



# App

## Astra Automation

NetApp  
June 28, 2024

# Tabla de contenidos

- App ..... 1
  - App overview ..... 1
  - Create a new app for a managed cluster ..... 1
  - List the apps for a managed cluster ..... 38
  - Retrieve an app for a managed cluster ..... 67
  - Modify an app for a managed cluster ..... 97
  - Delete an app for a managed cluster ..... 122
  - Create a new app ..... 127
  - List all apps ..... 164
  - Retrieve an app ..... 193
  - Modify an app ..... 222
  - Delete an app ..... 247

# App

## App overview

The App API represents Kubernetes applications, including those unmanaged by Astra.

## Create a new app for a managed cluster

POST /accounts/{account\_id}/topology/v2/managedClusters/{managedCluster\_id}/apps

Indicates the desired values for the App 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"><li>example: <code>{{.Account}}</code></li></ul>
managedCluster_id	string	path	True	ID of the containing managedCluster resource

### Request Body

Indicates the desired values for the App 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"><li>"application/astra-app"</li></ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"><li>"2.0"</li><li>"2.1"</li><li>"2.2"</li></ul>

Name	Type	Required	Description
name	string	True	<p>JSON string containing a name for the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• This string is internally validated to prevent XSS, Unicode, directory traversal, and SQL-injection attacks.</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
clusterScopedResources	array[clusterScopedResources]	False	JSON array of JSON objects describing the cluster-scoped resources that are part of this app
namespaceScopedResources	array[namespaceScopedResources]	False	JSON array of JSON objects describing the resources that are part of this app
namespaceMapping	array[namespaceMapping]	False	<p>JSON array of JSON objects, each mapping a source namespace to a destination namespace for a clone operation. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>
storageClassMapping	array[storageClassMapping]	False	<p>JSON array of JSON objects, each mapping a source storage class to a destination storage class for a restore operation. If no elements or not present, original source storage class names will be used. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
clusterID	string	False	<p>JSON string containing the ID of the cluster that the application is running on. Not returned if the application is not currently running. When specified on create, clusterID indicates which cluster the application must be cloned into. If the specified cluster does not exist, or if the cluster specified does not match the clusterID specified in the request URI, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
sourceAppID	string	False	<p>JSON string containing the ID of a source application. Only returned if the application was cloned from another application, or was restored from a backup or snapshot. When specified on create, the sourceAppID is used in conjunction with the sourceClusterID and indicates which running application will be cloned. If the specified application does not exist on the specified source cluster, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
sourceClusterID	string	False	<p>JSON string containing the ID of the cluster the application was previously running on. Only returned if the application was cloned from another cluster. When specified on create, the sourceClusterID is used in conjunction with the sourceAppID and indicates the source cluster of the application to be cloned. If the specified source cluster does not exist, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"><li>• Conforms to the Astra Identifier Schema</li></ul>

Name	Type	Required	Description
backupID	string	False	<p>JSON string containing the ID of the backup that the application was restored from. Only returned if the application was restored from a backup. When specified on create, backupID indicates that an application will be cloned from an existing backup. If the specified backup does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, backupID indicates the application backup from which the application will be in-place restored. If the specified backup does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application</p> <p>Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
snapshotID	string	False	<p>JSON string containing the ID of the snapshot that the application was restored from. Only returned if the application was restored from a snapshot. When specified on create, snapshotID indicates that an application will be cloned from an existing snapshot. If the specified snapshot does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, snapshotID indicates the application snapshot from which the application will be in-place restored. If the specified snapshot does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
restoreFilter	restoreFilter	False	<p>JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.</p>



Name	Type	Required	Description
metadata	<a href="#">type_astra_metadata_update</a>	False	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> <li>Conforms to the Astra Metadata Schema. 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.</li> </ul>

### Example request

```
{
  "type": "application/astra-app",
  "version": "2.2",
  "name": "jenkins",
  "clusterID": "0f284377-e5dc-4dcd-bacd-3197f2b8a347",
  "namespaceScopedResources": [
    {
      "namespace": "production"
    }
  ]
}
```

### Response

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

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"> <li>"application/astra-app"</li> </ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"> <li>"2.0"</li> <li>"2.1"</li> <li>"2.2"</li> </ul>
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> <li>Conforms to the UUIDv4 Schema</li> </ul>
links	array[type_astra_link]	True	Links describing supported operations against the resource.
name	string	True	JSON string containing a name for the application. Defined values are: <ul style="list-style-type: none"> <li>Minimum length: 1</li> <li>Maximum length: 63</li> <li>This string is internally validated to prevent XSS, Unicode, directory traversal, and SQL-injection attacks.</li> <li>Conforms to the DNS 1123 Label Schema</li> </ul>
clusterScopedResources	array[clusterScopedResources]	False	JSON array of JSON objects describing the cluster-scoped resources that are part of this app

Name	Type	Required	Description
namespaceScopedResources	array[ <a href="#">namespaceScopedResources</a> ]	True	JSON array of JSON objects describing the resources that are part of this app
lastResourceCollectionTimestamp	string	False	<p>JSON string containing the timestamp when the last resource collection was performed. This field is unset if no resource collection has been performed for this application yet. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the ISO-8601 Date Time Schema</li> </ul>

Name	Type	Required	Description
state	string	True	<p>JSON string containing a value indicating the operational state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "pending" - The application is scheduled for discovery</li> <li>• "discovering" - The application is in the process of being discovered</li> <li>• "provisioning" - The application is in the process of being provisioned</li> <li>• "ready" - The application is running normally</li> <li>• "failed" - The application is in a permanent failure state</li> <li>• "restoring" - The application is being restored from backup or snapshot</li> <li>• "unavailable" - The application is not currently accessible</li> <li>• "unknown" - The application state cannot be determined</li> <li>• "deleting" - The application is in the process of being deleted</li> </ul>

Name	Type	Required	Description
stateTransitions	array[ <a href="#">type_astra_stateTransition</a> ]	False	<p>JSON array of JSON objects, each representing the set of permitted state transitions from a given defined state. Each JSON object contains the fields "from" and "to", where the "from" value is the name of a state, and the "to" value is an array of permitted destination states.</p>
stateDetails	array[ <a href="#">type_astra_stateDetail</a> ]	True	<p>JSON array of JSON objects which lists additional details about the current state, including why the current state was reached. If no details are available, this array will be empty.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
protectionState	string	True	<p>JSON string containing a value indicating the protection state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "protected" - The application has a protection policy defined and is in conformance with that policy</li> <li>• "partial" - The application has a protection policy defined, but is out of conformance with that policy</li> <li>• "none" - The application does not have a protection policy defined</li> <li>• "atRisk" - The default storage class on the cluster does not support snapshots, the application is at risk of gaining an unsupported volume</li> </ul>
protectionStateDetails	array[type_astra_stateDetail]	True	<p>JSON array of JSON objects which lists additional details about the current protection 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"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
appDetectedType	string	False	<p>JSON string that uniquely represents the specific type of application that is detected. Defined values are:</p> <ul style="list-style-type: none"> <li>• "system" - The application contains a resource that identifies it as part of the Kubernetes environment</li> <li>• "acc" - The application contains resources that identify it as an Astra Control Center instance</li> </ul>
namespaces	array[string]	True	<p>JSON array of JSON strings containing the names of the namespaces in which the application is running. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
namespaceMapping	array[ <a href="#">namespaceMapping</a> ]	False	<p>JSON array of JSON objects, each mapping a source namespace to a destination namespace for a clone operation. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
storageClassMapping	array[ <a href="#">storageClassMapping</a> ]	False	<p>JSON array of JSON objects, each mapping a source storage class to a destination storage class for a restore operation. If no elements or not present, original source storage class names will be used. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>
clusterName	string	False	<p>JSON string containing the name of the cluster that the application is running on. Not returned if the application is not currently running.</p>
clusterID	string	False	<p>JSON string containing the ID of the cluster that the application is running on. Not returned if the application is not currently running. When specified on create, clusterID indicates which cluster the application must be cloned into. If the specified cluster does not exist, or if the cluster specified does not match the clusterID specified in the request URI, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>



Name	Type	Required	Description
clusterType	string	False	<p>JSON string containing a value indicating the type of cluster. Defined values are:</p> <ul style="list-style-type: none"><li>• "gke" - Kubernetes hosted on Google Kubernetes Engine (GKE)</li><li>• "aks" - Kubernetes hosted on Microsoft Azure Kubernetes Service (AKS)</li><li>• "eks" - Kubernetes hosted on Amazon Elastic Kubernetes Service (Amazon EKS)</li><li>• "openshift" - The cluster is of type OpenShift</li><li>• "kubernetes" - The cluster is generic Kubernetes</li></ul>

Name	Type	Required	Description
sourceAppID	string	False	<p>JSON string containing the ID of a source application. Only returned if the application was cloned from another application, or was restored from a backup or snapshot. When specified on create, the sourceAppID is used in conjunction with the sourceClusterID and indicates which running application will be cloned. If the specified application does not exist on the specified source cluster, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
sourceClusterName	string	False	<p>JSON string containing the name of the cluster the application was previously running on. Only returned if the application was cloned from another cluster.</p>

Name	Type	Required	Description
sourceClusterID	string	False	<p>JSON string containing the ID of the cluster the application was previously running on. Only returned if the application was cloned from another cluster. When specified on create, the sourceClusterID is used in conjunction with the sourceAppID and indicates the source cluster of the application to be cloned. If the specified source cluster does not exist, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"><li>• Conforms to the Astra Identifier Schema</li></ul>

Name	Type	Required	Description
backupID	string	False	<p>JSON string containing the ID of the backup that the application was restored from. Only returned if the application was restored from a backup. When specified on create, backupID indicates that an application will be cloned from an existing backup. If the specified backup does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, backupID indicates the application backup from which the application will be in-place restored. If the specified backup does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
snapshotID	string	False	<p>JSON string containing the ID of the snapshot that the application was restored from. Only returned if the application was restored from a snapshot. When specified on create, snapshotID indicates that an application will be cloned from an existing snapshot. If the specified snapshot does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, snapshotID indicates the application snapshot from which the application will be in-place restored. If the specified snapshot does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
replicationSourceAppID	string	False	<p>JSON string containing the ID of the application that is being replicated to this application. Only returned if the application is currently the destination in an AppMirror relationship, and the relationship is not in the failedOver state. When the relationship is in the failedOver state, this field is not returned. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
restoreFilter	restoreFilter	False	JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.
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"> <li>• 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.</li> </ul>

## Example response

```
{
  "type": "application/astra-app",
  "version": "2.2",
  "id": "39c1c79f-efab-5357-88fb-20e628c4dd96",
  "links": [],
  "name": "jenkins",
  "namespaceScopedResources": [
    {
      "namespace": "production",
      "labelSelectors": []
    }
  ],
  "state": "pending",
  "stateDetails": [],
  "protectionState": "none",
  "protectionStateDetails": [],
  "namespaces": [
    "production"
  ],
  "clusterName": "GKE-22",
  "clusterID": "0f284377-e5dc-4dcd-bacd-3197f2b8a347",
  "clusterType": "kubernetes",
  "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	

Name	Type	Required	Description
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	

### 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	

### 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/2",
  "title": "Collection not found",
  "detail": "The collection specified in the request URI wasn't
found.",
  "status": "404"
}
```

## Definitions

## See Definitions

### GVK

JSON object containing a Kubernetes group/version/kind.

- This object is internally validated against Astra /apiResources.

Name	Type	Required	Description
group	string	True	JSON string containing a group identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>
kind	string	True	JSON string containing a kind identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>
version	string	True	JSON string containing a version identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>

### clusterScopedResources

Name	Type	Required	Description
GVK	<a href="#">GVK</a>	True	JSON object containing a Kubernetes group/version/kind. <ul style="list-style-type: none"><li>• This object is internally validated against Astra /apiResources.</li></ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings representing a label selector for the cluster-scoped GroupVersionKinds (GVKs) within the cluster. If this is empty, then all GVK instances on the cluster are included. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### namespaceScopedResources

Name	Type	Required	Description
namespace	string	True	<p>JSON string containing the name of a namespace in which the application is defined. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings representing a label selector within the namespace. If this is empty, then all resources in the namespace are included. Each element in this array is a Kubernetes label selector string and follows the grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql</li> <li>• [ "app != mysql" ] — Select all resources that have a label whose name is app and whose value is not mysql</li> <li>• [ "app in (mysql, mariadb)" ] — Select all resources that have a label whose name is app and value is mysql or mariadb</li> <li>• [ "app notin (nginx, wordpress)" ] — Select all resources that do not have a label whose name is app and whose values are nginx or wordpress</li> <li>• [ "app" ] — Select all resources that have a label named app</li> <li>• [ "!app" ] — Select all resources that do not have a label named app Note that multiple selection operators can be included in a single selector, separated by commas. In that case, the results of the individual</li> </ul>

## namespaceMapping

Name	Type	Required	Description
source	string	True	<p>JSON string containing the name of the namespace on the source cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
destination	string	True	<p>JSON string containing the name of the namespace on the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

## storageClassMapping

Name	Type	Required	Description
source	string	True	<p>JSON string containing the name of the source storage class. Can also be '*' to specify all source storage classes. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema if Storage Class name is used</li> <li>• '*' to specify all storage classes</li> </ul>

Name	Type	Required	Description
destination	string	True	<p>JSON string containing the name of the destination storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

#### GVKN

Name	Type	Required	Description
group	string	False	<p>JSON string containing a group identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
version	string	False	<p>JSON string containing a version identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
kind	string	False	<p>JSON string containing a kind identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>

Name	Type	Required	Description
namespaces	array[string]	False	<p>JSON array of JSON strings describing namespaces to include or exclude resources from. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
names	array[string]	False	<p>JSON array of JSON strings describing Kubernetes resource names to include or exclude from the selective restore. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>



Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings describing Kubernetes label selectors used to include or exclude resources from the selective restore. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>[ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### restoreFilter

JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.

Name	Type	Required	Description
resourceSelectionCriteria	string	True	JSON string containing a value that indicates how resource filters select resources. Valid values are include or exclude.

Name	Type	Required	Description
GVKN	array[GVKN]	True	JSON array of JSON objects that describe resources to filter during a selective restore. A resource matches a single GVKN filter element if all of the specified filter fields match the corresponding resource field. Filter fields that are arrays (for example, namespaces and names) match if any of its elements match the corresponding resource field. The labelSelectors field requires that all selectors match. A resource that matches any filter in the array of GVKN filter objects is included or excluded from the restore based on the resourceSelectionCriteria value. Specifying empty GVKN objects results in a validation error.

#### 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	

Name	Type	Required	Description
createdBy	string	False	
modifiedBy	string	False	

targetSchema

accept-post

accept-put

hints

Name	Type	Required	Description
status	string	False	
allow	array[string]	False	
accept-post	<a href="#">accept-post</a>	False	
permissions	array[string]	False	
accept-put	<a href="#">accept-put</a>	False	

type\_astra\_link

Name	Type	Required	Description
rel	string	True	
href	string	True	
type	string	False	
targetSchema	<a href="#">targetSchema</a>	False	
title	string	False	
hints	<a href="#">hints</a>	False	

namespaceScopedResources

Name	Type	Required	Description
namespace	string	True	<p>JSON string containing the name of a namespace in which the application is defined. Defined values are:</p> <ul style="list-style-type: none"><li>• Minimum length: 1</li><li>• Maximum length: 253</li><li>• Conforms to the DNS 1123 Label Schema</li></ul>

Name	Type	Required	Description
labelSelectors	array[string]	True	<p>JSON array of JSON strings representing a label selector within the namespace. If this is empty, then all resources in the namespace are included. Each element in this array is a Kubernetes label selector string and follows the grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql</li> <li>• [ "app != mysql" ] — Select all resources that have a label whose name is app and whose value is not mysql</li> <li>• [ "app in (mysql, mariadb)" ] — Select all resources that have a label whose name is app and value is mysql or mariadb</li> <li>• [ "app notin (nginx, wordpress)" ] — Select all resources that do not have a label whose name is app and whose values are nginx or wordpress</li> <li>• [ "app" ] — Select all resources that have a label named app</li> <li>• [ "!app" ] — Select all resources that do not have a label named app Note that multiple selection operators can be included in a single selector, separated by commas. In that case, the results of the individual</li> </ul>

### 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	

### restoreFilter

JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.

Name	Type	Required	Description
resourceSelectionCriteria	string	False	JSON string containing a value that indicates how resource filters select resources. Valid values are include or exclude.

Name	Type	Required	Description
GVKN	array[GVKN]	False	JSON array of JSON objects that describe resources to filter during a selective restore. A resource matches a single GVKN filter element if all of the specified filter fields match the corresponding resource field. Filter fields that are arrays (for example, namespaces and names) match if any of its elements match the corresponding resource field. The labelSelectors field requires that all selectors match. A resource that matches any filter in the array of GVKN filter objects is included or excluded from the restore based on the resourceSelectionCriteria value. Specifying empty GVKN objects results in a validation error.

#### 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 apps for a managed cluster

GET /accounts/{account\_id}/topology/v2/managedClusters/{managedCluster\_id}/apps

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

## Parameters

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



Name	Type	In	Required	Description
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"> <li>• eq - Equality</li> <li>• lt/gt - Less than/Greater than</li> <li>• lte/gte - Less than or equals to/Greater than or equals to</li> </ul> <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: <a href="#">app_2.2_get_response_body</a> , array[]]	True	
metadata	<a href="#">type_astra_metadata_list</a>	True	

## Example response

```
{
  "type": "application/astra-apps",
  "version": "2.2",
  "items": [
    [
      "2ff50f4b-fe40-4980-913f-8a4469184822",
      "mysql",
      "ready"
    ],
    [
      "ae1e6561-9e22-406c-8a5a-762f4604da00",
      "jenkins",
      "ready"
    ]
  ],
  "metadata": {
    "labels": [],
    "creationTimestamp": "2022-10-06T20:58:16.305662Z",
    "modificationTimestamp": "2022-10-06T20:58:16.305662Z",
    "createdBy": "8f84cf09-8036-51e4-b579-bd30cb07b269"
  }
}
```

## Response

Status: 401, Unauthorized

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

### Example response

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

### Response

Status: 400, Bad request

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

### Example response

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

### Response

Status: 403, Forbidden

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

### Example response

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

### Error

Status: 404, Not found

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

### Example error response

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

# Definitions

## See Definitions

targetSchema

accept-post

accept-put

hints

Name	Type	Required	Description
status	string	False	
allow	array[string]	False	
accept-post	<a href="#">accept-post</a>	False	
permissions	array[string]	False	
accept-put	<a href="#">accept-put</a>	False	

type\_astra\_link

Name	Type	Required	Description
rel	string	True	
href	string	True	
type	string	False	
targetSchema	<a href="#">targetSchema</a>	False	
title	string	False	
hints	<a href="#">hints</a>	False	

GVK

JSON object containing a Kubernetes group/version/kind.

- This object is internally validated against Astra /apiResources.

Name	Type	Required	Description
group	string	True	JSON string containing a group identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>

Name	Type	Required	Description
kind	string	True	JSON string containing a kind identifier assigned by Kubernetes. <ul style="list-style-type: none"> <li>This string is internally validated against Astra /apiResources</li> </ul>
version	string	True	JSON string containing a version identifier assigned by Kubernetes. <ul style="list-style-type: none"> <li>This string is internally validated against Astra /apiResources</li> </ul>

clusterScopedResources

Name	Type	Required	Description
GVK	<a href="#">GVK</a>	True	JSON object containing a Kubernetes group/version/kind. <ul style="list-style-type: none"> <li>This object is internally validated against Astra /apiResources.</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings representing a label selector for the cluster-scoped GroupVersionKinds (GVKs) within the cluster. If this is empty, then all GVK instances on the cluster are included. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### namespaceScopedResources

Name	Type	Required	Description
namespace	string	True	<p>JSON string containing the name of a namespace in which the application is defined. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>



Name	Type	Required	Description
labelSelectors	array[string]	True	<p>JSON array of JSON strings representing a label selector within the namespace. If this is empty, then all resources in the namespace are included. Each element in this array is a Kubernetes label selector string and follows the grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql</li> <li>• [ "app != mysql" ] — Select all resources that have a label whose name is app and whose value is not mysql</li> <li>• [ "app in (mysql, mariadb)" ] — Select all resources that have a label whose name is app and value is mysql or mariadb</li> <li>• [ "app notin (nginx, wordpress)" ] — Select all resources that do not have a label whose name is app and whose values are nginx or wordpress</li> <li>• [ "app" ] — Select all resources that have a label named app</li> <li>• [ "!app" ] — Select all resources that do not have a label named app Note that multiple selection operators can be included in a single selector, separated by commas. In that case, the results of the individual</li> </ul>

### 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	

### namespaceMapping

Name	Type	Required	Description
source	string	True	<p>JSON string containing the name of the namespace on the source cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
destination	string	True	<p>JSON string containing the name of the namespace on the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

### storageClassMapping

Name	Type	Required	Description
source	string	True	<p>JSON string containing the name of the source storage class. Can also be '*' to specify all source storage classes. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema if Storage Class name is used</li> <li>• '*' to specify all storage classes</li> </ul>
destination	string	True	<p>JSON string containing the name of the destination storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

#### GVKN

Name	Type	Required	Description
group	string	False	<p>JSON string containing a group identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>

Name	Type	Required	Description
version	string	False	<p>JSON string containing a version identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
kind	string	False	<p>JSON string containing a kind identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
namespaces	array[string]	False	<p>JSON array of JSON strings describing namespaces to include or exclude resources from. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
names	array[string]	False	<p>JSON array of JSON strings describing Kubernetes resource names to include or exclude from the selective restore. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings describing Kubernetes label selectors used to include or exclude resources from the selective restore. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>[ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### restoreFilter

JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.

Name	Type	Required	Description
resourceSelectionCriteria	string	False	JSON string containing a value that indicates how resource filters select resources. Valid values are include or exclude.

Name	Type	Required	Description
GVKN	array[GVKN]	False	JSON array of JSON objects that describe resources to filter during a selective restore. A resource matches a single GVKN filter element if all of the specified filter fields match the corresponding resource field. Filter fields that are arrays (for example, namespaces and names) match if any of its elements match the corresponding resource field. The labelSelectors field requires that all selectors match. A resource that matches any filter in the array of GVKN filter objects is included or excluded from the restore based on the resourceSelectionCriteria value. Specifying empty GVKN objects results in a validation error.

#### 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	

Name	Type	Required	Description
createdBy	string	False	
modifiedBy	string	False	

#### app\_2.2\_get\_response\_body

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"> <li>• "application/astra-app"</li> </ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"> <li>• "2.0"</li> <li>• "2.1"</li> <li>• "2.2"</li> </ul>
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> <li>• Conforms to the UUIDv4 Schema</li> </ul>
links	array[type_astra_link]	True	Links describing supported operations against the resource.
name	string	True	JSON string containing a name for the application. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• This string is internally validated to prevent XSS, Unicode, directory traversal, and SQL-injection attacks.</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
clusterScopedResources	array[ <a href="#">clusterScopedResources</a> ]	False	JSON array of JSON objects describing the cluster-scoped resources that are part of this app
namespaceScopedResources	array[ <a href="#">namespaceScopedResources</a> ]	True	JSON array of JSON objects describing the resources that are part of this app
lastResourceCollectionTimestamp	string	False	<p>JSON string containing the timestamp when the last resource collection was performed. This field is unset if no resource collection has been performed for this application yet. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the ISO-8601 Date Time Schema</li> </ul>



Name	Type	Required	Description
state	string	True	<p>JSON string containing a value indicating the operational state of the application. Defined values are:</p> <ul style="list-style-type: none"><li>• "pending" - The application is scheduled for discovery</li><li>• "discovering" - The application is in the process of being discovered</li><li>• "provisioning" - The application is in the process of being provisioned</li><li>• "ready" - The application is running normally</li><li>• "failed" - The application is in a permanent failure state</li><li>• "restoring" - The application is being restored from backup or snapshot</li><li>• "unavailable" - The application is not currently accessible</li><li>• "unknown" - The application state cannot be determined</li><li>• "deleting" - The application is in the process of being deleted</li></ul>

Name	Type	Required	Description
stateTransitions	array[ <a href="#">type_astra_stateTransition</a> ]	False	JSON array of JSON objects, each representing the set of permitted state transitions from a given defined state. Each JSON object contains the fields "from" and "to", where the "from" value is the name of a state, and the "to" value is an array of permitted destination states.
stateDetails	array[ <a href="#">type_astra_stateDetail</a> ]	True	<p>JSON array of JSON objects which lists additional details about the current state, including why the current state was reached. If no details are available, this array will be empty.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
protectionState	string	True	<p>JSON string containing a value indicating the protection state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "protected" - The application has a protection policy defined and is in conformance with that policy</li> <li>• "partial" - The application has a protection policy defined, but is out of conformance with that policy</li> <li>• "none" - The application does not have a protection policy defined</li> <li>• "atRisk" - The default storage class on the cluster does not support snapshots, the application is at risk of gaining an unsupported volume</li> </ul>
protectionStateDetails	array[ <a href="#">type_astra_stateDe tail</a> ]	True	<p>JSON array of JSON objects which lists additional details about the current protection 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"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
appDetectedType	string	False	<p>JSON string that uniquely represents the specific type of application that is detected. Defined values are:</p> <ul style="list-style-type: none"> <li>• "system" - The application contains a resource that identifies it as part of the Kubernetes environment</li> <li>• "acc" - The application contains resources that identify it as an Astra Control Center instance</li> </ul>
namespaces	array[string]	True	<p>JSON array of JSON strings containing the names of the namespaces in which the application is running. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
namespaceMapping	array[namespaceMapping]	False	<p>JSON array of JSON objects, each mapping a source namespace to a destination namespace for a clone operation. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
storageClassMapping	array[storageClassMapping]	False	<p>JSON array of JSON objects, each mapping a source storage class to a destination storage class for a restore operation. If no elements or not present, original source storage class names will be used. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>
clusterName	string	False	<p>JSON string containing the name of the cluster that the application is running on. Not returned if the application is not currently running.</p>
clusterID	string	False	<p>JSON string containing the ID of the cluster that the application is running on. Not returned if the application is not currently running. When specified on create, clusterID indicates which cluster the application must be cloned into. If the specified cluster does not exist, or if the cluster specified does not match the clusterID specified in the request URI, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
clusterType	string	False	<p>JSON string containing a value indicating the type of cluster. Defined values are:</p> <ul style="list-style-type: none"><li>• "gke" - Kubernetes hosted on Google Kubernetes Engine (GKE)</li><li>• "aks" - Kubernetes hosted on Microsoft Azure Kubernetes Service (AKS)</li><li>• "eks" - Kubernetes hosted on Amazon Elastic Kubernetes Service (Amazon EKS)</li><li>• "openshift" - The cluster is of type OpenShift</li><li>• "kubernetes" - The cluster is generic Kubernetes</li></ul>

Name	Type	Required	Description
sourceAppID	string	False	<p>JSON string containing the ID of a source application. Only returned if the application was cloned from another application, or was restored from a backup or snapshot. When specified on create, the sourceAppID is used in conjunction with the sourceClusterID and indicates which running application will be cloned. If the specified application does not exist on the specified source cluster, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
sourceClusterName	string	False	<p>JSON string containing the name of the cluster the application was previously running on. Only returned if the application was cloned from another cluster.</p>

Name	Type	Required	Description
sourceClusterID	string	False	<p>JSON string containing the ID of the cluster the application was previously running on. Only returned if the application was cloned from another cluster. When specified on create, the sourceClusterID is used in conjunction with the sourceAppID and indicates the source cluster of the application to be cloned. If the specified source cluster does not exist, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>



Name	Type	Required	Description
backupID	string	False	<p>JSON string containing the ID of the backup that the application was restored from. Only returned if the application was restored from a backup. When specified on create, backupID indicates that an application will be cloned from an existing backup. If the specified backup does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, backupID indicates the application backup from which the application will be in-place restored. If the specified backup does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application</p> <p>Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
snapshotID	string	False	<p>JSON string containing the ID of the snapshot that the application was restored from. Only returned if the application was restored from a snapshot. When specified on create, snapshotID indicates that an application will be cloned from an existing snapshot. If the specified snapshot does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, snapshotID indicates the application snapshot from which the application will be in-place restored. If the specified snapshot does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
replicationSourceAppID	string	False	<p>JSON string containing the ID of the application that is being replicated to this application. Only returned if the application is currently the destination in an AppMirror relationship, and the relationship is not in the failedOver state. When the relationship is in the failedOver state, this field is not returned. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
restoreFilter	<a href="#">restoreFilter</a>	False	<p>JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.</p>

Name	Type	Required	Description
metadata	<a href="#">type_astra_metadata_update</a>	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> <li>Conforms to the Astra Metadata Schema. 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.</li> </ul>

#### type\_astra\_metadata\_list

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

#### invalidParams

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

# Retrieve an app for a managed cluster

GET

/accounts/{account\_id}/topology/v2/managedClusters/{managedCluster\_id}/apps/{app\_id}

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

## Parameters

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

## Response

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

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"><li>"application/astra-app"</li></ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"><li>"2.0"</li><li>"2.1"</li><li>"2.2"</li></ul>

Name	Type	Required	Description
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> <li>• Conforms to the UUIDv4 Schema</li> </ul>
links	array[ <a href="#">type_astra_link</a> ]	True	Links describing supported operations against the resource.
name	string	True	JSON string containing a name for the application. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• This string is internally validated to prevent XSS, Unicode, directory traversal, and SQL-injection attacks.</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
clusterScopedResources	array[ <a href="#">clusterScopedResources</a> ]	False	JSON array of JSON objects describing the cluster-scoped resources that are part of this app
namespaceScopedResources	array[ <a href="#">namespaceScopedResources</a> ]	True	JSON array of JSON objects describing the resources that are part of this app

Name	Type	Required	Description
lastResourceCollectionTimestamp	string	False	<p>JSON string containing the timestamp when the last resource collection was performed. This field is unset if no resource collection has been performed for this application yet. Defined values are:</p> <ul style="list-style-type: none"><li>• Conforms to the ISO-8601 Date Time Schema</li></ul>

Name	Type	Required	Description
state	string	True	<p>JSON string containing a value indicating the operational state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "pending" - The application is scheduled for discovery</li> <li>• "discovering" - The application is in the process of being discovered</li> <li>• "provisioning" - The application is in the process of being provisioned</li> <li>• "ready" - The application is running normally</li> <li>• "failed" - The application is in a permanent failure state</li> <li>• "restoring" - The application is being restored from backup or snapshot</li> <li>• "unavailable" - The application is not currently accessible</li> <li>• "unknown" - The application state cannot be determined</li> <li>• "deleting" - The application is in the process of being deleted</li> </ul>



Name	Type	Required	Description
stateTransitions	array[ <a href="#">type_astra_stateTransition</a> ]	False	<p>JSON array of JSON objects, each representing the set of permitted state transitions from a given defined state. Each JSON object contains the fields "from" and "to", where the "from" value is the name of a state, and the "to" value is an array of permitted destination states.</p>
stateDetails	array[ <a href="#">type_astra_stateDetail</a> ]	True	<p>JSON array of JSON objects which lists additional details about the current state, including why the current state was reached. If no details are available, this array will be empty.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
protectionState	string	True	<p>JSON string containing a value indicating the protection state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "protected" - The application has a protection policy defined and is in conformance with that policy</li> <li>• "partial" - The application has a protection policy defined, but is out of conformance with that policy</li> <li>• "none" - The application does not have a protection policy defined</li> <li>• "atRisk" - The default storage class on the cluster does not support snapshots, the application is at risk of gaining an unsupported volume</li> </ul>
protectionStateDetails	array[type_astra_stateDetail]	True	<p>JSON array of JSON objects which lists additional details about the current protection 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"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
appDetectedType	string	False	<p>JSON string that uniquely represents the specific type of application that is detected. Defined values are:</p> <ul style="list-style-type: none"> <li>• "system" - The application contains a resource that identifies it as part of the Kubernetes environment</li> <li>• "acc" - The application contains resources that identify it as an Astra Control Center instance</li> </ul>
namespaces	array[string]	True	<p>JSON array of JSON strings containing the names of the namespaces in which the application is running. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
namespaceMapping	array[ <a href="#">namespaceMapping</a> ]	False	<p>JSON array of JSON objects, each mapping a source namespace to a destination namespace for a clone operation. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
storageClassMapping	array[ <a href="#">storageClassMapping</a> ]	False	<p>JSON array of JSON objects, each mapping a source storage class to a destination storage class for a restore operation. If no elements or not present, original source storage class names will be used. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>
clusterName	string	False	<p>JSON string containing the name of the cluster that the application is running on. Not returned if the application is not currently running.</p>
clusterID	string	False	<p>JSON string containing the ID of the cluster that the application is running on. Not returned if the application is not currently running. When specified on create, clusterID indicates which cluster the application must be cloned into. If the specified cluster does not exist, or if the cluster specified does not match the clusterID specified in the request URI, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
clusterType	string	False	<p>JSON string containing a value indicating the type of cluster. Defined values are:</p> <ul style="list-style-type: none"><li>• "gke" - Kubernetes hosted on Google Kubernetes Engine (GKE)</li><li>• "aks" - Kubernetes hosted on Microsoft Azure Kubernetes Service (AKS)</li><li>• "eks" - Kubernetes hosted on Amazon Elastic Kubernetes Service (Amazon EKS)</li><li>• "openshift" - The cluster is of type OpenShift</li><li>• "kubernetes" - The cluster is generic Kubernetes</li></ul>

Name	Type	Required	Description
sourceAppID	string	False	<p>JSON string containing the ID of a source application. Only returned if the application was cloned from another application, or was restored from a backup or snapshot. When specified on create, the sourceAppID is used in conjunction with the sourceClusterID and indicates which running application will be cloned. If the specified application does not exist on the specified source cluster, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
sourceClusterName	string	False	<p>JSON string containing the name of the cluster the application was previously running on. Only returned if the application was cloned from another cluster.</p>

Name	Type	Required	Description
sourceClusterID	string	False	<p>JSON string containing the ID of the cluster the application was previously running on. Only returned if the application was cloned from another cluster. When specified on create, the sourceClusterID is used in conjunction with the sourceAppID and indicates the source cluster of the application to be cloned. If the specified source cluster does not exist, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
backupID	string	False	<p>JSON string containing the ID of the backup that the application was restored from. Only returned if the application was restored from a backup. When specified on create, backupID indicates that an application will be cloned from an existing backup. If the specified backup does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, backupID indicates the application backup from which the application will be in-place restored. If the specified backup does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application</p> <p>Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>



Name	Type	Required	Description
snapshotID	string	False	<p>JSON string containing the ID of the snapshot that the application was restored from. Only returned if the application was restored from a snapshot. When specified on create, snapshotID indicates that an application will be cloned from an existing snapshot. If the specified snapshot does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, snapshotID indicates the application snapshot from which the application will be in-place restored. If the specified snapshot does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
replicationSourceAppID	string	False	<p>JSON string containing the ID of the application that is being replicated to this application. Only returned if the application is currently the destination in an AppMirror relationship, and the relationship is not in the failedOver state. When the relationship is in the failedOver state, this field is not returned. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
restoreFilter	restoreFilter	False	JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.
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"> <li>• 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.</li> </ul>

## Example response

```
{
  "type": "application/astra-app",
  "version": "2.2",
  "id": "39c1c79f-efab-5357-88fb-20e628c4dd96",
  "links": [
    {
      "rel": "canonical",
      "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/topology/v2/managedClusters/6a358976-c3ac-49aa-b043-9c9b425c90ac/apps/27467088-2e99-4bd8-aa9b-014d5f44a62f"
    },
    {
      "rel": "collection",
      "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/topology/v1/clouds/892814c9-77a1-46f3-b54a-82c34cdf0032/clusters/6a358976-c3ac-49aa-b043-9c9b425c90ac/namespaces/da78daf6-8e11-4220-a461-6b1d4a6dc231/apps"
    },
    {
      "rel": "related",
      "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v1/apps/27467088-2e99-4bd8-aa9b-014d5f44a62f/appBackups",
      "type": "application/astra-appBackup",
      "title": "disruptiveBackup",
      "hints": {
        "allow": [],
        "permissions": [
          "appBackup-create"
        ]
      }
    },
    {
      "rel": "related",
      "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v1/apps/27467088-2e99-4bd8-aa9b-014d5f44a62f/appBackups",
      "type": "application/astra-appBackup",
      "title": "nonDisruptiveBackup",
      "hints": {
        "allow": [
          "POST"
        ],
        "permissions": [
```

```

        "appBackup-create"
    ]
}
},
{
    "rel": "related",
    "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v2/apps",
    "type": "application/astra-app",
    "title": "restore",
    "hints": {
        "allow": [
            "POST"
        ],
        "permissions": [
            "app-create"
        ]
    }
},
{
    "rel": "related",
    "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v1/apps/27467088-2e99-4bd8-aa9b-014d5f44a62f/appSnaps",
    "type": "application/astra-appSnap",
    "title": "snapshot",
    "hints": {
        "allow": [
            "POST"
        ],
        "permissions": [
            "appSnap-create"
        ]
    }
},
{
    "rel": "related",
    "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v2/apps",
    "type": "application/astra-app",
    "title": "clone",
    "hints": {
        "allow": [
            "POST"
        ],
        "permissions": [

```

```

        "app-create"
    ]
}
},
{
    "rel": "related",
    "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v2/apps/27467088-2e99-4bd8-aa9b-014d5f44a62f",
    "type": "application/astra-app",
    "title": "inPlaceRestore",
    "hints": {
        "allow": [
            "PUT"
        ],
        "permissions": [
            "app-update"
        ]
    }
},
{
    "rel": "related",
    "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v1/apps/27467088-2e99-4bd8-aa9b-014d5f44a62f/appMirrors",
    "type": "application/astra-appMirror",
    "title": "replication",
    "hints": {
        "allow": [
            "POST"
        ],
        "permissions": [
            "appMirror-create"
        ]
    }
},
],
"name": "jenkins",
"namespaceScopedResources": [
    {
        "namespace": "production-clone",
        "labelSelectors": [
            "app = jenkins,release = production"
        ]
    }
],
"namespaceMapping": [

```

```

    {
      "source": "production",
      "destination": "production-clone"
    }
  ],
  "state": "ready",
  "stateDetails": [],
  "protectionState": "none",
  "protectionStateDetails": [],
  "namespaces": [
    "production-clone"
  ],
  "snapshotID": "8d561930-0437-4647-b3e6-49b8a5362e3d",
  "clusterName": "GKE-24",
  "clusterID": "0f284377-e5dc-4dcd-bacd-3197f2b8a347",
  "clusterType": "kubernetes",
  "metadata": {
    "labels": [],
    "creationTimestamp": "2022-10-06T20:58:16.305662Z",
    "modificationTimestamp": "2022-10-06T20:58:16.305662Z",
    "createdBy": "8f84cf09-8036-51e4-b579-bd30cb07b269"
  }
}

```

## Response

Status: 401, Unauthorized

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

### Example response

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

### Response

Status: 400, Bad request

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

### Example response

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

### Response

Status: 403, Forbidden

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

### Example response

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

### Error

Status: 404, Not found

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

### Example error response

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



# Definitions

## See Definitions

targetSchema

accept-post

accept-put

hints

Name	Type	Required	Description
status	string	False	
allow	array[string]	False	
accept-post	<a href="#">accept-post</a>	False	
permissions	array[string]	False	
accept-put	<a href="#">accept-put</a>	False	

type\_astra\_link

Name	Type	Required	Description
rel	string	True	
href	string	True	
type	string	False	
targetSchema	<a href="#">targetSchema</a>	False	
title	string	False	
hints	<a href="#">hints</a>	False	

GVK

JSON object containing a Kubernetes group/version/kind.

- This object is internally validated against Astra /apiResources.

Name	Type	Required	Description
group	string	True	JSON string containing a group identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>

Name	Type	Required	Description
kind	string	True	JSON string containing a kind identifier assigned by Kubernetes.  <ul style="list-style-type: none"> <li>This string is internally validated against Astra /apiResources</li> </ul>
version	string	True	JSON string containing a version identifier assigned by Kubernetes.  <ul style="list-style-type: none"> <li>This string is internally validated against Astra /apiResources</li> </ul>

clusterScopedResources

Name	Type	Required	Description
GVK	<a href="#">GVK</a>	True	JSON object containing a Kubernetes group/version/kind.  <ul style="list-style-type: none"> <li>This object is internally validated against Astra /apiResources.</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings representing a label selector for the cluster-scoped GroupVersionKinds (GVKs) within the cluster. If this is empty, then all GVK instances on the cluster are included. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### namespaceScopedResources

Name	Type	Required	Description
namespace	string	True	<p>JSON string containing the name of a namespace in which the application is defined. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	True	<p>JSON array of JSON strings representing a label selector within the namespace. If this is empty, then all resources in the namespace are included. Each element in this array is a Kubernetes label selector string and follows the grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ]— Select all resources that have a label whose name is app and whose value is mysql</li> <li>• [ "app != mysql" ]— Select all resources that have a label whose name is app and whose value is not mysql</li> <li>• [ "app in (mysql, mariadb)" ]— Select all resources that have a label whose name is app and value is mysql or mariadb</li> <li>• [ "app notin (nginx, wordpress)" ]— Select all resources that do not have a label whose name is app and whose values are nginx or wordpress</li> <li>• [ "app" ]— Select all resources that have a label named app</li> <li>• [ "!app" ]— Select all resources that do not have a label named app Note that multiple selection operators can be included in a single selector, separated by commas. In that case, the results of the individual</li> </ul>

### 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	

### namespaceMapping

Name	Type	Required	Description
source	string	True	<p>JSON string containing the name of the namespace on the source cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
destination	string	True	<p>JSON string containing the name of the namespace on the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

### storageClassMapping

Name	Type	Required	Description
source	string	True	<p>JSON string containing the name of the source storage class. Can also be '*' to specify all source storage classes. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema if Storage Class name is used</li> <li>• '*' to specify all storage classes</li> </ul>
destination	string	True	<p>JSON string containing the name of the destination storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

#### GVKN

Name	Type	Required	Description
group	string	False	<p>JSON string containing a group identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>

Name	Type	Required	Description
version	string	False	<p>JSON string containing a version identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>This string is internally validated against Astra /apiResources</li> </ul>
kind	string	False	<p>JSON string containing a kind identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>This string is internally validated against Astra /apiResources</li> </ul>
namespaces	array[string]	False	<p>JSON array of JSON strings describing namespaces to include or exclude resources from. Defined values are:</p> <ul style="list-style-type: none"> <li>Minimum length: 1</li> <li>Maximum length: 63</li> <li>Conforms to the DNS 1123 Label Schema</li> </ul>
names	array[string]	False	<p>JSON array of JSON strings describing Kubernetes resource names to include or exclude from the selective restore. Defined values are:</p> <ul style="list-style-type: none"> <li>Minimum length: 1</li> <li>Maximum length: 253</li> <li>Conforms to the DNS 1123 Label Schema</li> </ul>



Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings describing Kubernetes label selectors used to include or exclude resources from the selective restore. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>[ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### restoreFilter

JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.

Name	Type	Required	Description
resourceSelectionCriteria	string	False	JSON string containing a value that indicates how resource filters select resources. Valid values are include or exclude.

Name	Type	Required	Description
GVKN	array[GVKN]	False	JSON array of JSON objects that describe resources to filter during a selective restore. A resource matches a single GVKN filter element if all of the specified filter fields match the corresponding resource field. Filter fields that are arrays (for example, namespaces and names) match if any of its elements match the corresponding resource field. The labelSelectors field requires that all selectors match. A resource that matches any filter in the array of GVKN filter objects is included or excluded from the restore based on the resourceSelectionCriteria value. Specifying empty GVKN objects results in a validation error.

#### 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	

Name	Type	Required	Description
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

## Modify an app for a managed cluster

PUT

/accounts/{account\_id}/topology/v2/managedClusters/{managedCluster\_id}/apps/{app\_id}

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

### Parameters

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

Name	Type	In	Required	Description
forceUpdate	string	header	False	Flag that enables destructive overwrites. Only include this when requesting an in-place restore (IPR).  • example: true

## Request Body

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

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are:  • "application/astra-app"
version	string	True	Version of the resource. Defined values are:  • "2.0" • "2.1" • "2.2"
id	string	False	Globally unique identifier of the resource. Defined values are:  • Conforms to the UUIDv4 Schema

Name	Type	Required	Description
name	string	False	<p>JSON string containing a name for the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• This string is internally validated to prevent XSS, Unicode, directory traversal, and SQL-injection attacks.</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
clusterScopedResources	array[ <a href="#">clusterScopedResources</a> ]	False	JSON array of JSON objects describing the cluster-scoped resources that are part of this app
namespaceScopedResources	array[ <a href="#">namespaceScopedResources</a> ]	False	JSON array of JSON objects describing the resources that are part of this app
lastResourceCollectionTimestamp	string	False	<p>JSON string containing the timestamp when the last resource collection was performed. This field is unset if no resource collection has been performed for this application yet. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the ISO-8601 Date Time Schema</li> </ul>

Name	Type	Required	Description
state	string	False	<p>JSON string containing a value indicating the operational state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "pending" - The application is scheduled for discovery</li> <li>• "discovering" - The application is in the process of being discovered</li> <li>• "provisioning" - The application is in the process of being provisioned</li> <li>• "ready" - The application is running normally</li> <li>• "failed" - The application is in a permanent failure state</li> <li>• "restoring" - The application is being restored from backup or snapshot</li> <li>• "unavailable" - The application is not currently accessible</li> <li>• "unknown" - The application state cannot be determined</li> <li>• "deleting" - The application is in the process of being deleted</li> </ul>

Name	Type	Required	Description
stateTransitions	array[ <a href="#">type_astra_stateTransition</a> ]	False	<p>JSON array of JSON objects, each representing the set of permitted state transitions from a given defined state. Each JSON object contains the fields "from" and "to", where the "from" value is the name of a state, and the "to" value is an array of permitted destination states.</p>
stateDetails	array[ <a href="#">type_astra_stateDetail</a> ]	False	<p>JSON array of JSON objects which lists additional details about the current state, including why the current state was reached. If no details are available, this array will be empty.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
protectionState	string	False	<p>JSON string containing a value indicating the protection state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "protected" - The application has a protection policy defined and is in conformance with that policy</li> <li>• "partial" - The application has a protection policy defined, but is out of conformance with that policy</li> <li>• "none" - The application does not have a protection policy defined</li> <li>• "atRisk" - The default storage class on the cluster does not support snapshots, the application is at risk of gaining an unsupported volume</li> </ul>
protectionStateDetails	array[type_astra_stateDetail]	False	<p>JSON array of JSON objects which lists additional details about the current protection 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"> <li>• Minimum Items: 0</li> </ul>



Name	Type	Required	Description
appDetectedType	string	False	<p>JSON string that uniquely represents the specific type of application that is detected. Defined values are:</p> <ul style="list-style-type: none"> <li>• "system" - The application contains a resource that identifies it as part of the Kubernetes environment</li> <li>• "acc" - The application contains resources that identify it as an Astra Control Center instance</li> </ul>
namespaces	array[string]	False	<p>JSON array of JSON strings containing the names of the namespaces in which the application is running. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
namespaceMapping	array[ <a href="#">namespaceMapping</a> ]	False	<p>JSON array of JSON objects, each mapping a source namespace to a destination namespace for a clone operation. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
storageClassMapping	array[ <a href="#">storageClassMapping</a> ]	False	<p>JSON array of JSON objects, each mapping a source storage class to a destination storage class for a restore operation. If no elements or not present, original source storage class names will be used. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>
clusterName	string	False	<p>JSON string containing the name of the cluster that the application is running on. Not returned if the application is not currently running.</p>
clusterID	string	False	<p>JSON string containing the ID of the cluster that the application is running on. Not returned if the application is not currently running. When specified on create, clusterID indicates which cluster the application must be cloned into. If the specified cluster does not exist, or if the cluster specified does not match the clusterID specified in the request URI, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
clusterType	string	False	<p>JSON string containing a value indicating the type of cluster. Defined values are:</p> <ul style="list-style-type: none"><li>• "gke" - Kubernetes hosted on Google Kubernetes Engine (GKE)</li><li>• "aks" - Kubernetes hosted on Microsoft Azure Kubernetes Service (AKS)</li><li>• "eks" - Kubernetes hosted on Amazon Elastic Kubernetes Service (Amazon EKS)</li><li>• "openshift" - The cluster is of type OpenShift</li><li>• "kubernetes" - The cluster is generic Kubernetes</li></ul>

Name	Type	Required	Description
sourceAppID	string	False	<p>JSON string containing the ID of a source application. Only returned if the application was cloned from another application, or was restored from a backup or snapshot. When specified on create, the sourceAppID is used in conjunction with the sourceClusterID and indicates which running application will be cloned. If the specified application does not exist on the specified source cluster, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
sourceClusterName	string	False	<p>JSON string containing the name of the cluster the application was previously running on. Only returned if the application was cloned from another cluster.</p>

Name	Type	Required	Description
sourceClusterID	string	False	<p>JSON string containing the ID of the cluster the application was previously running on. Only returned if the application was cloned from another cluster. When specified on create, the sourceClusterID is used in conjunction with the sourceAppID and indicates the source cluster of the application to be cloned. If the specified source cluster does not exist, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
backupID	string	False	<p>JSON string containing the ID of the backup that the application was restored from. Only returned if the application was restored from a backup. When specified on create, backupID indicates that an application will be cloned from an existing backup. If the specified backup does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, backupID indicates the application backup from which the application will be in-place restored. If the specified backup does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
snapshotID	string	False	<p>JSON string containing the ID of the snapshot that the application was restored from. Only returned if the application was restored from a snapshot. When specified on create, snapshotID indicates that an application will be cloned from an existing snapshot. If the specified snapshot does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, snapshotID indicates the application snapshot from which the application will be in-place restored. If the specified snapshot does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
replicationSourceAppID	string	False	<p>JSON string containing the ID of the application that is being replicated to this application. Only returned if the application is currently the destination in an AppMirror relationship, and the relationship is not in the failedOver state. When the relationship is in the failedOver state, this field is not returned. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
restoreFilter	restoreFilter	False	JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.
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"> <li>• 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.</li> </ul>

### Example request

```
{
  "type": "application/astra-app",
  "version": "2.2",
  "name": "mysql-old"
}
```

### Response

Status: 204, Indicates if the app 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	

### 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	

### 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	

Name	Type	Required	Description
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

### GVK

JSON object containing a Kubernetes group/version/kind.

- This object is internally validated against Astra /apiResources.

Name	Type	Required	Description
group	string	False	JSON string containing a group identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>
kind	string	False	JSON string containing a kind identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>
version	string	False	JSON string containing a version identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>

### clusterScopedResources

Name	Type	Required	Description
GVK	<a href="#">GVK</a>	False	JSON object containing a Kubernetes group/version/kind. <ul style="list-style-type: none"><li>• This object is internally validated against Astra /apiResources.</li></ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings representing a label selector for the cluster-scoped GroupVersionKinds (GVKs) within the cluster. If this is empty, then all GVK instances on the cluster are included. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### namespaceScopedResources

Name	Type	Required	Description
namespace	string	False	<p>JSON string containing the name of a namespace in which the application is defined. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings representing a label selector within the namespace. If this is empty, then all resources in the namespace are included. Each element in this array is a Kubernetes label selector string and follows the grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql</li> <li>• [ "app != mysql" ] — Select all resources that have a label whose name is app and whose value is not mysql</li> <li>• [ "app in (mysql, mariadb)" ] — Select all resources that have a label whose name is app and value is mysql or mariadb</li> <li>• [ "app notin (nginx, wordpress)" ] — Select all resources that do not have a label whose name is app and whose values are nginx or wordpress</li> <li>• [ "app" ] — Select all resources that have a label named app</li> <li>• [ "!app" ] — Select all resources that do not have a label named app Note that multiple selection operators can be included in a single selector, separated by commas. In that case, the results of the individual</li> </ul>

### 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	

### namespaceMapping

Name	Type	Required	Description
source	string	False	<p>JSON string containing the name of the namespace on the source cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
destination	string	False	<p>JSON string containing the name of the namespace on the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

### storageClassMapping

Name	Type	Required	Description
source	string	False	<p>JSON string containing the name of the source storage class. Can also be '*' to specify all source storage classes. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema if Storage Class name is used</li> <li>• '*' to specify all storage classes</li> </ul>
destination	string	False	<p>JSON string containing the name of the destination storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

#### GVKN

Name	Type	Required	Description
group	string	False	<p>JSON string containing a group identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>



Name	Type	Required	Description
version	string	False	<p>JSON string containing a version identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
kind	string	False	<p>JSON string containing a kind identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
namespaces	array[string]	False	<p>JSON array of JSON strings describing namespaces to include or exclude resources from. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
names	array[string]	False	<p>JSON array of JSON strings describing Kubernetes resource names to include or exclude from the selective restore. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings describing Kubernetes label selectors used to include or exclude resources from the selective restore. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>[ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### restoreFilter

JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.

Name	Type	Required	Description
resourceSelectionCriteria	string	True	JSON string containing a value that indicates how resource filters select resources. Valid values are include or exclude.

Name	Type	Required	Description
GVKN	array[GVKN]	True	JSON array of JSON objects that describe resources to filter during a selective restore. A resource matches a single GVKN filter element if all of the specified filter fields match the corresponding resource field. Filter fields that are arrays (for example, namespaces and names) match if any of its elements match the corresponding resource field. The labelSelectors field requires that all selectors match. A resource that matches any filter in the array of GVKN filter objects is included or excluded from the restore based on the resourceSelectionCriteria value. Specifying empty GVKN objects results in a validation error.

#### 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	

Name	Type	Required	Description
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

#### 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 app for a managed cluster

DELETE

/accounts/{account\_id}/topology/v2/managedClusters/{managedCluster\_id}/apps/{app\_id}

Removes the specified App API resource.

### Side Effects

- If the application is still running on a cluster, the application is no longer considered to be under management and will no longer appear under /apps.
- First, the application goes into the deleting state and then deletes all associated schedules, snapshots, backups, and the stored application state.

### Parameters

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

## Response

Status: 204, Indicates if the app 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"
}
```

### Response

Status: 500, Internal server error

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/91",
  "title": "Application not deleted",
  "detail": "The application wasn't deleted because of an internal
server issue.",
  "status": "500"
}
```

### Response

Status: 409, Conflict

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/112",
  "title": "Application not ready",
  "detail": "The application is currently unavailable.",
  "status": "409"
}
```

### 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 app

POST /accounts/{account\_id}/k8s/v2/apps

Indicates the desired values for the App 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"><li>example: {{.Account}}</li></ul>

### Request Body

Indicates the desired values for the App 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"><li>"application/astra-app"</li></ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"><li>"2.0"</li><li>"2.1"</li><li>"2.2"</li></ul>

Name	Type	Required	Description
name	string	True	<p>JSON string containing a name for the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• This string is internally validated to prevent XSS, Unicode, directory traversal, and SQL-injection attacks.</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
clusterScopedResources	array[clusterScopedResources]	False	JSON array of JSON objects describing the cluster-scoped resources that are part of this app
namespaceScopedResources	array[namespaceScopedResources]	False	JSON array of JSON objects describing the resources that are part of this app
namespaceMapping	array[namespaceMapping]	False	<p>JSON array of JSON objects, each mapping a source namespace to a destination namespace for a clone operation. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>
storageClassMapping	array[storageClassMapping]	False	<p>JSON array of JSON objects, each mapping a source storage class to a destination storage class for a restore operation. If no elements or not present, original source storage class names will be used. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
clusterID	string	False	<p>JSON string containing the ID of the cluster that the application is running on. Not returned if the application is not currently running. When specified on create, clusterID indicates which cluster the application must be cloned into. If the specified cluster does not exist, or if the cluster specified does not match the clusterID specified in the request URI, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
sourceAppID	string	False	<p>JSON string containing the ID of a source application. Only returned if the application was cloned from another application, or was restored from a backup or snapshot. When specified on create, the sourceAppID is used in conjunction with the sourceClusterID and indicates which running application will be cloned. If the specified application does not exist on the specified source cluster, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
sourceClusterID	string	False	<p>JSON string containing the ID of the cluster the application was previously running on. Only returned if the application was cloned from another cluster. When specified on create, the sourceClusterID is used in conjunction with the sourceAppID and indicates the source cluster of the application to be cloned. If the specified source cluster does not exist, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
backupID	string	False	<p>JSON string containing the ID of the backup that the application was restored from. Only returned if the application was restored from a backup. When specified on create, backupID indicates that an application will be cloned from an existing backup. If the specified backup does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, backupID indicates the application backup from which the application will be in-place restored. If the specified backup does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
snapshotID	string	False	<p>JSON string containing the ID of the snapshot that the application was restored from. Only returned if the application was restored from a snapshot. When specified on create, snapshotID indicates that an application will be cloned from an existing snapshot. If the specified snapshot does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, snapshotID indicates the application snapshot from which the application will be in-place restored. If the specified snapshot does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
restoreFilter	restoreFilter	False	<p>JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.</p>

Name	Type	Required	Description
metadata	<a href="#">type_astra_metadata_update</a>	False	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> <li>Conforms to the Astra Metadata Schema. 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.</li> </ul>

### Example request

```

{
  "type": "application/astra-app",
  "version": "2.2",
  "name": "jenkins",
  "clusterID": "0f284377-e5dc-4dcd-bacd-3197f2b8a347",
  "namespaceScopedResources": [
    {
      "namespace": "production"
    }
  ]
}

```

### Response

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

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"> <li>"application/astra-app"</li> </ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"> <li>"2.0"</li> <li>"2.1"</li> <li>"2.2"</li> </ul>
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> <li>Conforms to the UUIDv4 Schema</li> </ul>
links	array[type_astra_link]	True	Links describing supported operations against the resource.
name	string	True	JSON string containing a name for the application. Defined values are: <ul style="list-style-type: none"> <li>Minimum length: 1</li> <li>Maximum length: 63</li> <li>This string is internally validated to prevent XSS, Unicode, directory traversal, and SQL-injection attacks.</li> <li>Conforms to the DNS 1123 Label Schema</li> </ul>
clusterScopedResources	array[clusterScopedResources]	False	JSON array of JSON objects describing the cluster-scoped resources that are part of this app



Name	Type	Required	Description
namespaceScopedResources	array[ <a href="#">namespaceScopedResources</a> ]	True	JSON array of JSON objects describing the resources that are part of this app
lastResourceCollectionTimestamp	string	False	<p>JSON string containing the timestamp when the last resource collection was performed. This field is unset if no resource collection has been performed for this application yet. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the ISO-8601 Date Time Schema</li> </ul>

Name	Type	Required	Description
state	string	True	<p>JSON string containing a value indicating the operational state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "pending" - The application is scheduled for discovery</li> <li>• "discovering" - The application is in the process of being discovered</li> <li>• "provisioning" - The application is in the process of being provisioned</li> <li>• "ready" - The application is running normally</li> <li>• "failed" - The application is in a permanent failure state</li> <li>• "restoring" - The application is being restored from backup or snapshot</li> <li>• "unavailable" - The application is not currently accessible</li> <li>• "unknown" - The application state cannot be determined</li> <li>• "deleting" - The application is in the process of being deleted</li> </ul>

Name	Type	Required	Description
stateTransitions	array[ <a href="#">type_astra_stateTransition</a> ]	False	<p>JSON array of JSON objects, each representing the set of permitted state transitions from a given defined state. Each JSON object contains the fields "from" and "to", where the "from" value is the name of a state, and the "to" value is an array of permitted destination states.</p>
stateDetails	array[ <a href="#">type_astra_stateDetail</a> ]	True	<p>JSON array of JSON objects which lists additional details about the current state, including why the current state was reached. If no details are available, this array will be empty.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
protectionState	string	True	<p>JSON string containing a value indicating the protection state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "protected" - The application has a protection policy defined and is in conformance with that policy</li> <li>• "partial" - The application has a protection policy defined, but is out of conformance with that policy</li> <li>• "none" - The application does not have a protection policy defined</li> <li>• "atRisk" - The default storage class on the cluster does not support snapshots, the application is at risk of gaining an unsupported volume</li> </ul>
protectionStateDetails	array[type_astra_stateDetail]	True	<p>JSON array of JSON objects which lists additional details about the current protection 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"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
appDetectedType	string	False	<p>JSON string that uniquely represents the specific type of application that is detected. Defined values are:</p> <ul style="list-style-type: none"> <li>• "system" - The application contains a resource that identifies it as part of the Kubernetes environment</li> <li>• "acc" - The application contains resources that identify it as an Astra Control Center instance</li> </ul>
namespaces	array[string]	True	<p>JSON array of JSON strings containing the names of the namespaces in which the application is running. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
namespaceMapping	array[ <a href="#">namespaceMapping</a> ]	False	<p>JSON array of JSON objects, each mapping a source namespace to a destination namespace for a clone operation. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
storageClassMapping	array[ <a href="#">storageClassMapping</a> ]	False	<p>JSON array of JSON objects, each mapping a source storage class to a destination storage class for a restore operation. If no elements or not present, original source storage class names will be used. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>
clusterName	string	False	<p>JSON string containing the name of the cluster that the application is running on. Not returned if the application is not currently running.</p>
clusterID	string	False	<p>JSON string containing the ID of the cluster that the application is running on. Not returned if the application is not currently running. When specified on create, clusterID indicates which cluster the application must be cloned into. If the specified cluster does not exist, or if the cluster specified does not match the clusterID specified in the request URI, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
clusterType	string	False	<p>JSON string containing a value indicating the type of cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• "gke" - Kubernetes hosted on Google Kubernetes Engine (GKE)</li> <li>• "aks" - Kubernetes hosted on Microsoft Azure Kubernetes Service (AKS)</li> <li>• "eks" - Kubernetes hosted on Amazon Elastic Kubernetes Service (Amazon EKS)</li> <li>• "openshift" - The cluster is of type OpenShift</li> <li>• "kubernetes" - The cluster is generic Kubernetes</li> </ul>

Name	Type	Required	Description
sourceAppID	string	False	<p>JSON string containing the ID of a source application. Only returned if the application was cloned from another application, or was restored from a backup or snapshot. When specified on create, the sourceAppID is used in conjunction with the sourceClusterID and indicates which running application will be cloned. If the specified application does not exist on the specified source cluster, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
sourceClusterName	string	False	<p>JSON string containing the name of the cluster the application was previously running on. Only returned if the application was cloned from another cluster.</p>



Name	Type	Required	Description
sourceClusterID	string	False	<p>JSON string containing the ID of the cluster the application was previously running on. Only returned if the application was cloned from another cluster. When specified on create, the sourceClusterID is used in conjunction with the sourceAppID and indicates the source cluster of the application to be cloned. If the specified source cluster does not exist, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
backupID	string	False	<p>JSON string containing the ID of the backup that the application was restored from. Only returned if the application was restored from a backup. When specified on create, backupID indicates that an application will be cloned from an existing backup. If the specified backup does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, backupID indicates the application backup from which the application will be in-place restored. If the specified backup does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
snapshotID	string	False	<p>JSON string containing the ID of the snapshot that the application was restored from. Only returned if the application was restored from a snapshot. When specified on create, snapshotID indicates that an application will be cloned from an existing snapshot. If the specified snapshot does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, snapshotID indicates the application snapshot from which the application will be in-place restored. If the specified snapshot does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
replicationSourceAppID	string	False	<p>JSON string containing the ID of the application that is being replicated to this application. Only returned if the application is currently the destination in an AppMirror relationship, and the relationship is not in the failedOver state. When the relationship is in the failedOver state, this field is not returned. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
restoreFilter	restoreFilter	False	JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.
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"> <li>• 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.</li> </ul>

## Example response

```
{
  "type": "application/astra-app",
  "version": "2.2",
  "id": "39c1c79f-efab-5357-88fb-20e628c4dd96",
  "links": [],
  "name": "jenkins",
  "namespaceScopedResources": [
    {
      "namespace": "production",
      "labelSelectors": []
    }
  ],
  "state": "pending",
  "stateDetails": [],
  "protectionState": "none",
  "protectionStateDetails": [],
  "namespaces": [
    "production"
  ],
  "clusterName": "GKE-22",
  "clusterID": "0f284377-e5dc-4dcd-bacd-3197f2b8a347",
  "clusterType": "kubernetes",
  "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	

Name	Type	Required	Description
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	

### 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	

### 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/2",
  "title": "Collection not found",
  "detail": "The collection specified in the request URI wasn't
found.",
  "status": "404"
}
```

## Definitions



## See Definitions

### GVK

JSON object containing a Kubernetes group/version/kind.

- This object is internally validated against Astra /apiResources.

Name	Type	Required	Description
group	string	True	JSON string containing a group identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>
kind	string	True	JSON string containing a kind identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>
version	string	True	JSON string containing a version identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>

### clusterScopedResources

Name	Type	Required	Description
GVK	<a href="#">GVK</a>	True	JSON object containing a Kubernetes group/version/kind. <ul style="list-style-type: none"><li>• This object is internally validated against Astra /apiResources.</li></ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings representing a label selector for the cluster-scoped GroupVersionKinds (GVKs) within the cluster. If this is empty, then all GVK instances on the cluster are included. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### namespaceScopedResources

Name	Type	Required	Description
namespace	string	True	<p>JSON string containing the name of a namespace in which the application is defined. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings representing a label selector within the namespace. If this is empty, then all resources in the namespace are included. Each element in this array is a Kubernetes label selector string and follows the grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql</li> <li>• [ "app != mysql" ] — Select all resources that have a label whose name is app and whose value is not mysql</li> <li>• [ "app in (mysql, mariadb)" ] — Select all resources that have a label whose name is app and value is mysql or mariadb</li> <li>• [ "app notin (nginx, wordpress)" ] — Select all resources that do not have a label whose name is app and whose values are nginx or wordpress</li> <li>• [ "app" ] — Select all resources that have a label named app</li> <li>• [ "!app" ] — Select all resources that do not have a label named app Note that multiple selection operators can be included in a single selector, separated by commas. In that case, the results of the individual</li> </ul>

## namespaceMapping

Name	Type	Required	Description
source	string	True	<p>JSON string containing the name of the namespace on the source cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
destination	string	True	<p>JSON string containing the name of the namespace on the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

## storageClassMapping

Name	Type	Required	Description
source	string	True	<p>JSON string containing the name of the source storage class. Can also be '*' to specify all source storage classes. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema if Storage Class name is used</li> <li>• '*' to specify all storage classes</li> </ul>

Name	Type	Required	Description
destination	string	True	<p>JSON string containing the name of the destination storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

#### GVKN

Name	Type	Required	Description
group	string	False	<p>JSON string containing a group identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
version	string	False	<p>JSON string containing a version identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
kind	string	False	<p>JSON string containing a kind identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>

Name	Type	Required	Description
namespaces	array[string]	False	<p>JSON array of JSON strings describing namespaces to include or exclude resources from. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
names	array[string]	False	<p>JSON array of JSON strings describing Kubernetes resource names to include or exclude from the selective restore. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings describing Kubernetes label selectors used to include or exclude resources from the selective restore. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>[ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### restoreFilter

JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.

Name	Type	Required	Description
resourceSelectionCriteria	string	True	JSON string containing a value that indicates how resource filters select resources. Valid values are include or exclude.

Name	Type	Required	Description
GVKN	array[GVKN]	True	JSON array of JSON objects that describe resources to filter during a selective restore. A resource matches a single GVKN filter element if all of the specified filter fields match the corresponding resource field. Filter fields that are arrays (for example, namespaces and names) match if any of its elements match the corresponding resource field. The labelSelectors field requires that all selectors match. A resource that matches any filter in the array of GVKN filter objects is included or excluded from the restore based on the resourceSelectionCriteria value. Specifying empty GVKN objects results in a validation error.

#### 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	



Name	Type	Required	Description
createdBy	string	False	
modifiedBy	string	False	

targetSchema

accept-post

accept-put

hints

Name	Type	Required	Description
status	string	False	
allow	array[string]	False	
accept-post	<a href="#">accept-post</a>	False	
permissions	array[string]	False	
accept-put	<a href="#">accept-put</a>	False	

type\_astra\_link

Name	Type	Required	Description
rel	string	True	
href	string	True	
type	string	False	
targetSchema	<a href="#">targetSchema</a>	False	
title	string	False	
hints	<a href="#">hints</a>	False	

namespaceScopedResources

Name	Type	Required	Description
namespace	string	True	<p>JSON string containing the name of a namespace in which the application is defined. Defined values are:</p> <ul style="list-style-type: none"><li>• Minimum length: 1</li><li>• Maximum length: 253</li><li>• Conforms to the DNS 1123 Label Schema</li></ul>

Name	Type	Required	Description
labelSelectors	array[string]	True	<p>JSON array of JSON strings representing a label selector within the namespace. If this is empty, then all resources in the namespace are included. Each element in this array is a Kubernetes label selector string and follows the grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql</li> <li>• [ "app != mysql" ] — Select all resources that have a label whose name is app and whose value is not mysql</li> <li>• [ "app in (mysql, mariadb)" ] — Select all resources that have a label whose name is app and value is mysql or mariadb</li> <li>• [ "app notin (nginx, wordpress)" ] — Select all resources that do not have a label whose name is app and whose values are nginx or wordpress</li> <li>• [ "app" ] — Select all resources that have a label named app</li> <li>• [ "!app" ] — Select all resources that do not have a label named app Note that multiple selection operators can be included in a single selector, separated by commas. In that case, the results of the individual</li> </ul>

### 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	

### restoreFilter

JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.

Name	Type	Required	Description
resourceSelectionCriteria	string	False	JSON string containing a value that indicates how resource filters select resources. Valid values are include or exclude.

Name	Type	Required	Description
GVKN	array[GVKN]	False	JSON array of JSON objects that describe resources to filter during a selective restore. A resource matches a single GVKN filter element if all of the specified filter fields match the corresponding resource field. Filter fields that are arrays (for example, namespaces and names) match if any of its elements match the corresponding resource field. The labelSelectors field requires that all selectors match. A resource that matches any filter in the array of GVKN filter objects is included or excluded from the restore based on the resourceSelectionCriteria value. Specifying empty GVKN objects results in a validation error.

#### 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 apps

GET /accounts/{account\_id}/k8s/v2/apps

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

## Parameters

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

Name	Type	In	Required	Description
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"> <li>• eq - Equality</li> <li>• lt/gt - Less than/Greater than</li> <li>• lte/gte - Less than or equals to/Greater than or equals to</li> </ul> <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: <a href="#">app_2.2_get_response_body</a> , array[]]	True	
metadata	<a href="#">type_astra_metadata_list</a>	True	

## Example response

```
{
  "type": "application/astra-apps",
  "version": "2.2",
  "items": [
    [
      "2ff50f4b-fe40-4980-913f-8a4469184822",
      "mysql",
      "ready"
    ],
    [
      "ae1e6561-9e22-406c-8a5a-762f4604da00",
      "jenkins",
      "ready"
    ]
  ],
  "metadata": {
    "labels": [],
    "creationTimestamp": "2022-10-06T20:58:16.305662Z",
    "modificationTimestamp": "2022-10-06T20:58:16.305662Z",
    "createdBy": "8f84cf09-8036-51e4-b579-bd30cb07b269"
  }
}
```

## Response

Status: 401, Unauthorized

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



### Example response

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

### Response

Status: 400, Bad request

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

### Example response

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

### Response

Status: 403, Forbidden

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

### Example response

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

### Error

Status: 404, Not found

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

### Example error response

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

# Definitions

## See Definitions

targetSchema

accept-post

accept-put

hints

Name	Type	Required	Description
status	string	False	
allow	array[string]	False	
accept-post	<a href="#">accept-post</a>	False	
permissions	array[string]	False	
accept-put	<a href="#">accept-put</a>	False	

type\_astra\_link

Name	Type	Required	Description
rel	string	True	
href	string	True	
type	string	False	
targetSchema	<a href="#">targetSchema</a>	False	
title	string	False	
hints	<a href="#">hints</a>	False	

GVK

JSON object containing a Kubernetes group/version/kind.

- This object is internally validated against Astra /apiResources.

Name	Type	Required	Description
group	string	True	JSON string containing a group identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>

Name	Type	Required	Description
kind	string	True	JSON string containing a kind identifier assigned by Kubernetes.  <ul style="list-style-type: none"> <li>This string is internally validated against Astra /apiResources</li> </ul>
version	string	True	JSON string containing a version identifier assigned by Kubernetes.  <ul style="list-style-type: none"> <li>This string is internally validated against Astra /apiResources</li> </ul>

clusterScopedResources

Name	Type	Required	Description
GVK	<a href="#">GVK</a>	True	JSON object containing a Kubernetes group/version/kind.  <ul style="list-style-type: none"> <li>This object is internally validated against Astra /apiResources.</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings representing a label selector for the cluster-scoped GroupVersionKinds (GVKs) within the cluster. If this is empty, then all GVK instances on the cluster are included. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### namespaceScopedResources

Name	Type	Required	Description
namespace	string	True	<p>JSON string containing the name of a namespace in which the application is defined. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	True	<p>JSON array of JSON strings representing a label selector within the namespace. If this is empty, then all resources in the namespace are included. Each element in this array is a Kubernetes label selector string and follows the grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ]— Select all resources that have a label whose name is app and whose value is mysql</li> <li>• [ "app != mysql" ]— Select all resources that have a label whose name is app and whose value is not mysql</li> <li>• [ "app in (mysql, mariadb)" ]— Select all resources that have a label whose name is app and value is mysql or mariadb</li> <li>• [ "app notin (nginx, wordpress)" ]— Select all resources that do not have a label whose name is app and whose values are nginx or wordpress</li> <li>• [ "app" ]— Select all resources that have a label named app</li> <li>• [ "!app" ]— Select all resources that do not have a label named app Note that multiple selection operators can be included in a single selector, separated by commas. In that case, the results of the individual</li> </ul>

### 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	

### namespaceMapping

Name	Type	Required	Description
source	string	True	<p>JSON string containing the name of the namespace on the source cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
destination	string	True	<p>JSON string containing the name of the namespace on the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

### storageClassMapping



Name	Type	Required	Description
source	string	True	<p>JSON string containing the name of the source storage class. Can also be '*' to specify all source storage classes. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema if Storage Class name is used</li> <li>• '*' to specify all storage classes</li> </ul>
destination	string	True	<p>JSON string containing the name of the destination storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

#### GVKN

Name	Type	Required	Description
group	string	False	<p>JSON string containing a group identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>

Name	Type	Required	Description
version	string	False	<p>JSON string containing a version identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
kind	string	False	<p>JSON string containing a kind identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
namespaces	array[string]	False	<p>JSON array of JSON strings describing namespaces to include or exclude resources from. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
names	array[string]	False	<p>JSON array of JSON strings describing Kubernetes resource names to include or exclude from the selective restore. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings describing Kubernetes label selectors used to include or exclude resources from the selective restore. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>[ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### restoreFilter

JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.

Name	Type	Required	Description
resourceSelectionCriteria	string	False	<p>JSON string containing a value that indicates how resource filters select resources. Valid values are include or exclude.</p>

Name	Type	Required	Description
GVKN	array[GVKN]	False	JSON array of JSON objects that describe resources to filter during a selective restore. A resource matches a single GVKN filter element if all of the specified filter fields match the corresponding resource field. Filter fields that are arrays (for example, namespaces and names) match if any of its elements match the corresponding resource field. The labelSelectors field requires that all selectors match. A resource that matches any filter in the array of GVKN filter objects is included or excluded from the restore based on the resourceSelectionCriteria value. Specifying empty GVKN objects results in a validation error.

#### 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	

Name	Type	Required	Description
createdBy	string	False	
modifiedBy	string	False	

app\_2.2\_get\_response\_body

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"> <li>• "application/astra-app"</li> </ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"> <li>• "2.0"</li> <li>• "2.1"</li> <li>• "2.2"</li> </ul>
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> <li>• Conforms to the UUIDv4 Schema</li> </ul>
links	array[type_astra_link]	True	Links describing supported operations against the resource.
name	string	True	JSON string containing a name for the application. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• This string is internally validated to prevent XSS, Unicode, directory traversal, and SQL-injection attacks.</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
clusterScopedResources	array[ <a href="#">clusterScopedResources</a> ]	False	JSON array of JSON objects describing the cluster-scoped resources that are part of this app
namespaceScopedResources	array[ <a href="#">namespaceScopedResources</a> ]	True	JSON array of JSON objects describing the resources that are part of this app
lastResourceCollectionTimestamp	string	False	<p>JSON string containing the timestamp when the last resource collection was performed. This field is unset if no resource collection has been performed for this application yet. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the ISO-8601 Date Time Schema</li> </ul>

Name	Type	Required	Description
state	string	True	<p>JSON string containing a value indicating the operational state of the application. Defined values are:</p> <ul style="list-style-type: none"><li>• "pending" - The application is scheduled for discovery</li><li>• "discovering" - The application is in the process of being discovered</li><li>• "provisioning" - The application is in the process of being provisioned</li><li>• "ready" - The application is running normally</li><li>• "failed" - The application is in a permanent failure state</li><li>• "restoring" - The application is being restored from backup or snapshot</li><li>• "unavailable" - The application is not currently accessible</li><li>• "unknown" - The application state cannot be determined</li><li>• "deleting" - The application is in the process of being deleted</li></ul>

Name	Type	Required	Description
stateTransitions	array[ <a href="#">type_astra_stateTransition</a> ]	False	JSON array of JSON objects, each representing the set of permitted state transitions from a given defined state. Each JSON object contains the fields "from" and "to", where the "from" value is the name of a state, and the "to" value is an array of permitted destination states.
stateDetails	array[ <a href="#">type_astra_stateDetail</a> ]	True	<p>JSON array of JSON objects which lists additional details about the current state, including why the current state was reached. If no details are available, this array will be empty.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>



Name	Type	Required	Description
protectionState	string	True	<p>JSON string containing a value indicating the protection state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "protected" - The application has a protection policy defined and is in conformance with that policy</li> <li>• "partial" - The application has a protection policy defined, but is out of conformance with that policy</li> <li>• "none" - The application does not have a protection policy defined</li> <li>• "atRisk" - The default storage class on the cluster does not support snapshots, the application is at risk of gaining an unsupported volume</li> </ul>
protectionStateDetails	array[ <a href="#">type_astra_stateDe tail</a> ]	True	<p>JSON array of JSON objects which lists additional details about the current protection 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"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
appDetectedType	string	False	<p>JSON string that uniquely represents the specific type of application that is detected. Defined values are:</p> <ul style="list-style-type: none"> <li>• "system" - The application contains a resource that identifies it as part of the Kubernetes environment</li> <li>• "acc" - The application contains resources that identify it as an Astra Control Center instance</li> </ul>
namespaces	array[string]	True	<p>JSON array of JSON strings containing the names of the namespaces in which the application is running. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
namespaceMapping	array[namespaceMapping]	False	<p>JSON array of JSON objects, each mapping a source namespace to a destination namespace for a clone operation. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
storageClassMapping	array[ <a href="#">storageClassMapping</a> ]	False	<p>JSON array of JSON objects, each mapping a source storage class to a destination storage class for a restore operation. If no elements or not present, original source storage class names will be used. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>
clusterName	string	False	<p>JSON string containing the name of the cluster that the application is running on. Not returned if the application is not currently running.</p>
clusterID	string	False	<p>JSON string containing the ID of the cluster that the application is running on. Not returned if the application is not currently running. When specified on create, clusterID indicates which cluster the application must be cloned into. If the specified cluster does not exist, or if the cluster specified does not match the clusterID specified in the request URI, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
clusterType	string	False	<p>JSON string containing a value indicating the type of cluster. Defined values are:</p> <ul style="list-style-type: none"><li>• "gke" - Kubernetes hosted on Google Kubernetes Engine (GKE)</li><li>• "aks" - Kubernetes hosted on Microsoft Azure Kubernetes Service (AKS)</li><li>• "eks" - Kubernetes hosted on Amazon Elastic Kubernetes Service (Amazon EKS)</li><li>• "openshift" - The cluster is of type OpenShift</li><li>• "kubernetes" - The cluster is generic Kubernetes</li></ul>

Name	Type	Required	Description
sourceAppID	string	False	<p>JSON string containing the ID of a source application. Only returned if the application was cloned from another application, or was restored from a backup or snapshot. When specified on create, the sourceAppID is used in conjunction with the sourceClusterID and indicates which running application will be cloned. If the specified application does not exist on the specified source cluster, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
sourceClusterName	string	False	<p>JSON string containing the name of the cluster the application was previously running on. Only returned if the application was cloned from another cluster.</p>

Name	Type	Required	Description
sourceClusterID	string	False	<p>JSON string containing the ID of the cluster the application was previously running on. Only returned if the application was cloned from another cluster. When specified on create, the sourceClusterID is used in conjunction with the sourceAppID and indicates the source cluster of the application to be cloned. If the specified source cluster does not exist, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"><li>• Conforms to the Astra Identifier Schema</li></ul>

Name	Type	Required	Description
backupID	string	False	<p>JSON string containing the ID of the backup that the application was restored from. Only returned if the application was restored from a backup. When specified on create, backupID indicates that an application will be cloned from an existing backup. If the specified backup does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, backupID indicates the application backup from which the application will be in-place restored. If the specified backup does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application</p> <p>Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
snapshotID	string	False	<p>JSON string containing the ID of the snapshot that the application was restored from. Only returned if the application was restored from a snapshot. When specified on create, snapshotID indicates that an application will be cloned from an existing snapshot. If the specified snapshot does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, snapshotID indicates the application snapshot from which the application will be in-place restored. If the specified snapshot does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>



Name	Type	Required	Description
replicationSourceAppID	string	False	<p>JSON string containing the ID of the application that is being replicated to this application. Only returned if the application is currently the destination in an AppMirror relationship, and the relationship is not in the failedOver state. When the relationship is in the failedOver state, this field is not returned. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
restoreFilter	<a href="#">restoreFilter</a>	False	<p>JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.</p>

Name	Type	Required	Description
metadata	<a href="#">type_astra_metadata_update</a>	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> <li>Conforms to the Astra Metadata Schema. 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.</li> </ul>

#### type\_astra\_metadata\_list

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

#### invalidParams

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

# Retrieve an app

GET /accounts/{account\_id}/k8s/v2/apps/{app\_id}

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

## Parameters

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

## Response

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

Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"><li>"application/astra-app"</li></ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"><li>"2.0"</li><li>"2.1"</li><li>"2.2"</li></ul>
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"><li>Conforms to the UUIDv4 Schema</li></ul>

Name	Type	Required	Description
links	array[ <a href="#">type_astra_link</a> ]	True	Links describing supported operations against the resource.
name	string	True	<p>JSON string containing a name for the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• This string is internally validated to prevent XSS, Unicode, directory traversal, and SQL-injection attacks.</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
clusterScopedResources	array[ <a href="#">clusterScopedResources</a> ]	False	JSON array of JSON objects describing the cluster-scoped resources that are part of this app
namespaceScopedResources	array[ <a href="#">namespaceScopedResources</a> ]	True	JSON array of JSON objects describing the resources that are part of this app
lastResourceCollectionTimestamp	string	False	<p>JSON string containing the timestamp when the last resource collection was performed. This field is unset if no resource collection has been performed for this application yet. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the ISO-8601 Date Time Schema</li> </ul>

Name	Type	Required	Description
state	string	True	<p>JSON string containing a value indicating the operational state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "pending" - The application is scheduled for discovery</li> <li>• "discovering" - The application is in the process of being discovered</li> <li>• "provisioning" - The application is in the process of being provisioned</li> <li>• "ready" - The application is running normally</li> <li>• "failed" - The application is in a permanent failure state</li> <li>• "restoring" - The application is being restored from backup or snapshot</li> <li>• "unavailable" - The application is not currently accessible</li> <li>• "unknown" - The application state cannot be determined</li> <li>• "deleting" - The application is in the process of being deleted</li> </ul>

Name	Type	Required	Description
stateTransitions	array[ <a href="#">type_astra_stateTransition</a> ]	False	<p>JSON array of JSON objects, each representing the set of permitted state transitions from a given defined state. Each JSON object contains the fields "from" and "to", where the "from" value is the name of a state, and the "to" value is an array of permitted destination states.</p>
stateDetails	array[ <a href="#">type_astra_stateDetail</a> ]	True	<p>JSON array of JSON objects which lists additional details about the current state, including why the current state was reached. If no details are available, this array will be empty.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
protectionState	string	True	<p>JSON string containing a value indicating the protection state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "protected" - The application has a protection policy defined and is in conformance with that policy</li> <li>• "partial" - The application has a protection policy defined, but is out of conformance with that policy</li> <li>• "none" - The application does not have a protection policy defined</li> <li>• "atRisk" - The default storage class on the cluster does not support snapshots, the application is at risk of gaining an unsupported volume</li> </ul>
protectionStateDetails	array[type_astra_stateDetail]	True	<p>JSON array of JSON objects which lists additional details about the current protection 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"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
appDetectedType	string	False	<p>JSON string that uniquely represents the specific type of application that is detected. Defined values are:</p> <ul style="list-style-type: none"> <li>• "system" - The application contains a resource that identifies it as part of the Kubernetes environment</li> <li>• "acc" - The application contains resources that identify it as an Astra Control Center instance</li> </ul>
namespaces	array[string]	True	<p>JSON array of JSON strings containing the names of the namespaces in which the application is running. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
namespaceMapping	array[ <a href="#">namespaceMapping</a> ]	False	<p>JSON array of JSON objects, each mapping a source namespace to a destination namespace for a clone operation. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>



Name	Type	Required	Description
storageClassMapping	array[ <a href="#">storageClassMapping</a> ]	False	<p>JSON array of JSON objects, each mapping a source storage class to a destination storage class for a restore operation. If no elements or not present, original source storage class names will be used. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>
clusterName	string	False	<p>JSON string containing the name of the cluster that the application is running on. Not returned if the application is not currently running.</p>
clusterID	string	False	<p>JSON string containing the ID of the cluster that the application is running on. Not returned if the application is not currently running. When specified on create, clusterID indicates which cluster the application must be cloned into. If the specified cluster does not exist, or if the cluster specified does not match the clusterID specified in the request URI, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
clusterType	string	False	<p>JSON string containing a value indicating the type of cluster. Defined values are:</p> <ul style="list-style-type: none"><li>• "gke" - Kubernetes hosted on Google Kubernetes Engine (GKE)</li><li>• "aks" - Kubernetes hosted on Microsoft Azure Kubernetes Service (AKS)</li><li>• "eks" - Kubernetes hosted on Amazon Elastic Kubernetes Service (Amazon EKS)</li><li>• "openshift" - The cluster is of type OpenShift</li><li>• "kubernetes" - The cluster is generic Kubernetes</li></ul>

Name	Type	Required	Description
sourceAppID	string	False	<p>JSON string containing the ID of a source application. Only returned if the application was cloned from another application, or was restored from a backup or snapshot. When specified on create, the sourceAppID is used in conjunction with the sourceClusterID and indicates which running application will be cloned. If the specified application does not exist on the specified source cluster, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
sourceClusterName	string	False	<p>JSON string containing the name of the cluster the application was previously running on. Only returned if the application was cloned from another cluster.</p>

Name	Type	Required	Description
sourceClusterID	string	False	<p>JSON string containing the ID of the cluster the application was previously running on. Only returned if the application was cloned from another cluster. When specified on create, the sourceClusterID is used in conjunction with the sourceAppID and indicates the source cluster of the application to be cloned. If the specified source cluster does not exist, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
backupID	string	False	<p>JSON string containing the ID of the backup that the application was restored from. Only returned if the application was restored from a backup. When specified on create, backupID indicates that an application will be cloned from an existing backup. If the specified backup does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, backupID indicates the application backup from which the application will be in-place restored. If the specified backup does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
snapshotID	string	False	<p>JSON string containing the ID of the snapshot that the application was restored from. Only returned if the application was restored from a snapshot. When specified on create, snapshotID indicates that an application will be cloned from an existing snapshot. If the specified snapshot does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, snapshotID indicates the application snapshot from which the application will be in-place restored. If the specified snapshot does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
replicationSourceAppID	string	False	<p>JSON string containing the ID of the application that is being replicated to this application. Only returned if the application is currently the destination in an AppMirror relationship, and the relationship is not in the failedOver state. When the relationship is in the failedOver state, this field is not returned. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
restoreFilter	restoreFilter	False	JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.
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"> <li>• 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.</li> </ul>

## Example response

```
{
  "type": "application/astra-app",
  "version": "2.2",
  "id": "39c1c79f-efab-5357-88fb-20e628c4dd96",
  "links": [
    {
      "rel": "canonical",
      "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/topology/v2/managedClusters/6a358976-c3ac-49aa-b043-9c9b425c90ac/apps/27467088-2e99-4bd8-aa9b-014d5f44a62f"
    },
    {
      "rel": "collection",
      "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/topology/v1/clouds/892814c9-77a1-46f3-b54a-82c34cdf0032/clusters/6a358976-c3ac-49aa-b043-9c9b425c90ac/namespaces/da78daf6-8e11-4220-a461-6b1d4a6dc231/apps"
    },
    {
      "rel": "related",
      "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v1/apps/27467088-2e99-4bd8-aa9b-014d5f44a62f/appBackups",
      "type": "application/astra-appBackup",
      "title": "disruptiveBackup",
      "hints": {
        "allow": [],
        "permissions": [
          "appBackup-create"
        ]
      }
    },
    {
      "rel": "related",
      "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v1/apps/27467088-2e99-4bd8-aa9b-014d5f44a62f/appBackups",
      "type": "application/astra-appBackup",
      "title": "nonDisruptiveBackup",
      "hints": {
        "allow": [
          "POST"
        ],
        "permissions": [
```



```

        "appBackup-create"
    ]
}
},
{
    "rel": "related",
    "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v2/apps",
    "type": "application/astra-app",
    "title": "restore",
    "hints": {
        "allow": [
            "POST"
        ],
        "permissions": [
            "app-create"
        ]
    }
},
{
    "rel": "related",
    "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v1/apps/27467088-2e99-4bd8-aa9b-014d5f44a62f/appSnaps",
    "type": "application/astra-appSnap",
    "title": "snapshot",
    "hints": {
        "allow": [
            "POST"
        ],
        "permissions": [
            "appSnap-create"
        ]
    }
},
{
    "rel": "related",
    "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v2/apps",
    "type": "application/astra-app",
    "title": "clone",
    "hints": {
        "allow": [
            "POST"
        ],
        "permissions": [

```

```

        "app-create"
    ]
}
},
{
    "rel": "related",
    "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v2/apps/27467088-2e99-4bd8-aa9b-014d5f44a62f",
    "type": "application/astra-app",
    "title": "inPlaceRestore",
    "hints": {
        "allow": [
            "PUT"
        ],
        "permissions": [
            "app-update"
        ]
    }
},
{
    "rel": "related",
    "href": "/accounts/652f7a18-d4ed-47b2-b467-15bf2154d079/k8s/v1/apps/27467088-2e99-4bd8-aa9b-014d5f44a62f/appMirrors",
    "type": "application/astra-appMirror",
    "title": "replication",
    "hints": {
        "allow": [
            "POST"
        ],
        "permissions": [
            "appMirror-create"
        ]
    }
},
],
"name": "jenkins",
"namespaceScopedResources": [
    {
        "namespace": "production-clone",
        "labelSelectors": [
            "app = jenkins,release = production"
        ]
    }
],
"namespaceMapping": [

```

```

    {
      "source": "production",
      "destination": "production-clone"
    }
  ],
  "state": "ready",
  "stateDetails": [],
  "protectionState": "none",
  "protectionStateDetails": [],
  "namespaces": [
    "production-clone"
  ],
  "snapshotID": "8d561930-0437-4647-b3e6-49b8a5362e3d",
  "clusterName": "GKE-24",
  "clusterID": "0f284377-e5dc-4dcd-bacd-3197f2b8a347",
  "clusterType": "kubernetes",
  "metadata": {
    "labels": [],
    "creationTimestamp": "2022-10-06T20:58:16.305662Z",
    "modificationTimestamp": "2022-10-06T20:58:16.305662Z",
    "createdBy": "8f84cf09-8036-51e4-b579-bd30cb07b269"
  }
}

```

## Response

Status: 401, Unauthorized

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

### Example response

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

### Response

Status: 400, Bad request

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

### Example response

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

### Response

Status: 403, Forbidden

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

### Example response

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

### Error

Status: 404, Not found

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

### Example error response

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

# Definitions

## See Definitions

targetSchema

accept-post

accept-put

hints

Name	Type	Required	Description
status	string	False	
allow	array[string]	False	
accept-post	<a href="#">accept-post</a>	False	
permissions	array[string]	False	
accept-put	<a href="#">accept-put</a>	False	

type\_astra\_link

Name	Type	Required	Description
rel	string	True	
href	string	True	
type	string	False	
targetSchema	<a href="#">targetSchema</a>	False	
title	string	False	
hints	<a href="#">hints</a>	False	

GVK

JSON object containing a Kubernetes group/version/kind.

- This object is internally validated against Astra /apiResources.

Name	Type	Required	Description
group	string	True	JSON string containing a group identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>

Name	Type	Required	Description
kind	string	True	JSON string containing a kind identifier assigned by Kubernetes.  <ul style="list-style-type: none"> <li>This string is internally validated against Astra /apiResources</li> </ul>
version	string	True	JSON string containing a version identifier assigned by Kubernetes.  <ul style="list-style-type: none"> <li>This string is internally validated against Astra /apiResources</li> </ul>

clusterScopedResources

Name	Type	Required	Description
GVK	<a href="#">GVK</a>	True	JSON object containing a Kubernetes group/version/kind.  <ul style="list-style-type: none"> <li>This object is internally validated against Astra /apiResources.</li> </ul>



Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings representing a label selector for the cluster-scoped GroupVersionKinds (GVKs) within the cluster. If this is empty, then all GVK instances on the cluster are included. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### namespaceScopedResources

Name	Type	Required	Description
namespace	string	True	<p>JSON string containing the name of a namespace in which the application is defined. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	True	<p>JSON array of JSON strings representing a label selector within the namespace. If this is empty, then all resources in the namespace are included. Each element in this array is a Kubernetes label selector string and follows the grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql</li> <li>• [ "app != mysql" ] — Select all resources that have a label whose name is app and whose value is not mysql</li> <li>• [ "app in (mysql, mariadb)" ] — Select all resources that have a label whose name is app and value is mysql or mariadb</li> <li>• [ "app notin (nginx, wordpress)" ] — Select all resources that do not have a label whose name is app and whose values are nginx or wordpress</li> <li>• [ "app" ] — Select all resources that have a label named app</li> <li>• [ "!app" ] — Select all resources that do not have a label named app Note that multiple selection operators can be included in a single selector, separated by commas. In that case, the results of the individual</li> </ul>

### 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	

### namespaceMapping

Name	Type	Required	Description
source	string	True	<p>JSON string containing the name of the namespace on the source cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
destination	string	True	<p>JSON string containing the name of the namespace on the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

### storageClassMapping

Name	Type	Required	Description
source	string	True	<p>JSON string containing the name of the source storage class. Can also be '*' to specify all source storage classes. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema if Storage Class name is used</li> <li>• '*' to specify all storage classes</li> </ul>
destination	string	True	<p>JSON string containing the name of the destination storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

#### GVKN

Name	Type	Required	Description
group	string	False	<p>JSON string containing a group identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>

Name	Type	Required	Description
version	string	False	<p>JSON string containing a version identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
kind	string	False	<p>JSON string containing a kind identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
namespaces	array[string]	False	<p>JSON array of JSON strings describing namespaces to include or exclude resources from. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
names	array[string]	False	<p>JSON array of JSON strings describing Kubernetes resource names to include or exclude from the selective restore. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings describing Kubernetes label selectors used to include or exclude resources from the selective restore. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>[ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### restoreFilter

JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.

Name	Type	Required	Description
resourceSelectionCriteria	string	False	JSON string containing a value that indicates how resource filters select resources. Valid values are include or exclude.

Name	Type	Required	Description
GVKN	array[GVKN]	False	JSON array of JSON objects that describe resources to filter during a selective restore. A resource matches a single GVKN filter element if all of the specified filter fields match the corresponding resource field. Filter fields that are arrays (for example, namespaces and names) match if any of its elements match the corresponding resource field. The labelSelectors field requires that all selectors match. A resource that matches any filter in the array of GVKN filter objects is included or excluded from the restore based on the resourceSelectionCriteria value. Specifying empty GVKN objects results in a validation error.

#### 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	

Name	Type	Required	Description
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

## Modify an app

PUT /accounts/{account\_id}/k8s/v2/apps/{app\_id}

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

### Parameters

Name	Type	In	Required	Description
account_id	string	path	True	ID of the containing account resource <ul style="list-style-type: none"> <li>example: <code>{{.Account}}</code></li> </ul>
app_id	string	path	True	ID of the app collection to list
forceUpdate	string	header	False	Flag that enables destructive overwrites. Only include this when requesting an in-place restore (IPR). <ul style="list-style-type: none"> <li>example: <code>true</code></li> </ul>

### Request Body

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



Name	Type	Required	Description
type	string	True	Media type of the resource. Defined values are: <ul style="list-style-type: none"> <li>• "application/astra-app"</li> </ul>
version	string	True	Version of the resource. Defined values are: <ul style="list-style-type: none"> <li>• "2.0"</li> <li>• "2.1"</li> <li>• "2.2"</li> </ul>
id	string	False	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> <li>• Conforms to the UUIDv4 Schema</li> </ul>
name	string	False	JSON string containing a name for the application. Defined values are: <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• This string is internally validated to prevent XSS, Unicode, directory traversal, and SQL-injection attacks.</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
clusterScopedResources	array[ <a href="#">clusterScopedResources</a> ]	False	JSON array of JSON objects describing the cluster-scoped resources that are part of this app
namespaceScopedResources	array[ <a href="#">namespaceScopedResources</a> ]	False	JSON array of JSON objects describing the resources that are part of this app

Name	Type	Required	Description
lastResourceCollectionTimestamp	string	False	<p>JSON string containing the timestamp when the last resource collection was performed. This field is unset if no resource collection has been performed for this application yet. Defined values are:</p> <ul style="list-style-type: none"><li>• Conforms to the ISO-8601 Date Time Schema</li></ul>

Name	Type	Required	Description
state	string	False	<p>JSON string containing a value indicating the operational state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "pending" - The application is scheduled for discovery</li> <li>• "discovering" - The application is in the process of being discovered</li> <li>• "provisioning" - The application is in the process of being provisioned</li> <li>• "ready" - The application is running normally</li> <li>• "failed" - The application is in a permanent failure state</li> <li>• "restoring" - The application is being restored from backup or snapshot</li> <li>• "unavailable" - The application is not currently accessible</li> <li>• "unknown" - The application state cannot be determined</li> <li>• "deleting" - The application is in the process of being deleted</li> </ul>

Name	Type	Required	Description
stateTransitions	array[type_astra_stateTransition]	False	<p>JSON array of JSON objects, each representing the set of permitted state transitions from a given defined state. Each JSON object contains the fields "from" and "to", where the "from" value is the name of a state, and the "to" value is an array of permitted destination states.</p>
stateDetails	array[type_astra_stateDetail]	False	<p>JSON array of JSON objects which lists additional details about the current state, including why the current state was reached. If no details are available, this array will be empty.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
protectionState	string	False	<p>JSON string containing a value indicating the protection state of the application. Defined values are:</p> <ul style="list-style-type: none"> <li>• "protected" - The application has a protection policy defined and is in conformance with that policy</li> <li>• "partial" - The application has a protection policy defined, but is out of conformance with that policy</li> <li>• "none" - The application does not have a protection policy defined</li> <li>• "atRisk" - The default storage class on the cluster does not support snapshots, the application is at risk of gaining an unsupported volume</li> </ul>
protectionStateDetails	array[type_astra_stateDetail]	False	<p>JSON array of JSON objects which lists additional details about the current protection 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"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
appDetectedType	string	False	<p>JSON string that uniquely represents the specific type of application that is detected. Defined values are:</p> <ul style="list-style-type: none"> <li>• "system" - The application contains a resource that identifies it as part of the Kubernetes environment</li> <li>• "acc" - The application contains resources that identify it as an Astra Control Center instance</li> </ul>
namespaces	array[string]	False	<p>JSON array of JSON strings containing the names of the namespaces in which the application is running. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
namespaceMapping	array[ <a href="#">namespaceMapping</a> ]	False	<p>JSON array of JSON objects, each mapping a source namespace to a destination namespace for a clone operation. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>

Name	Type	Required	Description
storageClassMapping	array[ <a href="#">storageClassMapping</a> ]	False	<p>JSON array of JSON objects, each mapping a source storage class to a destination storage class for a restore operation. If no elements or not present, original source storage class names will be used. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum Items: 0</li> </ul>
clusterName	string	False	<p>JSON string containing the name of the cluster that the application is running on. Not returned if the application is not currently running.</p>
clusterID	string	False	<p>JSON string containing the ID of the cluster that the application is running on. Not returned if the application is not currently running. When specified on create, clusterID indicates which cluster the application must be cloned into. If the specified cluster does not exist, or if the cluster specified does not match the clusterID specified in the request URI, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
clusterType	string	False	<p>JSON string containing a value indicating the type of cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• "gke" - Kubernetes hosted on Google Kubernetes Engine (GKE)</li> <li>• "aks" - Kubernetes hosted on Microsoft Azure Kubernetes Service (AKS)</li> <li>• "eks" - Kubernetes hosted on Amazon Elastic Kubernetes Service (Amazon EKS)</li> <li>• "openshift" - The cluster is of type OpenShift</li> <li>• "kubernetes" - The cluster is generic Kubernetes</li> </ul>



Name	Type	Required	Description
sourceAppID	string	False	<p>JSON string containing the ID of a source application. Only returned if the application was cloned from another application, or was restored from a backup or snapshot. When specified on create, the sourceAppID is used in conjunction with the sourceClusterID and indicates which running application will be cloned. If the specified application does not exist on the specified source cluster, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
sourceClusterName	string	False	<p>JSON string containing the name of the cluster the application was previously running on. Only returned if the application was cloned from another cluster.</p>

Name	Type	Required	Description
sourceClusterID	string	False	<p>JSON string containing the ID of the cluster the application was previously running on. Only returned if the application was cloned from another cluster. When specified on create, the sourceClusterID is used in conjunction with the sourceAppID and indicates the source cluster of the application to be cloned. If the specified source cluster does not exist, the clone will fail. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
backupID	string	False	<p>JSON string containing the ID of the backup that the application was restored from. Only returned if the application was restored from a backup. When specified on create, backupID indicates that an application will be cloned from an existing backup. If the specified backup does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, backupID indicates the application backup from which the application will be in-place restored. If the specified backup does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
snapshotID	string	False	<p>JSON string containing the ID of the snapshot that the application was restored from. Only returned if the application was restored from a snapshot. When specified on create, snapshotID indicates that an application will be cloned from an existing snapshot. If the specified snapshot does not exist, the clone will fail. Only one of sourceAppID, backupID, or snapshotID can be specified when creating an application. When specified on a replace, snapshotID indicates the application snapshot from which the application will be in-place restored. If the specified snapshot does not exist, the restore will fail. Only one of backupID or snapshotID can be specified when updating an application. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>
replicationSourceAppID	string	False	<p>JSON string containing the ID of the application that is being replicated to this application. Only returned if the application is currently the destination in an AppMirror relationship, and the relationship is not in the failedOver state. When the relationship is in the failedOver state, this field is not returned. Defined values are:</p> <ul style="list-style-type: none"> <li>• Conforms to the Astra Identifier Schema</li> </ul>

Name	Type	Required	Description
restoreFilter	restoreFilter	False	JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.
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"> <li>• 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.</li> </ul>

### Example request

```
{
  "type": "application/astra-app",
  "version": "2.2",
  "name": "mysql-old"
}
```

### Response

Status: 204, Indicates if the app 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	

### 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	

### 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	

Name	Type	Required	Description
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

### GVK

JSON object containing a Kubernetes group/version/kind.

- This object is internally validated against Astra /apiResources.

Name	Type	Required	Description
group	string	False	JSON string containing a group identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>
kind	string	False	JSON string containing a kind identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>
version	string	False	JSON string containing a version identifier assigned by Kubernetes. <ul style="list-style-type: none"><li>• This string is internally validated against Astra /apiResources</li></ul>

### clusterScopedResources

Name	Type	Required	Description
GVK	<a href="#">GVK</a>	False	JSON object containing a Kubernetes group/version/kind. <ul style="list-style-type: none"><li>• This object is internally validated against Astra /apiResources.</li></ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings representing a label selector for the cluster-scoped GroupVersionKinds (GVKs) within the cluster. If this is empty, then all GVK instances on the cluster are included. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### namespaceScopedResources

Name	Type	Required	Description
namespace	string	False	<p>JSON string containing the name of a namespace in which the application is defined. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings representing a label selector within the namespace. If this is empty, then all resources in the namespace are included. Each element in this array is a Kubernetes label selector string and follows the grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>• [ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql</li> <li>• [ "app != mysql" ] — Select all resources that have a label whose name is app and whose value is not mysql</li> <li>• [ "app in (mysql, mariadb)" ] — Select all resources that have a label whose name is app and value is mysql or mariadb</li> <li>• [ "app notin (nginx, wordpress)" ] — Select all resources that do not have a label whose name is app and whose values are nginx or wordpress</li> <li>• [ "app" ] — Select all resources that have a label named app</li> <li>• [ "!app" ] — Select all resources that do not have a label named app Note that multiple selection operators can be included in a single selector, separated by commas. In that case, the results of the individual</li> </ul>

### 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	

### namespaceMapping

Name	Type	Required	Description
source	string	False	<p>JSON string containing the name of the namespace on the source cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
destination	string	False	<p>JSON string containing the name of the namespace on the destination cluster. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

### storageClassMapping

Name	Type	Required	Description
source	string	False	<p>JSON string containing the name of the source storage class. Can also be '*' to specify all source storage classes. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema if Storage Class name is used</li> <li>• '*' to specify all storage classes</li> </ul>
destination	string	False	<p>JSON string containing the name of the destination storage class. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

#### GVKN

Name	Type	Required	Description
group	string	False	<p>JSON string containing a group identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>

Name	Type	Required	Description
version	string	False	<p>JSON string containing a version identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
kind	string	False	<p>JSON string containing a kind identifier assigned by Kubernetes.</p> <ul style="list-style-type: none"> <li>• This string is internally validated against Astra /apiResources</li> </ul>
namespaces	array[string]	False	<p>JSON array of JSON strings describing namespaces to include or exclude resources from. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 63</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>
names	array[string]	False	<p>JSON array of JSON strings describing Kubernetes resource names to include or exclude from the selective restore. Defined values are:</p> <ul style="list-style-type: none"> <li>• Minimum length: 1</li> <li>• Maximum length: 253</li> <li>• Conforms to the DNS 1123 Label Schema</li> </ul>

Name	Type	Required	Description
labelSelectors	array[string]	False	<p>JSON array of JSON strings describing Kubernetes label selectors used to include or exclude resources from the selective restore. Each element in this array is a Kubernetes label selector string and follows the same grammar for those values. Examples:</p> <ul style="list-style-type: none"> <li>[ "app=mysql" ] — Select all resources that have a label whose name is app and whose value is mysql More examples can be found here: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#set-based-requirement</a></li> </ul>

#### restoreFilter

JSON object containing a list of filters that describe which resources are included or excluded from a selective restore operation. Include and exclude are mutually exclusive, and a selective restore can only use one kind of filter.

Name	Type	Required	Description
resourceSelectionCriteria	string	True	JSON string containing a value that indicates how resource filters select resources. Valid values are include or exclude.

Name	Type	Required	Description
GVKN	array[GVKN]	True	JSON array of JSON objects that describe resources to filter during a selective restore. A resource matches a single GVKN filter element if all of the specified filter fields match the corresponding resource field. Filter fields that are arrays (for example, namespaces and names) match if any of its elements match the corresponding resource field. The labelSelectors field requires that all selectors match. A resource that matches any filter in the array of GVKN filter objects is included or excluded from the restore based on the resourceSelectionCriteria value. Specifying empty GVKN objects results in a validation error.

#### 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	



Name	Type	Required	Description
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

#### 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 app

DELETE /accounts/{account\_id}/k8s/v2/apps/{app\_id}

Removes the specified App API resource.

### Side Effects

- If the application is still running on a cluster, the application is no longer considered to be under management and will no longer appear under /apps.
- First, the application goes into the deleting state and then deletes all associated schedules, snapshots, backups, and the stored application state.

### Parameters

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

Name	Type	In	Required	Description
app_id	string	path	True	ID of the app collection to list

## Response

Status: 204, Indicates if the app 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	

Name	Type	Required	Description
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"
}
```

## Response

Status: 500, Internal server error

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/91",
  "title": "Application not deleted",
  "detail": "The application wasn't deleted because of an internal
server issue.",
  "status": "500"
}
```

## 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/112",
  "title": "Application not ready",
  "detail": "The application is currently unavailable.",
  "status": "409"
}
```

## 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

## Información de copyright

Copyright © 2024 NetApp, Inc. Todos los derechos reservados. Imprimido en EE. UU. No se puede reproducir este documento protegido por copyright ni parte del mismo de ninguna forma ni por ningún medio (gráfico, electrónico o mecánico, incluidas fotocopias, grabaciones o almacenamiento en un sistema de recuperación electrónico) sin la autorización previa y por escrito del propietario del copyright.

El software derivado del material de NetApp con copyright está sujeto a la siguiente licencia y exención de responsabilidad:

ESTE SOFTWARE LO PROPORCIONA NETAPP «TAL CUAL» Y SIN NINGUNA GARANTÍA EXPRESA O IMPLÍCITA, INCLUYENDO, SIN LIMITAR, LAS GARANTÍAS IMPLÍCITAS DE COMERCIALIZACIÓN O IDONEIDAD PARA UN FIN CONCRETO, CUYA RESPONSABILIDAD QUEDA EXIMIDA POR EL PRESENTE DOCUMENTO. EN NINGÚN CASO NETAPP SERÁ RESPONSABLE DE NINGÚN DAÑO DIRECTO, INDIRECTO, ESPECIAL, EJEMPLAR O RESULTANTE (INCLUYENDO, ENTRE OTROS, LA OBTENCIÓN DE BIENES O SERVICIOS SUSTITUTIVOS, PÉRDIDA DE USO, DE DATOS O DE BENEFICIOS, O INTERRUPTIÓN DE LA ACTIVIDAD EMPRESARIAL) CUALQUIERA SEA EL MODO EN EL QUE SE PRODUJERON Y LA TEORÍA DE RESPONSABILIDAD QUE SE APLIQUE, YA SEA EN CONTRATO, RESPONSABILIDAD OBJETIVA O AGRAVIO (INCLUIDA LA NEGLIGENCIA U OTRO TIPO), QUE SURJAN DE ALGÚN MODO DEL USO DE ESTE SOFTWARE, INCLUSO SI HUBIEREN SIDO ADVERTIDOS DE LA POSIBILIDAD DE TALES DAÑOS.

NetApp se reserva el derecho de modificar cualquiera de los productos aquí descritos en cualquier momento y sin aviso previo. NetApp no asume ningún tipo de responsabilidad que surja del uso de los productos aquí descritos, excepto aquello expresamente acordado por escrito por parte de NetApp. El uso o adquisición de este producto no lleva implícita ninguna licencia con derechos de patente, de marcas comerciales o cualquier otro derecho de propiedad intelectual de NetApp.

Es posible que el producto que se describe en este manual esté protegido por una o más patentes de EE. UU., patentes extranjeras o solicitudes pendientes.

LEYENDA DE DERECHOS LIMITADOS: el uso, la copia o la divulgación por parte del gobierno están sujetos a las restricciones establecidas en el subpárrafo (b)(3) de los derechos de datos técnicos y productos no comerciales de DFARS 252.227-7013 (FEB de 2014) y FAR 52.227-19 (DIC de 2007).

Los datos aquí contenidos pertenecen a un producto comercial o servicio comercial (como se define en FAR 2.101) y son propiedad de NetApp, Inc. Todos los datos técnicos y el software informático de NetApp que se proporcionan en este Acuerdo tienen una naturaleza comercial y se han desarrollado exclusivamente con fondos privados. El Gobierno de EE. UU. tiene una licencia limitada, irrevocable, no exclusiva, no transferible, no sublicenciable y de alcance mundial para utilizar los Datos en relación con el contrato del Gobierno de los Estados Unidos bajo el cual se proporcionaron los Datos. Excepto que aquí se disponga lo contrario, los Datos no se pueden utilizar, desvelar, reproducir, modificar, interpretar o mostrar sin la previa aprobación por escrito de NetApp, Inc. Los derechos de licencia del Gobierno de los Estados Unidos de América y su Departamento de Defensa se limitan a los derechos identificados en la cláusula 252.227-7015(b) de la sección DFARS (FEB de 2014).

## Información de la marca comercial

NETAPP, el logotipo de NETAPP y las marcas que constan en <http://www.netapp.com/TM> son marcas comerciales de NetApp, Inc. El resto de nombres de empresa y de producto pueden ser marcas comerciales de sus respectivos propietarios.