



Package

Astra Automation

NetApp
December 01, 2023

Tabla de contenidos

- Package 1
 - Package overview 1
 - Create a new package 1
 - List all packages 24
 - Retrieve a package 42
 - Delete a package 58

Package

Package overview

The Package API represents installable software packages.

Create a new package

POST /accounts/{account_id}/core/v1/packages

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

Parameters

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

Request Body

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

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

Name	Type	Required	Description
packageName	string	True	JSON string containing the package name. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 31 Example values are: <ul style="list-style-type: none"> • "acc" • "acs" • "trident"
packageVersion	string	True	JSON string containing the SemVer of the package. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema
packageType	string	True	JSON string containing the package type, indicating whether this is a full installation package or a patch. Defined values are: <ul style="list-style-type: none"> • "install" • "patch"
bundleName	array[string]	False	JSON array of JSON strings containing the name of the bundle that the package is contained in.

Name	Type	Required	Description
severityLevel	string	True	<p>JSON string describing the severity level of this patch or installation. Defined values are:</p> <ul style="list-style-type: none"> "recommended" - Installation is recommended - Default value "critical" - Installation is strongly recommended to address critical bug fixes and/or security patches
images	array[images]	False	JSON array of JSON objects, each containing a Docker image that is part of the package.
artifacts	array[artifacts]	False	JSON array of JSON objects describing the additional artifacts (binaries and others) associated with this package.
files	array[files]	False	JSON array of JSON objects, each representing a non-image artifact associated with this package.
upgradableVersions	upgradableVersions	False	JSON object containing the minimum and maximum versions that can be upgraded to the package version.
dependencies	array[dependencies]	False	JSON array of JSON objects describing what minimum version of a given dependency is required for this package to be installed

Name	Type	Required	Description
metadata	type_astra_metadata	False	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none">• Conforms to the Astra Metadata Schema If not specified on create, a metadata object will be created with no labels.

Example request

```
{
  "type": "application/astra-package",
  "version": "1.0",
  "packageName": "acc",
  "packageVersion": "22.09.1",
  "packageType": "patch",
  "severityLevel": "recommended",
  "images": [
    {
      "imagePath": "/globalcicd/acc",
      "imageName": "storage-provider",
      "imageTag": "1.3.116",
      "imageDigest":
"sha256:2e04d178815537b0ad8c3224e8754e3364456781a161f1be239853dae33deaf
c"
    },
    {
      "imagePath": "/globalcicd/acc",
      "imageName": "storage-backend-metrics",
      "imageTag": "1.3.45",
      "imageDigest":
"sha256:2e04d178815537b0ad8c3224e8754e3364456781a161f1be239853dae33deaf
c"
    },
    {
      "imagePath": "/globalcicd/acc",
      "imageName": "credentials",
      "imageTag": "1.3.45",
      "imageDigest":
"sha256:2e04d178815537b0ad8c322445654e33642da781a161f1be239853dae33deaf
c"
    }
  ],
  "files": [
    {
      "fileName": "astra_control_center_min.yaml",
      "fileIdentifier": "astra_min",
      "fileMediaType": "application/x-yaml",
      "fileContents":
"VGhpcyBpcyBzdXBwb3NlZCB0byBiZSBhIGNvbXBvZXRzZWNzZWQgZmlsZSBjb250ZW50"
    }
  ],
  "dependencies": [
    {
```

```

    "componentName": "acc",
    "componentMinVersion": "22.04.29"
  },
  {
    "componentName": "kubernetes",
    "componentMinVersion": "v1.19.7",
    "componentMaxVersion": "v1.22"
  },
  {
    "componentName": "trident",
    "componentMinVersion": "v21.01.1"
  }
]
}

```

Response

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

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

Name	Type	Required	Description
packageName	string	True	JSON string containing the package name. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 31 Example values are: <ul style="list-style-type: none"> • "acc" • "acs" • "trident"
packageVersion	string	True	JSON string containing the SemVer of the package. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema
packageType	string	True	JSON string containing the package type, indicating whether this is a full installation package or a patch. Defined values are: <ul style="list-style-type: none"> • "install" • "patch"
bundleName	array[string]	False	JSON array of JSON strings containing the name of the bundle that the package is contained in.

Name	Type	Required	Description
severityLevel	string	True	<p>JSON string describing the severity level of this patch or installation. Defined values are:</p> <ul style="list-style-type: none"> • "recommended" - Installation is recommended - Default value • "critical" - Installation is strongly recommended to address critical bug fixes and/or security patches
packageState	string	True	<p>JSON string containing a value indicating the operational state of the package. After verification of the package and after import, the state will indicate "complete". Otherwise, the state will indicate "incomplete". Defined values are:</p> <ul style="list-style-type: none"> • "verifying" - The package is in the process of being validated • "corrupt" - The package is corrupt • "incomplete" - The package is missing elements • "available" - All elements associated with the package are available and the package is ready for use

Name	Type	Required	Description
packageStateTransitions	array[type_astra_stateTransition]	True	<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> <p>Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the State Transition Schema
packageStateDetails	array[type_astra_stateDetail]	True	<p>JSON array of JSON objects that lists additional details about the current "state". If no details are available, this array will be empty.</p> <ul style="list-style-type: none"> • Minimum Items: 0
images	array[images]	False	<p>JSON array of JSON objects, each containing a Docker image that is part of the package.</p>
artifacts	array[artifacts]	False	<p>JSON array of JSON objects describing the additional artifacts (binaries and others) associated with this package.</p>
files	array[files]	False	<p>JSON array of JSON objects, each representing a non-image artifact associated with this package.</p>
upgradableVersions	upgradableVersions	False	<p>JSON object containing the minimum and maximum versions that can be upgraded to the package version.</p>

Name	Type	Required	Description
dependencies	array[dependencies]	False	JSON array of JSON objects describing what minimum version of a given dependency is required for this package to be installed
metadata	type_astra_metadata	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Metadata Schema. If not specified on create, a metadata object will be created with no labels.

Example response

```
{
  "type": "application/astra-package",
  "version": "1.0",
  "id": "54edc2b3-18c5-5371-904b-ebcd04d88bdc",
  "packageName": "acc",
  "packageVersion": "22.09.1",
  "packageType": "patch",
  "packageState": "available",
  "packageStateTransitions": [
    {
      "from": "verifying",
      "to": [
        "corrupt",
        "incomplete",
        "available"
      ]
    },
    {
      "from": "corrupt",
      "to": [
        "incomplete",
        "available"
      ]
    },
    {
      "from": "incomplete",
      "to": [
        "corrupt",
        "available"
      ]
    },
    {
      "from": "available",
      "to": [
        "corrupt",
        "available"
      ]
    }
  ],
  "packageStateDetails": [],
  "severityLevel": "recommended",
  "images": [
    {
      "imagePath": "/globalcicd/acc",

```

```

    "imageName": "storage-provider",
    "imageTag": "1.3.116",
    "imageDigest":
"sha256:2e04d178815537b0ad8c3224e8754e33642da781a161f1be239853dae33deaf
c"
  },
  {
    "imagePath": "/globalcid/acc",
    "imageName": "storage-backend-metrics",
    "imageTag": "1.3.45",
    "imageDigest":
"sha256:2e04d178815537b0ad8c3224e8754e33642da781a161f1be239853dae33deaf
c"
  },
  {
    "imagePath": "/globalcid/acc",
    "imageName": "credentials",
    "imageTag": "1.3.45",
    "imageDigest":
"sha256:2e04d178815537b0ad8c3224e8754e33642da781a161f1be239853dae33deaf
c"
  }
],
"files": [
  {
    "fileName": "astra_control_center_min.yaml",
    "fileIdentifier": "astra_min",
    "fileMediaType": "application/x-yaml",
    "fileContents":
"VGhpcyBpcyBzdXBwb3NlZCB0byBiZSBhIGNvbXBvZXRzZXNzZWQgZmlsZSBjb250ZW50"
  }
],
"dependencies": [
  {
    "componentName": "acc",
    "componentMinVersion": "22.04.29"
  },
  {
    "componentName": "kubernetes",
    "componentMinVersion": "v1.19.7",
    "componentMaxVersion": "v1.20"
  },
  {
    "componentName": "trident",
    "componentMinVersion": "v21.01.1"
  }
]

```

```

    ],
    "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	

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

Example response

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

Response

Status: 409, Conflict

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

Example response

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

Response

Status: 403, Forbidden

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

Example response

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

Error

Status: 404, Not found

Name	Type	Required	Description
type	string	True	
title	string	True	

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

Example error response

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

Definitions

See Definitions

dependsOnImages

Name	Type	Required	Description
imagePath	string	True	JSON string containing the path to this Docker image. It must not contain the name of the registry, only the absolute path from root to image. Example: /globalcid/acc Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 1023
imageName	string	True	JSON string containing the Docker image name. Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63
imageTag	string	True	JSON string representing the tag/version of this image. Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 31

images

Name	Type	Required	Description
imageName	string	True	JSON string containing the Docker image name. Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63

Name	Type	Required	Description
imagePath	string	True	<p>JSON string containing the path to this Docker image. It must not contain the name of the registry, only the absolute path from root to image. Example: /globalcid/acc</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 1023
imageTag	string	True	<p>JSON string representing the tag/version of this image.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 31
imageDigest	string	True	<p>JSON string representing the digest of this image.</p> <p>Defined values are:</p> <ul style="list-style-type: none"> • Defined regex is: <code>"^(sha256:)[0-9a-f]{64}\$"</code>
dependsOnImages	array[dependsOnImages]	False	<p>JSON array of JSON objects describing the images required to install or upgrade the current image.</p>

dependsOnComponents

Name	Type	Required	Description
componentName	string	True	JSON string describing the name of the component. Defined values are: <ul style="list-style-type: none"> • "acc" • "acs" • "trident" • "kubernetes"
versions	array[string]	True	JSON array of JSON strings defining the component version required to install the current image.

artifacts

Name	Type	Required	Description
artifactName	string	True	JSON string containing the file name. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
artifactIdentifier	string	True	JSON string containing an identifier for this file. Between versions of the same package type, the file name might change but the identifier usually stays the same. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 511

Name	Type	Required	Description
artifactPath	string	True	JSON string containing the path to this artifact from the root of a known Astra Control Center Data Store/location. Example: /vmware/1.0/ Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 1023
artifactVersion	string	False	JSON string containing the version of that artifact, if provided. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema • Minimum length: 1 • Maximum length: 31
dependsOnComponents	array[dependsOnComponents]	False	JSON array of JSON objects describing the installed components required to install/upgrade the current image.

files

Name	Type	Required	Description
fileName	string	True	JSON string containing the file name. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63

Name	Type	Required	Description
fileIdentifier	string	True	<p>JSON string containing an identifier of this file. Between versions of the same package type, the file name might change but the identifier usually stays the same. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 511
fileMediaType	string	True	<p>JSON string containing the file media-type. Defined values are any media type defined by IANA. In addition, application/x-yaml or application/yaml for yaml files is supported.</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 211
fileContents	string	True	<p>JSON string containing the file content. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Base64 Schema FIXME - How do we specify that this is compressed? What algorithm ,etc?

upgradableVersions

JSON object containing the minimum and maximum versions that can be upgraded to the package version.

Name	Type	Required	Description
minVersion	string	False	JSON string describing the minimum version that can be upgraded to the package version. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema
maxVersion	string	False	JSON string describing the maximum version that can be upgraded to the package version. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema

dependencies

Name	Type	Required	Description
componentName	string	True	JSON string describing the name of the component. Defined values are: <ul style="list-style-type: none"> • "acc" • "acs" • "trident" • "kubernetes"
componentMinVersion	string	False	JSON string describing the minimum version required of that component. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema

Name	Type	Required	Description
componentMaxVersion	string	False	JSON string describing the maximum version required of that component. Defined values are: <ul style="list-style-type: none"> Conforms to the SemVer Schema

type_astra_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type_astra_metadata

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

- Conforms to the Astra Metadata Schema If not specified on create, a metadata object will be created with no labels.

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

type_astra_stateTransition

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

additionalDetails

type_astra_stateDetail

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

Name	Type	Required	Description
additionalDetails	additionalDetails	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

List all packages

GET /accounts/{account_id}/core/v1/packages

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

Parameters

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

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

Name	Type	In	Required	Description
include	string	query	False	<p>Indicates which fields should be returned when listing a collection.</p> <p>URL examples: "include=id", "include=id,name"</p> <p>OpenAPI examples: "id"</p> <ul style="list-style-type: none"> example: id,packageName ,packageVersion ,softwareType
limit	string	query	False	<p>Indicates the maximum number of resources to return when listing a collection.</p> <p>URL examples: "limit=2"</p> <p>OpenAPI examples: "2"</p>

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: package_1.0_get_response_body , array[]]	True	
metadata	type_astra_metadata_list	True	

Example response

```
{
  "type": "application/astra-packages",
  "version": "1.0",
  "items": [
    [
      "e280ff62-be35-4f31-a31b-a210a1ad1b33",
      "acc",
      "22.01.0",
      "install"
    ],
    [
      "e8507dad-d33f-44b3-9c15-ec55ba6f6473",
      "acc",
      "22.01.1",
      "patch"
    ]
  ],
  "metadata": {
    "labels": [],
    "creationTimestamp": "2022-10-06T20:58:16.305662Z",
    "modificationTimestamp": "2022-10-06T20:58:16.305662Z",
    "createdBy": "8f84cf09-8036-51e4-b579-bd30cb07b269"
  }
}
```

Response

Status: 401, Unauthorized

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

Example response

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

Response

Status: 400, Bad request

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

Example response

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

Response

Status: 403, Forbidden

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

Example response

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

Error

Status: 404, Not found

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

Example error response

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

Definitions

See Definitions

type_astra_stateTransition

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

additionalDetails

type_astra_stateDetail

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

dependsOnImages

Name	Type	Required	Description
imagePath	string	True	JSON string containing the path to this Docker image. It must not contain the name of the registry, only the absolute path from root to image. Example: /globaliccd/acc Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 1023
imageName	string	True	JSON string containing the Docker image name. Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63

Name	Type	Required	Description
imageTag	string	True	JSON string representing the tag/version of this image. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 31

images

Name	Type	Required	Description
imageName	string	True	JSON string containing the Docker image name. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
imagePath	string	True	JSON string containing the path to this Docker image. It must not contain the name of the registry, only the absolute path from root to image. Example: /globalcid/acc Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 1023
imageTag	string	True	JSON string representing the tag/version of this image. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 31

Name	Type	Required	Description
imageDigest	string	True	JSON string representing the digest of this image. Defined values are: <ul style="list-style-type: none"> Defined regex is: <code>"^(sha256:)[0-9a-f]{64}\$"</code>
dependsOnImages	array[dependsOnImages]	False	JSON array of JSON objects describing the images required to install or upgrade the current image.

dependsOnComponents

Name	Type	Required	Description
componentName	string	True	JSON string describing the name of the component. Defined values are: <ul style="list-style-type: none"> "acc" "acs" "trident" "kubernetes"
versions	array[string]	True	JSON array of JSON strings defining the component version required to install the current image.

artifacts

Name	Type	Required	Description
artifactName	string	True	JSON string containing the file name. Defined values are: <ul style="list-style-type: none"> Minimum length: 1 Maximum length: 63

Name	Type	Required	Description
artifactIdentifier	string	True	<p>JSON string containing an identifier for this file. Between versions of the same package type, the file name might change but the identifier usually stays the same. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 511
artifactPath	string	True	<p>JSON string containing the path to this artifact from the root of a known Astra Control Center Data Store/location. Example: /vmware/1.0/ Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 1023
artifactVersion	string	False	<p>JSON string containing the version of that artifact, if provided. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the SemVer Schema • Minimum length: 1 • Maximum length: 31
dependsOnComponents	array[dependsOnComponents]	False	<p>JSON array of JSON objects describing the installed components required to install/upgrade the current image.</p>

files

Name	Type	Required	Description
fileName	string	True	JSON string containing the file name. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
fileIdentifier	string	True	JSON string containing an identifier of this file. Between versions of the same package type, the file name might change but the identifier usually stays the same. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 511
fileMediaType	string	True	JSON string containing the file media-type. Defined values are any media type defined by IANA . In addition, application/x-yaml or application/yaml for yaml files is supported. <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 211
fileContents	string	True	JSON string containing the file content. Defined values are: <ul style="list-style-type: none"> • Conforms to the Base64 Schema FIXME - How do we specify that this is compressed? What algorithm ,etc?

upgradableVersions

JSON object containing the minimum and maximum versions that can be upgraded to the package version.

Name	Type	Required	Description
minVersion	string	False	JSON string describing the minimum version that can be upgraded to the package version. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema
maxVersion	string	False	JSON string describing the maximum version that can be upgraded to the package version. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema

dependencies

Name	Type	Required	Description
componentName	string	True	JSON string describing the name of the component. Defined values are: <ul style="list-style-type: none"> • "acc" • "acs" • "trident" • "kubernetes"
componentMinVersion	string	False	JSON string describing the minimum version required of that component. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema

Name	Type	Required	Description
componentMaxVersion	string	False	JSON string describing the maximum version required of that component. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema

type_astra_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type_astra_metadata

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

- Conforms to the Astra Metadata Schema If not specified on create, a metadata object will be created with no labels.

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

package_1.0_get_response_body

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

Name	Type	Required	Description
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> • Conforms to the UUIDv4 Schema
packageName	string	True	JSON string containing the package name. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 31 Example values are: <ul style="list-style-type: none"> • "acc" • "acs" • "trident"
packageVersion	string	True	JSON string containing the SemVer of the package. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema
packageType	string	True	JSON string containing the package type, indicating whether this is a full installation package or a patch. Defined values are: <ul style="list-style-type: none"> • "install" • "patch"
bundleName	array[string]	False	JSON array of JSON strings containing the name of the bundle that the package is contained in.

Name	Type	Required	Description
severityLevel	string	True	<p>JSON string describing the severity level of this patch or installation. Defined values are:</p> <ul style="list-style-type: none"> • "recommended" - Installation is recommended - Default value • "critical" - Installation is strongly recommended to address critical bug fixes and/or security patches
packageState	string	True	<p>JSON string containing a value indicating the operational state of the package. After verification of the package and after import, the state will indicate "complete". Otherwise, the state will indicate "incomplete". Defined values are:</p> <ul style="list-style-type: none"> • "verifying" - The package is in the process of being validated • "corrupt" - The package is corrupt • "incomplete" - The package is missing elements • "available" - All elements associated with the package are available and the package is ready for use

Name	Type	Required	Description
packageStateTransitions	array[type_astra_stateTransition]	True	<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. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the State Transition Schema
packageStateDetails	array[type_astra_stateDetail]	True	<p>JSON array of JSON objects that lists additional details about the current "state". If no details are available, this array will be empty.</p> <ul style="list-style-type: none"> • Minimum Items: 0
images	array[images]	False	<p>JSON array of JSON objects, each containing a Docker image that is part of the package.</p>
artifacts	array[artifacts]	False	<p>JSON array of JSON objects describing the additional artifacts (binaries and others) associated with this package.</p>
files	array[files]	False	<p>JSON array of JSON objects, each representing a non-image artifact associated with this package.</p>

Name	Type	Required	Description
upgradableVersions	upgradableVersions	False	JSON object containing the minimum and maximum versions that can be upgraded to the package version.
dependencies	array[dependencies]	False	JSON array of JSON objects describing what minimum version of a given dependency is required for this package to be installed
metadata	type_astra_metadata	True	Client and service-specified metadata associated with the resource. Defined values are: <ul style="list-style-type: none"> • Conforms to the Astra Metadata Schema If not specified on create, a metadata object will be created with no labels.

type_astra_metadata_list

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

invalidParams

Name	Type	Required	Description
name	string	True	Name of the invalid query parameter

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

Retrieve a package

GET /accounts/{account_id}/core/v1/packages/{package_id}

Returns the stored Package 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"> example: <code>{{.Account}}</code>
package_id	string	path	True	ID of the package collection to list

Response

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

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

Name	Type	Required	Description
id	string	True	Globally unique identifier of the resource. Defined values are: <ul style="list-style-type: none"> • Conforms to the UUIDv4 Schema
packageName	string	True	JSON string containing the package name. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 31 Example values are: <ul style="list-style-type: none"> • "acc" • "acs" • "trident"
packageVersion	string	True	JSON string containing the SemVer of the package. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema
packageType	string	True	JSON string containing the package type, indicating whether this is a full installation package or a patch. Defined values are: <ul style="list-style-type: none"> • "install" • "patch"
bundleName	array[string]	False	JSON array of JSON strings containing the name of the bundle that the package is contained in.

Name	Type	Required	Description
severityLevel	string	True	<p>JSON string describing the severity level of this patch or installation. Defined values are:</p> <ul style="list-style-type: none"> • "recommended" - Installation is recommended - Default value • "critical" - Installation is strongly recommended to address critical bug fixes and/or security patches
packageState	string	True	<p>JSON string containing a value indicating the operational state of the package. After verification of the package and after import, the state will indicate "complete". Otherwise, the state will indicate "incomplete". Defined values are:</p> <ul style="list-style-type: none"> • "verifying" - The package is in the process of being validated • "corrupt" - The package is corrupt • "incomplete" - The package is missing elements • "available" - All elements associated with the package are available and the package is ready for use

Name	Type	Required	Description
packageStateTransitions	array[type_astra_stateTransition]	True	<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> <p>Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the State Transition Schema
packageStateDetails	array[type_astra_stateDetail]	True	<p>JSON array of JSON objects that lists additional details about the current "state". If no details are available, this array will be empty.</p> <ul style="list-style-type: none"> • Minimum Items: 0
images	array[images]	False	<p>JSON array of JSON objects, each containing a Docker image that is part of the package.</p>
artifacts	array[artifacts]	False	<p>JSON array of JSON objects describing the additional artifacts (binaries and others) associated with this package.</p>
files	array[files]	False	<p>JSON array of JSON objects, each representing a non-image artifact associated with this package.</p>
upgradableVersions	upgradableVersions	False	<p>JSON object containing the minimum and maximum versions that can be upgraded to the package version.</p>

Name	Type	Required	Description
dependencies	array[dependencies]	False	JSON array of JSON objects describing what minimum version of a given dependency is required for this package to be installed
metadata	type_astra_metadata	True	<p>Client and service-specified metadata associated with the resource. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the Astra Metadata Schema. If not specified on create, a metadata object will be created with no labels.

Example response

```
{
  "type": "application/astra-package",
  "version": "1.0",
  "id": "54edc2b3-18c5-5371-904b-ebcd04d88bdc",
  "packageName": "acc",
  "packageVersion": "22.09.1",
  "packageType": "patch",
  "packageState": "available",
  "packageStateTransitions": [
    {
      "from": "verifying",
      "to": [
        "corrupt",
        "incomplete",
        "available"
      ]
    },
    {
      "from": "corrupt",
      "to": [
        "incomplete",
        "available"
      ]
    },
    {
      "from": "incomplete",
      "to": [
        "corrupt",
        "available"
      ]
    },
    {
      "from": "available",
      "to": [
        "corrupt",
        "available"
      ]
    }
  ],
  "packageStateDetails": [],
  "severityLevel": "recommended",
  "images": [
    {
      "imagePath": "/globalcicd/acc",

```

```

      "imageName": "storage-provider",
      "imageTag": "1.3.116",
      "imageDigest":
"sha256:2e04d178815537b0ad8c3224e8754e33642da781a161f1be239853dae33deaf
c"
    },
    {
      "imagePath": "/globalcid/acc",
      "imageName": "storage-backend-metrics",
      "imageTag": "1.3.45",
      "imageDigest":
"sha256:2e04d178815537b0ad8c3224e8754e33642da781a161f1be239853dae33deaf
c"
    },
    {
      "imagePath": "/globalcid/acc",
      "imageName": "credentials",
      "imageTag": "1.3.45",
      "imageDigest":
"sha256:2e04d178815537b0ad8c3224e8754e33642da781a161f1be239853dae33deaf
c"
    }
  ],
  "files": [
    {
      "fileName": "astra_control_center_min.yaml",
      "fileIdentifier": "astra_min",
      "fileMediaType": "application/x-yaml",
      "fileContents":
"VGhpcyBpcyBzdXBwb3NlZCB0byBiZSBhIGNvbXBvZXRzZXNzZWQgZmlsZSBjb250ZW50"
    }
  ],
  "dependencies": [
    {
      "componentName": "acc",
      "componentMinVersion": "22.04.29"
    },
    {
      "componentName": "kubernetes",
      "componentMinVersion": "v1.19.7",
      "componentMaxVersion": "v1.20"
    },
    {
      "componentName": "trident",
      "componentMinVersion": "v21.01.1"
    }
  ]
}

```

```

    ],
    "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	

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"
}
```

Error

Status: 404, Not found

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

Example error response

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

Definitions

See Definitions

type_astra_stateTransition

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

additionalDetails

type_astra_stateDetail

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

dependsOnImages

Name	Type	Required	Description
imagePath	string	True	JSON string containing the path to this Docker image. It must not contain the name of the registry, only the absolute path from root to image. Example: /globaliccd/acc Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 1023
imageName	string	True	JSON string containing the Docker image name. Defined values are: <ul style="list-style-type: none">• Minimum length: 1• Maximum length: 63

Name	Type	Required	Description
imageTag	string	True	JSON string representing the tag/version of this image. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 31

images

Name	Type	Required	Description
imageName	string	True	JSON string containing the Docker image name. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
imagePath	string	True	JSON string containing the path to this Docker image. It must not contain the name of the registry, only the absolute path from root to image. Example: /globalcid/acc Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 1023
imageTag	string	True	JSON string representing the tag/version of this image. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 31

Name	Type	Required	Description
imageDigest	string	True	JSON string representing the digest of this image. Defined values are: <ul style="list-style-type: none"> Defined regex is: <code>"^(sha256:)[0-9a-f]{64}\$"</code>
dependsOnImages	array[dependsOnImages]	False	JSON array of JSON objects describing the images required to install or upgrade the current image.

dependsOnComponents

Name	Type	Required	Description
componentName	string	True	JSON string describing the name of the component. Defined values are: <ul style="list-style-type: none"> "acc" "acs" "trident" "kubernetes"
versions	array[string]	True	JSON array of JSON strings defining the component version required to install the current image.

artifacts

Name	Type	Required	Description
artifactName	string	True	JSON string containing the file name. Defined values are: <ul style="list-style-type: none"> Minimum length: 1 Maximum length: 63

Name	Type	Required	Description
artifactIdentifier	string	True	<p>JSON string containing an identifier for this file. Between versions of the same package type, the file name might change but the identifier usually stays the same. Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 511
artifactPath	string	True	<p>JSON string containing the path to this artifact from the root of a known Astra Control Center Data Store/location. Example: /vmware/1.0/ Defined values are:</p> <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 1023
artifactVersion	string	False	<p>JSON string containing the version of that artifact, if provided. Defined values are:</p> <ul style="list-style-type: none"> • Conforms to the SemVer Schema • Minimum length: 1 • Maximum length: 31
dependsOnComponents	array[dependsOnComponents]	False	<p>JSON array of JSON objects describing the installed components required to install/upgrade the current image.</p>

files

Name	Type	Required	Description
fileName	string	True	JSON string containing the file name. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 63
fileIdentifier	string	True	JSON string containing an identifier of this file. Between versions of the same package type, the file name might change but the identifier usually stays the same. Defined values are: <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 511
fileMediaType	string	True	JSON string containing the file media-type. Defined values are any media type defined by IANA . In addition, application/x-yaml or application/yaml for yaml files is supported. <ul style="list-style-type: none"> • Minimum length: 1 • Maximum length: 211
fileContents	string	True	JSON string containing the file content. Defined values are: <ul style="list-style-type: none"> • Conforms to the Base64 Schema FIXME - How do we specify that this is compressed? What algorithm ,etc?

upgradableVersions

JSON object containing the minimum and maximum versions that can be upgraded to the package version.

Name	Type	Required	Description
minVersion	string	False	JSON string describing the minimum version that can be upgraded to the package version. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema
maxVersion	string	False	JSON string describing the maximum version that can be upgraded to the package version. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema

dependencies

Name	Type	Required	Description
componentName	string	True	JSON string describing the name of the component. Defined values are: <ul style="list-style-type: none"> • "acc" • "acs" • "trident" • "kubernetes"
componentMinVersion	string	False	JSON string describing the minimum version required of that component. Defined values are: <ul style="list-style-type: none"> • Conforms to the SemVer Schema

Name	Type	Required	Description
componentMaxVersion	string	False	JSON string describing the maximum version required of that component. Defined values are: <ul style="list-style-type: none"> Conforms to the SemVer Schema

type_astra_label

Name	Type	Required	Description
name	string	True	
value	string	True	

type_astra_metadata

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

- Conforms to the Astra Metadata Schema If not specified on create, a metadata object will be created with no labels.

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

invalidParams

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

Delete a package

DELETE /accounts/{account_id}/core/v1/packages/{package_id}

Removes the specified Package API resource.

Parameters

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

Response

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

Response

Status: 401, Unauthorized

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

Example response

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

Response

Status: 400, Bad request

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

Example response

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

Response

Status: 403, Forbidden

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

Example response

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

Error

Status: 404, Not found

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

Example error response

```
{
  "type": "https://astra.netapp.io/problems/1",
  "title": "Resource not found",
  "detail": "The resource specified in the request URI wasn't found.",
  "status": "404"
}
```

Definitions

See Definitions

invalidParams

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

Información de copyright

Copyright © 2023 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.