



Manage NIS server configurations

ONTAP 9.13.1 REST API reference

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Manage NIS server configurations

Name-services NIS endpoint overview

Overview

NIS servers are used to authenticate user and client computers. NIS domain name and NIS server information is required to configure NIS. It is important to note that this API is used to retrieve and manage NIS server configurations for data SVMs only. NIS configuration for the cluster is managed via </api/security/authentication/cluster/nis> .

Retrieving NIS Information

The NIS GET endpoint retrieves all of the NIS configurations for data SVMs.

Examples

Retrieving all fields for all NIS configurations

```
# The API:
/api/name-services/nis

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/nis?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"
          }
        }
      },
      "domain": "domainA.example.com",
      "servers": [
        "10.10.10.10",
        "example.com"
      ],
      "bound-servers": [
```

```

    "10.10.10.10"
  ],
  "_links": {
    "self": {
      "href": "/api/name-services/nis/179d3c85-7053-11e8-b9b8-005056b41bd1"
    }
  }
},
{
  "svm": {
    "uuid": "6a52023b-7066-11e8-b9b8-005056b41bd1",
    "name": "vs2",
    "_links": {
      "self": {
        "href": "/api/svm/svms/6a52023b-7066-11e8-b9b8-005056b41bd1"
      }
    }
  },
  "domain": "domainB.example.com",
  "servers": [
    "2.2.2.2",
    "3.3.3.3",
    "4.4.4.4"
  ],
  "bound-servers": [],
  "_links": {
    "self": {
      "href": "/api/name-services/nis/6a52023b-7066-11e8-b9b8-005056b41bd1"
    }
  }
}
],
"num_records": 2,
"_links": {
  "self": {
    "href": "/api/name-services/nis?fields=*"
  }
}
}

```

Retrieving all NIS configurations whose bound servers start with 10

```
# The API:
/api/name-services/nis

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/nis?bound_servers=10*" -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"
          }
        }
      },
      "bound-servers": [
        "10.10.10.10"
      ],
      "_links": {
        "self": {
          "href": "/api/name-services/nis/6a52023b-7066-11e8-b9b8-005056b41bd1"
        }
      }
    }
  ],
  "num_records": 1,
  "_links": {
    "self": {
      "href": "/api/name-services/nis?bound_servers=10*"
    }
  }
}
```

Retrieving the NIS configuration of a specific SVM

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

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

# The response:
{
  "svm": {
    "uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",
    "name": "vs1"
  },
  "domain": "domainA.example.com",
  "servers": [
    "10.10.10.10",
    "example.com"
  ],
  "bound_servers": [
    "10.10.10.10"
  ]
}
```

Creating a NIS configuration

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

Example

The following example shows a POST operation:

```
# The API:
/api/name-services/nis

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

Updating the NIS configuration

The NIS PATCH endpoint updates the NIS configuration for the specified NIS server.

Examples

Updating the domain

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

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/nis/179d3c85-7053-11e8-b9b8-005056b41bd1" -H "accept: application/json" -H "Content-Type: application/json" -d "{ \"domain\": \"domainC.example.com\", \"servers\": [ \"13.13.13.13\" ] }"
```

Updating the server

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

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/nis/179d3c85-7053-11e8-b9b8-005056b41bd1" -H "accept: application/json" -H "Content-Type: application/json" -d "{ \"servers\": [ \"14.14.14.14\" ] }"
```

Deleting a NIS configuration

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

Example

The following example shows a DELETE operation:

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

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

Retrieve the NIS domain configurations of all SVMs

GET /name-services/nis

Introduced In: 9.6

Retrieves NIS domain configurations of all the SVMs. The `bound_servers` field indicates the successfully bound NIS servers. Lookups and authentications fail if there are no bound servers.

Related ONTAP commands

- `vserver services name-service nis-domain show`
- `vserver services name-service nis-domain show-bound`
- `vserver services name-service nis-domain show-bound-debug`

Learn more

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

Parameters

Name	Type	In	Required	Description
binding_details.server	string	query	False	Filter by binding_details.server <ul style="list-style-type: none">• maxLength: 255• minLength: 1• Introduced in: 9.11
binding_details.status.code	string	query	False	Filter by binding_details.status.code <ul style="list-style-type: none">• Introduced in: 9.11

Name	Type	In	Required	Description
binding_details.status.message	string	query	False	Filter by binding_details.status.message <ul style="list-style-type: none"> Introduced in: 9.11
servers	string	query	False	Filter by servers <ul style="list-style-type: none"> maxLength: 255 minLength: 1 Introduced in: 9.7
domain	string	query	False	Filter by domain <ul style="list-style-type: none"> maxLength: 64 minLength: 1 Introduced in: 9.7
bound_servers	string	query	False	Filter by bound_servers <ul style="list-style-type: none"> maxLength: 255 minLength: 1 Introduced in: 9.7
svm.uuid	string	query	False	Filter by svm.uuid <ul style="list-style-type: none"> Introduced in: 9.7
svm.name	string	query	False	Filter by svm.name <ul style="list-style-type: none"> Introduced in: 9.7
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. • Default value: 1
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	
num_records	integer	Number of NIS domain records.
records	array[nis_service]	

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "binding_details": {
    },
    "bound_servers": {
    },
    "servers": {
    },
    "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	

binding_status

Name	Type	Description
code	string	Code corresponding to the server's binding status.
message	string	Detailed description of the server's binding status.

binding_details

Name	Type	Description
server	string	Hostname/IP address of the NIS server in the domain.
status	binding_status	

svm

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

nis_service

Name	Type	Description
_links	_links	
binding_details	array[binding_details]	An array of objects where each object represents the NIS server and it's status for a given NIS domain. It is an advanced field.
bound_servers	array[string]	
domain	string	The NIS domain to which this configuration belongs.
servers	array[string]	A list of hostnames or IP addresses of NIS servers used by the NIS domain configuration.
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
message	string	Error message
target	string	The target parameter that caused the error.

Create the NIS domain and server configuration for a data SVM

POST /name-services/nis

Introduced In: 9.6

Creates an NIS domain and server configuration for a data SVM. NIS configuration for the cluster is managed via </api/security/authentication/cluster/nis>.

Important notes

- Each SVM can have one NIS domain configuration.
- Multiple SVMs can be configured with the same NIS domain. Specify the NIS domain and NIS servers as input. Domain name and servers fields cannot be empty.
- Both FQDNs and IP addresses are supported for the servers field.
- IPv6 must be enabled if IPv6 family addresses are specified in the servers field.
- A maximum of ten NIS servers are supported.

Required properties

- `svm.uuid` or `svm.name` - Existing SVM in which to create the NIS configuration.
- `domain` - NIS domain to which the configuration belongs.
- `servers` - List of NIS server IP addresses.

Related ONTAP commands

- `vserver services name-service nis-domain create`

Learn more

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

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
_links	_links	
binding_details	array[binding_details]	An array of objects where each object represents the NIS server and it's status for a given NIS domain. It is an advanced field.
bound_servers	array[string]	

Name	Type	Description
domain	string	The NIS domain to which this configuration belongs.
servers	array[string]	A list of hostnames or IP addresses of NIS servers used by the NIS domain configuration.
svm	svm	

Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "binding_details": {
  },
  "bound_servers": {
  },
  "servers": {
  },
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```

Response

Status: 201, Created

Name	Type	Description
_links	_links	

Name	Type	Description
num_records	integer	Number of NIS domain records.
records	array[nis_service]	

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "binding_details": {
    },
    "bound_servers": {
    },
    "servers": {
    },
    "svm": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "svm1",
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    }
  }
}
```

Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

Error

Status: Default

ONTAP Error Response Codes

Error Code	Description
1966253	IPv6 is not enabled in the cluster
2621488	Invalid SVM context
2621706	The specified SVM UUID is incorrect for the specified SVM name
3276964	NIS domain name or NIS server domain is too long. The maximum supported for domain name is 64 characters and the maximum supported for NIS server domain is 255 characters
3276933	A maximum of 10 NIS servers can be configured per SVM
13434916	The SVM is in the process of being created. Wait a few minutes, and then try the command again.
23724109	DNS resolution failed for one or more specified servers
23724112	DNS resolution failed due to an internal error. Contact technical support if this issue persists
23724132	DNS resolution failed for all the specified servers
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	

binding_status

Name	Type	Description
code	string	Code corresponding to the server's binding status.
message	string	Detailed description of the server's binding status.

binding_details

Name	Type	Description
server	string	Hostname/IP address of the NIS server in the domain.
status	binding_status	

svm

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

nis_service

Name	Type	Description
_links	_links	

Name	Type	Description
binding_details	array[binding_details]	An array of objects where each object represents the NIS server and it's status for a given NIS domain. It is an advanced field.
bound_servers	array[string]	
domain	string	The NIS domain to which this configuration belongs.
servers	array[string]	A list of hostnames or IP addresses of NIS servers used by the NIS domain configuration.
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.

Delete the NIS domain configuration for an SVM

```
DELETE /name-services/nis/{svm.uuid}
```

Introduced In: 9.6

Deletes the NIS domain configuration of an SVM. NIS can be removed as a source from ns-switch if NIS is not used for lookups.

Related ONTAP commands

- `vserver services name-service nis-domain delete`

Learn more

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

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.

Retrieve NIS domain and server configurations for an SVM

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

Introduced In: 9.6

Retrieves NIS domain and server configurations of an SVM. Both NIS domain and servers are displayed by default. The `bound_servers` field indicates the successfully bound NIS servers.

Related ONTAP commands

- `vserver services name-service nis-domain show`
- `vserver services name-service nis-domain show-bound`
- `vserver services name-service nis-domain show-bound-debug`

Learn more

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

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
<code>_links</code>	_links	
<code>binding_details</code>	array[binding_details]	An array of objects where each object represents the NIS server and it's status for a given NIS domain. It is an advanced field.
<code>bound_servers</code>	array[string]	
<code>domain</code>	string	The NIS domain to which this configuration belongs.
<code>servers</code>	array[string]	A list of hostnames or IP addresses of NIS servers used by the NIS domain configuration.
<code>svm</code>	svm	

Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "binding_details": {
  },
  "bound_servers": {
  },
  "servers": {
  },
  "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
self	href	

binding_status

Name	Type	Description
code	string	Code corresponding to the server's binding status.
message	string	Detailed description of the server's binding status.

binding_details

Name	Type	Description
server	string	Hostname/IP address of the NIS server in the domain.
status	binding_status	

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.

Update NIS domain and server configuration for an SVM

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

Introduced In: 9.6

Updates NIS domain and server configuration of an SVM.

Important notes

- Both NIS domain and servers can be modified.
- Domains and servers cannot be empty.
- Both FQDNs and IP addresses are supported for the servers field.
- If the domain is modified, NIS servers must also be specified.
- IPv6 must be enabled if IPv6 family addresses are specified for the servers field.

Related ONTAP commands

- `vserver services name-service nis-domain modify`

Learn more

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

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	
binding_details	array[binding_details]	An array of objects where each object represents the NIS server and it's status for a given NIS domain. It is an advanced field.
bound_servers	array[string]	
domain	string	The NIS domain to which this configuration belongs.
servers	array[string]	A list of hostnames or IP addresses of NIS servers used by the NIS domain configuration.
svm	svm	

Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "binding_details": {
  },
  "bound_servers": {
  },
  "servers": {
  },
  "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
1966253	IPv6 is not enabled in the cluster
2621488	Invalid SVM context
2621706	The specified SVM UUID is incorrect for the specified SVM name
3276964	NIS domain name or NIS server domain is too long. The maximum supported for domain name is 64 characters and the maximum supported for NIS server domain is 255 characters
3276933	A maximum of 10 NIS servers can be configured per SVM
23724109	DNS resolution failed for one or more specified servers
23724112	DNS resolution failed due to an internal error. Contact technical support if this issue persists
23724132	DNS resolution failed for all the specified servers
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	

binding_status

Name	Type	Description
code	string	Code corresponding to the server's binding status.
message	string	Detailed description of the server's binding status.

binding_details

Name	Type	Description
server	string	Hostname/IP address of the NIS server in the domain.
status	binding_status	

svm

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

nis_service

Name	Type	Description
_links	_links	

Name	Type	Description
binding_details	array[binding_details]	An array of objects where each object represents the NIS server and it's status for a given NIS domain. It is an advanced field.
bound_servers	array[string]	
domain	string	The NIS domain to which this configuration belongs.
servers	array[string]	A list of hostnames or IP addresses of NIS servers used by the NIS domain configuration.
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
message	string	Error message
target	string	The target parameter that caused the error.

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