metadata_list](#)

Name	Type	Required	Description
continue	string	False	
count	number	False	
labels	array[type_astra_label]	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 cluster node for a cloud

GET

/accounts/{account_id}/topology/v1/clouds/{cloud_id}/clusters/{cluster_id}/clusterNodes/{clusterNode_id}

Returns the stored Cluster Node 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

Name	Type	In	Required	Description
clusterNode_id	string	path	True	ID of the clusterNode collection to list

Response

Status: 200, Returns the stored Cluster Node 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"> "application/astra-clusterNode"
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"> "1.0"
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> Conforms to the UUIDv4 Schema
name	string	True	JSON string containing a value that indicates the Kubernetes name for the node. Defined values are: <ul style="list-style-type: none"> Minimum length: 1 Maximum length: 254
role	string	True	JSON string containing a value that indicates the Kubernetes role for the node. Defined values are: <ul style="list-style-type: none"> Minimum length: 1 Maximum length: 254

Name	Type	Required	Description
labels	array[labels]	True	<p>JSON array of JSON objects, each containing Kubernetes labels associated with the node. If no details are available, this array will be empty.</p> <ul style="list-style-type: none"> • Minimum items: 0
creationTime	string	True	<p>JSON string containing an ISO 8601 timestamp that indicates when the node was created. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the ISO-8601 Date Time Schema
externalIP	string	True	<p>JSON string containing a value that indicates the internal IP address for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
internalIP	string	True	<p>JSON string containing a value that indicates the external IP address for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
zone	string	True	<p>JSON string containing a value that indicates the Kubernetes zone for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254

Name	Type	Required	Description
region	string	True	JSON string containing a value that indicates the Kubernetes region for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
instanceType	string	True	JSON string containing a value that indicates the Kubernetes instance type for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
kernelVersion	string	True	JSON string containing a value that indicates the kernel version used by the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
osImage	string	True	JSON string containing a value that indicates the operating system image used by the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
numCpus	string	True	JSON string containing a value that indicates the number of CPUs assigned to the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254

Name	Type	Required	Description
memory	string	True	<p>JSON string containing a value that indicates the amount of memory assigned to the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
state	string	True	<p>JSON string containing a value indicating the operational state of the node. Defined values are:</p> <ul style="list-style-type: none"> • "running" - The node is running normally • "provisioning" - The node is in the process of being provisioned • "discovering" - Aspects of the node are in the process of being discovered • "pending" - The node is scheduled for discovery • "failed" - The node is in a failure state • "unknown" - The state of the node cannot be determined
metadata	type_astra_metadata	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Metadata Schema

Example response

```
{
  "type": "application/astra-clusterNode",
  "version": "1.0",
  "id": "5df0e09f-2c30-5b8a-b6b6-4fb4063525e4",
  "name": "test-0",
  "role": "node-role.kubernetes.io/worker",
  "labels": [],
  "creationTime": "2020-09-06T04:35:23.593845Z",
  "externalIP": "192.168.12.44",
  "internalIP": "10.0.1.1",
  "zone": "us-west1-c",
  "region": "us-east1",
  "instanceType": "e2-medium",
  "kernelVersion": "4.18.0-147.0.3.el8_1.x86_64",
  "osImage": "Red Hat Enterprise Linux CoreOS 42.81.20191203.0",
  "numCpus": "2",
  "memory": "67108864Ki",
  "state": "running",
  "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	False	
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	False	
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	False	
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	False	
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

labels

Name	Type	Required	Description
name	string	True	JSON string containing the label name Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Defined regex is: "<code>^[\\S.]{1,253}V?([a-z0-9A-Z_-.]){1,63}\$</code>"
value	string	True	JSON string containing the label value Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Defined regex is: "<code>^[a-z0-9A-Z_-.]{1,63}\$</code>"

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 cluster nodes for a cluster

GET /accounts/{account_id}/topology/v1/clusters/{cluster_id}/clusterNodes

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"> example: <code>{{.Account}}</code>
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. <p>URL examples: "include=id", "include=id,name"</p> <p>OpenAPI examples: "id"</p> <ul style="list-style-type: none"> example: <code>name,instanceType</code>

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: clusterNode_1.0_get_response_body , array[]]	True	
metadata	type_astra_metadata_list	True	

Example response

```
{
  "type": "application/astra-clusterNodes",
  "version": "1.0",
  "items": [
    [
      "test-0",
      "e2-medium"
    ],
    [
      "test-1",
      "e2-medium"
    ],
    [
      "test-2",
      "e2-medium"
    ],
    [
      "test-3",
      "e2-micro"
    ]
  ],
  "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	False	
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	False	
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	False	
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	False	
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

labels

Name	Type	Required	Description
name	string	True	JSON string containing the label name Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Defined regex is: "<code>^[\\S.]{1,253}V?([a-z0-9A-Z_-]){1,63}\$</code>"
value	string	True	JSON string containing the label value Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Defined regex is: "<code>^[a-z0-9A-Z_-]{1,63}\$</code>"

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	

clusterNode_1.0_get_response_body

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"> "application/astra-clusterNode"
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"> "1.0"
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> Conforms to the UUIDv4 Schema
name	string	True	JSON string containing a value that indicates the Kubernetes name for the node. Defined values are: <ul style="list-style-type: none"> Minimum length: 1 Maximum length: 254
role	string	True	JSON string containing a value that indicates the Kubernetes role for the node. Defined values are: <ul style="list-style-type: none"> Minimum length: 1 Maximum length: 254
labels	array[labels]	True	JSON array of JSON objects, each containing Kubernetes labels associated with the node. If no details are available, this array will be empty. <ul style="list-style-type: none"> Minimum items: 0

Name	Type	Required	Description
creationTime	string	True	JSON string containing an ISO 8601 timestamp that indicates when the node was created. Defined values are: <ul style="list-style-type: none"> • Conforms to the ISO-8601 Date Time Schema
externalIP	string	True	JSON string containing a value that indicates the internal IP address for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
internalIP	string	True	JSON string containing a value that indicates the external IP address for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
zone	string	True	JSON string containing a value that indicates the Kubernetes zone for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
region	string	True	JSON string containing a value that indicates the Kubernetes region for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254

Name	Type	Required	Description
instanceType	string	True	<p>JSON string containing a value that indicates the Kubernetes instance type for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
kernelVersion	string	True	<p>JSON string containing a value that indicates the kernel version used by the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
osImage	string	True	<p>JSON string containing a value that indicates the operating system image used by the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
numCpus	string	True	<p>JSON string containing a value that indicates the number of CPUs assigned to the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254

Name	Type	Required	Description
memory	string	True	<p>JSON string containing a value that indicates the amount of memory assigned to the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
state	string	True	<p>JSON string containing a value indicating the operational state of the node. Defined values are:</p> <ul style="list-style-type: none"> • "running" - The node is running normally • "provisioning" - The node is in the process of being provisioned • "discovering" - Aspects of the node are in the process of being discovered • "pending" - The node is scheduled for discovery • "failed" - The node is in a failure state • "unknown" - The state of the node cannot be determined
metadata	type_astra_metadata	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Metadata Schema

[type_astra_metadata_list](#)

Name	Type	Required	Description
continue	string	False	
count	number	False	
labels	array[type_astra_label]	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 cluster node for a cluster

GET

/accounts/{account_id}/topology/v1/clusters/{cluster_id}/clusterNodes/{clusterNode_id}

Returns the stored Cluster Node 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}}
cluster_id	string	path	True	ID of the containing cluster resource
clusterNode_id	string	path	True	ID of the clusterNode collection to list

Response

Status: 200, Returns the stored Cluster Node 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">• "application/astra-clusterNode"
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none">• "1.0"
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none">• Conforms to the UUIDv4 Schema
name	string	True	JSON string containing a value that indicates the Kubernetes name for the node. Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 254
role	string	True	JSON string containing a value that indicates the Kubernetes role for the node. Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 254

Name	Type	Required	Description
labels	array[labels]	True	<p>JSON array of JSON objects, each containing Kubernetes labels associated with the node. If no details are available, this array will be empty.</p> <ul style="list-style-type: none"> • Minimum items: 0
creationTime	string	True	<p>JSON string containing an ISO 8601 timestamp that indicates when the node was created. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the ISO-8601 Date Time Schema
externalIP	string	True	<p>JSON string containing a value that indicates the internal IP address for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
internalIP	string	True	<p>JSON string containing a value that indicates the external IP address for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
zone	string	True	<p>JSON string containing a value that indicates the Kubernetes zone for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254

Name	Type	Required	Description
region	string	True	JSON string containing a value that indicates the Kubernetes region for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
instanceType	string	True	JSON string containing a value that indicates the Kubernetes instance type for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
kernelVersion	string	True	JSON string containing a value that indicates the kernel version used by the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
osImage	string	True	JSON string containing a value that indicates the operating system image used by the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
numCpus	string	True	JSON string containing a value that indicates the number of CPUs assigned to the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254

Name	Type	Required	Description
memory	string	True	<p>JSON string containing a value that indicates the amount of memory assigned to the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
state	string	True	<p>JSON string containing a value indicating the operational state of the node. Defined values are:</p> <ul style="list-style-type: none"> • "running" - The node is running normally • "provisioning" - The node is in the process of being provisioned • "discovering" - Aspects of the node are in the process of being discovered • "pending" - The node is scheduled for discovery • "failed" - The node is in a failure state • "unknown" - The state of the node cannot be determined
metadata	type_astra_metadata	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Metadata Schema

Example response

```
{
  "type": "application/astra-clusterNode",
  "version": "1.0",
  "id": "5df0e09f-2c30-5b8a-b6b6-4fb4063525e4",
  "name": "test-0",
  "role": "node-role.kubernetes.io/worker",
  "labels": [],
  "creationTime": "2020-09-06T04:35:23.593845Z",
  "externalIP": "192.168.12.44",
  "internalIP": "10.0.1.1",
  "zone": "us-west1-c",
  "region": "us-east1",
  "instanceType": "e2-medium",
  "kernelVersion": "4.18.0-147.0.3.el8_1.x86_64",
  "osImage": "Red Hat Enterprise Linux CoreOS 42.81.20191203.0",
  "numCpus": "2",
  "memory": "67108864Ki",
  "state": "running",
  "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	False	
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	False	
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	False	
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	False	
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

labels

Name	Type	Required	Description
name	string	True	JSON string containing the label name Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Defined regex is: "<code>^([\S.]{1,253}V)?([a-z0-9A-Z_-.]){1,63}\$</code>"
value	string	True	JSON string containing the label value Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Defined regex is: "<code>^[a-z0-9A-Z_-.]{1,63}\$</code>"

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 cluster nodes for a managed cluster

GET

/accounts/{account_id}/topology/v1/managedClusters/{managedCluster_id}/clusterNodes

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"> example: <code>{{.Account}}</code>
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. <p>URL examples: "include=id", "include=id,name"</p> <p>OpenAPI examples: "id"</p> <ul style="list-style-type: none"> example: <code>name,instanceType</code>

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: clusterNode_1.0_get_response_body , array[]]	True	
metadata	type_astra_metadata_list	True	

Example response

```
{
  "type": "application/astra-clusterNodes",
  "version": "1.0",
  "items": [
    [
      "test-0",
      "e2-medium"
    ],
    [
      "test-1",
      "e2-medium"
    ],
    [
      "test-2",
      "e2-medium"
    ],
    [
      "test-3",
      "e2-micro"
    ]
  ],
  "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	False	
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	False	
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	False	
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	False	
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

labels

Name	Type	Required	Description
name	string	True	JSON string containing the label name Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Defined regex is: "<code>^([\S.]{1,253}V)?([a-z0-9A-Z_-]){1,63}\$</code>"
value	string	True	JSON string containing the label value Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Defined regex is: "<code>^[a-z0-9A-Z_-]{1,63}\$</code>"

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	

clusterNode_1.0_get_response_body

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"> "application/astra-clusterNode"
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"> "1.0"
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> Conforms to the UUIDv4 Schema
name	string	True	JSON string containing a value that indicates the Kubernetes name for the node. Defined values are: <ul style="list-style-type: none"> Minimum length: 1 Maximum length: 254
role	string	True	JSON string containing a value that indicates the Kubernetes role for the node. Defined values are: <ul style="list-style-type: none"> Minimum length: 1 Maximum length: 254
labels	array[labels]	True	JSON array of JSON objects, each containing Kubernetes labels associated with the node. If no details are available, this array will be empty. <ul style="list-style-type: none"> Minimum items: 0

Name	Type	Required	Description
creationTime	string	True	JSON string containing an ISO 8601 timestamp that indicates when the node was created. Defined values are: <ul style="list-style-type: none"> • Conforms to the ISO-8601 Date Time Schema
externalIP	string	True	JSON string containing a value that indicates the internal IP address for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
internalIP	string	True	JSON string containing a value that indicates the external IP address for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
zone	string	True	JSON string containing a value that indicates the Kubernetes zone for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
region	string	True	JSON string containing a value that indicates the Kubernetes region for the node. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254

Name	Type	Required	Description
instanceType	string	True	<p>JSON string containing a value that indicates the Kubernetes instance type for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
kernelVersion	string	True	<p>JSON string containing a value that indicates the kernel version used by the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
osImage	string	True	<p>JSON string containing a value that indicates the operating system image used by the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
numCpus	string	True	<p>JSON string containing a value that indicates the number of CPUs assigned to the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254

Name	Type	Required	Description
memory	string	True	<p>JSON string containing a value that indicates the amount of memory assigned to the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
state	string	True	<p>JSON string containing a value indicating the operational state of the node. Defined values are:</p> <ul style="list-style-type: none"> • "running" - The node is running normally • "provisioning" - The node is in the process of being provisioned • "discovering" - Aspects of the node are in the process of being discovered • "pending" - The node is scheduled for discovery • "failed" - The node is in a failure state • "unknown" - The state of the node cannot be determined
metadata	type_astra_metadata	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Metadata Schema

[type_astra_metadata_list](#)

Name	Type	Required	Description
continue	string	False	
count	number	False	
labels	array[type_astra_label]	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 cluster node for a managed cluster

GET

/accounts/{account_id}/topology/v1/managedClusters/{managedCluster_id}/clusterNodes/{clusterNode_id}

Returns the stored Cluster Node 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
clusterNode_id	string	path	True	ID of the clusterNode collection to list

Response

Status: 200, Returns the stored Cluster Node 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">• "application/astra-clusterNode"
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none">• "1.0"
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none">• Conforms to the UUIDv4 Schema
name	string	True	JSON string containing a value that indicates the Kubernetes name for the node. Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 254
role	string	True	JSON string containing a value that indicates the Kubernetes role for the node. Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 254

Name	Type	Required	Description
labels	array[labels]	True	<p>JSON array of JSON objects, each containing Kubernetes labels associated with the node. If no details are available, this array will be empty.</p> <ul style="list-style-type: none"> • Minimum items: 0
creationTime	string	True	<p>JSON string containing an ISO 8601 timestamp that indicates when the node was created. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the ISO-8601 Date Time Schema
externalIP	string	True	<p>JSON string containing a value that indicates the internal IP address for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
internalIP	string	True	<p>JSON string containing a value that indicates the external IP address for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
zone	string	True	<p>JSON string containing a value that indicates the Kubernetes zone for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254

Name	Type	Required	Description
region	string	True	<p>JSON string containing a value that indicates the Kubernetes region for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
instanceType	string	True	<p>JSON string containing a value that indicates the Kubernetes instance type for the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
kernelVersion	string	True	<p>JSON string containing a value that indicates the kernel version used by the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
osImage	string	True	<p>JSON string containing a value that indicates the operating system image used by the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
numCpus	string	True	<p>JSON string containing a value that indicates the number of CPUs assigned to the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254

Name	Type	Required	Description
memory	string	True	<p>JSON string containing a value that indicates the amount of memory assigned to the node. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 254
state	string	True	<p>JSON string containing a value indicating the operational state of the node. Defined values are:</p> <ul style="list-style-type: none"> • "running" - The node is running normally • "provisioning" - The node is in the process of being provisioned • "discovering" - Aspects of the node are in the process of being discovered • "pending" - The node is scheduled for discovery • "failed" - The node is in a failure state • "unknown" - The state of the node cannot be determined
metadata	type_astra_metadata	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Metadata Schema

Example response

```
{
  "type": "application/astra-clusterNode",
  "version": "1.0",
  "id": "5df0e09f-2c30-5b8a-b6b6-4fb4063525e4",
  "name": "test-0",
  "role": "node-role.kubernetes.io/worker",
  "labels": [],
  "creationTime": "2020-09-06T04:35:23.593845Z",
  "externalIP": "192.168.12.44",
  "internalIP": "10.0.1.1",
  "zone": "us-west1-c",
  "region": "us-east1",
  "instanceType": "e2-medium",
  "kernelVersion": "4.18.0-147.0.3.el8_1.x86_64",
  "osImage": "Red Hat Enterprise Linux CoreOS 42.81.20191203.0",
  "numCpus": "2",
  "memory": "67108864Ki",
  "state": "running",
  "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	False	
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	False	
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	False	
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	False	
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

labels

Name	Type	Required	Description
name	string	True	JSON string containing the label name Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Defined regex is: "<code>^([\S.]{1,253}V)?([a-z0-9A-Z_-]){1,63}\$</code>"
value	string	True	JSON string containing the label value Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Defined regex is: "<code>^[a-z0-9A-Z_-]{1,63}\$</code>"

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.