



AppMirror

Astra Automation

NetApp
August 11, 2025

This PDF was generated from https://docs.netapp.com/ko-kr/astra-automation-2304/reference/appmirror_overview.html on August 11, 2025. Always check docs.netapp.com for the latest.

목차

AppMirror	1
AppMirror overview	1
Create a new AppMirror resource	1
Parameters	1
Request Body	1
Response	4
Response	16
Response	17
Response	17
Response	18
Error	18
Definitions	19
List all AppMirror resources	22
Parameters	22
Response	24
Response	28
Response	28
Response	29
Error	29
Definitions	30
Retrieve an AppMirror resource	45
Parameters	45
Response	45
Response	56
Response	57
Response	58
Error	58
Definitions	59
Modify an AppMirror resource	62
Parameters	62
Request Body	62
Response	71
Response	71
Response	72
Response	73
Response	73
Error	74
Definitions	75
Delete an AppMirror resource	78
Parameters	78
Response	79
Response	79
Response	79

Response	80
Error	81
Definitions	81
Create a new AppMirror resource for an app	82
Parameters	82
Request Body	82
Response	86
Response	98
Response	99
Response	99
Response	100
Error	100
Definitions	101
List the AppMirror resources for an app	104
Parameters	104
Response	106
Response	110
Response	110
Response	111
Error	111
Definitions	112
Retrieve an AppMirror resource for an app	127
Parameters	127
Response	127
Response	138
Response	139
Response	140
Error	140
Definitions	141
Modify an AppMirror resource for an app	144
Parameters	144
Request Body	144
Response	153
Response	153
Response	154
Response	155
Response	155
Error	156
Definitions	157
Delete an AppMirror resource for an app	160
Parameters	160
Response	161
Response	161
Response	162
Response	162

Error	163
Definitions	163

AppMirror

AppMirror overview

The AppMirror API enables management of AppMirror relationships.

Create a new AppMirror resource

POST /accounts/{account_id}/k8s/v1/appMirrors

Indicates the desired values for the AppMirror API resource to be created.

Parameters

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

Request Body

Indicates the desired values for the AppMirror API resource to be created.

Name	Type	Required	Description
type	string	True	<p>Media type of the resource. Defined values are:</p> <ul style="list-style-type: none">"application/astra-appMirror"
version	string	True	<p>Version of the resource. Defined values are:</p> <ul style="list-style-type: none">"1.0"
sourceAppID	string	True	<p>Identifier of the source application. Only updated when swapping the sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none">Conforms to the Astra Identifier Schema

Name	Type	Required	Description
destinationClusterID	string	True	<p>Identifier of the managed cluster to host the destination application. Must be provided on create because it determines what cluster the destination application will be created on. If provided on update, it must match the cluster ID of the destination application, so it can only change when swapping sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
namespaceMapping	array[namespaceMapping]	False	<p>The namespace or namespaces to use when creating the destination application, corresponding to the namespaces of the source application. Each JSON object contains the fields "clusterID" and "namespaces", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "namespaces" value is a JSON array of JSON strings. There must be exactly one JSON object for each cluster, and the namespaces will be correlated by index. If not provided, the same namespace from the source cluster will be used in the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
storageClasses	array[storageClasses]	False	<p>The storage class to be used on the destination cluster when creating new Persistent Volume Claims (PVCs). Each JSON object contains the fields "clusterID" and "storageClassName", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "storageClassName" is the storage class to use when creating PVCs on that cluster. If not provided or if the value is missing for a cluster, the default storage class will be used for that cluster.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2
stateDesired	string	True	<p>The desired state for the relationship. At creation, the only valid value is "established". Defined values are:</p> <ul style="list-style-type: none"> • "established" - The relationship is created. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleted" - The relationship was successfully cleaned up and deleted.

Name	Type	Required	Description
metadata	type_astra_metadata_update	False	<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 If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

Example request

```
{
  "type": "application/astra-appMirror",
  "version": "1.0",
  "sourceAppID": "efd639b6-fc92-4112-8841-0c0ab7890ae0",
  "destinationClusterID": "c5d023a9-4061-4a8a-bfbf-3be11ff06226",
  "stateDesired": "established"
}
```

Response

Status: 201, Returns the newly created appMirror resource in the JSON response body.

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

Name	Type	Required	Description
version	string	True	<p>Version of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "1.0"
id	string	True	<p>Globally unique identifier of the resource. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the UUIDv4 Schema
sourceAppID	string	True	<p>Identifier of the source application. Only updated when swapping the sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
sourceClusterID	string	True	<p>Identifier of the managed cluster hosting the source application. This field is read-only and is determined based on the host cluster of the source application. If provided in an update, it must match the cluster ID of the source application, so it can only change when swapping the sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
destinationAppID	string	False	<p>Identifier of the destination application. Cannot be provided on create because a new app ID will be generated as part of relationship initialization. Can only be updated when swapping sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
destinationClusterID	string	True	<p>Identifier of the managed cluster to host the destination application. Must be provided on create because it determines what cluster the destination application will be created on. If provided on update, it must match the cluster ID of the destination application, so it can only change when swapping sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
namespaceMapping	array[namespaceMapping]	False	<p>The namespace or namespaces to use when creating the destination application, corresponding to the namespaces of the source application. Each JSON object contains the fields "clusterID" and "namespaces", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "namespaces" value is a JSON array of JSON strings. There must be exactly one JSON object for each cluster, and the namespaces will be correlated by index. If not provided, the same namespace from the source cluster will be used in the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
storageClasses	array[storageClasses]	False	<p>The storage class to be used on the destination cluster when creating new Persistent Volume Claims (PVCs). Each JSON object contains the fields "clusterID" and "storageClassName", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "storageClassName" is the storage class to use when creating PVCs on that cluster. If not provided or if the value is missing for a cluster, the default storage class will be used for that cluster.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
state	string	True	<p>The state of the relationship. Defined values are:</p> <ul style="list-style-type: none"> • "establishing" - The relationship is being created. • "established" - The relationship is created. • "failingOver" - Failover of the application to the destination cluster is in progress. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleting" - Resources created by the relationship are being cleaned up. • "deleted" - The relationship was cleaned up and deleted.
stateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleting" • "established": "failingOver", "deleting" • "failingOver": "failedOver", "deleting" • "failedOver": "establishing", "deleting" • "deleting": "deleted" • "deleted":

Name	Type	Required	Description
stateDesired	string	True	<p>The desired state for the relationship. At creation, the only valid value is "established". Defined values are:</p> <ul style="list-style-type: none"> • "established" - The relationship is created. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleted" - The relationship was successfully cleaned up and deleted.
stateAllowed	array[string]	False	<p>States that can be requested in a given state. The following states can be requested in each defined state:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleted" • "established": "failedOver", "deleted" • "failingOver": "failedOver", "deleted" • "failedOver": "established", "deleted" • "deleting": "deleted" • "deleted": "deleted"
stateDetails	array[type_astra_stateDetail]	True	<p>Additional details about the current state, including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
transferState	string	False	<p>State of the current or most recent snapshot transfer. Defined values are:</p> <ul style="list-style-type: none"> • "transferring" - A new snapshot was created and is now being replicated to the destination cluster. This state also covers the transfers that have failed on previous attempts and are being continually retried. • "idle" - There is currently no transfer in progress.
transferStateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "transferring": "idle" • "idle": "transferring"
transferStateDetails	array[type_astra_stateDetail]	False	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
healthState	string	True	<p>Health state of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "indeterminate" - The health of the resource cannot be determined (for example, due to lack of connectivity) • "normal" - The resource has no known issues and can provide services in accordance with the interface specification • "warning" - The resource has known issues that do not prevent it providing services in accordance with the interface specification • "critical" - The resource has known issues that prevent it from providing services in accordance with the interface specification
healthStateTransitions	array[type_astra_stateTransition]	True	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "indeterminate": "normal", "warning", "critical" • "normal": "indeterminate", "warning", "critical" • "warning": "indeterminate", "normal", "critical" • "critical": "indeterminate", "normal", "warning"

Name	Type	Required	Description
healthStateDetails	array[type_astra_stateDetail]	True	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0
metadata	type_astra_metadata_update	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 If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

Example response

```
{  
  "type": "application/astra-appMirror",  
  "version": "1.0",  
  "id": "c5fbadd4-5d9e-5942-bb7f-f5386b6b6253",  
  "sourceAppID": "efd639b6-fc92-4112-8841-0c0ab7890ae0",  
  "sourceClusterID": "5789e026-c2e2-41e9-ab00-9766bcfa8951",  
  "destinationAppID": "cd7b6d91-fc19-4983-a754-9a7bb4d80a7b",  
  "destinationClusterID": "c5d023a9-4061-4a8a-bfbf-3be11ff06226",  
  "state": "establishing",  
  "stateTransitions": [  
    {  
      "from": "establishing",  
      "to": [  
        "established",  
        "deleting"  
      ]  
    },  
    {  
      "from": "established",  
      "to": [  
        "failingOver",  
        "deleting"  
      ]  
    },  
    {  
      "from": "failingOver",  
      "to": [  
        "failedOver",  
        "deleting"  
      ]  
    },  
    {  
      "from": "failedOver",  
      "to": [  
        "establishing",  
        "deleting"  
      ]  
    },  
    {  
      "from": "deleting",  
      "to": [  
        "deleted"  
      ]  
    }  
  ]  
}
```

```
],
  "stateDesired": "established",
  "stateAllowed": [
    "deleted"
  ],
  "stateDetails": [
    {
      "type": "https://astra.netapp.io/stateDetails/3",
      "title": "AppMirror is being established",
      "detail": "The AppMirror relationship is in the process of being established."
    }
  ],
  "healthState": "warning",
  "healthStateTransitions": [
    {
      "from": "indeterminate",
      "to": [
        "normal",
        "warning",
        "critical"
      ]
    },
    {
      "from": "normal",
      "to": [
        "indeterminate",
        "warning",
        "critical"
      ]
    },
    {
      "from": "warning",
      "to": [
        "indeterminate",
        "normal",
        "critical"
      ]
    },
    {
      "from": "critical",
      "to": [
        "indeterminate",
        "normal",
        "warning"
      ]
    }
  ]
}
```

```

        }
    ],
    "healthStateDetails": [
        {
            "type": "https://astra.netapp.io/stateDetails/4",
            "title": "AppMirror not yet established",
            "detail": "The relationship is in the process of being
established, so it's not protecting the app data yet."
        }
    ],
    "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	
invalidFields	array[invalidFields]	False	List of invalid request body fields

Example response

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

Response

Status: 409, Conflict

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/10",  
  "title": "JSON resource conflict",  
  "detail": "The request body JSON contains a field that conflicts with  
  an idempotent value.",  
  "status": "409"  
}
```

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	

Name	Type	Required	Description
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

namespaceMapping

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the namespaces are specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema
namespaces	array[string]	False	<p>List of namespaces to use on the cluster. Correlated with the other cluster namespace list by index. Defined values are:</p> <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Conforms to the DNS 1123 Label Schema

storageClasses

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the storage class is specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema

Name	Type	Required	Description
storageClassName	string	False	<p>Name of the storage class to use when creating PVCs on the cluster specified in "clusterID". Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 255

type_astra_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type_astra_metadata_update

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

- Conforms to the Astra Metadata Schema If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

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

type_astra_stateTransition

Name	Type	Required	Description
from	string	True	
to	array[string]	True	

type_astra_stateDetail

Name	Type	Required	Description
type	string	True	
title	string	True	

Name	Type	Required	Description
detail	string	True	

invalidParams

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

invalidFields

Name	Type	Required	Description
name	string	True	Name of the invalid request body field
reason	string	True	Reason why the request body field is invalid

List all AppMirror resources

GET /accounts/{account_id}/k8s/v1/appMirrors

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>

Name	Type	In	Required	Description
include	string	query	False	<p>Indicates which fields should be returned when listing a collection.</p> <p>URL examples: "include=id", "include=id,name"</p> <p>OpenAPI examples: "id"</p>
limit	string	query	False	<p>Indicates the maximum number of resources to return when listing a collection.</p> <p>URL examples: "limit=2"</p> <p>OpenAPI examples: "2"</p>
filter	string	query	False	<p>Indicates which fields should be matched in order to return a resource when listing a collection.</p> <p>Supported operators are:</p> <ul style="list-style-type: none"> • eq - Equality • lt/gt - Less than/Greater than • lte/gte - Less than or equals to/Greater than or equals to <p>URL example: "filter=field%20eq%20%27value%27"</p> <p>OpenAPI examples: "field eq 'value'"</p>

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: appMirror_1.0_get_response_body , array[]]]	True	
metadata	type_astra_metadata_list	True	

Example response

```
{  
  "type": "application/astra-appMirrors",  
  "version": "1.0",  
  "items": [  
    {  
      "type": "application/astra-appMirror",  
      "version": "1.0",  
      "id": "f1c98c2e-6391-42d3-8b21-3e75dac048a3",  
      "sourceAppID": "efd639b6-fc92-4112-8841-0c0ab7890ae0",  
      "sourceClusterID": "5789e026-c2e2-41e9-ab00-9766bcfa8951",  
      "destinationAppID": "cd7b6d91-fc19-4983-a754-9a7bb4d80a7b",  
      "destinationClusterID": "c5d023a9-4061-4a8a-bfbf-3be11ff06226",  
      "namespaceMapping": [  
        {  
          "clusterID": "5789e026-c2e2-41e9-ab00-9766bcfa8951",  
          "namespaces": [  
            "ns1-src",  
            "ns2-src"  
          ]  
        },  
        {  
          "clusterID": "c5d023a9-4061-4a8a-bfbf-3be11ff06226",  
          "namespaces": [  
            "ns1-dest",  
            "ns2-dest"  
          ]  
        }  
      ],  
      "state": "established",  
      "stateTransitions": [  
        {  
          "from": "establishing",  
          "to": [  
            "established",  
            "deleting"  
          ]  
        },  
        {  
          "from": "established",  
          "to": [  
            "failingOver",  
            "deleting"  
          ]  
        },  
        {  
          "from": "deleting",  
          "to": [  
            "failingOver",  
            "deleting"  
          ]  
        },  
        {  
          "from": "failingOver",  
          "to": [  
            "deleting",  
            "recovered"  
          ]  
        }  
      ]  
    }  
  ]  
}
```

```

{
  "from": "failingOver",
  "to": [
    "failedOver",
    "deleting"
  ]
},
{
  "from": "failedOver",
  "to": [
    "establishing",
    "deleting"
  ]
},
{
  "from": "deleting",
  "to": [
    "deleted"
  ]
}
],
"stateDesired": "established",
"stateAllowed": [
  "failedOver",
  "deleted"
],
"stateDetails": [
  {
    "type": "https://astra.netapp.io/stateDetails/1",
    "title": "AppMirror relationship established",
    "detail": "The AppMirror relationship has been successfully
established."
  }
],
"healthState": "normal",
"healthStateTransitions": [
  {
    "from": "indeterminate",
    "to": [
      "normal",
      "warning",
      "critical"
    ]
  },
  {
    "from": "normal",
    "to": [
      "warning"
    ]
  }
]
}

```

```

        "to": [
            "indeterminate",
            "warning",
            "critical"
        ]
    },
    {
        "from": "warning",
        "to": [
            "indeterminate",
            "normal",
            "critical"
        ]
    },
    {
        "from": "critical",
        "to": [
            "indeterminate",
            "normal",
            "warning"
        ]
    }
],
"healthStateDetails": [
    {
        "type": "https://astra.netapp.io/stateDetails/2",
        "title": "SnapMirror syncing successfully",
        "detail": "All SnapMirror relationships are synchronizing as
expected."
    }
],
"metadata": {
    "labels": [],
    "creationTimestamp": "2020-08-06T12:24:52.256624Z",
    "modificationTimestamp": "2020-08-06T12:24:52.256624Z",
    "createdBy": "11c0cf1-4f27-4ef7-a21c-cb452fc5c9aa"
}
},
],
"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	

Name	Type	Required	Description
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

namespaceMapping

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the namespaces are specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema
namespaces	array[string]	False	<p>List of namespaces to use on the cluster. Correlated with the other cluster namespace list by index. Defined values are:</p> <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Conforms to the DNS 1123 Label Schema

storageClasses

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the storage class is specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema

Name	Type	Required	Description
storageClassName	string	False	<p>Name of the storage class to use when creating PVCs on the cluster specified in "clusterID". Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 255

type_astra_stateTransition

Name	Type	Required	Description
from	string	True	
to	array[string]	True	

type_astra_stateDetail

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	

type_astra_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type_astra_metadata_update

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

- Conforms to the Astra Metadata Schema If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

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

Name	Type	Required	Description
modifiedBy	string	False	

appMirror_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-appMirror"
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
sourceAppID	string	True	Identifier of the source application. Only updated when swapping the sourceAppID with the destinationAppID. Defined values are: <ul style="list-style-type: none"> Conforms to the Astra Identifier Schema

Name	Type	Required	Description
sourceClusterID	string	True	<p>Identifier of the managed cluster hosting the source application. This field is read-only and is determined based on the host cluster of the source application. If provided in an update, it must match the cluster ID of the source application, so it can only change when swapping the sourceAppID with destinationAppID.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
destinationAppID	string	False	<p>Identifier of the destination application. Cannot be provided on create because a new app ID will be generated as part of relationship initialization. Can only be updated when swapping sourceAppID with the destinationAppID.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
destinationClusterID	string	True	<p>Identifier of the managed cluster to host the destination application. Must be provided on create because it determines what cluster the destination application will be created on. If provided on update, it must match the cluster ID of the destination application, so it can only change when swapping sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
namespaceMapping	array[namespaceMapping]	False	<p>The namespace or namespaces to use when creating the destination application, corresponding to the namespaces of the source application. Each JSON object contains the fields "clusterID" and "namespaces", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "namespaces" value is a JSON array of JSON strings. There must be exactly one JSON object for each cluster, and the namespaces will be correlated by index. If not provided, the same namespace from the source cluster will be used in the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
storageClasses	array[storageClasses]	False	<p>The storage class to be used on the destination cluster when creating new Persistent Volume Claims (PVCs). Each JSON object contains the fields "clusterID" and "storageClassName", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "storageClassName" is the storage class to use when creating PVCs on that cluster. If not provided or if the value is missing for a cluster, the default storage class will be used for that cluster.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
state	string	True	<p>The state of the relationship. Defined values are:</p> <ul style="list-style-type: none"> • "establishing" - The relationship is being created. • "established" - The relationship is created. • "failingOver" - Failover of the application to the destination cluster is in progress. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleting" - Resources created by the relationship are being cleaned up. • "deleted" - The relationship was cleaned up and deleted.

Name	Type	Required	Description
stateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleting" • "established": "failingOver", "deleting" • "failingOver": "failedOver", "deleting" • "failedOver": "establishing", "deleting" • "deleting": "deleted" • "deleted":
stateDesired	string	True	<p>The desired state for the relationship. At creation, the only valid value is "established". Defined values are:</p> <ul style="list-style-type: none"> • "established" - The relationship is created. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleted" - The relationship was successfully cleaned up and deleted.

Name	Type	Required	Description
stateAllowed	array[string]	False	<p>States that can be requested in a given state. The following states can be requested in each defined state:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleted" • "established": "failedOver", "deleted" • "failingOver": "failedOver", "deleted" • "failedOver": "established", "deleted" • "deleting": "deleted" • "deleted": "deleted"
stateDetails	array[type_astra_stateDetail]	True	<p>Additional details about the current state, including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
transferState	string	False	<p>State of the current or most recent snapshot transfer. Defined values are:</p> <ul style="list-style-type: none"> • "transferring" - A new snapshot was created and is now being replicated to the destination cluster. This state also covers the transfers that have failed on previous attempts and are being continually retried. • "idle" - There is currently no transfer in progress.
transferStateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "transferring": "idle" • "idle": "transferring"
transferStateDetails	array[type_astra_stateDetail]	False	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
healthState	string	True	<p>Health state of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "indeterminate" - The health of the resource cannot be determined (for example, due to lack of connectivity) • "normal" - The resource has no known issues and can provide services in accordance with the interface specification • "warning" - The resource has known issues that do not prevent it providing services in accordance with the interface specification • "critical" - The resource has known issues that prevent it from providing services in accordance with the interface specification

Name	Type	Required	Description
healthStateTransitions	array[type_astra_stateTransition]	True	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "indeterminate": "normal", "warning", "critical" • "normal": "indeterminate", "warning", "critical" • "warning": "indeterminate", "normal", "critical" • "critical": "indeterminate", "normal", "warning"
healthStateDetails	array[type_astra_stateDetail]	True	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
metadata	type_astra_metadata_update	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. If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

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 an AppMirror resource

GET /accounts/{account_id}/k8s/v1/appMirrors/{appMirror_id}

Returns the stored AppMirror API resource in the JSON response body.

Parameters

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

Response

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

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

Name	Type	Required	Description
sourceAppID	string	True	<p>Identifier of the source application. Only updated when swapping the sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
sourceClusterID	string	True	<p>Identifier of the managed cluster hosting the source application. This field is read-only and is determined based on the host cluster of the source application. If provided in an update, it must match the cluster ID of the source application, so it can only change when swapping the sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
destinationAppID	string	False	<p>Identifier of the destination application. Cannot be provided on create because a new app ID will be generated as part of relationship initialization. Can only be updated when swapping sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
destinationClusterID	string	True	<p>Identifier of the managed cluster to host the destination application. Must be provided on create because it determines what cluster the destination application will be created on. If provided on update, it must match the cluster ID of the destination application, so it can only change when swapping sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
namespaceMapping	array[namespaceMapping]	False	<p>The namespace or namespaces to use when creating the destination application, corresponding to the namespaces of the source application. Each JSON object contains the fields "clusterID" and "namespaces", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "namespaces" value is a JSON array of JSON strings. There must be exactly one JSON object for each cluster, and the namespaces will be correlated by index. If not provided, the same namespace from the source cluster will be used in the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
storageClasses	array[storageClasses]	False	<p>The storage class to be used on the destination cluster when creating new Persistent Volume Claims (PVCs). Each JSON object contains the fields "clusterID" and "storageClassName", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "storageClassName" is the storage class to use when creating PVCs on that cluster. If not provided or if the value is missing for a cluster, the default storage class will be used for that cluster.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
state	string	True	<p>The state of the relationship. Defined values are:</p> <ul style="list-style-type: none"> • "establishing" - The relationship is being created. • "established" - The relationship is created. • "failingOver" - Failover of the application to the destination cluster is in progress. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleting" - Resources created by the relationship are being cleaned up. • "deleted" - The relationship was cleaned up and deleted.
stateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleting" • "established": "failingOver", "deleting" • "failingOver": "failedOver", "deleting" • "failedOver": "establishing", "deleting" • "deleting": "deleted" • "deleted":

Name	Type	Required	Description
stateDesired	string	True	<p>The desired state for the relationship. At creation, the only valid value is "established". Defined values are:</p> <ul style="list-style-type: none"> • "established" - The relationship is created. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleted" - The relationship was successfully cleaned up and deleted.
stateAllowed	array[string]	False	<p>States that can be requested in a given state. The following states can be requested in each defined state:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleted" • "established": "failedOver", "deleted" • "failingOver": "failedOver", "deleted" • "failedOver": "established", "deleted" • "deleting": "deleted" • "deleted": "deleted"
stateDetails	array[type_astra_stateDetail]	True	<p>Additional details about the current state, including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
transferState	string	False	<p>State of the current or most recent snapshot transfer. Defined values are:</p> <ul style="list-style-type: none"> • "transferring" - A new snapshot was created and is now being replicated to the destination cluster. This state also covers the transfers that have failed on previous attempts and are being continually retried. • "idle" - There is currently no transfer in progress.
transferStateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "transferring": "idle" • "idle": "transferring"
transferStateDetails	array[type_astra_stateDetail]	False	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
healthState	string	True	<p>Health state of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "indeterminate" - The health of the resource cannot be determined (for example, due to lack of connectivity) • "normal" - The resource has no known issues and can provide services in accordance with the interface specification • "warning" - The resource has known issues that do not prevent it providing services in accordance with the interface specification • "critical" - The resource has known issues that prevent it from providing services in accordance with the interface specification
healthStateTransitions	array[type_astra_stateTransition]	True	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "indeterminate": "normal", "warning", "critical" • "normal": "indeterminate", "warning", "critical" • "warning": "indeterminate", "normal", "critical" • "critical": "indeterminate", "normal", "warning"

Name	Type	Required	Description
healthStateDetails	array[type_astra_stateDetail]	True	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0
metadata	type_astra_metadata_update	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 If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

Example response

```
{  
  "type": "application/astra-appMirror",  
  "version": "1.0",  
  "id": "c5fbadd4-5d9e-5942-bb7f-f5386b6b6253",  
  "sourceAppID": "efd639b6-fc92-4112-8841-0c0ab7890ae0",  
  "sourceClusterID": "5789e026-c2e2-41e9-ab00-9766bcfa8951",  
  "destinationAppID": "cd7b6d91-fc19-4983-a754-9a7bb4d80a7b",  
  "destinationClusterID": "c5d023a9-4061-4a8a-bfbf-3be11ff06226",  
  "namespaceMapping": [  
    {  
      "clusterID": "5789e026-c2e2-41e9-ab00-9766bcfa8951",  
      "namespaces": [  
        "ns1-src",  
        "ns2-src"  
      ]  
    },  
    {  
      "clusterID": "c5d023a9-4061-4a8a-bfbf-3be11ff06226",  
      "namespaces": [  
        "ns1-dest",  
        "ns2-dest"  
      ]  
    }  
  ],  
  "state": "established",  
  "stateTransitions": [  
    {  
      "from": "establishing",  
      "to": [  
        "established",  
        "deleting"  
      ]  
    },  
    {  
      "from": "established",  
      "to": [  
        "failingOver",  
        "deleting"  
      ]  
    },  
    {  
      "from": "failingOver",  
      "to": [  
        "failedOver",  
        "deleting"  
      ]  
    }  
  ]  
}
```

```

        "deleting"
    ],
},
{
    "from": "failedOver",
    "to": [
        "establishing",
        "deleting"
    ],
},
{
    "from": "deleting",
    "to": [
        "deleted"
    ]
}
],
"stateDesired": "established",
"stateAllowed": [
    "failedOver",
    "deleted"
],
"stateDetails": [
{
    "type": "https://astra.netapp.io/stateDetails/1",
    "title": "AppMirror relationship established",
    "detail": "The AppMirror relationship has been successfully
established."
},
],
"healthState": "normal",
"healthStateTransitions": [
{
    "from": "indeterminate",
    "to": [
        "normal",
        "warning",
        "critical"
    ]
},
{
    "from": "normal",
    "to": [
        "indeterminate",
        "warning",
        "critical"
    ]
}
]
}

```

```

        ],
    },
    {
        "from": "warning",
        "to": [
            "indeterminate",
            "normal",
            "critical"
        ],
    },
    {
        "from": "critical",
        "to": [
            "indeterminate",
            "normal",
            "warning"
        ],
    }
],
"healthStateDetails": [
{
    "type": "https://astra.netapp.io/stateDetails/2",
    "title": "SnapMirror syncing successfully",
    "detail": "All SnapMirror relationships are synchronizing as
expected."
},
{
    "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	

Name	Type	Required	Description
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

namespaceMapping

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the namespaces are specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema
namespaces	array[string]	False	<p>List of namespaces to use on the cluster. Correlated with the other cluster namespace list by index. Defined values are:</p> <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Conforms to the DNS 1123 Label Schema

storageClasses

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the storage class is specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema

Name	Type	Required	Description
storageClassName	string	False	<p>Name of the storage class to use when creating PVCs on the cluster specified in "clusterID". Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 255

type_astra_stateTransition

Name	Type	Required	Description
from	string	True	
to	array[string]	True	

type_astra_stateDetail

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	

type_astra_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type_astra_metadata_update

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

- Conforms to the Astra Metadata Schema If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

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

Name	Type	Required	Description
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

Modify an AppMirror resource

`PUT /accounts/{account_id}/k8s/v1/appMirrors/{appMirror_id}`

Replaces the entire stored resource with the supplied JSON request body while preserving key values that are not user-modifiable.

Side Effects

- Various side effects based on desiredState.

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>
appMirror_id	string	path	True	ID of the appMirror collection to list

Request Body

Replaces the entire stored resource with the supplied JSON request body while preserving key values that are not user-modifiable.

Side Effects

- Various side effects based on desiredState.

Name	Type	Required	Description
type	string	True	<p>Media type of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "application/astra-appMirror"
version	string	True	<p>Version of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "1.0"
id	string	False	<p>Globally unique identifier of the resource. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the UUIDv4 Schema
sourceAppID	string	False	<p>Identifier of the source application. Only updated when swapping the sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
sourceClusterID	string	False	<p>Identifier of the managed cluster hosting the source application. This field is read-only and is determined based on the host cluster of the source application. If provided in an update, it must match the cluster ID of the source application, so it can only change when swapping the sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
destinationAppID	string	False	<p>Identifier of the destination application. Cannot be provided on create because a new app ID will be generated as part of relationship initialization. Can only be updated when swapping sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
destinationClusterID	string	False	<p>Identifier of the managed cluster to host the destination application. Must be provided on create because it determines what cluster the destination application will be created on. If provided on update, it must match the cluster ID of the destination application, so it can only change when swapping sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
namespaceMapping	array[namespaceMapping]	False	<p>The namespace or namespaces to use when creating the destination application, corresponding to the namespaces of the source application. Each JSON object contains the fields "clusterID" and "namespaces", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "namespaces" value is a JSON array of JSON strings. There must be exactly one JSON object for each cluster, and the namespaces will be correlated by index. If not provided, the same namespace from the source cluster will be used in the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
storageClasses	array[storageClasses]	False	<p>The storage class to be used on the destination cluster when creating new Persistent Volume Claims (PVCs). Each JSON object contains the fields "clusterID" and "storageClassName", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "storageClassName" is the storage class to use when creating PVCs on that cluster. If not provided or if the value is missing for a cluster, the default storage class will be used for that cluster.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
state	string	False	<p>The state of the relationship. Defined values are:</p> <ul style="list-style-type: none"> • "establishing" - The relationship is being created. • "established" - The relationship is created. • "failingOver" - Failover of the application to the destination cluster is in progress. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleting" - Resources created by the relationship are being cleaned up. • "deleted" - The relationship was cleaned up and deleted.
stateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleting" • "established": "failingOver", "deleting" • "failingOver": "failedOver", "deleting" • "failedOver": "establishing", "deleting" • "deleting": "deleted" • "deleted":

Name	Type	Required	Description
stateDesired	string	False	<p>The desired state for the relationship. At creation, the only valid value is "established". Defined values are:</p> <ul style="list-style-type: none"> • "established" - The relationship is created. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleted" - The relationship was successfully cleaned up and deleted.
stateAllowed	array[string]	False	<p>States that can be requested in a given state. The following states can be requested in each defined state:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleted" • "established": "failedOver", "deleted" • "failingOver": "failedOver", "deleted" • "failedOver": "established", "deleted" • "deleting": "deleted" • "deleted": "deleted"
stateDetails	array[type_astra_stateDetail]	False	<p>Additional details about the current state, including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
transferState	string	False	<p>State of the current or most recent snapshot transfer. Defined values are:</p> <ul style="list-style-type: none"> • "transferring" - A new snapshot was created and is now being replicated to the destination cluster. This state also covers the transfers that have failed on previous attempts and are being continually retried. • "idle" - There is currently no transfer in progress.
transferStateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "transferring": "idle" • "idle": "transferring"
transferStateDetails	array[type_astra_stateDetail]	False	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
healthState	string	False	<p>Health state of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "indeterminate" - The health of the resource cannot be determined (for example, due to lack of connectivity) • "normal" - The resource has no known issues and can provide services in accordance with the interface specification • "warning" - The resource has known issues that do not prevent it providing services in accordance with the interface specification • "critical" - The resource has known issues that prevent it from providing services in accordance with the interface specification
healthStateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "indeterminate": "normal", "warning", "critical" • "normal": "indeterminate", "warning", "critical" • "warning": "indeterminate", "normal", "critical" • "critical": "indeterminate", "normal", "warning"

Name	Type	Required	Description
healthStateDetails	array[type_astra_stateDetail]	False	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0
metadata	type_astra_metadata_update	False	<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 If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

Example request

```
{
  "type": "application/astra-appMirror",
  "version": "1.0",
  "stateDesired": "failedOver"
}
```

Response

Status: 204, Indicates if the appMirror resource was updated.

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	
invalidFields	array[invalidFields]	False	List of invalid request body fields

Example response

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

Response

Status: 409, Conflict

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	
invalidFields	array[invalidFields]	False	List of invalid request body fields

Example response

```
{  
  "type": "https://astra.netapp.io/problems/10",  
  "title": "JSON resource conflict",  
  "detail": "The request body JSON contains a field that conflicts with  
  an idempotent value.",  
  "status": "409"  
}
```

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/1",
  "title": "Resource not found",
  "detail": "The resource specified in the request URI wasn't found.",
  "status": "404"
}
```

Definitions

See Definitions

namespaceMapping

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the namespaces are specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema
namespaces	array[string]	False	<p>List of namespaces to use on the cluster. Correlated with the other cluster namespace list by index. Defined values are:</p> <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Conforms to the DNS 1123 Label Schema

storageClasses

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the storage class is specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema

Name	Type	Required	Description
storageClassName	string	False	<p>Name of the storage class to use when creating PVCs on the cluster specified in "clusterID". Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 255

type_astra_stateTransition

Name	Type	Required	Description
from	string	True	
to	array[string]	True	

type_astra_stateDetail

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	

type_astra_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type_astra_metadata_update

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

- Conforms to the Astra Metadata Schema If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

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

Name	Type	Required	Description
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

invalidFields

Name	Type	Required	Description
name	string	True	Name of the invalid request body field
reason	string	True	Reason why the request body field is invalid

Delete an AppMirror resource

`DELETE /accounts/{account_id}/k8s/v1/appMirrors/{appMirror_id}`

Removes the specified AppMirror API resource. Starts a process to asynchronously remove the AppMirror resource, along with any resources on the source and destination clusters that were created as a result of the AppMirror relationship. The resources removed are dependent on the state of the relationship at the time of deletion.

Side Effects

- The stateDesired field is set to "deleted".
- The state field is set to "deleting".
- If state is "established", the TridentMirrorRelationships and PersistentVolumeClaims created by the AppMirror relationship will be deleted.
- If state is "failedOver", the TridentMirrorRelationships created by the AppMirror relationship will be deleted and the PersistentVolumeClaims in the destination application will be left in place.
- When the asynchronous delete operation is completed, the AppMirror API resource will be removed from both the source and destination applications.

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>
appMirror_id	string	path	True	ID of the appMirror collection to list

Response

Status: 204, Indicates if the appMirror resource was deleted.

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/1",  
  "title": "Resource not found",  
  "detail": "The resource specified in the request URI wasn't found.",  
  "status": "404"  
}
```

Definitions

See Definitions

invalidParams

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

Create a new AppMirror resource for an app

POST /accounts/{account_id}/k8s/v1/apps/{app_id}/appMirrors

Indicates the desired values for the AppMirror API resource to be created.

Parameters

Name	Type	In	Required	Description
account_id	string	path	True	ID of the containing account resource <ul style="list-style-type: none">example: {{.Account}}
app_id	string	path	True	ID of the containing app resource

Request Body

Indicates the desired values for the AppMirror API resource to be created.

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none">"application/astra-appMirror"
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none">"1.0"

Name	Type	Required	Description
sourceAppID	string	True	<p>Identifier of the source application. Only updated when swapping the sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
destinationClusterID	string	True	<p>Identifier of the managed cluster to host the destination application. Must be provided on create because it determines what cluster the destination application will be created on. If provided on update, it must match the cluster ID of the destination application, so it can only change when swapping sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
namespaceMapping	array[namespaceMapping]	False	<p>The namespace or namespaces to use when creating the destination application, corresponding to the namespaces of the source application. Each JSON object contains the fields "clusterID" and "namespaces", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "namespaces" value is a JSON array of JSON strings. There must be exactly one JSON object for each cluster, and the namespaces will be correlated by index. If not provided, the same namespace from the source cluster will be used in the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
storageClasses	array[storageClasses]	False	<p>The storage class to be used on the destination cluster when creating new Persistent Volume Claims (PVCs). Each JSON object contains the fields "clusterID" and "storageClassName", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "storageClassName" is the storage class to use when creating PVCs on that cluster. If not provided or if the value is missing for a cluster, the default storage class will be used for that cluster.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2
stateDesired	string	True	<p>The desired state for the relationship. At creation, the only valid value is "established". Defined values are:</p> <ul style="list-style-type: none"> • "established" - The relationship is created. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleted" - The relationship was successfully cleaned up and deleted.

Name	Type	Required	Description
metadata	type_astra_metadata_update	False	<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 If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

Example request

```
{
  "type": "application/astra-appMirror",
  "version": "1.0",
  "sourceAppID": "efd639b6-fc92-4112-8841-0c0ab7890ae0",
  "destinationClusterID": "c5d023a9-4061-4a8a-bfbf-3be11ff06226",
  "stateDesired": "established"
}
```

Response

Status: 201, Returns the newly created appMirror resource in the JSON response body.

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

Name	Type	Required	Description
version	string	True	<p>Version of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "1.0"
id	string	True	<p>Globally unique identifier of the resource. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the UUIDv4 Schema
sourceAppID	string	True	<p>Identifier of the source application. Only updated when swapping the sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
sourceClusterID	string	True	<p>Identifier of the managed cluster hosting the source application. This field is read-only and is determined based on the host cluster of the source application. If provided in an update, it must match the cluster ID of the source application, so it can only change when swapping the sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
destinationAppID	string	False	<p>Identifier of the destination application. Cannot be provided on create because a new app ID will be generated as part of relationship initialization. Can only be updated when swapping sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
destinationClusterID	string	True	<p>Identifier of the managed cluster to host the destination application. Must be provided on create because it determines what cluster the destination application will be created on. If provided on update, it must match the cluster ID of the destination application, so it can only change when swapping sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
namespaceMapping	array[namespaceMapping]	False	<p>The namespace or namespaces to use when creating the destination application, corresponding to the namespaces of the source application. Each JSON object contains the fields "clusterID" and "namespaces", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "namespaces" value is a JSON array of JSON strings. There must be exactly one JSON object for each cluster, and the namespaces will be correlated by index. If not provided, the same namespace from the source cluster will be used in the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
storageClasses	array[storageClasses]	False	<p>The storage class to be used on the destination cluster when creating new Persistent Volume Claims (PVCs). Each JSON object contains the fields "clusterID" and "storageClassName", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "storageClassName" is the storage class to use when creating PVCs on that cluster. If not provided or if the value is missing for a cluster, the default storage class will be used for that cluster.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
state	string	True	<p>The state of the relationship. Defined values are:</p> <ul style="list-style-type: none"> • "establishing" - The relationship is being created. • "established" - The relationship is created. • "failingOver" - Failover of the application to the destination cluster is in progress. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleting" - Resources created by the relationship are being cleaned up. • "deleted" - The relationship was cleaned up and deleted.
stateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleting" • "established": "failingOver", "deleting" • "failingOver": "failedOver", "deleting" • "failedOver": "establishing", "deleting" • "deleting": "deleted" • "deleted":

Name	Type	Required	Description
stateDesired	string	True	<p>The desired state for the relationship. At creation, the only valid value is "established". Defined values are:</p> <ul style="list-style-type: none"> • "established" - The relationship is created. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleted" - The relationship was successfully cleaned up and deleted.
stateAllowed	array[string]	False	<p>States that can be requested in a given state. The following states can be requested in each defined state:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleted" • "established": "failedOver", "deleted" • "failingOver": "failedOver", "deleted" • "failedOver": "established", "deleted" • "deleting": "deleted" • "deleted": "deleted"
stateDetails	array[type_astra_stateDetail]	True	<p>Additional details about the current state, including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
transferState	string	False	<p>State of the current or most recent snapshot transfer. Defined values are:</p> <ul style="list-style-type: none"> • "transferring" - A new snapshot was created and is now being replicated to the destination cluster. This state also covers the transfers that have failed on previous attempts and are being continually retried. • "idle" - There is currently no transfer in progress.
transferStateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "transferring": "idle" • "idle": "transferring"
transferStateDetails	array[type_astra_stateDetail]	False	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
healthState	string	True	<p>Health state of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "indeterminate" - The health of the resource cannot be determined (for example, due to lack of connectivity) • "normal" - The resource has no known issues and can provide services in accordance with the interface specification • "warning" - The resource has known issues that do not prevent it providing services in accordance with the interface specification • "critical" - The resource has known issues that prevent it from providing services in accordance with the interface specification
healthStateTransitions	array[type_astra_stateTransition]	True	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "indeterminate": "normal", "warning", "critical" • "normal": "indeterminate", "warning", "critical" • "warning": "indeterminate", "normal", "critical" • "critical": "indeterminate", "normal", "warning"

Name	Type	Required	Description
healthStateDetails	array[type_astra_stateDetail]	True	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0
metadata	type_astra_metadata_update	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 If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

Example response

```
{  
  "type": "application/astra-appMirror",  
  "version": "1.0",  
  "id": "c5fbadd4-5d9e-5942-bb7f-f5386b6b6253",  
  "sourceAppID": "efd639b6-fc92-4112-8841-0c0ab7890ae0",  
  "sourceClusterID": "5789e026-c2e2-41e9-ab00-9766bcfa8951",  
  "destinationAppID": "cd7b6d91-fc19-4983-a754-9a7bb4d80a7b",  
  "destinationClusterID": "c5d023a9-4061-4a8a-bfbf-3be11ff06226",  
  "state": "establishing",  
  "stateTransitions": [  
    {  
      "from": "establishing",  
      "to": [  
        "established",  
        "deleting"  
      ]  
    },  
    {  
      "from": "established",  
      "to": [  
        "failingOver",  
        "deleting"  
      ]  
    },  
    {  
      "from": "failingOver",  
      "to": [  
        "failedOver",  
        "deleting"  
      ]  
    },  
    {  
      "from": "failedOver",  
      "to": [  
        "establishing",  
        "deleting"  
      ]  
    },  
    {  
      "from": "deleting",  
      "to": [  
        "deleted"  
      ]  
    }  
  ]  
}
```

```
],
  "stateDesired": "established",
  "stateAllowed": [
    "deleted"
  ],
  "stateDetails": [
    {
      "type": "https://astra.netapp.io/stateDetails/3",
      "title": "AppMirror is being established",
      "detail": "The AppMirror relationship is in the process of being established."
    }
  ],
  "healthState": "warning",
  "healthStateTransitions": [
    {
      "from": "indeterminate",
      "to": [
        "normal",
        "warning",
        "critical"
      ]
    },
    {
      "from": "normal",
      "to": [
        "indeterminate",
        "warning",
        "critical"
      ]
    },
    {
      "from": "warning",
      "to": [
        "indeterminate",
        "normal",
        "critical"
      ]
    },
    {
      "from": "critical",
      "to": [
        "indeterminate",
        "normal",
        "warning"
      ]
    }
  ]
}
```

```

        }
    ],
    "healthStateDetails": [
        {
            "type": "https://astra.netapp.io/stateDetails/4",
            "title": "AppMirror not yet established",
            "detail": "The relationship is in the process of being
established, so it's not protecting the app data yet."
        }
    ],
    "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	
invalidFields	array[invalidFields]	False	List of invalid request body fields

Example response

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

Response

Status: 409, Conflict

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/10",  
  "title": "JSON resource conflict",  
  "detail": "The request body JSON contains a field that conflicts with  
  an idempotent value.",  
  "status": "409"  
}
```

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	

Name	Type	Required	Description
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

namespaceMapping

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the namespaces are specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema
namespaces	array[string]	False	<p>List of namespaces to use on the cluster. Correlated with the other cluster namespace list by index. Defined values are:</p> <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Conforms to the DNS 1123 Label Schema

storageClasses

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the storage class is specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema

Name	Type	Required	Description
storageClassName	string	False	<p>Name of the storage class to use when creating PVCs on the cluster specified in "clusterID". Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 255

type_astra_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type_astra_metadata_update

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

- Conforms to the Astra Metadata Schema If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

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

type_astra_stateTransition

Name	Type	Required	Description
from	string	True	
to	array[string]	True	

type_astra_stateDetail

Name	Type	Required	Description
type	string	True	
title	string	True	

Name	Type	Required	Description
detail	string	True	

invalidParams

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

invalidFields

Name	Type	Required	Description
name	string	True	Name of the invalid request body field
reason	string	True	Reason why the request body field is invalid

List the AppMirror resources for an app

GET /accounts/{account_id}/k8s/v1/apps/{app_id}/appMirrors

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>
app_id	string	path	True	ID of the containing app resource

Name	Type	In	Required	Description
include	string	query	False	<p>Indicates which fields should be returned when listing a collection.</p> <p>URL examples: "include=id", "include=id,name"</p> <p>OpenAPI examples: "id"</p>
limit	string	query	False	<p>Indicates the maximum number of resources to return when listing a collection.</p> <p>URL examples: "limit=2"</p> <p>OpenAPI examples: "2"</p>
filter	string	query	False	<p>Indicates which fields should be matched in order to return a resource when listing a collection.</p> <p>Supported operators are:</p> <ul style="list-style-type: none"> • eq - Equality • lt/gt - Less than/Greater than • lte/gte - Less than or equals to/Greater than or equals to <p>URL example: "filter=field%20eq%20%27value%27"</p> <p>OpenAPI examples: "field eq 'value'"</p>

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: appMirror_1.0_get_response_body , array[]]]	True	
metadata	type_astra_metadata_list	True	

Example response

```
{  
  "type": "application/astra-appMirrors",  
  "version": "1.0",  
  "items": [  
    {  
      "type": "application/astra-appMirror",  
      "version": "1.0",  
      "id": "f1c98c2e-6391-42d3-8b21-3e75dac048a3",  
      "sourceAppID": "efd639b6-fc92-4112-8841-0c0ab7890ae0",  
      "sourceClusterID": "5789e026-c2e2-41e9-ab00-9766bcfa8951",  
      "destinationAppID": "cd7b6d91-fc19-4983-a754-9a7bb4d80a7b",  
      "destinationClusterID": "c5d023a9-4061-4a8a-bfbf-3be11ff06226",  
      "namespaceMapping": [  
        {  
          "clusterID": "5789e026-c2e2-41e9-ab00-9766bcfa8951",  
          "namespaces": [  
            "ns1-src",  
            "ns2-src"  
          ]  
        },  
        {  
          "clusterID": "c5d023a9-4061-4a8a-bfbf-3be11ff06226",  
          "namespaces": [  
            "ns1-dest",  
            "ns2-dest"  
          ]  
        }  
      ],  
      "state": "established",  
      "stateTransitions": [  
        {  
          "from": "establishing",  
          "to": [  
            "established",  
            "deleting"  
          ]  
        },  
        {  
          "from": "established",  
          "to": [  
            "failingOver",  
            "deleting"  
          ]  
        },  
        {  
          "from": "deleting",  
          "to": [  
            "failingOver",  
            "deleting"  
          ]  
        },  
        {  
          "from": "failingOver",  
          "to": [  
            "deleting",  
            "recovered"  
          ]  
        }  
      ]  
    }  
  ]  
}
```

```

{
  "from": "failingOver",
  "to": [
    "failedOver",
    "deleting"
  ]
},
{
  "from": "failedOver",
  "to": [
    "establishing",
    "deleting"
  ]
},
{
  "from": "deleting",
  "to": [
    "deleted"
  ]
}
],
"stateDesired": "established",
"stateAllowed": [
  "failedOver",
  "deleted"
],
"stateDetails": [
  {
    "type": "https://astra.netapp.io/stateDetails/1",
    "title": "AppMirror relationship established",
    "detail": "The AppMirror relationship has been successfully
established."
  }
],
"healthState": "normal",
"healthStateTransitions": [
  {
    "from": "indeterminate",
    "to": [
      "normal",
      "warning",
      "critical"
    ]
  },
  {
    "from": "normal",
    "to": [
      "warning"
    ]
  }
]
}

```

```

        "to": [
            "indeterminate",
            "warning",
            "critical"
        ]
    },
    {
        "from": "warning",
        "to": [
            "indeterminate",
            "normal",
            "critical"
        ]
    },
    {
        "from": "critical",
        "to": [
            "indeterminate",
            "normal",
            "warning"
        ]
    }
],
"healthStateDetails": [
    {
        "type": "https://astra.netapp.io/stateDetails/2",
        "title": "SnapMirror syncing successfully",
        "detail": "All SnapMirror relationships are synchronizing as
expected."
    }
],
"metadata": {
    "labels": [],
    "creationTimestamp": "2020-08-06T12:24:52.256624Z",
    "modificationTimestamp": "2020-08-06T12:24:52.256624Z",
    "createdBy": "11c0cf1-4f27-4ef7-a21c-cb452fc5c9aa"
}
},
],
"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	

Name	Type	Required	Description
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

namespaceMapping

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the namespaces are specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema
namespaces	array[string]	False	<p>List of namespaces to use on the cluster. Correlated with the other cluster namespace list by index. Defined values are:</p> <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Conforms to the DNS 1123 Label Schema

storageClasses

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the storage class is specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema

Name	Type	Required	Description
storageClassName	string	False	<p>Name of the storage class to use when creating PVCs on the cluster specified in "clusterID". Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 255

type_astra_stateTransition

Name	Type	Required	Description
from	string	True	
to	array[string]	True	

type_astra_stateDetail

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	

type_astra_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type_astra_metadata_update

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

- Conforms to the Astra Metadata Schema If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

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

Name	Type	Required	Description
modifiedBy	string	False	

appMirror_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-appMirror"
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
sourceAppID	string	True	Identifier of the source application. Only updated when swapping the sourceAppID with the destinationAppID. Defined values are: <ul style="list-style-type: none"> Conforms to the Astra Identifier Schema

Name	Type	Required	Description
sourceClusterID	string	True	<p>Identifier of the managed cluster hosting the source application. This field is read-only and is determined based on the host cluster of the source application. If provided in an update, it must match the cluster ID of the source application, so it can only change when swapping the sourceAppID with destinationAppID.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
destinationAppID	string	False	<p>Identifier of the destination application. Cannot be provided on create because a new app ID will be generated as part of relationship initialization. Can only be updated when swapping sourceAppID with the destinationAppID.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
destinationClusterID	string	True	<p>Identifier of the managed cluster to host the destination application. Must be provided on create because it determines what cluster the destination application will be created on. If provided on update, it must match the cluster ID of the destination application, so it can only change when swapping sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
namespaceMapping	array[namespaceMapping]	False	<p>The namespace or namespaces to use when creating the destination application, corresponding to the namespaces of the source application. Each JSON object contains the fields "clusterID" and "namespaces", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "namespaces" value is a JSON array of JSON strings. There must be exactly one JSON object for each cluster, and the namespaces will be correlated by index. If not provided, the same namespace from the source cluster will be used in the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
storageClasses	array[storageClasses]	False	<p>The storage class to be used on the destination cluster when creating new Persistent Volume Claims (PVCs). Each JSON object contains the fields "clusterID" and "storageClassName", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "storageClassName" is the storage class to use when creating PVCs on that cluster. If not provided or if the value is missing for a cluster, the default storage class will be used for that cluster.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
state	string	True	<p>The state of the relationship. Defined values are:</p> <ul style="list-style-type: none"> • "establishing" - The relationship is being created. • "established" - The relationship is created. • "failingOver" - Failover of the application to the destination cluster is in progress. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleting" - Resources created by the relationship are being cleaned up. • "deleted" - The relationship was cleaned up and deleted.

Name	Type	Required	Description
stateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleting" • "established": "failingOver", "deleting" • "failingOver": "failedOver", "deleting" • "failedOver": "establishing", "deleting" • "deleting": "deleted" • "deleted":
stateDesired	string	True	<p>The desired state for the relationship. At creation, the only valid value is "established". Defined values are:</p> <ul style="list-style-type: none"> • "established" - The relationship is created. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleted" - The relationship was successfully cleaned up and deleted.

Name	Type	Required	Description
stateAllowed	array[string]	False	<p>States that can be requested in a given state. The following states can be requested in each defined state:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleted" • "established": "failedOver", "deleted" • "failingOver": "failedOver", "deleted" • "failedOver": "established", "deleted" • "deleting": "deleted" • "deleted": "deleted"
stateDetails	array[type_astra_stateDetail]	True	<p>Additional details about the current state, including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
transferState	string	False	<p>State of the current or most recent snapshot transfer. Defined values are:</p> <ul style="list-style-type: none"> • "transferring" - A new snapshot was created and is now being replicated to the destination cluster. This state also covers the transfers that have failed on previous attempts and are being continually retried. • "idle" - There is currently no transfer in progress.
transferStateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "transferring": "idle" • "idle": "transferring"
transferStateDetails	array[type_astra_stateDetail]	False	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
healthState	string	True	<p>Health state of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "indeterminate" - The health of the resource cannot be determined (for example, due to lack of connectivity) • "normal" - The resource has no known issues and can provide services in accordance with the interface specification • "warning" - The resource has known issues that do not prevent it providing services in accordance with the interface specification • "critical" - The resource has known issues that prevent it from providing services in accordance with the interface specification

Name	Type	Required	Description
healthStateTransitions	array[type_astra_stateTransition]	True	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "indeterminate": "normal", "warning", "critical" • "normal": "indeterminate", "warning", "critical" • "warning": "indeterminate", "normal", "critical" • "critical": "indeterminate", "normal", "warning"
healthStateDetails	array[type_astra_stateDetail]	True	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
metadata	type_astra_metadata_update	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. If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

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 an AppMirror resource for an app

GET /accounts/{account_id}/k8s/v1/apps/{app_id}/appMirrors/{appMirror_id}

Returns the stored AppMirror API resource in the JSON response body.

Parameters

Name	Type	In	Required	Description
account_id	string	path	True	<p>ID of the containing account resource</p> <ul style="list-style-type: none">example: <code>{{.Account}}</code>
app_id	string	path	True	ID of the containing app resource
appMirror_id	string	path	True	ID of the appMirror collection to list

Response

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

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

Name	Type	Required	Description
sourceAppID	string	True	<p>Identifier of the source application. Only updated when swapping the sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
sourceClusterID	string	True	<p>Identifier of the managed cluster hosting the source application. This field is read-only and is determined based on the host cluster of the source application. If provided in an update, it must match the cluster ID of the source application, so it can only change when swapping the sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
destinationAppID	string	False	<p>Identifier of the destination application. Cannot be provided on create because a new app ID will be generated as part of relationship initialization. Can only be updated when swapping sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
destinationClusterID	string	True	<p>Identifier of the managed cluster to host the destination application. Must be provided on create because it determines what cluster the destination application will be created on. If provided on update, it must match the cluster ID of the destination application, so it can only change when swapping sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
namespaceMapping	array[namespaceMapping]	False	<p>The namespace or namespaces to use when creating the destination application, corresponding to the namespaces of the source application. Each JSON object contains the fields "clusterID" and "namespaces", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "namespaces" value is a JSON array of JSON strings. There must be exactly one JSON object for each cluster, and the namespaces will be correlated by index. If not provided, the same namespace from the source cluster will be used in the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
storageClasses	array[storageClasses]	False	<p>The storage class to be used on the destination cluster when creating new Persistent Volume Claims (PVCs). Each JSON object contains the fields "clusterID" and "storageClassName", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "storageClassName" is the storage class to use when creating PVCs on that cluster. If not provided or if the value is missing for a cluster, the default storage class will be used for that cluster.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
state	string	True	<p>The state of the relationship. Defined values are:</p> <ul style="list-style-type: none"> • "establishing" - The relationship is being created. • "established" - The relationship is created. • "failingOver" - Failover of the application to the destination cluster is in progress. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleting" - Resources created by the relationship are being cleaned up. • "deleted" - The relationship was cleaned up and deleted.
stateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleting" • "established": "failingOver", "deleting" • "failingOver": "failedOver", "deleting" • "failedOver": "establishing", "deleting" • "deleting": "deleted" • "deleted":

Name	Type	Required	Description
stateDesired	string	True	<p>The desired state for the relationship. At creation, the only valid value is "established". Defined values are:</p> <ul style="list-style-type: none"> • "established" - The relationship is created. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleted" - The relationship was successfully cleaned up and deleted.
stateAllowed	array[string]	False	<p>States that can be requested in a given state. The following states can be requested in each defined state:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleted" • "established": "failedOver", "deleted" • "failingOver": "failedOver", "deleted" • "failedOver": "established", "deleted" • "deleting": "deleted" • "deleted": "deleted"
stateDetails	array[type_astra_stateDetail]	True	<p>Additional details about the current state, including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
transferState	string	False	<p>State of the current or most recent snapshot transfer. Defined values are:</p> <ul style="list-style-type: none"> • "transferring" - A new snapshot was created and is now being replicated to the destination cluster. This state also covers the transfers that have failed on previous attempts and are being continually retried. • "idle" - There is currently no transfer in progress.
transferStateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "transferring": "idle" • "idle": "transferring"
transferStateDetails	array[type_astra_stateDetail]	False	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
healthState	string	True	<p>Health state of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "indeterminate" - The health of the resource cannot be determined (for example, due to lack of connectivity) • "normal" - The resource has no known issues and can provide services in accordance with the interface specification • "warning" - The resource has known issues that do not prevent it providing services in accordance with the interface specification • "critical" - The resource has known issues that prevent it from providing services in accordance with the interface specification
healthStateTransitions	array[type_astra_stateTransition]	True	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "indeterminate": "normal", "warning", "critical" • "normal": "indeterminate", "warning", "critical" • "warning": "indeterminate", "normal", "critical" • "critical": "indeterminate", "normal", "warning"

Name	Type	Required	Description
healthStateDetails	array[type_astra_stateDetail]	True	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0
metadata	type_astra_metadata_update	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 If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

Example response

```
{  
  "type": "application/astra-appMirror",  
  "version": "1.0",  
  "id": "c5fbadd4-5d9e-5942-bb7f-f5386b6b6253",  
  "sourceAppID": "efd639b6-fc92-4112-8841-0c0ab7890ae0",  
  "sourceClusterID": "5789e026-c2e2-41e9-ab00-9766bcfa8951",  
  "destinationAppID": "cd7b6d91-fc19-4983-a754-9a7bb4d80a7b",  
  "destinationClusterID": "c5d023a9-4061-4a8a-bfbf-3be11ff06226",  
  "namespaceMapping": [  
    {  
      "clusterID": "5789e026-c2e2-41e9-ab00-9766bcfa8951",  
      "namespaces": [  
        "ns1-src",  
        "ns2-src"  
      ]  
    },  
    {  
      "clusterID": "c5d023a9-4061-4a8a-bfbf-3be11ff06226",  
      "namespaces": [  
        "ns1-dest",  
        "ns2-dest"  
      ]  
    }  
  ],  
  "state": "established",  
  "stateTransitions": [  
    {  
      "from": "establishing",  
      "to": [  
        "established",  
        "deleting"  
      ]  
    },  
    {  
      "from": "established",  
      "to": [  
        "failingOver",  
        "deleting"  
      ]  
    },  
    {  
      "from": "failingOver",  
      "to": [  
        "failedOver",  
        "deleting"  
      ]  
    }  
  ]  
}
```

```

        "deleting"
    ],
},
{
    "from": "failedOver",
    "to": [
        "establishing",
        "deleting"
    ],
},
{
    "from": "deleting",
    "to": [
        "deleted"
    ]
}
],
"stateDesired": "established",
"stateAllowed": [
    "failedOver",
    "deleted"
],
"stateDetails": [
{
    "type": "https://astra.netapp.io/stateDetails/1",
    "title": "AppMirror relationship established",
    "detail": "The AppMirror relationship has been successfully
established."
},
],
"healthState": "normal",
"healthStateTransitions": [
{
    "from": "indeterminate",
    "to": [
        "normal",
        "warning",
        "critical"
    ]
},
{
    "from": "normal",
    "to": [
        "indeterminate",
        "warning",
        "critical"
    ]
}
]
}

```

```

        ],
    },
    {
        "from": "warning",
        "to": [
            "indeterminate",
            "normal",
            "critical"
        ],
    },
    {
        "from": "critical",
        "to": [
            "indeterminate",
            "normal",
            "warning"
        ],
    }
],
"healthStateDetails": [
{
    "type": "https://astra.netapp.io/stateDetails/2",
    "title": "SnapMirror syncing successfully",
    "detail": "All SnapMirror relationships are synchronizing as
expected."
},
{
    "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	

Name	Type	Required	Description
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

namespaceMapping

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the namespaces are specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema
namespaces	array[string]	False	<p>List of namespaces to use on the cluster. Correlated with the other cluster namespace list by index. Defined values are:</p> <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Conforms to the DNS 1123 Label Schema

storageClasses

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the storage class is specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema

Name	Type	Required	Description
storageClassName	string	False	<p>Name of the storage class to use when creating PVCs on the cluster specified in "clusterID". Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 255

type_astra_stateTransition

Name	Type	Required	Description
from	string	True	
to	array[string]	True	

type_astra_stateDetail

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	

type_astra_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type_astra_metadata_update

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

- Conforms to the Astra Metadata Schema If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

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

Name	Type	Required	Description
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

Modify an AppMirror resource for an app

PUT /accounts/{account_id}/k8s/v1/apps/{app_id}/appMirrors/{appMirror_id}

Replaces the entire stored resource with the supplied JSON request body while preserving key values that are not user-modifiable.

Side Effects

- Various side effects based on desiredState.

Parameters

Name	Type	In	Required	Description
account_id	string	path	True	ID of the containing account resource <ul style="list-style-type: none"> example: {{.Account}}
app_id	string	path	True	ID of the containing app resource
appMirror_id	string	path	True	ID of the appMirror collection to list

Request Body

Replaces the entire stored resource with the supplied JSON request body while preserving key values that are not user-modifiable.

Side Effects

- Various side effects based on desiredState.

Name	Type	Required	Description
type	string	True	<p>Media type of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "application/astra-appMirror"
version	string	True	<p>Version of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "1.0"
id	string	False	<p>Globally unique identifier of the resource. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the UUIDv4 Schema
sourceAppID	string	False	<p>Identifier of the source application. Only updated when swapping the sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
sourceClusterID	string	False	<p>Identifier of the managed cluster hosting the source application. This field is read-only and is determined based on the host cluster of the source application. If provided in an update, it must match the cluster ID of the source application, so it can only change when swapping the sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
destinationAppID	string	False	<p>Identifier of the destination application. Cannot be provided on create because a new app ID will be generated as part of relationship initialization. Can only be updated when swapping sourceAppID with the destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema
destinationClusterID	string	False	<p>Identifier of the managed cluster to host the destination application. Must be provided on create because it determines what cluster the destination application will be created on. If provided on update, it must match the cluster ID of the destination application, so it can only change when swapping sourceAppID with destinationAppID. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Identifier Schema

Name	Type	Required	Description
namespaceMapping	array[namespaceMapping]	False	<p>The namespace or namespaces to use when creating the destination application, corresponding to the namespaces of the source application. Each JSON object contains the fields "clusterID" and "namespaces", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "namespaces" value is a JSON array of JSON strings. There must be exactly one JSON object for each cluster, and the namespaces will be correlated by index. If not provided, the same namespace from the source cluster will be used in the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
storageClasses	array[storageClasses]	False	<p>The storage class to be used on the destination cluster when creating new Persistent Volume Claims (PVCs). Each JSON object contains the fields "clusterID" and "storageClassName", where the "clusterID" value is the JSON string ID of the source or destination cluster, and the "storageClassName" is the storage class to use when creating PVCs on that cluster. If not provided or if the value is missing for a cluster, the default storage class will be used for that cluster.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 0 • Maximum length: 2

Name	Type	Required	Description
state	string	False	<p>The state of the relationship. Defined values are:</p> <ul style="list-style-type: none"> • "establishing" - The relationship is being created. • "established" - The relationship is created. • "failingOver" - Failover of the application to the destination cluster is in progress. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleting" - Resources created by the relationship are being cleaned up. • "deleted" - The relationship was cleaned up and deleted.
stateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleting" • "established": "failingOver", "deleting" • "failingOver": "failedOver", "deleting" • "failedOver": "establishing", "deleting" • "deleting": "deleted" • "deleted":

Name	Type	Required	Description
stateDesired	string	False	<p>The desired state for the relationship. At creation, the only valid value is "established". Defined values are:</p> <ul style="list-style-type: none"> • "established" - The relationship is created. • "failedOver" - Failover of the application to the destination cluster has completed. • "deleted" - The relationship was successfully cleaned up and deleted.
stateAllowed	array[string]	False	<p>States that can be requested in a given state. The following states can be requested in each defined state:</p> <ul style="list-style-type: none"> • "establishing": "established", "deleted" • "established": "failedOver", "deleted" • "failingOver": "failedOver", "deleted" • "failedOver": "established", "deleted" • "deleting": "deleted" • "deleted": "deleted"
stateDetails	array[type_astra_stateDetail]	False	<p>Additional details about the current state, including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
transferState	string	False	<p>State of the current or most recent snapshot transfer. Defined values are:</p> <ul style="list-style-type: none"> • "transferring" - A new snapshot was created and is now being replicated to the destination cluster. This state also covers the transfers that have failed on previous attempts and are being continually retried. • "idle" - There is currently no transfer in progress.
transferStateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "transferring": "idle" • "idle": "transferring"
transferStateDetails	array[type_astra_stateDetail]	False	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0

Name	Type	Required	Description
healthState	string	False	<p>Health state of the resource. Defined values are:</p> <ul style="list-style-type: none"> • "indeterminate" - The health of the resource cannot be determined (for example, due to lack of connectivity) • "normal" - The resource has no known issues and can provide services in accordance with the interface specification • "warning" - The resource has known issues that do not prevent it providing services in accordance with the interface specification • "critical" - The resource has known issues that prevent it from providing services in accordance with the interface specification
healthStateTransitions	array[type_astra_stateTransition]	False	<p>Permitted state transitions from a given defined state. The following state transitions are possible for this resource:</p> <ul style="list-style-type: none"> • "indeterminate": "normal", "warning", "critical" • "normal": "indeterminate", "warning", "critical" • "warning": "indeterminate", "normal", "critical" • "critical": "indeterminate", "normal", "warning"

Name	Type	Required	Description
healthStateDetails	array[type_astra_stateDetail]	False	<p>Additional details about the current state including why the current state was reached. If no details are available, this array will be empty. Defined values are:</p> <ul style="list-style-type: none"> • Minimum Items: 0
metadata	type_astra_metadata_update	False	<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 If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

Example request

```
{
  "type": "application/astra-appMirror",
  "version": "1.0",
  "stateDesired": "failedOver"
}
```

Response

Status: 204, Indicates if the appMirror resource was updated.

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	
invalidFields	array[invalidFields]	False	List of invalid request body fields

Example response

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

Response

Status: 409, Conflict

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	
status	string	True	
correlationID	string	False	
invalidFields	array[invalidFields]	False	List of invalid request body fields

Example response

```
{  
  "type": "https://astra.netapp.io/problems/10",  
  "title": "JSON resource conflict",  
  "detail": "The request body JSON contains a field that conflicts with  
  an idempotent value.",  
  "status": "409"  
}
```

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/1",
  "title": "Resource not found",
  "detail": "The resource specified in the request URI wasn't found.",
  "status": "404"
}
```

Definitions

See Definitions

namespaceMapping

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the namespaces are specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema
namespaces	array[string]	False	<p>List of namespaces to use on the cluster. Correlated with the other cluster namespace list by index. Defined values are:</p> <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63• Conforms to the DNS 1123 Label Schema

storageClasses

Name	Type	Required	Description
clusterID	string	False	<p>Identifier of the cluster for which the storage class is specified. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Identifier Schema

Name	Type	Required	Description
storageClassName	string	False	<p>Name of the storage class to use when creating PVCs on the cluster specified in "clusterID". Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 255

type_astra_stateTransition

Name	Type	Required	Description
from	string	True	
to	array[string]	True	

type_astra_stateDetail

Name	Type	Required	Description
type	string	True	
title	string	True	
detail	string	True	

type_astra_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type_astra_metadata_update

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

- Conforms to the Astra Metadata Schema If not specified on create, a metadata object will be created with no labels. If not specified on update, the metadata object's labels, creationTimestamp and createdBy, will be preserved without modification.

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

Name	Type	Required	Description
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

invalidFields

Name	Type	Required	Description
name	string	True	Name of the invalid request body field
reason	string	True	Reason why the request body field is invalid

Delete an AppMirror resource for an app

`DELETE /accounts/{account_id}/k8s/v1/apps/{app_id}/appMirrors/{appMirror_id}`

Removes the specified AppMirror API resource. Starts a process to asynchronously remove the AppMirror resource, along with any resources on the source and destination clusters that were created as a result of the AppMirror relationship. The resources removed are dependent on the state of the relationship at the time of deletion.

Side Effects

- The stateDesired field is set to "deleted".
- The state field is set to "deleting".
- If state is "established", the TridentMirrorRelationships and PersistentVolumeClaims created by the AppMirror relationship will be deleted.
- If state is "failedOver", the TridentMirrorRelationships created by the AppMirror relationship will be deleted and the PersistentVolumeClaims in the destination application will be left in place.
- When the asynchronous delete operation is completed, the AppMirror API resource will be removed from both the source and destination applications.

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>
app_id	string	path	True	ID of the containing app resource
appMirror_id	string	path	True	ID of the appMirror collection to list

Response

Status: 204, Indicates if the appMirror resource was deleted.

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/1",  
  "title": "Resource not found",  
  "detail": "The resource specified in the request URI wasn't found.",  
  "status": "404"  
}
```

Definitions

See Definitions

invalidParams

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

저작권 정보

Copyright © 2025 NetApp, Inc. All Rights Reserved. 미국에서 인쇄됨 본 문서의 어떠한 부분도 저작권 소유자의 사전 서면 승인 없이는 어떠한 형식이나 수단(복사, 녹음, 녹화 또는 전자 검색 시스템에 저장하는 것을 비롯한 그레픽, 전자적 또는 기계적 방법)으로도 복제될 수 없습니다.

NetApp이 저작권을 가진 자료에 있는 소프트웨어에는 아래의 라이센스와 고지사항이 적용됩니다.

본 소프트웨어는 NetApp에 의해 '있는 그대로' 제공되며 상품성 및 특정 목적에의 적합성에 대한 명시적 또는 묵시적 보증을 포함하여(이에 제한되지 않음) 어떠한 보증도 하지 않습니다. NetApp은 대체품 또는 대체 서비스의 조달, 사용 불능, 데이터 손실, 이익 손실, 영업 중단을 포함하여(이에 국한되지 않음), 이 소프트웨어의 사용으로 인해 발생하는 모든 직접 및 간접 손해, 우발적 손해, 특별 손해, 징벌적 손해, 결과적 손해의 발생에 대하여 그 발생 이유, 책임론, 계약 여부, 엄격한 책임, 불법 행위(과실 또는 그렇지 않은 경우)와 관계없이 어떠한 책임도 지지 않으며, 이와 같은 손실의 발생 가능성이 통지되었다 하더라도 마찬가지입니다.

NetApp은 본 문서에 설명된 제품을 언제든지 예고 없이 변경할 권리를 보유합니다. NetApp은 NetApp의 명시적인 서면 동의를 받은 경우를 제외하고 본 문서에 설명된 제품을 사용하여 발생하는 어떠한 문제에도 책임을 지지 않습니다. 본 제품의 사용 또는 구매의 경우 NetApp에서는 어떠한 특허권, 상표권 또는 기타 지적 재산권이 적용되는 라이센스도 제공하지 않습니다.

본 설명서에 설명된 제품은 하나 이상의 미국 특허, 해외 특허 또는 출원 중인 특허로 보호됩니다.

제한적 권리 표시: 정부에 의한 사용, 복제 또는 공개에는 DFARS 252.227-7013(2014년 2월) 및 FAR 52.227-19(2007년 12월)의 기술 데이터-비상업적 품목에 대한 권리(Rights in Technical Data -Noncommercial Items) 조항의 하위 조항 (b)(3)에 설명된 제한사항이 적용됩니다.

여기에 포함된 데이터는 상업용 제품 및/또는 상업용 서비스(FAR 2.101에 정의)에 해당하며 NetApp, Inc.의 독점 자산입니다. 본 계약에 따라 제공되는 모든 NetApp 기술 데이터 및 컴퓨터 소프트웨어는 본질적으로 상업용이며 개인 비용만으로 개발되었습니다. 미국 정부는 데이터가 제공된 미국 계약과 관련하여 해당 계약을 지원하는 데에만 데이터에 대한 전 세계적으로 비독점적이고 양도할 수 없으며 재사용이 불가능하며 취소 불가능한 라이센스를 제한적으로 가집니다. 여기에 제공된 경우를 제외하고 NetApp, Inc.의 사전 서면 승인 없이는 이 데이터를 사용, 공개, 재생산, 수정, 수행 또는 표시할 수 없습니다. 미국 국방부에 대한 정부 라이센스는 DFARS 조항 252.227-7015(b)(2014년 2월)에 명시된 권한으로 제한됩니다.

상표 정보

NETAPP, NETAPP 로고 및 <http://www.netapp.com/TM>에 나열된 마크는 NetApp, Inc.의 상표입니다. 기타 회사 및 제품 이름은 해당 소유자의 상표일 수 있습니다.