Manage network IP routes

REST API reference

NetApp
September 12, 2025

This PDF was generated from https://docs.netapp.com/us-en/ontap-restapi-991/network_ip_routes_endpoint_overview.html on September 12, 2025. Always check docs.netapp.com for the latest.

Table of Contents

Manage network IP routes . . . 1
- Network IP routes endpoint overview . . . 1
  - Overview . . . 1
  - Retrieving network routes . . . 1
  - Examples . . . 1
  - Creating network routes . . . 7
  - Examples . . . 7
  - Deleting network routes . . . 8
  - Example . . . 8
- Retrieve IP routes . . . 9
  - Expensive properties . . . 9
  - Related ONTAP commands . . . 9
  - Parameters . . . 9
  - Response . . . 11
  - Error . . . 13
  - Definitions . . . 14
- Create a cluster-scoped or SVM-scoped static route . . . 17
  - Required properties . . . 17
  - Default property values . . . 18
  - Related ONTAP commands . . . 18
  - Parameters . . . 18
  - Request Body . . . 18
  - Response . . . 19
  - Error . . . 20
  - Definitions . . . 21
- Delete an IP route . . . 24
  - Related ONTAP commands . . . 24
  - Parameters . . . 24
  - Response . . . 24
  - Error . . . 24
  - Definitions . . . 25
- Retrieve details for an IP route . . . 26
  - Related ONTAP commands . . . 26
  - Parameters . . . 26
  - Response . . . 26
  - Error . . . 29
  - Definitions . . . 29

Manage network IP routes

Network IP routes endpoint overview

Overview

This endpoint supports the following operations: GET (collection and instance), POST, and DELETE.

Retrieving network routes

You can use the IP routes GET API to retrieve and display relevant information pertaining to the routes configured in the cluster. The API retrieves the list of all routes configured in the cluster, or a specific route. The fields that are returned in the response will differ with the configuration.

Examples

Retrieving all routes in the cluster

The following output shows the list of all routes configured in a cluster.

```
# The API:
/api/network/ip/routes

# The call:
curl -X GET "https://<mgmt-ip>/api/network/ip/routes?fields=*" -H "accept:
application/hal+json"

# The response:
{
"records": [
  {
    "uuid": "5fdffb0b-62f8-11e8-853d-005056b4c971",
    "ipspace": {
      "uuid": "84f4beb2-616c-11e8-a4df-005056b4c971",
      "name": "Default",
      "_links": {
        "self": {
          "href": "/api/network/ipspaces/84f4beb2-616c-11e8-a4df-
005056b4c971"
        }
      }
    },
    "svm": {
```

```
      "uuid": "3243312c-62f8-11e8-853d-005056b4c971",
      "name": "vs1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/3243312c-62f8-11e8-853d-005056b4c971"
        }
      }
    },
    "scope": "svm",
    "destination": {
      "address": "10.4.3.14",
      "netmask": "18",
      "family": "ipv4"
    },
    "gateway": "10.4.3.1",
    "_links": {
      "self": {
        "href": "/api/network/ip/routes/5fdffb0b-62f8-11e8-853d-
005056b4c971"
      }
    }
  },
  {
    "uuid": "84c128d2-62f9-11e8-853d-005056b4c971",
    "ipspace": {
      "uuid": "cc71aadc-62f7-11e8-853d-005056b4c971",
      "name": "ips1",
      "_links": {
        "self": {
          "href": "/api/network/ipspaces/cc71aadc-62f7-11e8-853d-
005056b4c971"
        }
      }
    },
    "scope": "cluster",
    "destination": {
      "address": "::",
      "netmask": "0",
      "family": "ipv6"
    },
    "gateway": "fd20:8b1e:b255:814e::1",
    "_links": {
      "self": {
        "href": "/api/network/ip/routes/84c128d2-62f9-11e8-853d-
005056b4c971"
      }
```

```
    }
  },
  {
    "uuid": "8cc72bcd-616c-11e8-a4df-005056b4c971",
    "ipspace": {
      "uuid": "84f4beb2-616c-11e8-a4df-005056b4c971",
      "name": "Default",
      "_links": {
        "self": {
          "href": "/api/network/ipspaces/84f4beb2-616c-11e8-a4df-
005056b4c971"
        }
      }
    },
    "scope": "cluster",
    "destination": {
      "address": "0.0.0.0",
      "netmask": "0",
      "family": "ipv4"
    },
    "gateway": "10.224.64.1",
    "_links": {
      "self": {
        "href": "/api/network/ip/routes/8cc72bcd-616c-11e8-a4df-
005056b4c971"
      }
    }
  },
  {
    "uuid": "d63b6eee-62f9-11e8-853d-005056b4c971",
    "ipspace": {
      "uuid": "84f4beb2-616c-11e8-a4df-005056b4c971",
      "name": "Default",
      "_links": {
        "self": {
          "href": "/api/network/ipspaces/84f4beb2-616c-11e8-a4df-
005056b4c971"
        }
      }
    },
    "svm": {
      "uuid": "3243312c-62f8-11e8-853d-005056b4c971",
      "name": "vs1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/3243312c-62f8-11e8-853d-005056b4c971"
```

```
        }
      }
    },
    "scope": "svm",
    "destination": {
      "address": "fd20:8b1e:b255:814e::",
      "netmask": "64",
      "family": "ipv6"
    },
    "gateway": "fd20:8b1e:b255:814e::1",
    "_links": {
      "self": {
        "href": "/api/network/ip/routes/d63b6eee-62f9-11e8-853d-
005056b4c971"
      }
    }
  }
],
"num_records": 4,
"_links": {
  "self": {
    "href": "/api/network/ip/routes?fields=*"
  }
}
}
```

Retrieving a specific Cluster-scoped route

The following output shows the returned response when a specific Cluster-scoped route is requested. The system returns an error if there is no route with the requested UUID. SVM information is not returned for Cluster-scoped routes.

```
# The API:
/api/network/ip/routes/{uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/network/ip/routes/84c128d2-62f9-11e8-
853d-005056b4c971?fields=*" -H "accept: application/hal+json"

# The response:
{
"uuid": "84c128d2-62f9-11e8-853d-005056b4c971",
"ipspace": {
  "uuid": "cc71aadc-62f7-11e8-853d-005056b4c971",
  "name": "ips1",
  "_links": {
    "self": {
      "href": "/api/network/ipspaces/cc71aadc-62f7-11e8-853d-005056b4c971"
    }
  }
},
"scope": "cluster",
"destination": {
  "address": "::",
  "netmask": "0",
  "family": "ipv6"
},
"gateway": "fd20:8b1e:b255:814e::1",
"_links": {
  "self": {
    "href": "/api/network/ip/routes/84c128d2-62f9-11e8-853d-005056b4c971"
  }
}
}
```

Retrieving a specific SVM-scoped route

The following output shows the returned response when a specific SVM-scoped route is requested. The system returns an error if there is no route with the requested UUID. The SVM object is only included for SVM-scoped routes.

```
# The API:
/api/network/ip/routes/{uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/network/ip/routes/d63b6eee-62f9-11e8-
853d-005056b4c971?fields=*" -H "accept: application/hal+json"

# The response:
{
"uuid": "d63b6eee-62f9-11e8-853d-005056b4c971",
"ipspace": {
  "uuid": "84f4beb2-616c-11e8-a4df-005056b4c971",
  "name": "Default",
  "_links": {
    "self": {
      "href": "/api/network/ipspaces/84f4beb2-616c-11e8-a4df-005056b4c971"
    }
  }
},
"svm": {
  "uuid": "3243312c-62f8-11e8-853d-005056b4c971",
  "name": "vs1",
  "_links": {
    "self": {
      "href": "/api/svm/svms/3243312c-62f8-11e8-853d-005056b4c971"
    }
  }
},
"scope": "svm",
"destination": {
  "address": "fd20:8b1e:b255:814e::",
  "netmask": "64",
  "family": "ipv6"
},
"gateway": "fd20:8b1e:b255:814e::1",
"_links": {
  "self": {
    "href": "/api/network/ip/routes/d63b6eee-62f9-11e8-853d-005056b4c971"
  }
}
}
```

Creating network routes

You can use the POST API to create an SVM-scoped route by specifying the associated SVM, or a Cluster-scoped route by specifying the associated IPspace.

Examples

Creating a Cluster-scoped route

IPspace is required to create a Cluster-scoped route. If the IPspace is not specified, the route will be created in the Default IPspace. The default destination will be set to "0.0.0.0/0" for IPv4 gateway addresses or "::/0" for IPv6 gateway addresses.

```
# The API:
/api/network/ip/routes

# The call:
curl -X POST "https://<mgmt-ip>/api/network/ip/routes?return_records=true"
-H "accept: application/json" -d '{ "ipspace": { "name":"ips1" },
"gateway": "10.10.10.1"}'

# The response:
{
"num_records": 1,
"records": [
  {
    "uuid": "ae583c9e-9ac7-11e8-8bc9-005056bbd531",
    "ipspace": {
      "name": "ips1"
    },
    "gateway": "10.10.10.1"
  }
]
}
```

Creating an SVM-scoped route

To create an SVM-scoped route, the associated SVM can be identified by either its UUID or name.

```
# The API:
/api/network/ip/routes

# The call:
curl -X POST "https://<mgmt-ip>/api/network/ip/routes?return_records=true"
-H "accept: application/json" -d '{ "svm": { "name":"vs0" }, "gateway":
"10.10.10.1"}'

# The response:
{
"num_records": 1,
"records": [
  {
    "uuid": "38805a91-9ac9-11e8-8bc9-005056bbd531",
    "svm": {
      "name": "vs0"
    },
    "gateway": "10.10.10.1"
  }
]
}
```

Deleting network routes

You can use the DELETE API to delete a specific route identified by its UUID.

Example

Deleting a specific route

```
# The API:
/api/network/ip/routes/{uuid}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/network/ip/routes/38805a91-9ac9-
11e8-8bc9-005056bbd531"
```

Retrieve IP routes

GET `/network/ip/routes`

Introduced In: 9.6

Retrieves the collection of IP routes.

Expensive properties

There is an added cost to retrieving values for these properties. They are not included by default in GET results and must be explicitly requested using the `fields` query parameter. See Requesting specific fields to learn more.

- `interfaces.*`

Related ONTAP commands

- `network route show`
- `network route show-lifs`

Parameters

Name	Type	In	Required	Description
destination.netmask	string	query	False	Filter by destination.netmask
destination.family	string	query	False	Filter by destination.family
destination.address	string	query	False	Filter by destination.address
ipspace.uuid	string	query	False	Filter by ipspace.uuid
ipspace.name	string	query	False	Filter by ipspace.name
gateway	string	query	False	Filter by gateway
svm.uuid	string	query	False	Filter by svm.uuid
svm.name	string	query	False	Filter by svm.name
uuid	string	query	False	Filter by uuid

Name	Type	In	Required	Description
scope	string	query	False	Filter by scope
interfaces.ip.address	string	query	False	Filter by interfaces.ip.address • Introduced in: 9.9
interfaces.name	string	query	False	Filter by interfaces.name • Introduced in: 9.9
interfaces.uuid	string	query	False	Filter by interfaces.uuid • Introduced in: 9.9
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.
return_records	boolean	query	False	The default is true for GET calls. When set to false, only the number of records is returned. • Default value: 1

Name	Type	In	Required	Description
return_timeout	integer	query	False	The number of seconds to allow the call to execute before returning. When iterating over a collection, the default is 15 seconds. ONTAP returns earlier if either max records or the end of the collection is reached. • Default value: 1 • Max value: 120 • Min value: 0
order_by	array[string]	query	False	Order results by specified fields and optional [asc

Response

```
Status: 200, Ok
```

Name	Type	Description
_links	_links	
error	error	
num_records	integer	Number of records
records	array[network_route]	

Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "error": {
    "arguments": [
      {
        "code": "string",
        "message": "string"
      }
    ],
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  },
  "num_records": "1",
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "destination": {
        "address": "10.10.10.7",
        "family": "string",
        "netmask": "24"
      },
      "gateway": "10.1.1.1",
      "interfaces": [
        {
          "_links": {
            "self": {
              "href": "/api/resourcelink"
            }
          },
          "ip": {
            "address": "10.10.10.7"
          },
```

```
          "name": "lif1",
          "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
        }
      ],
      "ipspace": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "exchange",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "scope": "string",
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ]
}
```


Error

```
Status: Default, Error
```

Name	Type	Description
error	error	

Example error


```
{
  "error": {
    "arguments": [
      {
        "code": "string",
        "message": "string"
      }
    ],
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}
```


Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

Name	Type	Description
next	href	
self	href	

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

_links

Name	Type	Description
self	href	

ip_info

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address

Name	Type	Description
family	string	IPv4 or IPv6
netmask	string	Input as netmask length (16) or IPv4 mask (255.255.0.0). For IPv6, the default value is 64 with a valid range of 1 to 127. Output is always netmask length.

ip

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address

interfaces

Name	Type	Description
_links	_links	
ip	ip	IP information
name	string	The name of the interface.
uuid	string	The UUID that uniquely identifies the interface.

ipspace

Applies to both SVM and cluster-scoped objects. Either the UUID or name may be supplied on input.

Name	Type	Description
_links	_links	
name	string	IPspace name
uuid	string	IPspace UUID

svm

Name	Type	Description
_links	_links	
name	string	The name of the SVM.

Name	Type	Description
uuid	string	The unique identifier of the SVM.

network_route

Name	Type	Description
_links	_links	
destination	ip_info	IP information
gateway	string	The IP address of the gateway router leading to the destination.
interfaces	array[interfaces]	IP interfaces on the same subnet as the gateway.
ipspace	ipspace	Applies to both SVM and cluster-scoped objects. Either the UUID or name may be supplied on input.
scope	string	Set to "svm" for interfaces owned by an SVM. Otherwise, set to "cluster".
svm	svm	
uuid	string	The UUID that uniquely identifies the route.

Create a cluster-scoped or SVM-scoped static route

POST `/network/ip/routes`

Introduced In: 9.6

Creates a Cluster-scoped or SVM-scoped static route.

Required properties

- `gateway` - IP address to route packets to.
- SVM-scoped routes
  - `svm.name` or `svm.uuid` - SVM that route is applied to.
- cluster-scoped routes
  - There are no additional required fields for Cluster-scoped routes.

Default property values

If not specified in POST, the following default property values are assigned:

- `destination` - *0.0.0.0/0* for IPv4 or *::/0* for IPv6.
- `ipspace.name`
  - *Default* for Cluster-scoped routes.
  - Name of the SVM's IPspace for SVM-scoped routes.

Related ONTAP commands

- `network route create`

Parameters

Name	Type	In	Required	Description
return_records	boolean	query	False	The default is false. If set to true, the records are returned. • Default value:

Request Body

Name	Type	Description
destination	ip_info	IP information
gateway	string	The IP address of the gateway router leading to the destination.
interfaces	array[interfaces]	IP interfaces on the same subnet as the gateway.
ipspace	ipspace	Applies to both SVM and cluster-scoped objects. Either the UUID or name may be supplied on input.
svm	svm	
uuid	string	The UUID that uniquely identifies the route.

Example request

```
{
  "destination": {
    "address": "10.10.10.7",
    "netmask": "24"
  },
  "gateway": "10.1.1.1",
  "interfaces": [
    {
      "name": "lif1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ],
  "ipspace": {
    "name": "exchange",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```

Response

```
Status: 201, Created
```

Name	Type	Description
num_records	integer	Number of records
records	array[network_route]	

Example response


```
{
  "num_records": "1",
  "records": [
    {
      "destination": {
        "address": "10.10.10.7",
        "netmask": "24"
      },
      "gateway": "10.1.1.1",
      "interfaces": [
        {
          "name": "lif1",
          "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
        }
      ],
      "ipspace": {
        "name": "exchange",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "svm": {
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ]
}
```


Error

```
Status: Default
```

ONTAP Error Response Codes

Error Code	Description
1966345	Duplicate route exists.
1967080	The destination.address is missing.
1967081	The specified SVM must exist in the specified IPspace.

Error Code	Description
1967082	The specified ipspace.uuid and ipspace.name refer to different IPspaces.
1967146	The specified svm.name is not valid.
2	The specified svm.uuid is not valid.

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

ip_info

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address
netmask	string	Input as netmask length (16) or IPv4 mask (255.255.0.0). For IPv6, the default value is 64 with a valid range of 1 to 127. Output is always netmask length.

ip

IP information

interfaces

Name	Type	Description
ip	ip	IP information
name	string	The name of the interface.
uuid	string	The UUID that uniquely identifies the interface.

ipspace

Applies to both SVM and cluster-scoped objects. Either the UUID or name may be supplied on input.

Name	Type	Description
name	string	IPspace name
uuid	string	IPspace UUID

svm

Name	Type	Description
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

network_route

Name	Type	Description
destination	ip_info	IP information
gateway	string	The IP address of the gateway router leading to the destination.
interfaces	array[interfaces]	IP interfaces on the same subnet as the gateway.
ipspace	ipspace	Applies to both SVM and cluster-scoped objects. Either the UUID or name may be supplied on input.
svm	svm	
uuid	string	The UUID that uniquely identifies the route.

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

Delete an IP route

DELETE `/network/ip/routes/{uuid}`

Introduced In: 9.6

Deletes a specific IP route.

Related ONTAP commands

- `network route delete`

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Route UUID

Response

```
Status: 200, Ok
```

Error

```
Status: Default, Error
```

Name	Type	Description
error	error	

Example error

```
{
  "error": {
    "arguments": [
      {
        "code": "string",
        "message": "string"
      }
    ],
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}
```

Definitions

See Definitions

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

Retrieve details for an IP route

GET `/network/ip/routes/{uuid}`

Introduced In: 9.6

Retrieves the details of a specific IP route.

Related ONTAP commands

- `network route show`
- `network route show-lifs`

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Route UUID
fields	array[string]	query	False	Specify the fields to return.

Response

```
Status: 200, Ok
```

Name	Type	Description
_links	_links	
destination	ip_info	IP information
gateway	string	The IP address of the gateway router leading to the destination.
interfaces	array[interfaces]	IP interfaces on the same subnet as the gateway.
ipspace	ipspace	Applies to both SVM and cluster-scoped objects. Either the UUID or name may be supplied on input.
scope	string	Set to "svm" for interfaces owned by an SVM. Otherwise, set to "cluster".
svm	svm	

Name	Type	Description
uuid	string	The UUID that uniquely identifies the route.

Example response


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "destination": {
    "address": "10.10.10.7",
    "family": "string",
    "netmask": "24"
  },
  "gateway": "10.1.1.1",
  "interfaces": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "ip": {
        "address": "10.10.10.7"
      },
      "name": "lif1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ],
  "ipspace": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "exchange",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "scope": "string",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
```

```
  },
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```

Error

```
Status: Default, Error
```

Name	Type	Description
error	error	

Example error

```
{
  "error": {
    "arguments": [
      {
        "code": "string",
        "message": "string"
      }
    ],
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}
```

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

Name	Type	Description
self	href	

ip_info

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
netmask	string	Input as netmask length (16) or IPv4 mask (255.255.0.0). For IPv6, the default value is 64 with a valid range of 1 to 127. Output is always netmask length.

ip

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address

interfaces

Name	Type	Description
_links	_links	
ip	ip	IP information
name	string	The name of the interface.
uuid	string	The UUID that uniquely identifies the interface.

ipspace

Applies to both SVM and cluster-scoped objects. Either the UUID or name may be supplied on input.

Name	Type	Description
_links	_links	
name	string	IPspace name
uuid	string	IPspace UUID

svm

Name	Type	Description
_links	_links	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

Name	Type	Description
arguments	array[error_arguments]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

Copyright information

Copyright © 2025 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at http://www.netapp.com/TM are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.