



Manage DNS configurations

REST API reference

NetApp
February 13, 2026

Table of Contents

Manage DNS configurations	1
Manage DNS configurations	1
Overview	1
Retrieving DNS information	1
Examples	1
Creating a DNS configuration	4
Example	4
Updating a DNS configuration	5
Examples	5
Deleting a DNS configuration	5
Example	5
Retrieves the dns configurations of all data svms	6
Related ONTAP commands	6
Learn more	6
Parameters	6
Response	7
Error	8
Definitions	9
Creates dns domain and server configurations for an svm 	12
Important notes	12
Learn more	12
Request Body	13
Response	14
Error	15
Definitions	17
Deletes dns domain configuration of the specified svm	20
Related ONTAP commands	20
Learn more	20
Parameters	20
Response	20
Error	20
Definitions	21
Retrieves dns domain and server configuration of an svm by default, both dns domains and servers are displayed	22
Related ONTAP commands	22
Learn more	22
Parameters	23
Response	23
Error	24
Definitions	25
Updates dns domain and server configurations of an svm	26
Important notes	27
Learn more	27

Parameters	27
Request Body	27
Response	29
Error	29
Definitions	30

Manage DNS configurations

Manage DNS configurations

Overview

Displays DNS information and controls the DNS subsystem. DNS domain name and DNS servers are required parameters.

Retrieving DNS information

The DNS GET endpoint retrieves all of the DNS configurations for data SVMs. DNS configuration for the cluster is retrieved via [/api/cluster](#) .

Examples

Retrieving all of the fields for all of the DNS configurations

```
# The API:  
/api/name-services/dns  
  
# The call:  
curl -X GET "https://<mgmt-ip>/api/name-services/dns?fields=*" -H "accept: application/hal+json"  
  
# The response:  
{  
  "records": [  
    {  
      "svm": {  
        "uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",  
        "name": "vs1",  
        "_links": {  
          "self": {  
            "href": "/api/svm/svms/179d3c85-7053-11e8-b9b8-005056b41bd1"  
          }  
        }  
      },  
      "domains": [  
        "domainA.example.com"  
      ],  
      "servers": [  
        "10.10.10.10"  
      ]  
      "_links": {  
        "self": {
```

```

        "href": "/api/name-services/dns/179d3c85-7053-11e8-b9b8-
005056b41bd1"
    }
}
},
{
"svm": {
    "uuid": "19076d35-6e27-11e8-b9b8-005056b41bd1",
    "name": "vs2"
    "_links": {
        "self": {
            "href": "/api/svm/svms/19076d35-6e27-11e8-b9b8-005056b41bd1"
        }
    }
},
"domains": [
    "sample.example.com"
],
"servers": [
    "11.11.11.11",
    "22.22.22.22",
    "33.33.33.33"
]
"_links": {
    "self": {
        "href": "/api/name-services/dns/19076d35-6e27-11e8-b9b8-
005056b41bd1"
    }
}
}
],
"num_records": 2
"_links": {
    "self": {
        "href": "/api/name-services/dns?fields=*"
    }
}
}
}

```

Retrieving all DNS configurations whose domain name starts with *dom**.

```

# The API:
/api/name-services/dns

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/dns?domains=dom*" -H
"accept: application/hal+json"

# The response:
{
  "records": [
    {
      "svm": {
        "uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",
        "name": "vs1"
        "_links": {
          "self": {
            "href": "/api/svm/svms/179d3c85-7053-11e8-b9b8-005056b41bd1"
          }
        }
      },
      "domains": [
        "domainA.example.com"
      ]
      "_links": {
        "self": {
          "href": "/api/name-services/dns/179d3c85-7053-11e8-b9b8-
005056b41bd1"
        }
      }
    }
  ],
  "num_records": 1
  "_links": {
    "self": {
      "href": "/api/name-services/dns?domains=dom*"
    }
  }
}

```

Retrieving the DNS configuration for a specific SVM

```

# The API:
/api/name-services/dns/{svm.uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/dns/179d3c85-7053-11e8-
b9b8-005056b41bd1" -H "accept: application/hal+json"

# The response:
{
  "svm": {
    "uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",
    "name": "vs1",
    "_links": {
      "self": {
        "href": "/api/svm/svms/179d3c85-7053-11e8-b9b8-005056b41bd1"
      }
    }
  },
  "domains": [
    "domainA.example.com"
  ],
  "servers": [
    "10.10.10.10"
  ]
  "_links": {
    "self": {
      "href": "/api/name-services/dns/179d3c85-7053-11e8-b9b8-005056b41bd1"
    }
  }
}

```

Creating a DNS configuration

The DNS POST endpoint creates a DNS configuration for the specified SVM.

Example

The following example shows a POST operation:

```

# The API:
/api/name-services/dns

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/dns" -H "accept: application/hal+json" -H "Content-Type: application/json" -d "{ \"svm\": { \"uuid\": \"179d3c85-7053-11e8-b9b8-005056b41bd1\" }, \"domains\": [ \"domainA.example.com\" ], \"servers\": [ \"10.10.10.10\" ]}"

```

Updating a DNS configuration

The DNS PATCH endpoint updates the DNS configuration for the specified SVM.

Examples

Updating both the DNS domains and servers

```

# The API:
/api/name-services/dns/{svm.uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/dns/179d3c85-7053-11e8-b9b8-005056b41bd1" -H "accept: application/hal+json" -H "Content-Type: application/json" -d "{ \"domains\": [ \"domainA.example.com\", \"domainB.example.com\" ], \"servers\": [ \"10.10.10.10\", \"10.10.10.11\" ] }"

```

Updating the DNS servers only

```

# The API:
/api/name-services/dns/{svm.uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/dns/179d3c85-7053-11e8-b9b8-005056b41bd1" -H "accept: application/hal+json" -H "Content-Type: application/json" -d "{ \"servers\": [ \"10.10.10.10\" ]}"

```

Deleting a DNS configuration

The DNS DELETE endpoint deletes the DNS configuration for the specified SVM.

Example

The following example shows a DELETE operation.

```

# The API:
/api/name-services/dns/{svm.uuid}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/name-services/dns/179d3c85-7053-11e8-b9b8-005056b41bd1" -H "accept: application/hal+json"

```

Retrieves the dns configurations of all data svms

dns configuration for the cluster is retrieved and managed via [/api/cluster](#docs-cluster-cluster) related [ontap commands](#) * vserver services name-service dns show * vserver services name-service dns check # learn more * [doc /name-services/dns](#docs-name-services-name-services_dns)

GET /name-services/dns

Retrieves the DNS configurations of all data SVMs. DNS configuration for the cluster is retrieved and managed via [/api/cluster](#) .

Related ONTAP commands

- vserver services name-service dns show
- vserver services name-service dns check

Learn more

- [DOC /name-services/dns](#)

Parameters

Name	Type	In	Required	Description
servers	string	query	False	Filter by servers
svm.name	string	query	False	Filter by svm.name
svm.uuid	string	query	False	Filter by svm.uuid
domains	string	query	False	Filter by domains
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.

Name	Type	In	Required	Description
return_records	boolean	query	False	The default is true for GET calls. When set to false, only the number of records is returned.
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.
order_by	array[string]	query	False	Order results by specified fields and optional [asc

Response

```
Status: 200, Ok
```

Name	Type	Description
_links	_links	
num_records	integer	Number of DNS domain records
records	array[dns]	

Example response

```
{  
  "_links": {  
    "next": {  
      "href": "/api/resourcelink"  
    },  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "records": [  
    {  
      "_links": {  
        "self": {  
          "href": "/api/resourcelink"  
        }  
      },  
      "domains": [  
        "example.com",  
        "example2.example3.com"  
      ],  
      "servers": [  
        "10.224.65.20",  
        "2001:db08:a0b:12f0::1"  
      ],  
      "svm": {  
        "_links": {  
          "self": {  
            "href": "/api/resourcelink"  
          }  
        },  
        "name": "svm1",  
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"  
      }  
    }  
  ]  
}
```

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	

_links

Name	Type	Description
self	href	

svm

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

dns

Name	Type	Description
_links	_links	

Name	Type	Description
domains	array[string]	<p>A list of DNS domains. Domain names have the following requirements:</p> <ul style="list-style-type: none"> • The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_". • The first character of each label, delimited by ".", must be one of the following characters: A through Z or a through z or 0 through 9. • The last character of each label, delimited by ".", must be one of the following characters: A through Z, a through z, or 0 through 9. • The top level domain must contain only the following characters: A through Z, a through z. • The system reserves the following names: "all", "local", and "localhost".
servers	array[string]	The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses.
svm	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

Name	Type	Description
message	string	Error message
target	string	The target parameter that caused the error.

Creates dns domain and server configurations for an svm

important notes

- each svm can have only one dns configuration
- the domain name and the servers fields cannot be empty
- ipv6 must be enabled if ipv6 family addresses are specified in the servers field
- configuring more than one dns server is recommended to avoid a single point of failure
- the dns server specified using the servers field is validated during this operation
 </br> the validation fails in the following scenarios:
 1 the server is not a dns server 2 the server does not exist 3 the server is unreachable

learn more

- [doc /name-services/dns](#docs-name-services-name-services_dns)

POST /name-services/dns

Creates DNS domain and server configurations for an SVM.

Important notes

- Each SVM can have only one DNS configuration.
- The domain name and the servers fields cannot be empty.
- IPv6 must be enabled if IPv6 family addresses are specified in the servers field.
- Configuring more than one DNS server is recommended to avoid a single point of failure.
- The DNS server specified using the servers field is validated during this operation.

The validation fails in the following scenarios:

1. The server is not a DNS server.
2. The server does not exist.
3. The server is unreachable.

Learn more

- [DOC /name-services/dns](#)

Request Body

Name	Type	Description
_links	_links	
domains	array[string]	<p>A list of DNS domains. Domain names have the following requirements:</p> <ul style="list-style-type: none"> • The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_". • The first character of each label, delimited by ".", must be one of the following characters: A through Z or a through z or 0 through 9. • The last character of each label, delimited by ".", must be one of the following characters: A through Z, a through z, or 0 through 9. • The top level domain must contain only the following characters: A through Z, a through z. • The system reserves the following names: "all", "local", and "localhost".
servers	array[string]	The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses.
svm	svm	

Example request

```
{  
  "_links": {  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "domains": [  
    "example.com",  
    "example2.example3.com"  
  ],  
  "servers": [  
    "10.224.65.20",  
    "2001:db08:a0b:12f0::1"  
  ],  
  "svm": {  
    "_links": {  
      "self": {  
        "href": "/api/resourcelink"  
      }  
    },  
    "name": "svm1",  
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"  
  }  
}
```

Response

Status: 201, Created

Name	Type	Description
_links	_links	
num_records	integer	Number of DNS domain records
records	array[dns]	

Example response

```
{  
  "_links": {  
    "next": {  
      "href": "/api/resourcelink"  
    },  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "records": [  
    {  
      "_links": {  
        "self": {  
          "href": "/api/resourcelink"  
        }  
      },  
      "domains": [  
        "example.com",  
        "example2.example3.com"  
      ],  
      "servers": [  
        "10.224.65.20",  
        "2001:db08:a0b:12f0::1"  
      ],  
      "svm": {  
        "_links": {  
          "self": {  
            "href": "/api/resourcelink"  
          }  
        },  
        "name": "svm1",  
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"  
      }  
    }  
  ]  
}
```

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
2621706	The specified SVM UUID is incorrect for the specified SVM name
8847360	Only admin or data SVMs allowed
8847361	Exceeded the maximum number of domains allowed. Maximum of six domains only
8847362	Exceeded the maximum number of name servers allowed. Maximum of three name servers only
8847392	Domain name cannot be an IP address
8847393	Top level domain name is invalid
8847399	One or more of the specified DNS servers do not exist or cannot be reached
8847394	FQDN name violated the limitations
9240587	FQDN name cannot be empty
9240588	FQDN name is too long. Maximum supported length: 255 characters
9240590	FQDN name is reserved. Following names are reserved: "all", "local" and "localhost"
9240607	One of the FQDN labels is too long. Maximum supported length: 63 characters
23724130	Cannot use an IPv6 name server address because there are no IPv6 LIFs

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	

svm

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

dns

Name	Type	Description
_links	_links	

Name	Type	Description
domains	array[string]	<p>A list of DNS domains. Domain names have the following requirements:</p> <ul style="list-style-type: none"> • The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_". • The first character of each label, delimited by ".", must be one of the following characters: A through Z or a through z or 0 through 9. • The last character of each label, delimited by ".", must be one of the following characters: A through Z, a through z, or 0 through 9. • The top level domain must contain only the following characters: A through Z, a through z. • The system reserves the following names: "all", "local", and "localhost".
servers	array[string]	The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses.
svm	svm	

_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.

Deletes dns domain configuration of the specified svm

related ontap commands

- vserver services name-service dns delete [# learn more](#)
- [doc /name-services/dns](#docs-name-services-name-services_dns)

DELETE /name-services/dns/{svm.uuid}

Deletes DNS domain configuration of the specified SVM.

Related ONTAP commands

- vserver services name-service dns delete

Learn more

- [DOC /name-services/dns](#)

Parameters

Name	Type	In	Required	Description
svm.uuid	string	path	True	UUID of the SVM to which this object belongs.

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.

Retrieves dns domain and server configuration of an svm by default, both dns domains and servers are displayed

dns configuration for the cluster is retrieved and managed via [\[/api/cluster\]\(docs-cluster-cluster\)](#) related [ontap commands](#) * `vserver services name-service dns show` * `vserver services name-service dns check` # learn more * [\[doc /name-services/dns\]\(#docs-name-services-name-services_dns\)](#)

GET /name-services/dns/{svm.uuid}

Retrieves DNS domain and server configuration of an SVM. By default, both DNS domains and servers are displayed. DNS configuration for the cluster is retrieved and managed via [/api/cluster](#) .

Related ONTAP commands

- `vserver services name-service dns show`
- `vserver services name-service dns check`

Learn more

- [DOC /name-services/dns](#)

Parameters

Name	Type	In	Required	Description
svm.uuid	string	path	True	UUID of the SVM to which this object belongs.
fields	array[string]	query	False	Specify the fields to return.

Response

Status: 200, Ok

Name	Type	Description
_links	_links	
domains	array[string]	<p>A list of DNS domains. Domain names have the following requirements:</p> <ul style="list-style-type: none"> • The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_". • The first character of each label, delimited by ".", must be one of the following characters: A through Z or a through z or 0 through 9. • The last character of each label, delimited by ".", must be one of the following characters: A through Z, a through z, or 0 through 9. • The top level domain must contain only the following characters: A through Z, a through z. • The system reserves the following names: "all", "local", and "localhost".
servers	array[string]	The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses.

Name	Type	Description
svm	svm	

Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "domains": [
    "example.com",
    "example2.example3.com"
  ],
  "servers": [
    "10.224.65.20",
    "2001:db08:a0b:12f0::1"
  ],
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svml",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```

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	

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.

Updates dns domain and server configurations of an svm

important notes

- both dns domains and servers can be modified
- the domains and servers fields cannot be empty
- ipv6 must be enabled if ipv6 family addresses are specified for the servers field
- the dns server specified using the servers field is validated during this operation
 the validation fails in the following scenarios:
 1 the server is not a dns server 2 the server does not exist 3 the server is unreachable

learn more

- [doc /name-services/dns](#docs-name-services-name-services_dns)

PATCH /name-services/dns/{svm.uuid}

Updates DNS domain and server configurations of an SVM.

Important notes

- Both DNS domains and servers can be modified.
- The domains and servers fields cannot be empty.
- IPv6 must be enabled if IPv6 family addresses are specified for the servers field.
- The DNS server specified using the servers field is validated during this operation.

The validation fails in the following scenarios:

1. The server is not a DNS server.
2. The server does not exist.
3. The server is unreachable.

Learn more

- [DOC /name-services/dns](#)

Parameters

Name	Type	In	Required	Description
svm.uuid	string	path	True	UUID of the SVM to which this object belongs.

Request Body

Name	Type	Description
_links	_links	

Name	Type	Description
domains	array[string]	<p>A list of DNS domains. Domain names have the following requirements:</p> <ul style="list-style-type: none"> • The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_". • The first character of each label, delimited by ".", must be one of the following characters: A through Z or a through z or 0 through 9. • The last character of each label, delimited by ".", must be one of the following characters: A through Z, a through z, or 0 through 9. • The top level domain must contain only the following characters: A through Z, a through z. • The system reserves the following names: "all", "local", and "localhost".
servers	array[string]	The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses.
svm	svm	

Example request

```
{  
  "_links": {  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "domains": [  
    "example.com",  
    "example2.example3.com"  
  ],  
  "servers": [  
    "10.224.65.20",  
    "2001:db08:a0b:12f0::1"  
  ],  
  "svm": {  
    "_links": {  
      "self": {  
        "href": "/api/resourcelink"  
      }  
    },  
    "name": "svm1",  
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"  
  }  
}
```

Response

```
Status: 200, Ok
```

Error

```
Status: Default
```

ONTAP Error Response Codes

Error Code	Description
8847360	Only admin or data SVMs allowed
8847361	Exceeded the maximum number of domains allowed. Maximum of six domains only

Error Code	Description
8847362	Exceeded the maximum number of name servers allowed. Maximum of three name servers only
8847392	Domain name cannot be an IP address
8847393	Top level domain name is invalid
8847394	FQDN name violated the limitations
8847399	One or more of the specified DNS servers do not exist or cannot be reached
9240587	FQDN name cannot be empty
9240588	FQDN name is too long. Maximum supported length: 255 characters
9240590	FQDN name is reserved. Following names are reserved: "all", "local" and "localhost"
9240607	One of the FQDN labels is too long. Maximum supported length: 63 characters
23724130	Cannot use an IPv6 name server address because there are no IPv6 LIFs

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	

svm

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

dns

Name	Type	Description
_links	_links	

Name	Type	Description
domains	array[string]	<p>A list of DNS domains. Domain names have the following requirements:</p> <ul style="list-style-type: none"> • The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_". • The first character of each label, delimited by ".", must be one of the following characters: A through Z or a through z or 0 through 9. • The last character of each label, delimited by ".", must be one of the following characters: A through Z, a through z, or 0 through 9. • The top level domain must contain only the following characters: A through Z, a through z. • The system reserves the following names: "all", "local", and "localhost".
servers	array[string]	The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses.
svm	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

Name	Type	Description
message	string	Error message
target	string	The target parameter that caused the error.

Copyright information

Copyright © 2026 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.