# Name-services

## REST API reference

NetApp
February 06, 2026

This PDF was generated from https://docs.netapp.com/us-en/ontap-restapi/name-services_overview.html on February 06, 2026. Always check docs.netapp.com for the latest.

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# Name-services

## ONTAP REST API Name-services endpoints

### Overview

ONTAP uses name-services to obtain information about users and clients. This information is used to authenticate users accessing data on or administering the storage system, and to map user credentials in a mixed environment. If the user database is stored in NIS or LDAP servers, NIS and LDAP name services need to be configured in ONTAP. DNS is used for resolving the hostnames. ns-switch is used to configure the SVMs with sources to search for network information and the order in which to search them.

# Manage group membership cache settings

## Manage group membership cache settings

### Overview

This API is used to retrieve and manage group-membership cache settings.

### Examples

#### Retrieving group-membership cache settings

---

The following example shows how to use the cache group-membership settings GET endpoint to retrieve group-membership cache settings.

```
# The API:
GET /api/name-services/cache/group-membership/settings

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/cache/group-
membership/settings?fields=*" -H "accept: application/hal+json"

# The response:
{
"records": [
  {
    "svm": {
      "uuid": "8a1a8730-2036-11ec-8457-005056bbcfdb",
      "name": "vs43"
    },
    "enabled": true,
    "ttl": "PT1H"
  },
  {
    "svm": {
      "uuid": "dc458b2f-2035-11ec-bfe2-005056bb6bef",
      "name": "vs34"
    },
    "enabled": true,
    "ttl": "PT5M"
  }
],
"num_records": 2
}
```

#### Retrieving group-membership cache settings for a given SVM

The following example shows how to use the cache group-membership settings GET endpoint to retrieve group-membership cache settings for a given SVM.

```
# The API:
GET /api/name-services/cache/group-membership/settings/{svm.uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/cache/group-
membership/settings/dc458b2f-2035-11ec-bfe2-005056bb6bef" -H "accept:
application/hal+json"

# The response:
{
"svm": {
  "uuid": "dc458b2f-2035-11ec-bfe2-005056bb6bef",
  "name": "vs34"
},
"enabled": true,
"ttl": "PT1H"
}
```

#### Updating a group-membership cache setting

The following example shows how to use the cache group-membership settings PATCH endpoint to update a group-membership setting.

```
# The API:
PATCH /api/name-services/cache/group-membership/settings/{svm.uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/cache/unix-
user/settings/02c9e252-41be-11e9-81d5-00a0986138f9" -H "accept:
application/json" -H "Content-Type: application/json" -d "{ \"enabled\":
\"false\" }"
```

## Retrieve group membership cache settings

GET `/name-services/cache/group-membership/settings`

**Introduced In:** 9.11

Retrieves group-membership cache settings.

### Related ONTAP commands

- `vserver services name-service cache group-membership settings show`

### Learn more

- DOC /name-services/cache/group-membership/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.name | string | query | False | Filter by svm.name |
| svm.uuid | string | query | False | Filter by svm.uuid |
| enabled | boolean | query | False | Filter by enabled |
| ttl | string | query | False | Filter by ttl |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 records. |
| records | array[group_membership_settings] | |

### Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "ttl": "PT2H30M"
    }
  ]
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

group_membership_settings

Group membership cache setting.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| enabled | boolean | Specifies whether or not the cache is enabled. |
| svm | svm | SVM, applies only to SVM-scoped objects. |

| Name | Type | Description |
|---|---|---|
| ttl | string | Specifies Time to Live for list of group members, in ISO 8601 format. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a group membership cache setting for an SVM

GET `/name-services/cache/group-membership/settings/{svm.uuid}`

**Introduced In:** 9.11

Retrieves a group-membership cache setting for a given SVM.

### Related ONTAP commands

- `vserver services name-service cache group-membership settings show`

### Learn more

- DOC /name-services/cache/group-membership/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.uuid | string | path | True | SVM UUID. |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.name | string | query | False | Filter by svm.name |
| enabled | boolean | query | False | Filter by enabled |
| ttl | string | query | False | Filter by ttl |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 | |
| enabled | boolean | Specifies whether or not the cache is enabled. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl | string | Specifies Time to Live for list of group members, in ISO 8601 format. |

**Example response**


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "ttl": "PT2H30M"
}
```


**Error**

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a group membership cache setting

PATCH `/name-services/cache/group-membership/settings/{svm.uuid}`

**Introduced In:** 9.11

Updates a group-membership cache setting.

### Important notes

- svm.uuid field cannot be empty.
- Returns success in case no values are provided for update.

### Related ONTAP commands

- `vserver services name-service cache group-membership settings modify`

### Learn more

- DOC /name-services/cache/group-membership/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.uuid | string | path | True | SVM UUID. |

### Request Body

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Specifies whether or not the cache is enabled. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl | string | Specifies Time to Live for list of group members, in ISO 8601 format. |

### Example request


```
{
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "ttl": "PT2H30M"
}
```


### Response

```
Status: 200, Ok
```

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
| --- | --- |
| 23724055 | Internal error. Configuration for Vserver failed. Verify that the cluster is healthy, then try the command again. For further assistance, contact technical support. |

Also see the table of common errors in the Response body overview section of this documentation.

### Definitions

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

group_membership_settings

Group membership cache setting.

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Specifies whether or not the cache is enabled. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl | string | Specifies Time to Live for list of group members, in ISO 8601 format. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# Manage host cache settings

## Manage host cache settings

### Overview

This API is used to retrieve and manage hosts cache settings.

### Examples

#### Retrieving hosts cache settings

The following examples shows how to use the cache host settings GET endpoint to retrieve host cache settings.

```
# The API:
GET /api/name-services/cache/host/settings

# The call:
curl -X GET "https://<mgmt-ip>/api/name-
services/cache/host/settings?fields=*" -H "accept: application/hal+json"

# The response:
{
"records": [
  {
    "uuid": "8a1a8730-2036-11ec-8457-005056bbcfdb",
    "svm": {
      "uuid": "8a1a8730-2036-11ec-8457-005056bbcfdb",
      "name": "vs43"
    },
    "enabled": true,
    "negative_cache_enabled": true,
    "ttl": "P1D",
    "negative_ttl": "PT1M",
    "dns_ttl_enabled": true
  },
  {
    "uuid": "951e8676-2035-11ec-bfe2-005056bb6bef",
    "enabled": true,
    "negative_cache_enabled": true,
    "ttl": "P1D",
    "negative_ttl": "PT1M",
    "dns_ttl_enabled": true
  },
  {
    "uuid": "dc458b2f-2035-11ec-bfe2-005056bb6bef",
    "svm": {
      "uuid": "dc458b2f-2035-11ec-bfe2-005056bb6bef",
      "name": "vs34"
    },
    "enabled": true,
    "negative_cache_enabled": true,
    "ttl": "P1D",
    "negative_ttl": "PT1M",
    "dns_ttl_enabled": true
  }
],
"num_records": 3
}
```

#### Retrieving host cache settings for a given SVM

The following examples shows how to use the cache hosts settings GET endpoint to retrieve hosts cache settings for a specific SVM.

```
# The API:
GET /api/name-services/cache/host/settings/{uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/name-
services/cache/host/settings/dc458b2f-2035-11ec-bfe2-005056bb6bef" -H
"accept: application/hal+json"

# The response:
{
"uuid": "dc458b2f-2035-11ec-bfe2-005056bb6bef",
"svm": {
  "uuid": "dc458b2f-2035-11ec-bfe2-005056bb6bef",
  "name": "vs34"
},
"enabled": false,
"negative_cache_enabled": true,
"ttl": "P1D",
"negative_ttl": "PT1M",
"dns_ttl_enabled": true
}
```

#### Updating a hosts cache setting

The following example shows how to use the cache host settings PATCH endpoint to update a host cache setting.

```
# The API:
PATCH /api/name-services/cache/host/settings/{uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-
services/cache/host/settings/02c9e252-41be-11e9-81d5-00a0986138f9" -H
"accept: application/json" -H "Content-Type: application/json" -d "{
\"ttl\": \"PT2H\", \"negative_ttl\": \"PT2M\" }"
```

## Retrieve host cache settings

GET `/name-services/cache/host/settings`

**Introduced In:** 9.11

Retrieves host cache settings.

### Related ONTAP commands

- `vserver services name-service cache hosts settings show`

### Learn more

- DOC /name-services/cache/host/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| uuid | string | query | False | Filter by uuid<br>• Introduced in: 9.14 |
| negative_ttl | string | query | False | Filter by negative_ttl |
| negative_cache_enabled | boolean | query | False | Filter by negative_cache_enabled |
| ttl | string | query | False | Filter by ttl |
| enabled | boolean | query | False | Filter by enabled |
| dns_ttl_enabled | boolean | query | False | Filter by dns_ttl_enabled |
| svm.name | string | query | False | Filter by svm.name |
| svm.uuid | string | query | False | Filter by svm.uuid |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 records. |
| records | array[hosts_settings] | |

### Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "dns_ttl_enabled": 1,
      "negative_ttl": "PT5M",
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "ttl": "PT24H",
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    }
  ]
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

hosts_settings

Hosts cache setting.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| dns_ttl_enabled | boolean | Specifies whether TTL is based on the DNS or host settings. If enabled, TTL from DNS is used. |
| enabled | boolean | Indicates whether or not the cache is enabled. |

| Name | Type | Description |
|---|---|---|
| negative_cache_enabled | boolean | Indicates whether or not the negative cache is enabled. |
| negative_ttl | string | Specifies negative Time to Live, in ISO 8601 format. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl | string | Specifies Time to Live (TTL), in ISO 8601 format. |
| uuid | string | UUID for the host record. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a host cache setting for an SVM

GET `/name-services/cache/host/settings/{uuid}`

**Introduced In:** 9.14

Retrieves a host cache setting for a given SVM.

### Related ONTAP commands

- `vserver services name-service cache hosts settings show`

### Learn more

- DOC /name-services/cache/host/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| uuid | string | path | True | UUID for the host record. |
| negative_ttl | string | query | False | Filter by negative_ttl |
| negative_cache_enabled | boolean | query | False | Filter by negative_cache_enabled |
| ttl | string | query | False | Filter by ttl |
| enabled | boolean | query | False | Filter by enabled |
| dns_ttl_enabled | boolean | query | False | Filter by dns_ttl_enabled |
| svm.name | string | query | False | Filter by svm.name |
| svm.uuid | string | query | False | Filter by svm.uuid |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 | |
| dns_ttl_enabled | boolean | Specifies whether TTL is based on the DNS or host settings. If enabled, TTL from DNS is used. |
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled | boolean | Indicates whether or not the negative cache is enabled. |
| negative_ttl | string | Specifies negative Time to Live, in ISO 8601 format. |
| svm | svm | SVM, applies only to SVM-scoped objects. |

| Name | Type | Description |
|---|---|---|
| ttl | string | Specifies Time to Live (TTL), in ISO 8601 format. |
| uuid | string | UUID for the host record. |

**Example response**


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "dns_ttl_enabled": 1,
  "negative_ttl": "PT5M",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "ttl": "PT24H",
  "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
}
```


**Error**

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a host cache setting

PATCH `/name-services/cache/host/settings/{uuid}`

**Introduced In:** 9.14

Updates a host cache setting.

### Important notes

- UUID field cannot be empty.
- Returns success in case no values are provided for update.

### Related ONTAP commands

- `vserver services name-service cache hosts settings modify`

### Learn more

- DOC /name-services/cache/host/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| uuid | string | path | True | UUID for the host record. |

### Request Body

| Name | Type | Description |
|---|---|---|
| dns_ttl_enabled | boolean | Specifies whether TTL is based on the DNS or host settings. If enabled, TTL from DNS is used. |
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled | boolean | Indicates whether or not the negative cache is enabled. |
| negative_ttl | string | Specifies negative Time to Live, in ISO 8601 format. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl | string | Specifies Time to Live (TTL), in ISO 8601 format. |

| Name | Type | Description |
| --- | --- | --- |
| uuid | string | UUID for the host record. |

**Example request**

```
{
  "dns_ttl_enabled": 1,
  "negative_ttl": "PT5M",
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "ttl": "PT24H",
  "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
}
```

**Response**

```
Status: 200, Ok
```

**Error**

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
| --- | --- |
| 23724055 | Internal error. Configuration for Vserver failed. Verify that the cluster is healthy, then try the command again. For further assistance, contact technical support. |

Also see the table of common errors in the Response body overview section of this documentation.

**Definitions**

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

hosts_settings

Hosts cache setting.

| Name | Type | Description |
|---|---|---|
| dns_ttl_enabled | boolean | Specifies whether TTL is based on the DNS or host settings. If enabled, TTL from DNS is used. |
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled | boolean | Indicates whether or not the negative cache is enabled. |
| negative_ttl | string | Specifies negative Time to Live, in ISO 8601 format. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl | string | Specifies Time to Live (TTL), in ISO 8601 format. |
| uuid | string | UUID for the host record. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# Manage netgroup cache settings

## Manage netgroup cache settings

### Overview

This API is used to retrieve and manage netgroups cache settings.

### Examples

#### Retrieving a netgroup cache setting

The following example shows how to use the cache netgroup settings GET endpoint to retrieve netgroup cache settings.

```
# The API:
GET /api/name-services/cache/netgroup/settings

# The call:
curl -X GET "https://<mgmt-ip>/api/name-
services/cache/netgroup/settings?fields=*" -H "accept:
application/hal+json"

# The response:
{
"records": [
  {
    "svm": {
      "uuid": "8a1a8730-2036-11ec-8457-005056bbcfdb",
      "name": "vs43"
    },
    "enabled": true,
    "negative_cache_enabled_byhost": true,
    "ttl_byhost": "P1D",
    "negative_ttl_byhost": "PT30M",
    "ttl_for_members": "PT30M"
  },
  {
    "svm": {
      "uuid": "dc458b2f-2035-11ec-bfe2-005056bb6bef",
      "name": "vs34"
    },
    "enabled": true,
    "negative_cache_enabled_byhost": true,
    "ttl_byhost": "PT2H",
    "negative_ttl_byhost": "PT30M",
    "ttl_for_members": "PT30M"
  }
],
"num_records": 2
}
```

#### Retrieving a netgroup cache setting for a given SVM

The following example shows how to use the cache netgroup settings GET endpoint to retrieve netgroup cache settings for a given SVM.

```
# The API:
GET /api/name-services/cache/netgroup/settings/{svm.uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/name-
services/cache/netgroup/settings/dc458b2f-2035-11ec-bfe2-005056bb6bef" -H
"accept: application/hal+json"

# The response:
{
"svm": {
  "uuid": "dc458b2f-2035-11ec-bfe2-005056bb6bef",
  "name": "vs34"
},
"enabled": true,
"negative_cache_enabled_byhost": true,
"ttl_byhost": "P1D",
"negative_ttl_byhost": "PT30M",
"ttl_for_members": "PT30M"
}
```

#### Updating a netgroup cache setting

The following example shows how to use the cache netgroup settings PATCH endpoint to update netgroup cache settings.

```
# The API:
PATCH /api/name-services/cache/netgroup/settings/{svm.uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-
services/cache/netgroup/settings/02c9e252-41be-11e9-81d5-00a0986138f9" -H
"accept: application/json" -H "Content-Type: application/json" -d "{
\"ttl_byhost\": \"PT2H\", \"negative_ttl_byhost\": \"PT2M\" }"
```

## Retrieve netgroup cache settings

GET `/name-services/cache/netgroup/settings`

**Introduced In:** 9.11

Retrieves netgroups cache settings.

### Related ONTAP commands

- `vserver services name-service cache netgroups settings show`

### Learn more

- DOC /name-services/cache/netgroup/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| ttl_for_members | string | query | False | Filter by ttl_for_members |
| enabled | boolean | query | False | Filter by enabled |
| negative_ttl_byhost | string | query | False | Filter by negative_ttl_byhost |
| negative_cache_enabled_byhost | boolean | query | False | Filter by negative_cache_enabled_byhost |
| svm.name | string | query | False | Filter by svm.name |
| svm.uuid | string | query | False | Filter by svm.uuid |
| ttl_byhost | string | query | False | Filter by ttl_byhost |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 records. |
| records | array[netgroups_settings] | |

### Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "negative_ttl_byhost": "PT2M5S",
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "ttl_byhost": "PT24H",
      "ttl_for_members": "PT2M"
    }
  ]
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

netgroups_settings

Netgroups cache setting.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled_byhost | boolean | Indicates whether or not the negative cache is enabled. |

| Name | Type | Description |
|---|---|---|
| negative_ttl_byhost | string | Specifies negative Time to Live by host, in ISO 8601 format. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl_byhost | string | Specifies Time to Live by host, in ISO 8601 format. |
| ttl_for_members | string | Specifies Time to Live for netgroup members, in ISO 8601 format. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a netgroup cache setting for an SVM

GET `/name-services/cache/netgroup/settings/{svm.uuid}`

**Introduced In:** 9.11

Retrieves a netgroup cache setting for a given SVM.

### Related ONTAP commands

- `vserver services name-service cache netgroups settings show`

### Learn more

- DOC /name-services/cache/netgroup/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.uuid | string | path | True | SVM UUID. |
| ttl_for_members | string | query | False | Filter by ttl_for_members |
| enabled | boolean | query | False | Filter by enabled |
| negative_ttl_byhost | string | query | False | Filter by negative_ttl_byhost |
| negative_cache_enabled_byhost | boolean | query | False | Filter by negative_cache_enabled_byhost |
| svm.name | string | query | False | Filter by svm.name |
| ttl_byhost | string | query | False | Filter by ttl_byhost |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 | |
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled_byhost | boolean | Indicates whether or not the negative cache is enabled. |
| negative_ttl_byhost | string | Specifies negative Time to Live by host, in ISO 8601 format. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl_byhost | string | Specifies Time to Live by host, in ISO 8601 format. |

| Name | Type | Description |
| --- | --- | --- |
| ttl_for_members | string | Specifies Time to Live for netgroup members, in ISO 8601 format. |

**Example response**


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "negative_ttl_byhost": "PT2M5S",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "ttl_byhost": "PT24H",
  "ttl_for_members": "PT2M"
}
```


**Error**

```
Status: Default, Error
```

| Name | Type | Description |
| --- | --- | --- |
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a netgroup cache setting

PATCH `/name-services/cache/netgroup/settings/{svm.uuid}`

**Introduced In:** 9.11

Updates a netgroup cache setting.

### Important notes

- svm.uuid field cannot be empty.
- Returns success in case no values are provided for update.

### Related ONTAP commands

- `vserver services name-service cache netgroups settings modify`

### Learn more

- DOC /name-services/cache/netgroup/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.uuid | string | path | True | SVM UUID. |

### Request Body

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled_byhost | boolean | Indicates whether or not the negative cache is enabled. |
| negative_ttl_byhost | string | Specifies negative Time to Live by host, in ISO 8601 format. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl_byhost | string | Specifies Time to Live by host, in ISO 8601 format. |
| ttl_for_members | string | Specifies Time to Live for netgroup members, in ISO 8601 format. |

### Example request


```
{
  "negative_ttl_byhost": "PT2M5S",
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "ttl_byhost": "PT24H",
  "ttl_for_members": "PT2M"
}
```


### Response

```
Status: 200, Ok
```

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
|---|---|
| 23724055 | Internal error. Configuration for Vserver failed. Verify that the cluster is healthy, then try the command again. For further assistance, contact technical support. |

Also see the table of common errors in the Response body overview section of this documentation.

### Definitions

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

netgroups_settings

Netgroups cache setting.

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled_byhost | boolean | Indicates whether or not the negative cache is enabled. |
| negative_ttl_byhost | string | Specifies negative Time to Live by host, in ISO 8601 format. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl_byhost | string | Specifies Time to Live by host, in ISO 8601 format. |
| ttl_for_members | string | Specifies Time to Live for netgroup members, in ISO 8601 format. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# Manage global cache settings

## Manage global cache settings

### Overview

This API is used to retrieve and manage global nameservice cache settings.

### Examples

#### Retrieving a global nameservice cache setting

The following example shows how to use the cache setting GET endpoint to retrieve the global nameservice cache setting.

```
# The API:
GET /api/name-services/cache/setting

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/cache/setting" -H
"accept: application/hal+json"

# The response:
{
"eviction_time_interval": "P2D",
"remote_fetch_enabled": true
}
```

#### Updating a global nameservice cache setting

The following example shows how to use the cache setting PATCH endpoint to update the global nameservice cache setting.

```
# The API:
PATCH /api/name-services/cache/setting

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/cache/setting" -H
"accept: application/json" -H "Content-Type: application/json" -d "{
\"eviction_time_interval\": \"PT2H\" }"
```

## Retrieve a global name service cache setting

GET `/name-services/cache/setting`

**Introduced In:** 9.11

Retrieves a global nameservice cache setting.

#### Related ONTAP commands

- `vserver services name-service cache settings show`

#### Learn more

- DOC /name-services/cache/setting

**Parameters**

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| eviction_time_interval | string | query | False | Filter by eviction_time_interval |
| remote_fetch_enabled | boolean | query | False | Filter by remote_fetch_enabled |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 | |
| eviction_time_interval | string | Specifies the time interval, in ISO 8601 format after which a periodic cache eviction happens. Default is 4 hours. |
| remote_fetch_enabled | boolean | Indicates whether or not a node is allowed to fetch the data from a remote node. |

### Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "eviction_time_interval": "PT2H"
}
```

### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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 | |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a global name service cache setting

PATCH `/name-services/cache/setting`

**Introduced In:** 9.11

Updates a global nameservice cache setting.

### Important notes

- Both the cache eviction time and remote fetch option can be modified.

### Related ONTAP commands

- `vserver services name-service cache settings modify`

### Learn more

- DOC /name-services/cache/setting

### Request Body

| Name | Type | Description |
|---|---|---|
| eviction_time_interval | string | Specifies the time interval, in ISO 8601 format after which a periodic cache eviction happens. Default is 4 hours. |
| remote_fetch_enabled | boolean | Indicates whether or not a node is allowed to fetch the data from a remote node. |

### Example request

```
{
  "eviction_time_interval": "PT2H"
}
```

### Response

```
Status: 200, Ok
```

### Error

```
Status: Default, Error
```

### Definitions

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

global_cache_setting

| Name | Type | Description |
|---|---|---|
| eviction_time_interval | string | Specifies the time interval, in ISO 8601 format after which a periodic cache eviction happens. Default is 4 hours. |
| remote_fetch_enabled | boolean | Indicates whether or not a node is allowed to fetch the data from a remote node. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# Manage UNIX group cache settings

# Manage UNIX group cache settings

## Overview

This API is used to retrieve and manage unix-group settings.

## Examples

#### Retrieving unix-group settings

The following example shows how to use the cache unix-group settings GET endpoint to retrieve unix-group cache settings.

```
# The API:
GET /api/name-services/cache/unix-group/settings

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/cache/unix-
group/settings?fields=*" -H "accept: application/hal+json"

# The response:
{
"records": [
  {
    "svm": {
      "uuid": "8a1a8730-2036-11ec-8457-005056bbcfdb",
      "name": "vs43"
    },
    "enabled": true,
    "negative_cache_enabled": true,
    "ttl": "P1D",
    "negative_ttl": "PT1M",
    "propagation_enabled": true
  },
  {
    "svm": {
      "uuid": "dc458b2f-2035-11ec-bfe2-005056bb6bef",
      "name": "vs34"
    },
    "enabled": true,
    "negative_cache_enabled": true,
    "ttl": "P1D",
    "negative_ttl": "PT1M",
    "propagation_enabled": true
  }
],
"num_records": 2
}
```

#### Retrieving a unix-group setting for a given SVM

The following example shows how to use the cache unix-group settings GET endpoint to retrieve unix-group cache settings for a given SVM.

```
# The API:
GET /api/name-services/cache/unix-group/settings/{svm.uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/cache/unix-
group/settings/dc458b2f-2035-11ec-bfe2-005056bb6bef" -H "accept:
application/hal+json"

# The response:
{
"svm": {
  "uuid": "dc458b2f-2035-11ec-bfe2-005056bb6bef",
  "name": "vs34"
},
"enabled": true,
"negative_cache_enabled": true,
"ttl": "P1D",
"negative_ttl": "PT1M",
"propagation_enabled": true
}
```

#### Updating a unix-group setting

The following example shows how to use the cache unix-group settings PATCH endpoint to update unix-group cache settings for an SVM.

```
# The API:
PATCH /api/name-services/cache/unix-group/settings/{svm.uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/cache/unix-
group/settings/02c9e252-41be-11e9-81d5-00a0986138f9" -H "accept:
application/json" -H "Content-Type: application/json" -d "{ \"ttl\":
\"PT2H\", \"negative_ttl\": \"PT2M\" }"
```

## Retrieve UNIX group cache settings

GET `/name-services/cache/unix-group/settings`

**Introduced In:** 9.11

Retrieves unix-group cache settings.

### Related ONTAP commands

- `vserver services name-service cache unix-group settings show`

### Learn more

- DOC /name-services/cache/unix-group/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| negative_ttl | string | query | False | Filter by negative_ttl |
| svm.name | string | query | False | Filter by svm.name |
| svm.uuid | string | query | False | Filter by svm.uuid |
| propagation_enabled | boolean | query | False | Filter by propagation_enabled |
| negative_cache_enabled | boolean | query | False | Filter by negative_cache_enabled |
| ttl | string | query | False | Filter by ttl |
| enabled | boolean | query | False | Filter by enabled |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 records. |
| records | array[unix_group_settings] | |

### Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "negative_ttl": "PT5M",
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "ttl": "PT24H"
    }
  ]
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

unix_group_settings

UNIX groups cache setting.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled | boolean | Indicates whether or not the negative cache is enabled. |

| Name | Type | Description |
|---|---|---|
| negative_ttl | string | Specifies negative Time to Live, in ISO 8601 format. |
| propagation_enabled | boolean | Specifies whether the propagation setting is enabled or not. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl | string | Specifies Time to Live (TTL), in ISO 8601 format. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a UNIX group cache setting for an SVM

GET `/name-services/cache/unix-group/settings/{svm.uuid}`

**Introduced In:** 9.11

Retrieves a unix-group cache setting for a given SVM.

### Related ONTAP commands

- `vserver services name-service cache unix-group settings show`

### Learn more

- DOC /name-services/cache/unix-group/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.uuid | string | path | True | SVM UUID. |
| negative_ttl | string | query | False | Filter by negative_ttl |
| svm.name | string | query | False | Filter by svm.name |
| propagation_enabled | boolean | query | False | Filter by propagation_enabled |
| negative_cache_enabled | boolean | query | False | Filter by negative_cache_enabled |
| ttl | string | query | False | Filter by ttl |
| enabled | boolean | query | False | Filter by enabled |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 | |
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled | boolean | Indicates whether or not the negative cache is enabled. |
| negative_ttl | string | Specifies negative Time to Live, in ISO 8601 format. |
| propagation_enabled | boolean | Specifies whether the propagation setting is enabled or not. |
| svm | svm | SVM, applies only to SVM-scoped objects. |

| Name | Type | Description |
| --- | --- | --- |
| ttl | string | Specifies Time to Live (TTL), in ISO 8601 format. |

**Example response**


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "negative_ttl": "PT5M",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "ttl": "PT24H"
}
```


**Error**

```
Status: Default, Error
```

| Name | Type | Description |
| --- | --- | --- |
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 UNIX group cache settings

PATCH `/name-services/cache/unix-group/settings/{svm.uuid}`

**Introduced In:** 9.11

Updates unix-group cache settings.

### Important notes

- svm.uuid field cannot be empty.
- Returns success in case no values are provided for update.

### Related ONTAP commands

- `vserver services name-service cache unix-group settings modify`

### Learn more

- DOC /name-services/cache/unix-group/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.uuid | string | path | True | SVM UUID. |

### Request Body

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled | boolean | Indicates whether or not the negative cache is enabled. |
| negative_ttl | string | Specifies negative Time to Live, in ISO 8601 format. |
| propagation_enabled | boolean | Specifies whether the propagation setting is enabled or not. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl | string | Specifies Time to Live (TTL), in ISO 8601 format. |

### Example request

```
{
  "negative_ttl": "PT5M",
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "ttl": "PT24H"
}
```

### Response

```
Status: 200, Ok
```

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
| --- | --- |
| 23724055 | Internal error. Configuration for Vserver failed. Verify that the cluster is healthy, then try the command again. For further assistance, contact technical support. |

Also see the table of common errors in the Response body overview section of this documentation.

### Definitions

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

unix_group_settings

UNIX groups cache setting.

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled | boolean | Indicates whether or not the negative cache is enabled. |
| negative_ttl | string | Specifies negative Time to Live, in ISO 8601 format. |
| propagation_enabled | boolean | Specifies whether the propagation setting is enabled or not. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl | string | Specifies Time to Live (TTL), in ISO 8601 format. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# Manage UNIX user cache settings

## Manage UNIX user cache settings

### Overview

This API is used to retrieve and manage unix-user settings.

### Examples

#### Retrieving unix-user cache settings

The following example shows how to use the cache unix-user settings GET endpoint to retrieve unix-user cache settings.

```
# The API:
GET /api/name-services/cache/unix-user/settings

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/cache/unix-
user/settings?fields=*" -H "accept: application/hal+json"

# The response:
{
"records": [
  {
    "svm": {
      "uuid": "8a1a8730-2036-11ec-8457-005056bbcfdb",
      "name": "vs43"
    },
    "enabled": true,
    "negative_cache_enabled": true,
    "ttl": "P1D",
    "negative_ttl": "PT1M",
    "propagation_enabled": true
  },
  {
    "svm": {
      "uuid": "dc458b2f-2035-11ec-bfe2-005056bb6bef",
      "name": "vs34"
    },
    "enabled": true,
    "negative_cache_enabled": true,
    "ttl": "P1D",
    "negative_ttl": "PT1M",
    "propagation_enabled": true
  }
],
"num_records": 2
}
```

#### Retrieving a unix-user cache setting for a given SVM

The following example shows how to use the cache unix-user settings GET endpoint to retrieve unix-user cache settings for a given SVM.

```
# The API:
GET /api/name-services/cache/unix-user/settings/{svm.uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/cache/unix-
user/settings/dc458b2f-2035-11ec-bfe2-005056bb6bef" -H "accept:
application/hal+json"

# The response:
{
"svm": {
  "uuid": "dc458b2f-2035-11ec-bfe2-005056bb6bef",
  "name": "vs34"
},
"enabled": true,
"negative_cache_enabled": true,
"ttl": "P1D",
"negative_ttl": "PT1M",
"propagation_enabled": true
}
```

#### Updating a unix-user setting

The following example shows how to use the cache unix-user settings PATCH endpoint to update unix-user cache settings.

```
# The API:
PATCH /api/name-services/cache/unix-user/settings/{svm.uuid}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/cache/unix-
user/settings/02c9e252-41be-11e9-81d5-00a0986138f9" -H "accept:
application/json" -H "Content-Type: application/json" -d "{ \"ttl\":
\"PT2H\", \"negative_ttl\": \"PT2M\" }"
```

## Retrieve UNIX user cache settings

GET `/name-services/cache/unix-user/settings`

**Introduced In:** 9.11

Retrieves unix-user cache settings.

### Related ONTAP commands

- `vserver services name-service cache unix-user settings show`

### Learn more

- DOC /name-services/cache/unix-user/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.name | string | query | False | Filter by svm.name |
| svm.uuid | string | query | False | Filter by svm.uuid |
| negative_ttl | string | query | False | Filter by negative_ttl |
| propagation_enabled | boolean | query | False | Filter by propagation_enabled |
| negative_cache_enabled | boolean | query | False | Filter by negative_cache_enabled |
| enabled | boolean | query | False | Filter by enabled |
| ttl | string | query | False | Filter by ttl |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 records. |
| records | array[unix_user_settings] | |

### Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "negative_ttl": "PT5M",
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "ttl": "PT2H"
    }
  ]
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

unix_user_settings

UNIX users cache setting.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled | boolean | Indicates whether or not the negative cache is enabled. |

| Name | Type | Description |
|---|---|---|
| negative_ttl | string | Specifies negative Time to Live, in ISO 8601 format. |
| propagation_enabled | boolean | Specifies whether the propagation setting is enabled or not. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl | string | Specifies Time to Live (TTL), in ISO 8601 format. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 UNIX user cache settings for an SVM

GET `/name-services/cache/unix-user/settings/{svm.uuid}`

**Introduced In:** 9.11

Retrieves unix-user cache settings for a given SVM.

### Related ONTAP commands

- `vserver services name-service cache unix-user settings show`

### Learn more

- DOC /name-services/cache/unix-user/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.uuid | string | path | True | SVM UUID. |
| svm.name | string | query | False | Filter by svm.name |
| negative_ttl | string | query | False | Filter by negative_ttl |
| propagation_enabled | boolean | query | False | Filter by propagation_enabled |
| negative_cache_enabled | boolean | query | False | Filter by negative_cache_enabled |
| enabled | boolean | query | False | Filter by enabled |
| ttl | string | query | False | Filter by ttl |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 | |
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled | boolean | Indicates whether or not the negative cache is enabled. |
| negative_ttl | string | Specifies negative Time to Live, in ISO 8601 format. |
| propagation_enabled | boolean | Specifies whether the propagation setting is enabled or not. |
| svm | svm | SVM, applies only to SVM-scoped objects. |

| Name | Type | Description |
| --- | --- | --- |
| ttl | string | Specifies Time to Live (TTL), in ISO 8601 format. |

**Example response**


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "negative_ttl": "PT5M",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "ttl": "PT2H"
}
```


**Error**

```
Status: Default, Error
```

| Name | Type | Description |
| --- | --- | --- |
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a UNIX user cache setting

PATCH `/name-services/cache/unix-user/settings/{svm.uuid}`

**Introduced In:** 9.11

Updates a unix-user cache setting.

### Important notes

- svm.uuid field cannot be empty.
- Returns success in case no values are provided for update.

### Related ONTAP commands

- `vserver services name-service cache unix-user settings modify`

### Learn more

- DOC /name-services/cache/unix-user/settings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.uuid | string | path | True | SVM UUID. |

### Request Body

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled | boolean | Indicates whether or not the negative cache is enabled. |
| negative_ttl | string | Specifies negative Time to Live, in ISO 8601 format. |
| propagation_enabled | boolean | Specifies whether the propagation setting is enabled or not. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl | string | Specifies Time to Live (TTL), in ISO 8601 format. |

### Example request


```
{
  "negative_ttl": "PT5M",
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "ttl": "PT2H"
}
```


### Response

```
Status: 200, Ok
```

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
| --- | --- |
| 23724055 | Internal error. Configuration for Vserver failed. Verify that the cluster is healthy, then try the command again. For further assistance, contact technical support. |

Also see the table of common errors in the Response body overview section of this documentation.

### Definitions

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

unix_user_settings

UNIX users cache setting.

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Indicates whether or not the cache is enabled. |
| negative_cache_enabled | boolean | Indicates whether or not the negative cache is enabled. |
| negative_ttl | string | Specifies negative Time to Live, in ISO 8601 format. |
| propagation_enabled | boolean | Specifies whether the propagation setting is enabled or not. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| ttl | string | Specifies Time to Live (TTL), in ISO 8601 format. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# 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 all 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": "27eff5d8-22b2-11eb-8038-0050568ed32c",
      "name": "clust-1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/179d3c85-7053-11e8-b9b8-005056b41bd1"
        }
      }
    },
    "domains": [
      "domain.example.com"
    ],
    "servers": [
      "44.44.44.44"
    ],
    "timeout":2,
    "attempts":1,
    "scope": "cluster",
    "_links": {
      "self": {
        "href": "/api/name-services/dns/27eff5d8-22b2-11eb-8038-
0050568ed32c"
      }
    }
  },
  {
    "uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",
    "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"
    ],
    "timeout":2,
    "attempts":1,
```

```
    "dynamic_dns": {
      "enabled": false,
      "use_secure": false,
      "time_to_live": "PT1H"
    },
    "scope": "svm",
    "_links": {
      "self": {
        "href": "/api/name-services/dns/179d3c85-7053-11e8-b9b8-
005056b41bd1"
      }
    }
  },
  {
    "uuid": "19076d35-6e27-11e8-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"
    ],
    "timeout":2,
    "attempts":2,
    "dynamic_dns": {
      "enabled": true,
      "use_secure": false,
      "time_to_live": "PT3H"
    },
    "scope": "svm",
    "_links": {
      "self": {
        "href": "/api/name-services/dns/19076d35-6e27-11e8-b9b8-
005056b41bd1"
      }
    }
```

```
    }
  ],
  "num_records": 3,
  "_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": [
  {
    "uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",
    "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/{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:
{
"uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",
"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"
],
"timeout":2,
"attempts":1,
"tld_query_enabled": true,
"source_address_match": true,
"packet_query_match": true,
"dynamic_dns": {
  "enabled": false,
  "use_secure": false,
  "time_to_live": "P1D"
},
"scope": "svm",
"_links": {
  "self": {
    "href": "/api/name-services/dns/179d3c85-7053-11e8-b9b8-005056b41bd1"
  }
}
}
```

**Retrieving the advanced fields "DNS status", "tld_query_enable", "source_address_match", and "packet_query_match" using wildcards ****

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

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

# The response:
{
"uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",
"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"
],
"timeout":2,
"attempts":1,
"tld_query_enabled": true,
"source_address_match": true,
"packet_query_match": true,
"dynamic_dns": {
  "enabled": false,
  "use_secure": false,
  "time_to_live": "P1D"
},
"scope": "svm",
"status": [
  {
    "name_server": "10.10.10.10",
    "state": "up",
    "message": "Response time (msec): ",
    "code": 0
  }
```

```
],
"_links": {
  "self": {
    "href": "/api/name-services/dns/179d3c85-7053-11e8-b9b8-005056b41bd1"
  }
}
}
```

**Retrieving the "service_ips" for a specific DNS service name**

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

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/dns/179d3c85-7053-11e8-
b9b8-
005056b41bd1?service.name=_kpasswd._udp.domainA.example.com&fields=**" -H
"accept: application/hal+json"

# The response:
{
"uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",
"domains": [
  "domainA.example.com"
],
"servers": [
  "10.10.10.10"
],
"timeout": 2,
"attempts": 1,
"tld_query_enabled": true,
"source_address_match": true,
"packet_query_match": true,
"dynamic_dns": {
  "enabled": false,
  "use_secure": false,
  "time_to_live": "P1D"
},
"scope": "svm",
"status": [
  {
    "name_server": "10.10.10.10",
    "state": "up",
    "message": "Response time (msec): 218",
    "code": 0
```

```
  }
],
"svm": {
  "uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",
  "name": "vs0",
  "_links": {
    "self": {
      "href": "/api/svm/svms/179d3c85-7053-11e8-b9b8-005056b41bd1"
    }
  }
},
"service_ips": [
  "10.10.10.10",
  "2001:db08:a0b:12f0::1"
],
"_links": {
  "self": {
    "href": "/api/name-services/dns/179d3c85-7053-11e8-b9b8-
005056b41bd1?fields=**"
  }
}
}
```

**Retrieving the "service_ips" for a specific DNS service name with a particular address type (can be ipv4, ipv6 or all)**

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

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/dns/179d3c85-7053-11e8-
b9b8-
005056b41bd1?service.name=_kpasswd._udp.domainA.example.com&service.addres
s_type=ipv4&fields=**" -H "accept: application/hal+json"

# The response:
{
"uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",
"domains": [
  "domainA.example.com"
],
"servers": [
  "10.10.10.10"
],
"timeout": 2,
"attempts": 1,
```

```
"tld_query_enabled": true,
"source_address_match": true,
"packet_query_match": true,
"dynamic_dns": {
  "enabled": false,
  "use_secure": false,
  "time_to_live": "P1D"
},
"scope": "svm",
"status": [
  {
    "name_server": "10.10.10.10",
    "state": "up",
    "message": "Response time (msec): 218",
    "code": 0
  }
],
"svm": {
  "uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",
  "name": "vs0",
  "_links": {
    "self": {
      "href": "/api/svm/svms/179d3c85-7053-11e8-b9b8-005056b41bd1"
    }
  }
},
"service_ips": [
  "10.10.10.10"
],
"_links": {
  "self": {
    "href": "/api/name-services/dns/179d3c85-7053-11e8-b9b8-
005056b41bd1?fields=**"
  }
}
}
```


### Creating a DNS configuration

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

### Examples

#### Specifying only the required fields

```
# 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\" ]}"
```

**Specifying the optional fields as well**

```
# 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\" ],
\"timeout\":2, \"attempts\":3}"
```

**Specifying the scope of the SVM**

```
# 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\" ],
\"timeout\":2, \"attempts\":3, \"scope\":\"svm\"}"
```

**Specifying the query parameter to run asynchronously.**

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

# The call:
    curl -X POST "https://<mgmt-ip>/api/name-services/dns?async=true" -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/{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/{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\" ]}"
```

#### Updating the optional fields "timeout", "attempts", and "source_address_match"

```
# The API:
/api/name-services/dns/{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 "{ \"timeout\":2, \"attempts\":3,
\"source_address_match\":true}"
```

#### Updating the Dynamic DNS related fields

```
# The API:
/api/name-services/dns/{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 "{ \"timeout\":2, \"attempts\":3,
\"dynamic_dns.enabled\":\"true\", \"dynamic_dns.time_to_live\":\"20h\"}"
```

#### Updating the DNS servers asynchronously.

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

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/dns/179d3c85-7053-11e8-
b9b8-005056b41bd1?async=true" -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/{uuid}

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

## Retrieve DNS configurations for all SVMs

GET `/name-services/dns`

**Introduced In:** 9.6

Retrieves the DNS configurations of all SVMs. Specify 'scope' as 'svm' to retrieve the DNS configuration of all the data SVMs. Specify 'scope' as 'cluster' to retrieve the DNS configuration of the cluster.

### Advanced properties

- 'tld_query_enabled'
- 'source_address_match'
- 'packet_query_match'
- 'status' property retrieves the status of each name server of the DNS configuration for an SVM.
- 'service_ips' property is displayed only when both service.name and SVM are set.

### Related ONTAP commands

- `vserver services name-service dns show`
- `vserver services name-service dns check`
- `vserver services name-service dns dynamic-update show`
- `vserver services access-check dns srv-lookup`

### Learn more

- DOC /name-services/dns

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| servers | string | query | False | Filter by servers |
| status.message | string | query | False | Filter by status.message<br>• Introduced in: 9.9 |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| status.name_server | string | query | False | Filter by status.name_server<br>• Introduced in: 9.9 |
| status.state | string | query | False | Filter by status.state<br>• Introduced in: 9.9 |
| status.code | integer | query | False | Filter by status.code<br>• Introduced in: 9.9 |
| svm.name | string | query | False | Filter by svm.name |
| svm.uuid | string | query | False | Filter by svm.uuid |
| packet_query_match | boolean | query | False | Filter by packet_query_match<br>• Introduced in: 9.9 |
| service_ips | string | query | False | Filter by service_ips<br>• Introduced in: 9.14 |
| tld_query_enabled | boolean | query | False | Filter by tld_query_enabled<br>• Introduced in: 9.9 |
| timeout | integer | query | False | Filter by timeout<br>• Introduced in: 9.9<br>• Max value: 5<br>• Min value: 1 |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| scope | string | query | False | Filter by scope<br>• Introduced in: 9.9 |
| domains | string | query | False | Filter by domains<br>• maxLength: 255<br>• minLength: 1 |
| source_address_match | boolean | query | False | Filter by source_address_match<br>• Introduced in: 9.9 |
| uuid | string | query | False | Filter by uuid<br>• Introduced in: 9.13 |
| attempts | integer | query | False | Filter by attempts<br>• Introduced in: 9.9<br>• Max value: 4<br>• Min value: 1 |
| dynamic_dns.use_secure | boolean | query | False | Filter by dynamic_dns.use_secure<br>• Introduced in: 9.9 |
| dynamic_dns.enabled | boolean | query | False | Filter by dynamic_dns.enabled<br>• Introduced in: 9.9 |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| dynamic_dns.time_to_live | string | query | False | Filter by dynamic_dns.time_to_live<br>• Introduced in: 9.9 |
| dynamic_dns.fqdn | string | query | False | Filter by dynamic_dns.fqdn<br>• Introduced in: 9.9 |
| service.name | string | query | False | The string required to look up the SRV record on the DNS server.<br>• Introduced in: 9.14 |
| service.address_type | string | query | False | The type of IP address to be looked up on the DNS server.<br>• Introduced in: 9.14<br>• Default value: 1 |
| 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.<br>• 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.<br>• Max value: 120<br>• Min value: 0<br>• Default value: 15 |
| 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"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "attempts": 1,
      "domains": [
        "example.com",
        "example2.example3.com"
      ],
      "dynamic_dns": {
        "fqdn": "example.com",
        "time_to_live": "P2D"
      },
      "scope": "string",
      "servers": [
        "10.224.65.20",
        "2001:db08:a0b:12f0::1"
      ],
      "service_ips": [
        "10.224.65.20",
        "2001:db08:a0b:12f0::1"
      ],
      "skip_config_validation": true,
      "status": [
        {
          "code": 6684732,
          "message": "string",
          "name_server": "10.10.10.10",
          "state": "up"
        }
      ],
```

```
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "timeout": 2,
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    }
  ]
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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 | |

dynamic_dns

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Enable or disable Dynamic DNS (DDNS) updates for the specified SVM. |
| fqdn | string | Fully Qualified Domain Name (FQDN) to be used for dynamic DNS updates. |
| skip_fqdn_validation | boolean | Enable or disable FQDN validation. |
| time_to_live | string | Time to live value for the dynamic DNS updates, in an ISO-8601 duration formatted string. Maximum Time To Live is 720 hours(P30D in ISO-8601 format) and the default is 24 hours(P1D in ISO-8601 format). |
| use_secure | boolean | Enable or disable secure dynamic DNS updates for the specified SVM. |

status

Status of each of the DNS name server configured for the specified SVM.

| Name | Type | Description |
|---|---|---|
| code | integer | Code corresponding to the status message. Code is 0 when the state is 'up'. |
| message | string | Detailed description of the validation state if the state is 'down' or the response time of the DNS server if the state is 'up'. |
| name_server | string | The IP address of the DNS server. The address can be either an IPv4 or an IPv6 address. |
| state | string | The validation status of the DNS server. |

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

dns

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| attempts | integer | Number of attempts allowed when querying the DNS name servers. |

| Name | Type | Description |
| --- | --- | --- |
| domains | array[string] | A list of DNS domains. Domain names have the following requirements:<br>• The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_".<br>• 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.<br>• 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.<br>• The top level domain must contain only the following characters: A through Z, a through z.<br>• The system reserves the following names:"all", "local", and "localhost". |
| dynamic_dns | dynamic_dns | |
| packet_query_match | boolean | Indicates whether or not the query section of the reply packet is equal to that of the query packet. |
| scope | string | Set to "svm" for DNS owned by an SVM, otherwise set to "cluster". |
| servers | array[string] | The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses. |
| service_ips | array[string] | List of IP addresses for a DNS service. Addresses can be IPv4, IPv6 or both. |

| Name | Type | Description |
|---|---|---|
| source_address_match | boolean | Indicates whether or not the DNS responses are from a different IP address to the IP address the request was sent to. |
| status | array[status] | Status of all the DNS name servers configured for the specified SVM. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| timeout | integer | Timeout values for queries to the name servers, in seconds. |
| tld_query_enabled | boolean | Enable or disable top-level domain (TLD) queries. |
| uuid | string | UUID of the DNS object. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 DNS domain and server configurations

POST `/name-services/dns`

**Introduced In:** 9.6

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.
    - The DNS server validation can be skipped by setting the property "skip_config_validation" to "true".
    - Scope of the SVM can be specified using the "scope" parameter. "svm" scope refers to data SVMs and "cluster" scope refers to clusters.

#### The following parameters are optional:

- timeout
- attempts
- source_address_match
- packet_query_match
- tld_query_enabled
- skip_config_validation
- scope
- async

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| async | boolean | query | False | If set to true, ONTAP creates and verifies the DNS configuration in the background, returning a job to monitor the result. Otherwise, ONTAP waits until after the configuration has been finalized to return a response to the client.<br>• Introduced in: 9.18<br>• Default value: |
| return_timeout | integer | query | False | The number of seconds to allow the call to execute before returning. When doing a POST, PATCH, or DELETE operation on a single record, the default is 0 seconds. This means that if an asynchronous operation is started, the server immediately returns HTTP code 202 (Accepted) along with a link to the job. If a non-zero value is specified for POST, PATCH, or DELETE operations, ONTAP waits that length of time to see if the job completes so it can return something other than 202.<br>• Default value: 0<br>• Max value: 120<br>• Min value: 0 |

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

**Request Body**

| Name | Type | Description |
|---|---|---|
| attempts | integer | Number of attempts allowed when querying the DNS name servers. |
| domains | array[string] | A list of DNS domains. Domain names have the following requirements:<br>• The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_".<br>• 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.<br>• 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.<br>• The top level domain must contain only the following characters: A through Z, a through z.<br>• The system reserves the following names:"all", "local", and "localhost". |
| packet_query_match | boolean | Indicates whether or not the query section of the reply packet is equal to that of the query packet. |
| scope | string | Set to "svm" for DNS owned by an SVM, otherwise set to "cluster". |

| Name | Type | Description |
| --- | --- | --- |
| servers | array[string] | The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses. |
| service_ips | array[string] | List of IP addresses for a DNS service. Addresses can be IPv4, IPv6 or both. |
| skip_config_validation | boolean | Indicates whether or not the validation for the specified DNS configuration is disabled. |
| source_address_match | boolean | Indicates whether or not the DNS responses are from a different IP address to the IP address the request was sent to. |
| status | array[status] | Status of all the DNS name servers configured for the specified SVM. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| timeout | integer | Timeout values for queries to the name servers, in seconds. |
| tld_query_enabled | boolean | Enable or disable top-level domain (TLD) queries. |
| uuid | string | UUID of the DNS object. |

### Example request


```
{
  "attempts": 1,
  "domains": [
    "example.com",
    "example2.example3.com"
  ],
  "scope": "string",
  "servers": [
    "10.224.65.20",
    "2001:db08:a0b:12f0::1"
  ],
  "service_ips": [
    "10.224.65.20",
    "2001:db08:a0b:12f0::1"
  ],
  "status": [
    {
      "code": 6684732,
      "message": "string",
      "name_server": "10.10.10.10",
      "state": "up"
    }
  ],
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "timeout": 2,
  "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
}
```


### Response

```
Status: 202, Accepted
```

| Name | Type | Description |
|---|---|---|
| job | job_link | |

### Example response


```
{
  "job": {
    "uuid": "string"
  }
}
```


#### Headers

| Name | Description | Type |
|---|---|---|
| Location | Useful for tracking the resource location | string |

### Response

```
Status: 201, Created
```

### 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 |
| 8847403 | Scope specified is invalid for the specified SVM |
| 9240587 | FQDN name cannot be empty |

| Error Code | Description |
| --- | --- |
| 23724157 | Servers list 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 is 63 characters |
| 13434916 | The SVM is in the process of being created. Wait a few minutes, and then try the command again. |
| 23724130 | Cannot use an IPv6 name server address because there are no IPv6 LIFs |
| 1377682 | IPv6 is not enabled in the cluster |
| 8847407 | The connection is refused for one or more of the specified DNS servers. |

**Definitions**

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

dynamic_dns

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Enable or disable Dynamic DNS (DDNS) updates for the specified SVM. |
| fqdn | string | Fully Qualified Domain Name (FQDN) to be used for dynamic DNS updates. |
| skip_fqdn_validation | boolean | Enable or disable FQDN validation. |
| time_to_live | string | Time to live value for the dynamic DNS updates, in an ISO-8601 duration formatted string. Maximum Time To Live is 720 hours(P30D in ISO-8601 format) and the default is 24 hours(P1D in ISO-8601 format). |
| use_secure | boolean | Enable or disable secure dynamic DNS updates for the specified SVM. |

status

Status of each of the DNS name server configured for the specified SVM.

| Name | Type | Description |
|---|---|---|
| code | integer | Code corresponding to the status message. Code is 0 when the state is 'up'. |
| message | string | Detailed description of the validation state if the state is 'down' or the response time of the DNS server if the state is 'up'. |

| Name | Type | Description |
| --- | --- | --- |
| name_server | string | The IP address of the DNS server. The address can be either an IPv4 or an IPv6 address. |
| state | string | The validation status of the DNS server. |

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
| --- | --- | --- |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

dns

| Name | Type | Description |
| --- | --- | --- |
| attempts | integer | Number of attempts allowed when querying the DNS name servers. |

| Name | Type | Description |
| --- | --- | --- |
| domains | array[string] | A list of DNS domains. Domain names have the following requirements:<br>• The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_".<br>• 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.<br>• 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.<br>• The top level domain must contain only the following characters: A through Z, a through z.<br>• The system reserves the following names:"all", "local", and "localhost". |
| packet_query_match | boolean | Indicates whether or not the query section of the reply packet is equal to that of the query packet. |
| scope | string | Set to "svm" for DNS owned by an SVM, otherwise set to "cluster". |
| servers | array[string] | The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses. |
| service_ips | array[string] | List of IP addresses for a DNS service. Addresses can be IPv4, IPv6 or both. |
| skip_config_validation | boolean | Indicates whether or not the validation for the specified DNS configuration is disabled. |

| Name | Type | Description |
|---|---|---|
| source_address_match | boolean | Indicates whether or not the DNS responses are from a different IP address to the IP address the request was sent to. |
| status | array[status] | Status of all the DNS name servers configured for the specified SVM. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| timeout | integer | Timeout values for queries to the name servers, in seconds. |
| tld_query_enabled | boolean | Enable or disable top-level domain (TLD) queries. |
| uuid | string | UUID of the DNS object. |

job_link

| Name | Type | Description |
|---|---|---|
| uuid | string | The UUID of the asynchronous job that is triggered by a POST, PATCH, or DELETE operation. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_error

| Name | Type | Description |
|---|---|---|
| arguments | array[error_arguments] | Message arguments |
| code | string | Error code |
| message | string | Error message |

| Name | Type | Description |
|---|---|---|
| target | string | The target parameter that caused the error. |

## Delete the DNS domain configuration for an SVM

DELETE `/name-services/dns/{uuid}`

**Introduced In:** 9.13

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 |
|---|---|---|---|---|
| uuid | string | path | True | |

### Response

```
Status: 200, Ok
```

### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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 |

returned_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 the DNS domain and server configuration for an SVM

GET `/name-services/dns/{uuid}`

**Introduced In:** 9.13

Retrieves DNS domain and server configuration of an SVM. By default, both DNS domains and servers are displayed.

### Advanced properties

- 'tld_query_enabled'
- 'source_address_match'
- 'packet_query_match'
- 'status' property retrieves the status of each name server of the DNS configuration for an SVM.
- 'service_ips' property is displayed only when both service.name and SVM are set.

### Related ONTAP commands

- `vserver services name-service dns show`
- `vserver services name-service dns check`
- `vserver services name-service dns dynamic-update show`
- `vserver services access-check dns srv-lookup`

### Learn more

- DOC /name-services/dns

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| uuid | string | path | True | UUID of the DNS object. |
| fields | array[string] | query | False | Specify the fields to return. |

### Response

```
Status: 200, Ok
```

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| attempts | integer | Number of attempts allowed when querying the DNS name servers. |

| Name | Type | Description |
| --- | --- | --- |
| domains | array[string] | A list of DNS domains. Domain names have the following requirements:<br>• The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_".<br>• 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.<br>• 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.<br>• The top level domain must contain only the following characters: A through Z, a through z.<br>• The system reserves the following names:"all", "local", and "localhost". |
| dynamic_dns | dynamic_dns | |
| packet_query_match | boolean | Indicates whether or not the query section of the reply packet is equal to that of the query packet. |
| scope | string | Set to "svm" for DNS owned by an SVM, otherwise set to "cluster". |
| servers | array[string] | The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses. |
| service_ips | array[string] | List of IP addresses for a DNS service. Addresses can be IPv4, IPv6 or both. |
| source_address_match | boolean | Indicates whether or not the DNS responses are from a different IP address to the IP address the request was sent to. |

| Name | Type | Description |
| --- | --- | --- |
| status | array[status] | Status of all the DNS name servers configured for the specified SVM. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| timeout | integer | Timeout values for queries to the name servers, in seconds. |
| tld_query_enabled | boolean | Enable or disable top-level domain (TLD) queries. |
| uuid | string | UUID of the DNS object. |

### Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "attempts": 1,
  "domains": [
    "example.com",
    "example2.example3.com"
  ],
  "dynamic_dns": {
    "fqdn": "example.com",
    "time_to_live": "P2D"
  },
  "scope": "string",
  "servers": [
    "10.224.65.20",
    "2001:db08:a0b:12f0::1"
  ],
  "service_ips": [
    "10.224.65.20",
    "2001:db08:a0b:12f0::1"
  ],
  "skip_config_validation": true,
  "status": [
    {
      "code": 6684732,
      "message": "string",
      "name_server": "10.10.10.10",
      "state": "up"
    }
  ],
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "timeout": 2,
  "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
}
```

### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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 | |

dynamic_dns

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Enable or disable Dynamic DNS (DDNS) updates for the specified SVM. |
| fqdn | string | Fully Qualified Domain Name (FQDN) to be used for dynamic DNS updates. |
| skip_fqdn_validation | boolean | Enable or disable FQDN validation. |
| time_to_live | string | Time to live value for the dynamic DNS updates, in an ISO-8601 duration formatted string. Maximum Time To Live is 720 hours(P30D in ISO-8601 format) and the default is 24 hours(P1D in ISO-8601 format). |
| use_secure | boolean | Enable or disable secure dynamic DNS updates for the specified SVM. |

status

Status of each of the DNS name server configured for the specified SVM.

| Name | Type | Description |
|---|---|---|
| code | integer | Code corresponding to the status message. Code is 0 when the state is 'up'. |

| Name | Type | Description |
|---|---|---|
| message | string | Detailed description of the validation state if the state is 'down' or the response time of the DNS server if the state is 'up'. |
| name_server | string | The IP address of the DNS server. The address can be either an IPv4 or an IPv6 address. |
| state | string | The validation status of the DNS server. |

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_error

| Name | Type | Description |
|---|---|---|
| arguments | array[error_arguments] | Message arguments |
| code | string | Error code |
| message | string | Error message |

| Name | Type | Description |
|---|---|---|
| target | string | The target parameter that caused the error. |

## Update the DNS domain and server configuration for an SVM

PATCH `/name-services/dns/{uuid}`

**Introduced In:** 9.13

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.
    - The DNS server validation can be skipped by setting the property "skip_config_validation" to "true".
    - Dynamic DNS configuration can be modified.
    - If both DNS and Dynamic DNS parameters are modified, DNS parameters are updated first followed by Dynamic DNS parameters. If updating Dynamic DNS fails, then the updated DNS configuration is not reverted.

**The following parameters are optional:**

- timeout
- attempts
- source_address_match
- packet_query_match
- tld_query_enabled
- skip_config_validation
- dynamic_dns.enabled
- dynamic_dns.use_secure
- dynamic_dns.time_to_live
- async

### Related ONTAP commands

- `vserver services name-service dns modify`
- `vserver services name-service dns dynamic-update modify`

### Learn more

- DOC /name-services/dns

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| uuid | string | path | True | UUID of the DNS object. |
| async | boolean | query | False | If set to true, ONTAP creates and verifies the DNS configuration in the background, returning a job to monitor the result. Otherwise, ONTAP waits until after the configuration has been finalized to return a response to the client.<br>• Introduced in: 9.18<br>• Default value: |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| return_timeout | integer | query | False | The number of seconds to allow the call to execute before returning. When doing a POST, PATCH, or DELETE operation on a single record, the default is 0 seconds. This means that if an asynchronous operation is started, the server immediately returns HTTP code 202 (Accepted) along with a link to the job. If a non-zero value is specified for POST, PATCH, or DELETE operations, ONTAP waits that length of time to see if the job completes so it can return something other than 202.<br>• Default value: 0<br>• Max value: 120<br>• Min value: 0 |

**Request Body**

| Name | Type | Description |
|---|---|---|
| attempts | integer | Number of attempts allowed when querying the DNS name servers. |

| Name | Type | Description |
| --- | --- | --- |
| domains | array[string] | A list of DNS domains. Domain names have the following requirements:<br>• The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_".<br>• 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.<br>• 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.<br>• The top level domain must contain only the following characters: A through Z, a through z.<br>• The system reserves the following names:"all", "local", and "localhost". |
| dynamic_dns | dynamic_dns | |
| packet_query_match | boolean | Indicates whether or not the query section of the reply packet is equal to that of the query packet. |
| servers | array[string] | The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses. |
| service_ips | array[string] | List of IP addresses for a DNS service. Addresses can be IPv4, IPv6 or both. |
| skip_config_validation | boolean | Indicates whether or not the validation for the specified DNS configuration is disabled. |
| source_address_match | boolean | Indicates whether or not the DNS responses are from a different IP address to the IP address the request was sent to. |

| Name | Type | Description |
|---|---|---|
| status | array[status] | Status of all the DNS name servers configured for the specified SVM. |
| timeout | integer | Timeout values for queries to the name servers, in seconds. |
| tld_query_enabled | boolean | Enable or disable top-level domain (TLD) queries. |
| uuid | string | UUID of the DNS object. |

**Example request**


```
{
  "attempts": 1,
  "domains": [
    "example.com",
    "example2.example3.com"
  ],
  "dynamic_dns": {
    "fqdn": "example.com",
    "time_to_live": "P2D"
  },
  "servers": [
    "10.224.65.20",
    "2001:db08:a0b:12f0::1"
  ],
  "service_ips": [
    "10.224.65.20",
    "2001:db08:a0b:12f0::1"
  ],
  "status": [
    {
      "code": 6684732,
      "message": "string",
      "name_server": "10.10.10.10",
      "state": "up"
    }
  ],
  "timeout": 2,
  "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
}
```

**Response**

```
Status: 200, Ok
```

**Response**

```
Status: 202, Accepted
```

**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 |
| 8847362 | Exceeded the maximum number of name servers allowed. Maximum of three name servers only |
| 8847376 | FQDN is mandatory if dynamic DNS update is being enabled. |
| 8847380 | Secure updates can be enabled only after a CIFS server or an Active Directory account has been created for the SVM. |
| 8847381 | A unique FQDN must be specified for each SVM. |
| 8847383 | The specified TTL exceeds the maximum supported value of 720 hours. |
| 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 |
| 8847404 | Dynamic DNS is applicable only for data SVMs |
| 8847405 | DNS parameters updated successfully; however the update of Dynamic DNS-related parameters has failed. |
| 9240587 | FQDN name cannot be empty |
| 9240588 | FQDN name is too long. Maximum supported length: 255 characters |

| Error Code | Description |
| --- | --- |
| 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 is 63 characters |
| 9240608 | FQDN does not contain a ".". At least one "." is mandatory for an FQDN. |
| 9240607 | A label of the FQDN is too long (73 characters). Maximum supported length for each label is 63 characters. |
| 23724130 | Cannot use an IPv6 name server address because there are no IPv6 LIFs |

**Definitions**

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

dynamic_dns

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Enable or disable Dynamic DNS (DDNS) updates for the specified SVM. |
| fqdn | string | Fully Qualified Domain Name (FQDN) to be used for dynamic DNS updates. |
| skip_fqdn_validation | boolean | Enable or disable FQDN validation. |
| time_to_live | string | Time to live value for the dynamic DNS updates, in an ISO-8601 duration formatted string. Maximum Time To Live is 720 hours(P30D in ISO-8601 format) and the default is 24 hours(P1D in ISO-8601 format). |
| use_secure | boolean | Enable or disable secure dynamic DNS updates for the specified SVM. |

status

Status of each of the DNS name server configured for the specified SVM.

| Name | Type | Description |
|---|---|---|
| code | integer | Code corresponding to the status message. Code is 0 when the state is 'up'. |
| message | string | Detailed description of the validation state if the state is 'down' or the response time of the DNS server if the state is 'up'. |

| Name | Type | Description |
| --- | --- | --- |
| name_server | string | The IP address of the DNS server. The address can be either an IPv4 or an IPv6 address. |
| state | string | The validation status of the DNS server. |

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
| --- | --- | --- |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

dns

| Name | Type | Description |
| --- | --- | --- |
| attempts | integer | Number of attempts allowed when querying the DNS name servers. |

| Name | Type | Description |
| --- | --- | --- |
| domains | array[string] | A list of DNS domains. Domain names have the following requirements:<br>• The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_".<br>• 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.<br>• 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.<br>• The top level domain must contain only the following characters: A through Z, a through z.<br>• The system reserves the following names:"all", "local", and "localhost". |
| dynamic_dns | dynamic_dns | |
| packet_query_match | boolean | Indicates whether or not the query section of the reply packet is equal to that of the query packet. |
| servers | array[string] | The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses. |
| service_ips | array[string] | List of IP addresses for a DNS service. Addresses can be IPv4, IPv6 or both. |
| skip_config_validation | boolean | Indicates whether or not the validation for the specified DNS configuration is disabled. |

| Name | Type | Description |
|---|---|---|
| source_address_match | boolean | Indicates whether or not the DNS responses are from a different IP address to the IP address the request was sent to. |
| status | array[status] | Status of all the DNS name servers configured for the specified SVM. |
| timeout | integer | Timeout values for queries to the name servers, in seconds. |
| tld_query_enabled | boolean | Enable or disable top-level domain (TLD) queries. |
| uuid | string | UUID of the DNS object. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# View host records

## View host records

### Overview

Displays the IP address of the specified hostname and vice-versa.

### Retrieving the host table entries

The host-record GET endpoint to retrieve the hostname for a given Ip address and vice-versa.

### Examples

#### Retrieving the hostname for a given IP address.

```
# The API:
GET /api/name-services/host-record/{svm.uuid}/{host}

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/host-record/77e23bd4-
a8fe-11eb-99e0-0050568e14ff/127.0.0.1" -H "accept: application/json"

# The response:
 {
"svm": {
  "uuid": "77e23bd4-a8fe-11eb-99e0-0050568e14ff",
  "name": "svm1"
 },
"host": "127.0.0.1",
"ipv4_addresses": [
  "127.0.0.1"
 ],
"hostname": "localhost",
"source": "Files"
 }
```

#### Retrieving the Ip address for a given hostname.

```
# The API:
GET /api/name-services/host-record/{svm.uuid}/{host}

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/host-record/77e23bd4-
a8fe-11eb-99e0-0050568e14ff/localhost" -H "accept: application/json"

# The response:
 {
"svm": {
  "uuid": "77e23bd4-a8fe-11eb-99e0-0050568e14ff",
  "name": "svm1"
},
"host": "localhost",
"ipv4_addresses": [
  "127.0.0.1"
],
"ipv6_addresses": [
  "::1"
],
"hostname": "localhost",
"canonical_name": "localhost",
"source": "Files"
 }
```

## Retrieve an IP address of a hostname

GET `/name-services/host-record/{svm.uuid}/{host}`

**Introduced In:** 9.10

Retrieves the IP address of the specified hostname and vice-versa.

### Related ONTAP commands

- `vserver services name-service getxxbyyy getnameinfo`
- `vserver services name-service getxxbyyy getaddrinfo`

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| host | string | path | True | Hostname or IP address. |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| use_cache | boolean | query | False | Enables or disables the cache.<br>• Introduced in: 9.11<br>• Default value: |
| 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 |
|---|---|---|
| canonical_name | string | Canonical name of the host. |
| host | string | IP address or hostname. |
| hostname | string | Hostname. |
| ipv4_addresses | array[string] | List of IPv4 addresses. |
| ipv6_addresses | array[string] | List of IPv6 addresses. |
| source | string | Source used for lookup. |
| svm | svm | SVM, applies only to SVM-scoped objects. |

### Example response


```
{
  "canonical_name": "localhost",
  "host": "localhost",
  "hostname": "localhost",
  "ipv4_addresses": [
    "127.0.0.1"
  ],
  "ipv6_addresses": [
    ":1"
  ],
  "source": "Files",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```


### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
|---|---|
| 8912900 | Invalid IP address. |
| 23724050 | Failed to resolve the specified hostname or IP address. |

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# Manage LDAP server configurations

## Manage LDAP server configurations

### Overview

LDAP servers are used to centrally maintain user information. LDAP configurations must be set up to lookup information stored in the LDAP directory on the external LDAP servers. This API is used to retrieve and manage LDAP server configurations.

### Retrieving LDAP information

The LDAP GET endpoint retrieves all of the LDAP configurations in the cluster.

### Examples

#### Retrieving all of the fields for all LDAP configurations

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

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/ldap?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"
        }
      }
    },
    "servers": [
      "10.10.10.10",
      "domainB.example.com"
    ],
    "schema": "ad_idmu",
    "port": 389,
    "ldaps_enabled": false,
    "min_bind_level": "anonymous",
```

```
    "bind_dn": "cn=Administrators,cn=users,dc=domainA,dc=example,dc=com",
    "base_dn": "dc=domainA,dc=example,dc=com",
    "base_scope": "subtree",
    "use_start_tls": true,
    "session_security": "none",
    "referral_enabled": false,
    "bind_as_cifs_server": false,
    "query_timeout": 3,
    "is_owner": true,
    "user_scope": "subtree",
    "group_scope": "subtree",
    "netgroup_scope": "subtree",
    "is_netgroup_byhost_enabled": false,
    "netgroup_byhost_scope": "subtree",
    "group_membership_filter": "",
    "status": {
      "state": "down",
      "message": "The LDAP configuration is invalid. Verify that the AD
domain or servers are reachable and that the network configuration is
correct",
      "dn_message": [
        "No LDAP DN configured"
      ],
      "code": 4915258,
      "ipv4_state": "down",
      "ipv6_state": "down"
    },
    "try_channel_binding": true,
    "restrict_discovery_to_site" : false,
    "_links": {
      "self": {
        "href": "/api/name-services/ldap/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"
        }
      }
    },
```

```
    "ad_domain": "example.com",
    "schema": "rfc_2307",
    "port": 389,
    "ldaps_enabled": false,
    "min_bind_level": "simple",
    "bind_dn": "cn=Administrators,cn=users,dc=domainB,dc=example,dc=com",
    "base_dn": "dc=domainB,dc=example,dc=com",
    "base_scope": "subtree",
    "use_start_tls": true,
    "session_security": "sign",
    "referral_enabled": false,
    "bind_as_cifs_server": false,
    "query_timeout": 0,
    "is_owner": true,
    "user_scope": "subtree",
    "group_scope": "subtree",
    "netgroup_scope": "subtree",
    "is_netgroup_byhost_enabled": false,
    "netgroup_byhost_scope": "subtree",
    "group_membership_filter": "",
    "status": {
      "state": "up",
      "message": "Successfully connected to LDAP server \"172.20.192.44\".
Successfully connected to LDAP server
\"fd20:8b1e:b255:5056:999:d9:516c:bf69\".",
      "dn_message": [
        "All the configured DNs are available."
      ],
      "code": 0,
      "ipv4_state": "up",
      "ipv6_state": "up"
    },
    "try_channel_binding": true,
    "restrict_discovery_to_site": true,
    "_links": {
      "self": {
        "href": "/api/name-services/ldap/6a52023b-7066-11e8-b9b8-
005056b41bd1"
      }
    }
  }
],
"num_records": 2,
"_links": {
  "self": {
    "href": "/api/name-services/ldap?fields=*"
```

```
    }
  }
  }
```

**Retrieving all of the LDAP configurations that have the *use_start_tls* set to *true***

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

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/ldap?use_start_tls=true"
-H "accept: application/hal+json"

# The response:
{
"records": [
  {
    "svm": {
      "uuid": "6a52023b-7066-11e8-b9b8-005056b41bd1",
      "name": "vs2",
      "_links": {
        "self": {
          "href": "/api/svm/svms/6a52023b-7066-11e8-b9b8-005056b41bd1"
        }
      }
    },
    "use_start_tls": true,
    "_links": {
      "self": {
        "href": "/api/name-services/ldap/6a52023b-7066-11e8-b9b8-
005056b41bd1"
      }
    }
  }
],
"num_records": 1,
"_links": {
  "self": {
    "href": "/api/name-services/ldap?use_start_tls=true"
  }
}
}
```

#### Retrieving the LDAP configuration of a specific SVM

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

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

# The response:
{
"svm": {
  "uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",
  "name": "vs1",
  "_links": {
    "self": {
      "href": "/api/svm/svms/179d3c85-7053-11e8-b9b8-005056b41bd1"
    }
  }
},
"servers": [
  "10.10.10.10",
  "domainB.example.com"
],
"schema": "ad_idmu",
"port": 389,
"ldaps_enabled": false,
"min_bind_level": "anonymous",
"bind_dn": "cn=Administrators,cn=users,dc=domainA,dc=example,dc=com",
"base_dn": "dc=domainA,dc=example,dc=com",
"base_scope": "subtree",
"use_start_tls": true,
"referral_enabled": false,
"session_security": "none",
"bind_as_cifs_server": true,
"query_timeout": 3,
"is_owner": true,
"try_channel_binding": true,
"restrict_discovery_to_site": false,
"_links": {
  "self": {
    "href": "/api/name-services/ldap/179d3c85-7053-11e8-b9b8-005056b41bd1"
  }
}
}
```

**Retrieving all the fields of the LDAP configuration of a specific SVM**

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

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/ldap/179d3c85-7053-11e8-
b9b8-005056b41bd1?fields=**" -H "accept: application/json"

# The response:
{
"svm": {
  "uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1",
  "name": "vs1",
  "_links": {
    "self": {
      "href": "/api/svm/svms/179d3c85-7053-11e8-b9b8-005056b41bd1"
    }
  }
},
"servers": [
  "10.10.10.10",
  "domainB.example.com"
],
"schema": "ad_idmu",
"port": 389,
"ldaps_enabled": false,
"min_bind_level": "anonymous",
"bind_dn": "cn=Administrators,cn=users,dc=domainA,dc=example,dc=com",
"base_dn": "dc=domainA,dc=example,dc=com",
"base_scope": "subtree",
"use_start_tls": true,
"referral_enabled": false,
"session_security": "none",
"bind_as_cifs_server": true,
"query_timeout": 3,
"is_owner": true,
"user_scope": "subtree",
"group_scope": "subtree",
"netgroup_scope": "subtree",
"is_netgroup_byhost_enabled": false,
"netgroup_byhost_scope": "subtree",
"group_membership_filter": "",
"try_channel_binding": true,
"restrict_discovery_to_site": false,
```

```
"status": {
  "state": "down",
  "message": "The LDAP configuration is invalid. Verify that the AD domain
or servers are reachable and that the network configuration is correct",
  "dn_message": [
    "No LDAP DN configured"
  ],
  "code": 4915258,
  "ipv4_state": "down",
  "ipv6_state": "down"
},
"_links": {
  "self": {
    "href": "/api/name-services/ldap/179d3c85-7053-11e8-b9b8-005056b41bd1"
  }
}
}
```

#### Retrieving the LDAP server status of a specific SVM

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

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/ldap/9e4a2e3b-f66f-11ea-
aec8-0050568e155c?fields=status" -H "accept: application/json"

# The response:
{
"svm": {
  "uuid": "9e4a2e3b-f66f-11ea-aec8-0050568e155c",
  "name": "vs2"
},
"status": {
  "state": "up",
  "message": "Successfully connected to LDAP server \"172.20.192.44\".
Successfully connected to LDAP server
\"fd20:8b1e:b255:5056:999:d9:516c:bf69\".",
  "code": 0,
  "ipv4_state": "up",
  "ipv6_state": "up"
}
}
```

**Retrieving all of the LDAP configurations that have the *restrict_discovery_to_site* set to *true***

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

# The call:
curl -X GET "https://<mgmt-ip>/api/name-
services/ldap?restrict_discovery_to_site=true" -H "accept:
application/hal+json"

# The response:
{
"records": [
  {
    "svm": {
      "uuid": "6a52023b-7066-11e8-b9b8-005056b41bd1",
      "name": "vs2",
      "_links": {
        "self": {
          "href": "/api/svm/svms/6a52023b-7066-11e8-b9b8-005056b41bd1"
        }
      }
    },
    "restrict_discovery_to_site": true,
    "_links": {
      "self": {
        "href": "/api/name-services/ldap/6a52023b-7066-11e8-b9b8-
005056b41bd1"
      }
    }
  }
],
"num_records": 1,
"_links": {
  "self": {
    "href": "/api/name-services/ldap?restrict_discovery_to_site=true"
  }
}
}
```

#### Creating an LDAP configuration

The LDAP POST endpoint creates an LDAP configuration for the specified SVM.

### Examples

#### Creating an LDAP configuration with all the fields specified

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

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/ldap" -H "accept:
application/hal+json" -H "Content-Type: application/json" -d "{ \"svm\": {
\"uuid\": \"179d3c85-7053-11e8-b9b8-005056b41bd1\" }, \"servers\": [
\"10.10.10.10\", \"domainB.example.com\" ], \"schema\": \"ad_idmu\",
\"port\": 389, \"ldaps_enabled\": false, \"min_bind_level\":
\"anonymous\", \"bind_dn\":
\"cn=Administrators,cn=users,dc=domainA,dc=example,dc=com\",
\"bind_password\": \"abc\", \"base_dn\": \"dc=domainA,dc=example,dc=com\",
\"base_scope\": \"subtree\", \"use_start_tls\": false,
\"session_security\": \"none\", \"referral_enabled\": false,
\"bind_as_cifs_server\": false, \"query_timeout\": 4, \"user_dn\":
\"cn=abc,users,dc=com\", \"user_scope\": \"subtree\", \"group_dn\":
\"cn=abc,users,dc=com\", \"group_scope\": \"subtree\", \"netgroup_dn\":
\"cn=abc,users,dc=com\", \"netgroup_scope\": \"subtree\",
\"netgroup_byhost_dn\": \"cn=abc,users,dc=com\",
\"netgroup_byhost_scope\": \"subtree\", \"is_netgroup_byhost_enabled\":
false, \"group_membership_filter\": \"\", \"skip_config_validation\":
false } "
```

#### Creating an LDAP configuration with Active Directory domain and preferred Active Directory servers specified

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

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/ldap" -H "accept:
application/hal+json" -H "Content-Type: application/json" -d "{ \"svm\": {
\"name\": \"vs2\" }, \"ad_domain\": \"domainA.example.com\",
\"preferred_ad_servers\": [ \"11.11.11.11\" ], \"port\": 389,
\"ldaps_enabled\": false, \"bind_dn\":
\"cn=Administrators,cn=users,dc=domainA,dc=example,dc=com\",
\"bind_password\": \"abc\", \"base_dn\": \"dc=domainA,dc=example,dc=com\",
\"session_security\": \"none\", \"referral_enabled\": false,
\"query_timeout\": 3}"
```

**Creating an LDAP configuration with a number of optional fields not specified**

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

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/ldap" -H "accept:
application/hal+json" -H "Content-Type: application/json" -d "{ \"svm\": {
\"name\": \"vs2\" }, \"servers\": [ \"11.11.11.11\" ], \"port\": 389,
\"bind_dn\": \"cn=Administrators,cn=users,dc=domainA,dc=example,dc=com\",
\"bind_password\": \"abc\", \"base_dn\": \"dc=domainA,dc=example,dc=com\",
\"session_security\": \"none\"}"
```

**Creating an LDAP configuration with Active Directory domain specified and *restrict_discovery_to_site* set to *true***

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

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/ldap" -H "accept:
application/hal+json" -H "Content-Type: application/json" -d "{ \"svm\": {
\"name\": \"vs2\" }, \"ad_domain\": \"example.com\", \"port\": 389,
\"bind_dn\": \"cn=Administrators,cn=users,dc=domainA,dc=example,dc=com\",
\"bind_password\": \"abc\", \"base_dn\": \"dc=domainA,dc=example,dc=com\",
\"session_security\": \"none\", \"restrict_discovery_to_site\": true}"
```

#### Updating an LDAP configuration

The LDAP PATCH endpoint updates the LDAP configuration for the specified SVM. The following example shows a PATCH operation:

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

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/ldap/179d3c85-7053-
11e8-b9b8-005056b41bd1" -H "accept: application/json" -H "Content-Type:
application/json" -d "{ \"servers\": [ \"55.55.55.55\" ], \"schema\":
\"ad_idmu\", \"port\": 636, \"ldaps_enabled\": true, \"use_start_tls\":
false, \"referral_enabled\": false ,\"restrict_discovery_to_site\":
false}"
```

#### Deleting an LDAP configuration

The LDAP DELETE endpoint deletes the LDAP configuration for the specified SVM. The following example shows a DELETE operation:

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

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

## Retrieve the LDAP configuration for all SVMs

GET `/name-services/ldap`

**Introduced In:** 9.6

Retrieves the LDAP configurations for all SVMs.

### Related ONTAP commands

- `ldap show`
- `ldap check -vserver vs0`
- `ldap check-ipv6 -vserver vs0`

### Important notes

- The status.code, status.dn_message, status.message, and status.state fields have the same status fields that are returned using the "ldap check" CLI command.
- Refer to the ipv4 or ipv6 objects available in the status field to get specific information about the code, dn_messages, or message and state information for ipv4 or ipv6.

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| min_bind_level | string | query | False | Filter by min_bind_level<br>• Introduced in: 9.7 |
| bind_dn | string | query | False | Filter by bind_dn<br>• Introduced in: 9.7 |
| netgroup_dn | string | query | False | Filter by netgroup_dn<br>• Introduced in: 9.9 |
| bind_as_cifs_server | boolean | query | False | Filter by bind_as_cifs_server<br>• Introduced in: 9.9 |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| restrict_discovery_to_site | boolean | query | False | Filter by restrict_discovery_to_site<br>• Introduced in: 9.13 |
| user_dn | string | query | False | Filter by user_dn<br>• Introduced in: 9.9 |
| use_start_tls | boolean | query | False | Filter by use_start_tls<br>• Introduced in: 9.7 |
| ldaps_enabled | boolean | query | False | Filter by ldaps_enabled<br>• Introduced in: 9.9 |
| netgroup_byhost_scope | string | query | False | Filter by netgroup_byhost_scope<br>• Introduced in: 9.9 |
| is_owner | boolean | query | False | Filter by is_owner<br>• Introduced in: 9.9 |
| base_scope | string | query | False | Filter by base_scope<br>• Introduced in: 9.7 |
| svm.name | string | query | False | Filter by svm.name<br>• Introduced in: 9.7 |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.uuid | string | query | False | Filter by svm.uuid<br>• Introduced in: 9.7 |
| ad_domain | string | query | False | Filter by ad_domain<br>• Introduced in: 9.7 |
| netgroup_byhost_dn | string | query | False | Filter by netgroup_byhost_dn<br>• Introduced in: 9.9 |
| session_security | string | query | False | Filter by session_security<br>• Introduced in: 9.7 |
| user_scope | string | query | False | Filter by user_scope<br>• Introduced in: 9.9 |
| schema | string | query | False | Filter by schema<br>• Introduced in: 9.7 |
| base_dn | string | query | False | Filter by base_dn<br>• Introduced in: 9.7 |
| group_dn | string | query | False | Filter by group_dn<br>• Introduced in: 9.9 |
| group_scope | string | query | False | Filter by group_scope<br>• Introduced in: 9.9 |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| netgroup_scope | string | query | False | Filter by netgroup_scope<br>• Introduced in: 9.9 |
| group_membership_filter | string | query | False | Filter by group_membership_filter<br>• Introduced in: 9.9 |
| port | integer | query | False | Filter by port<br>• Introduced in: 9.7<br>• Max value: 65535<br>• Min value: 1 |
| preferred_ad_servers | string | query | False | Filter by preferred_ad_servers<br>• Introduced in: 9.7 |
| try_channel_binding | boolean | query | False | Filter by try_channel_binding<br>• Introduced in: 9.10 |
| servers | string | query | False | Filter by servers<br>• Introduced in: 9.7 |
| status.ipv4_state | string | query | False | Filter by status.ipv4_state<br>• Introduced in: 9.13 |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| status.ipv6.message | string | query | False | Filter by status.ipv6.message<br>• Introduced in: 9.14 |
| status.ipv6.dn_messages | string | query | False | Filter by status.ipv6.dn_messages<br>• Introduced in: 9.14 |
| status.ipv6.code | integer | query | False | Filter by status.ipv6.code<br>• Introduced in: 9.14 |
| status.ipv6.state | string | query | False | Filter by status.ipv6.state<br>• Introduced in: 9.14 |
| status.ipv4.message | string | query | False | Filter by status.ipv4.message<br>• Introduced in: 9.14 |
| status.ipv4.dn_messages | string | query | False | Filter by status.ipv4.dn_messages<br>• Introduced in: 9.14 |
| status.ipv4.code | integer | query | False | Filter by status.ipv4.code<br>• Introduced in: 9.14 |
| status.ipv4.state | string | query | False | Filter by status.ipv4.state<br>• Introduced in: 9.14 |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| status.state | string | query | False | Filter by status.state<br>• Introduced in: 9.9 |
| status.ipv6_state | string | query | False | Filter by status.ipv6_state<br>• Introduced in: 9.13 |
| status.message | string | query | False | Filter by status.message<br>• Introduced in: 9.9 |
| status.code | integer | query | False | Filter by status.code<br>• Introduced in: 9.9 |
| status.dn_message | string | query | False | Filter by status.dn_message<br>• Introduced in: 9.9 |
| referral_enabled | boolean | query | False | Filter by referral_enabled<br>• Introduced in: 9.9 |
| is_netgroup_byhost_enabled | boolean | query | False | Filter by is_netgroup_byhost_enabled<br>• Introduced in: 9.9 |
| query_timeout | integer | query | False | Filter by query_timeout<br>• Introduced in: 9.9 |
| fields | array[string] | query | False | Specify the fields to return. |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| 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.<br>• 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.<br>• Max value: 120<br>• Min value: 0<br>• Default value: 15 |
| 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 LDAP records. |
| records | array[ldap_service] | |

**Example response**


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "ad_domain": "example.com",
      "base_dn": "dc=domainB,dc=example,dc=com",
      "base_scope": "string",
      "bind_dn":
"cn=Administrators,cn=users,dc=domainB,dc=example,dc=com",
      "group_dn": "cn=abc,users,dc=com",
      "group_membership_filter": "",
      "group_scope": "string",
      "min_bind_level": "string",
      "netgroup_byhost_dn": "cn=abc,users,dc=com",
      "netgroup_byhost_scope": "string",
      "netgroup_dn": "cn=abc,users,dc=com",
      "netgroup_scope": "string",
      "port": 389,
      "preferred_ad_servers": [
        "11.11.11.11"
      ],
      "schema": "ad_idmu",
      "servers": [
        [
          "10.10.10.10",
          "domainB.example.com"
        ]
      ],
      "session_security": "string",
      "skip_config_validation": true,
      "status": {
```

```
        "code": 65537300,
        "dn_message": [
          "string"
        ],
        "ipv4": {
          "code": 65537300,
          "dn_messages": [
            "string"
          ],
          "message": "string",
          "state": "string"
        },
        "ipv4_state": "string",
        "ipv6": {
          "code": 65537300,
          "dn_messages": [
            "string"
          ],
          "message": "string",
          "state": "string"
        },
        "ipv6_state": "string",
        "message": "string",
        "state": "string"
      },
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "user_dn": "cn=abc,users,dc=com",
      "user_scope": "string"
    }
  ]
}
```


### Error

```
Status: Default
```

Following error codes can be thrown as part of LDAP status information, if LDAP status is needed to be retrieved.

| Error Code | Description |
|---|---|
| 4915229 | DNS resolution failed due to an internal error. Contact technical support if this issue persists |
| 4915231 | DNS resolution failed for one or more of the specified LDAP servers. Verify that a valid DNS server is configured |
| 23724132 | DNS resolution failed for all the specified LDAP servers. Verify that a valid DNS server is configured |
| 4915258 | The LDAP configuration is invalid. Verify that the Active Directory domain or servers are reachable and that the network configuration is correct |
| 4915263 | Failed to check the current status of LDAP server. Reason:<Reason for="" the="" failure=""></Reason> |
| 4915234 | The specified LDAP server or preferred Active Directory server is not supported because it is one of the following: multicast, loopback, 0.0.0.0, or broadcast |
| 4915265 | The specified bind password or bind DN is invalid |
| 4915264 | Certificate verification failed. Verify that a valid certificate is installed |

| Name | Type | Description |
|---|---|---|
| error | returned_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 | |

ipv4

| Name | Type | Description |
|---|---|---|
| code | integer | Code corresponding to the error message. If there is no error, it is 0 to indicate success. |
| dn_messages | array[string] | |
| message | string | Provides additional details on the error. |
| state | string | Status of the LDAP service. |

ipv6

| Name | Type | Description |
|---|---|---|
| code | integer | Code corresponding to the error message. If there is no error, it is 0 to indicate success. |
| dn_messages | array[string] | |
| message | string | Provides additional details on the error. |
| state | string | Status of the LDAP service. |

status

| Name | Type | Description |
|---|---|---|
| code | integer | This field is no longer supported. Use ipv4.code or ipv6.code instead. |
| dn_message | array[string] | |
| ipv4 | ipv4 | |
| ipv4_state | string | This field is no longer supported. Use ipv4.state instead. |
| ipv6 | ipv6 | |
| ipv6_state | string | This field is no longer supported. Use ipv6.state instead. |
| message | string | This field is no longer supported. Use ipv4.message or ipv6.message instead. |
| state | string | The status of the LDAP service for the SVM. The LDAP service is up if either `ipv4_state` or `ipv6_state` is up. The LDAP service is down if both `ipv4_state` and `ipv6_state` are down. |

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

ldap_service

| Name | Type | Description |
| --- | --- | --- |
| _links | _links | |
| ad_domain | string | This parameter specifies the name of the Active Directory domain used to discover LDAP servers for use by this client. This is mutually exclusive with `servers` during POST and PATCH. |
| base_dn | string | Specifies the default base DN for all searches. |
| base_scope | string | Specifies the default search scope for LDAP queries:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| bind_as_cifs_server | boolean | Specifies whether or not CIFS server's credentials are used to bind to the LDAP server. |
| bind_dn | string | Specifies the user that binds to the LDAP servers. |
| group_dn | string | Specifies the group Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for group lookups. |
| group_membership_filter | string | Specifies the custom filter used for group membership lookups from an LDAP server. |

| Name | Type | Description |
| --- | --- | --- |
| group_scope | string | Specifies the default search scope for LDAP for group lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| is_netgroup_byhost_enabled | boolean | Specifies whether or not netgroup by host querying is enabled. |
| is_owner | boolean | Specifies whether or not the SVM owns the LDAP client configuration. |
| ldaps_enabled | boolean | Specifies whether or not LDAPS is enabled. |
| min_bind_level | string | The minimum bind authentication level. Possible values are:<br>• anonymous - anonymous bind<br>• simple - simple bind<br>• sasl - Simple Authentication and Security Layer (SASL) bind |
| netgroup_byhost_dn | string | Specifies the netgroup Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for netgroup by host lookups. |

| Name | Type | Description |
| --- | --- | --- |
| netgroup_byhost_scope | string | Specifies the default search scope for LDAP for netgroup by host lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| netgroup_dn | string | Specifies the netgroup Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for netgroup lookups. |
| netgroup_scope | string | Specifies the default search scope for LDAP for netgroup lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| port | integer | The port used to connect to the LDAP Servers. |
| preferred_ad_servers | array[string] | |
| query_timeout | integer | Specifies the maximum time to wait for a query response from the LDAP server, in seconds. |
| referral_enabled | boolean | Specifies whether or not LDAP referral is enabled. |
| restrict_discovery_to_site | boolean | Specifies whether or not LDAP server discovery is restricted to site-scope. |

| Name | Type | Description |
| --- | --- | --- |
| schema | string | The name of the schema template used by the SVM.<br>• AD-IDMU - Active Directory Identity Management for UNIX<br>• AD-SFU - Active Directory Services for UNIX<br>• MS-AD-BIS - Active Directory Identity Management for UNIX<br>• RFC-2307 - Schema based on RFC 2307<br>• Custom schema |
| servers | array[string] | |
| session_security | string | Specifies the level of security to be used for LDAP communications:<br>• none - no signing or sealing<br>• sign - sign LDAP traffic<br>• seal - seal and sign LDAP traffic |
| status | status | |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| try_channel_binding | boolean | Specifies whether or not channel binding is attempted in the case of TLS/LDAPS. |
| use_start_tls | boolean | Specifies whether or not to use Start TLS over LDAP connections. |
| user_dn | string | Specifies the user Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for user lookups. |

| Name | Type | Description |
|---|---|---|
| user_scope | string | Specifies the default search scope for LDAP for user lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 LDAP configuration for an SVM

POST `/name-services/ldap`

**Introduced In:** 9.6

Creates an LDAP configuration for an SVM.

### Important notes

- Each SVM can have one LDAP configuration.
- The LDAP servers and Active Directory domain are mutually exclusive fields. These fields cannot be empty. At any point in time, either the LDAP servers or Active Directory domain must be populated.

- LDAP configuration with Active Directory domain cannot be created on an admin SVM.
- IPv6 must be enabled if IPv6 family addresses are specified.

**The following parameters are optional:**

- preferred AD servers
- schema
- port
- ldaps_enabled
- min_bind_level
- bind_password
- base_scope
- use_start_tls
- session_security
- referral_enabled
- bind_as_cifs_server
- query_timeout
- user_dn
- user_scope
- group_dn
- group_scope
- netgroup_dn
- netgroup_scope
- netgroup_byhost_dn
- netgroup_byhost_scope
- is_netgroup_byhost_enabled
- group_membership_filter
- skip_config_validation
- try_channel_binding
- restrict_discovery_to_site

Configuring more than one LDAP server is recommended to avoid a single point of failure. Both FQDNs and IP addresses are supported for the "servers" field. The Active Directory domain or LDAP servers are validated as part of this operation.

LDAP validation fails in the following scenarios:

1. The server does not have LDAP installed.
2. The server or Active Directory domain is invalid.
3. The server or Active Directory domain is unreachable.

### Parameters

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

### Request Body

| Name | Type | Description |
|---|---|---|
| ad_domain | string | This parameter specifies the name of the Active Directory domain used to discover LDAP servers for use by this client. This is mutually exclusive with `servers` during POST and PATCH. |
| base_dn | string | Specifies the default base DN for all searches. |
| base_scope | string | Specifies the default search scope for LDAP queries:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| bind_as_cifs_server | boolean | Specifies whether or not CIFS server's credentials are used to bind to the LDAP server. |
| bind_dn | string | Specifies the user that binds to the LDAP servers. |
| bind_password | string | Specifies the bind password for the LDAP servers. |

| Name | Type | Description |
| --- | --- | --- |
| group_dn | string | Specifies the group Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for group lookups. |
| group_membership_filter | string | Specifies the custom filter used for group membership lookups from an LDAP server. |
| group_scope | string | Specifies the default search scope for LDAP for group lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| is_netgroup_byhost_enabled | boolean | Specifies whether or not netgroup by host querying is enabled. |
| is_owner | boolean | Specifies whether or not the SVM owns the LDAP client configuration. |
| ldaps_enabled | boolean | Specifies whether or not LDAPS is enabled. |
| min_bind_level | string | The minimum bind authentication level. Possible values are:<br>• anonymous - anonymous bind<br>• simple - simple bind<br>• sasl - Simple Authentication and Security Layer (SASL) bind |
| netgroup_byhost_dn | string | Specifies the netgroup Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for netgroup by host lookups. |

| Name | Type | Description |
| --- | --- | --- |
| netgroup_byhost_scope | string | Specifies the default search scope for LDAP for netgroup by host lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| netgroup_dn | string | Specifies the netgroup Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for netgroup lookups. |
| netgroup_scope | string | Specifies the default search scope for LDAP for netgroup lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| port | integer | The port used to connect to the LDAP Servers. |
| preferred_ad_servers | array[string] | |
| query_timeout | integer | Specifies the maximum time to wait for a query response from the LDAP server, in seconds. |
| referral_enabled | boolean | Specifies whether or not LDAP referral is enabled. |
| restrict_discovery_to_site | boolean | Specifies whether or not LDAP server discovery is restricted to site-scope. |

| Name | Type | Description |
| --- | --- | --- |
| schema | string | The name of the schema template used by the SVM.<br>• AD-IDMU - Active Directory Identity Management for UNIX<br>• AD-SFU - Active Directory Services for UNIX<br>• MS-AD-BIS - Active Directory Identity Management for UNIX<br>• RFC-2307 - Schema based on RFC 2307<br>• Custom schema |
| servers | array[string] | |
| session_security | string | Specifies the level of security to be used for LDAP communications:<br>• none - no signing or sealing<br>• sign - sign LDAP traffic<br>• seal - seal and sign LDAP traffic |
| skip_config_validation | boolean | Indicates whether or not the validation for the specified LDAP configuration is disabled. |
| status | status | |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| try_channel_binding | boolean | Specifies whether or not channel binding is attempted in the case of TLS/LDAPS. |
| use_start_tls | boolean | Specifies whether or not to use Start TLS over LDAP connections. |
| user_dn | string | Specifies the user Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for user lookups. |

| Name | Type | Description |
| --- | --- | --- |
| user_scope | string | Specifies the default search scope for LDAP for user lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |

**Example request**


```
{
  "ad_domain": "example.com",
  "base_dn": "dc=domainB,dc=example,dc=com",
  "base_scope": "string",
  "bind_dn": "cn=Administrators,cn=users,dc=domainB,dc=example,dc=com",
  "bind_password": "abc",
  "group_dn": "cn=abc,users,dc=com",
  "group_membership_filter": "",
  "group_scope": "string",
  "min_bind_level": "string",
  "netgroup_byhost_dn": "cn=abc,users,dc=com",
  "netgroup_byhost_scope": "string",
  "netgroup_dn": "cn=abc,users,dc=com",
  "netgroup_scope": "string",
  "port": 389,
  "preferred_ad_servers": [
    "11.11.11.11"
  ],
  "schema": "ad_idmu",
  "servers": [
    [
      "10.10.10.10",
      "domainB.example.com"
    ]
  ],
  "session_security": "string",
  "status": {
    "code": 65537300,
    "dn_message": [
      "string"
    ],
    "ipv4": {
      "code": 65537300,
      "dn_messages": [
        "string"
      ],
      "message": "string",
      "state": "string"
    },
    "ipv4_state": "string",
    "ipv6": {
      "code": 65537300,
      "dn_messages": [
        "string"
```

```
      ],
      "message": "string",
      "state": "string"
    },
    "ipv6_state": "string",
    "message": "string",
    "state": "string"
  },
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "user_dn": "cn=abc,users,dc=com",
  "user_scope": "string"
}
```

**Response**

```
Status: 201, Created
```

| Name | Type | Description |
|---|---|---|
| num_records | integer | Number of LDAP records. |
| records | array[ldap_service] | |

**Example response**


```
{
  "num_records": 1,
  "records": [
    {
      "ad_domain": "example.com",
      "base_dn": "dc=domainB,dc=example,dc=com",
      "base_scope": "string",
      "bind_dn":
"cn=Administrators,cn=users,dc=domainB,dc=example,dc=com",
      "bind_password": "abc",
      "group_dn": "cn=abc,users,dc=com",
      "group_membership_filter": "",
      "group_scope": "string",
      "min_bind_level": "string",
      "netgroup_byhost_dn": "cn=abc,users,dc=com",
      "netgroup_byhost_scope": "string",
      "netgroup_dn": "cn=abc,users,dc=com",
      "netgroup_scope": "string",
      "port": 389,
      "preferred_ad_servers": [
        "11.11.11.11"
      ],
      "schema": "ad_idmu",
      "servers": [
        [
          "10.10.10.10",
          "domainB.example.com"
        ]
      ],
      "session_security": "string",
      "status": {
        "code": 65537300,
        "dn_message": [
          "string"
        ],
        "ipv4": {
          "code": 65537300,
          "dn_messages": [
            "string"
          ],
          "message": "string",
          "state": "string"
        },
        "ipv4_state": "string",
```

```
        "ipv6": {
          "code": 65537300,
          "dn_messages": [
            "string"
          ],
          "message": "string",
          "state": "string"
        },
        "ipv6_state": "string",
        "message": "string",
        "state": "string"
      },
      "svm": {
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "user_dn": "cn=abc,users,dc=com",
      "user_scope": "string"
    }
  ]
}
```


#### Headers

| Name | Description | Type |
|---|---|---|
| Location | Useful for tracking the resource location | string |

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
|---|---|
| 262186 | LDAP Servers cannot be used with Active Directory domain and/or preferred Active Directory servers |
| 2621488 | Invalid SVM context |
| 2621706 | The specified SVM UUID is incorrect for the specified SVM name |
| 4915203 | The specified LDAP schema does not exist |
| 262222 | The specified LDAP servers or preferred Active Directory servers contain duplicate server entries |

| Error Code | Description |
| --- | --- |
| 4915229 | DNS resolution failed due to an internal error. Contact technical support if this issue persists |
| 4915231 | DNS resolution failed for one or more of the specified LDAP servers. Verify that a valid DNS server is configured |
| 23724132 | DNS resolution failed for all the specified LDAP servers. Verify that a valid DNS server is configured |
| 4915234 | The specified LDAP server or preferred Active Directory server is not supported because it is one of the following: multicast, loopback, 0.0.0.0, or broadcast |
| 4915248 | LDAP servers cannot be empty or "-". Specified Active Directory domain is invalid because it is empty or "-" or it contains either the special characters or "-" at the start or end of the domain) |
| 4915251 | STARTTLS and LDAPS cannot be used together |
| 4915257 | The LDAP configuration is invalid. Verify that bind-dn and bind password are correct |
| 4915258 | The LDAP configuration is invalid. Verify that the Active Directory domain or servers are reachable and that the network configuration is correct |
| 4915259 | LDAP configurations with Active Directory domains are not supported on admin SVM. |
| 4915265 | The specified bind password or bind DN is invalid |
| 4915264 | Certificate verification failed. Verify that a valid certificate is installed |
| 13434916 | The SVM is in the process of being created. Wait a few minutes, and then try the command again. |
| 23724130 | Cannot use an IPv6 name server address because there are no IPv6 LIFs |
| 4915252 | LDAP Referral is not supported with STARTTLS, with session security levels sign, seal or with LDAPS. |
| 4915266 | LDAP site discovery restriction cannot be applied to a mixed version cluster. |
| 656484 | The default site needs to be specified to enable site restriction. |
| 4915206 | CIFS server is not configured for the vserver. LDAP client configuration requires CIFS server for binding. |
| 4915261 | Cannot use port "389" when "ldaps_enabled" is "true". |
| 4915255 | Base DN specified in the LDAP client configuration is not available. |

| Error Code | Description |
| --- | --- |
| 4915268 | The bind_as_cifs_server field cannot be set to true when the CIFS server is in workgroup mode. |
| 4915269 | The bind_as_cifs_server field cannot be set to true when the CIFS server is in realm mode. |

**Definitions**

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

ipv4

| Name | Type | Description |
|---|---|---|
| code | integer | Code corresponding to the error message. If there is no error, it is 0 to indicate success. |
| dn_messages | array[string] | |
| message | string | Provides additional details on the error. |
| state | string | Status of the LDAP service. |

ipv6

| Name | Type | Description |
|---|---|---|
| code | integer | Code corresponding to the error message. If there is no error, it is 0 to indicate success. |
| dn_messages | array[string] | |
| message | string | Provides additional details on the error. |
| state | string | Status of the LDAP service. |

status

| Name | Type | Description |
|---|---|---|
| code | integer | This field is no longer supported. Use ipv4.code or ipv6.code instead. |
| dn_message | array[string] | |
| ipv4 | ipv4 | |

| Name | Type | Description |
|---|---|---|
| ipv4_state | string | This field is no longer supported. Use ipv4.state instead. |
| ipv6 | ipv6 | |
| ipv6_state | string | This field is no longer supported. Use ipv6.state instead. |
| message | string | This field is no longer supported. Use ipv4.message or ipv6.message instead. |
| state | string | The status of the LDAP service for the SVM. The LDAP service is up if either `ipv4_state` or `ipv6_state` is up. The LDAP service is down if both `ipv4_state` and `ipv6_state` are down. |

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

ldap_service

| Name | Type | Description |
|---|---|---|
| ad_domain | string | This parameter specifies the name of the Active Directory domain used to discover LDAP servers for use by this client. This is mutually exclusive with `servers` during POST and PATCH. |
| base_dn | string | Specifies the default base DN for all searches. |

| Name | Type | Description |
| --- | --- | --- |
| base_scope | string | Specifies the default search scope for LDAP queries:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| bind_as_cifs_server | boolean | Specifies whether or not CIFS server's credentials are used to bind to the LDAP server. |
| bind_dn | string | Specifies the user that binds to the LDAP servers. |
| bind_password | string | Specifies the bind password for the LDAP servers. |
| group_dn | string | Specifies the group Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for group lookups. |
| group_membership_filter | string | Specifies the custom filter used for group membership lookups from an LDAP server. |
| group_scope | string | Specifies the default search scope for LDAP for group lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| is_netgroup_byhost_enabled | boolean | Specifies whether or not netgroup by host querying is enabled. |

| Name | Type | Description |
| --- | --- | --- |
| is_owner | boolean | Specifies whether or not the SVM owns the LDAP client configuration. |
| ldaps_enabled | boolean | Specifies whether or not LDAPS is enabled. |
| min_bind_level | string | The minimum bind authentication level. Possible values are:<br>• anonymous - anonymous bind<br>• simple - simple bind<br>• sasl - Simple Authentication and Security Layer (SASL) bind |
| netgroup_byhost_dn | string | Specifies the netgroup Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for netgroup by host lookups. |
| netgroup_byhost_scope | string | Specifies the default search scope for LDAP for netgroup by host lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| netgroup_dn | string | Specifies the netgroup Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for netgroup lookups. |

| Name | Type | Description |
| --- | --- | --- |
| netgroup_scope | string | Specifies the default search scope for LDAP for netgroup lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| port | integer | The port used to connect to the LDAP Servers. |
| preferred_ad_servers | array[string] | |
| query_timeout | integer | Specifies the maximum time to wait for a query response from the LDAP server, in seconds. |
| referral_enabled | boolean | Specifies whether or not LDAP referral is enabled. |
| restrict_discovery_to_site | boolean | Specifies whether or not LDAP server discovery is restricted to site-scope. |
| schema | string | The name of the schema template used by the SVM.<br>• AD-IDMU - Active Directory Identity Management for UNIX<br>• AD-SFU - Active Directory Services for UNIX<br>• MS-AD-BIS - Active Directory Identity Management for UNIX<br>• RFC-2307 - Schema based on RFC 2307<br>• Custom schema |
| servers | array[string] | |

| Name | Type | Description |
| --- | --- | --- |
| session_security | string | Specifies the level of security to be used for LDAP communications:<br>• none - no signing or sealing<br>• sign - sign LDAP traffic<br>• seal - seal and sign LDAP traffic |
| skip_config_validation | boolean | Indicates whether or not the validation for the specified LDAP configuration is disabled. |
| status | status | |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| try_channel_binding | boolean | Specifies whether or not channel binding is attempted in the case of TLS/LDAPS. |
| use_start_tls | boolean | Specifies whether or not to use Start TLS over LDAP connections. |
| user_dn | string | Specifies the user Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for user lookups. |
| user_scope | string | Specifies the default search scope for LDAP for user lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |

error_arguments

| Name | Type | Description |
| --- | --- | --- |
| code | string | Argument code |

| Name | Type | Description |
|---|---|---|
| message | string | Message argument |

returned_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 LDAP configuration for an SVM

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

**Introduced In:** 9.6

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

### 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 | returned_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 |

returned_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 the LDAP configuration for an SVM

GET `/name-services/ldap/{svm.uuid}`

**Introduced In:** 9.6

Retrieves LDAP configuration for an SVM. All parameters for the LDAP configuration are displayed by default.

### Related ONTAP commands

- `ldap show`
- `ldap check -vserver vs0`
- `ldap check-ipv6 -vserver vs0`

### Important notes

- The status.code, status.dn_message, status.message, and status.state fields have the same status fields that are returned using the "ldap check" CLI command.
- Refer to the ipv4 or ipv6 objects available in the status field to get specific information about the code, dn_messages, or message and state information for ipv4 or ipv6.

### 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 | |
| ad_domain | string | This parameter specifies the name of the Active Directory domain used to discover LDAP servers for use by this client. This is mutually exclusive with `servers` during POST and PATCH. |
| base_dn | string | Specifies the default base DN for all searches. |

| Name | Type | Description |
| --- | --- | --- |
| base_scope | string | Specifies the default search scope for LDAP queries:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| bind_as_cifs_server | boolean | Specifies whether or not CIFS server's credentials are used to bind to the LDAP server. |
| bind_dn | string | Specifies the user that binds to the LDAP servers. |
| group_dn | string | Specifies the group Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for group lookups. |
| group_membership_filter | string | Specifies the custom filter used for group membership lookups from an LDAP server. |
| group_scope | string | Specifies the default search scope for LDAP for group lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| is_netgroup_byhost_enabled | boolean | Specifies whether or not netgroup by host querying is enabled. |
| is_owner | boolean | Specifies whether or not the SVM owns the LDAP client configuration. |
| ldaps_enabled | boolean | Specifies whether or not LDAPS is enabled. |

| Name | Type | Description |
| --- | --- | --- |
| min_bind_level | string | The minimum bind authentication level. Possible values are:<br>• anonymous - anonymous bind<br>• simple - simple bind<br>• sasl - Simple Authentication and Security Layer (SASL) bind |
| netgroup_byhost_dn | string | Specifies the netgroup Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for netgroup by host lookups. |
| netgroup_byhost_scope | string | Specifies the default search scope for LDAP for netgroup by host lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| netgroup_dn | string | Specifies the netgroup Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for netgroup lookups. |
| netgroup_scope | string | Specifies the default search scope for LDAP for netgroup lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| port | integer | The port used to connect to the LDAP Servers. |
| preferred_ad_servers | array[string] | |

| Name | Type | Description |
| --- | --- | --- |
| query_timeout | integer | Specifies the maximum time to wait for a query response from the LDAP server, in seconds. |
| referral_enabled | boolean | Specifies whether or not LDAP referral is enabled. |
| restrict_discovery_to_site | boolean | Specifies whether or not LDAP server discovery is restricted to site-scope. |
| schema | string | The name of the schema template used by the SVM.<br>• AD-IDMU - Active Directory Identity Management for UNIX<br>• AD-SFU - Active Directory Services for UNIX<br>• MS-AD-BIS - Active Directory Identity Management for UNIX<br>• RFC-2307 - Schema based on RFC 2307<br>• Custom schema |
| servers | array[string] | |
| session_security | string | Specifies the level of security to be used for LDAP communications:<br>• none - no signing or sealing<br>• sign - sign LDAP traffic<br>• seal - seal and sign LDAP traffic |
| status | status | |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| try_channel_binding | boolean | Specifies whether or not channel binding is attempted in the case of TLS/LDAPS. |
| use_start_tls | boolean | Specifies whether or not to use Start TLS over LDAP connections. |

| Name | Type | Description |
| --- | --- | --- |
| user_dn | string | Specifies the user Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for user lookups. |
| user_scope | string | Specifies the default search scope for LDAP for user lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |

**Example response**


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "ad_domain": "example.com",
  "base_dn": "dc=domainB,dc=example,dc=com",
  "base_scope": "string",
  "bind_dn": "cn=Administrators,cn=users,dc=domainB,dc=example,dc=com",
  "group_dn": "cn=abc,users,dc=com",
  "group_membership_filter": "",
  "group_scope": "string",
  "min_bind_level": "string",
  "netgroup_byhost_dn": "cn=abc,users,dc=com",
  "netgroup_byhost_scope": "string",
  "netgroup_dn": "cn=abc,users,dc=com",
  "netgroup_scope": "string",
  "port": 389,
  "preferred_ad_servers": [
    "11.11.11.11"
  ],
  "schema": "ad_idmu",
  "servers": [
    [
      "10.10.10.10",
      "domainB.example.com"
    ]
  ],
  "session_security": "string",
  "skip_config_validation": true,
  "status": {
    "code": 65537300,
    "dn_message": [
      "string"
    ],
    "ipv4": {
      "code": 65537300,
      "dn_messages": [
        "string"
      ],
      "message": "string",
      "state": "string"
    },
```

```
    "ipv4_state": "string",
    "ipv6": {
      "code": 65537300,
      "dn_messages": [
        "string"
      ],
      "message": "string",
      "state": "string"
    },
    "ipv6_state": "string",
    "message": "string",
    "state": "string"
  },
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "user_dn": "cn=abc,users,dc=com",
  "user_scope": "string"
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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 | |

ipv4

| Name | Type | Description |
|---|---|---|
| code | integer | Code corresponding to the error message. If there is no error, it is 0 to indicate success. |
| dn_messages | array[string] | |
| message | string | Provides additional details on the error. |
| state | string | Status of the LDAP service. |

ipv6

| Name | Type | Description |
|---|---|---|
| code | integer | Code corresponding to the error message. If there is no error, it is 0 to indicate success. |
| dn_messages | array[string] | |
| message | string | Provides additional details on the error. |
| state | string | Status of the LDAP service. |

status

| Name | Type | Description |
|---|---|---|
| code | integer | This field is no longer supported. Use ipv4.code or ipv6.code instead. |

| Name | Type | Description |
|---|---|---|
| dn_message | array[string] | |
| ipv4 | ipv4 | |
| ipv4_state | string | This field is no longer supported. Use ipv4.state instead. |
| ipv6 | ipv6 | |
| ipv6_state | string | This field is no longer supported. Use ipv6.state instead. |
| message | string | This field is no longer supported. Use ipv4.message or ipv6.message instead. |
| state | string | The status of the LDAP service for the SVM. The LDAP service is up if either `ipv4_state` or `ipv6_state` is up. The LDAP service is down if both `ipv4_state` and `ipv6_state` are down. |

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 the LDAP configuration for an SVM

PATCH `/name-services/ldap/{svm.uuid}`

**Introduced In:** 9.6

Updates an LDAP configuration of an SVM.

### Important notes

- Both mandatory and optional parameters of the LDAP configuration can be updated.
- The LDAP servers and Active Directory domain are mutually exclusive fields. These fields cannot be empty. At any point in time, either the LDAP servers or Active Directory domain must be populated.
- IPv6 must be enabled if IPv6 family addresses are specified.

Configuring more than one LDAP server is recommended to avoid a single point of failure. Both FQDNs and IP addresses are supported for the "servers" field. The Active Directory domain or LDAP servers are validated as part of this operation.

LDAP validation fails in the following scenarios:

1. The server does not have LDAP installed.
2. The server or Active Directory domain is invalid.
3. The server or Active Directory domain is unreachable

### 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 |
| --- | --- | --- |
| ad_domain | string | This parameter specifies the name of the Active Directory domain used to discover LDAP servers for use by this client. This is mutually exclusive with `servers` during POST and PATCH. |
| base_dn | string | Specifies the default base DN for all searches. |
| base_scope | string | Specifies the default search scope for LDAP queries:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| bind_as_cifs_server | boolean | Specifies whether or not CIFS server's credentials are used to bind to the LDAP server. |
| bind_dn | string | Specifies the user that binds to the LDAP servers. |
| bind_password | string | Specifies the bind password for the LDAP servers. |
| group_dn | string | Specifies the group Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for group lookups. |
| group_membership_filter | string | Specifies the custom filter used for group membership lookups from an LDAP server. |

| Name | Type | Description |
| --- | --- | --- |
| group_scope | string | Specifies the default search scope for LDAP for group lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| is_netgroup_byhost_enabled | boolean | Specifies whether or not netgroup by host querying is enabled. |
| is_owner | boolean | Specifies whether or not the SVM owns the LDAP client configuration. |
| ldaps_enabled | boolean | Specifies whether or not LDAPS is enabled. |
| min_bind_level | string | The minimum bind authentication level. Possible values are:<br>• anonymous - anonymous bind<br>• simple - simple bind<br>• sasl - Simple Authentication and Security Layer (SASL) bind |
| netgroup_byhost_dn | string | Specifies the netgroup Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for netgroup by host lookups. |
| netgroup_byhost_scope | string | Specifies the default search scope for LDAP for netgroup by host lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |

| Name | Type | Description |
| --- | --- | --- |
| netgroup_dn | string | Specifies the netgroup Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for netgroup lookups. |
| netgroup_scope | string | Specifies the default search scope for LDAP for netgroup lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| port | integer | The port used to connect to the LDAP Servers. |
| preferred_ad_servers | array[string] | |
| query_timeout | integer | Specifies the maximum time to wait for a query response from the LDAP server, in seconds. |
| referral_enabled | boolean | Specifies whether or not LDAP referral is enabled. |
| restrict_discovery_to_site | boolean | Specifies whether or not LDAP server discovery is restricted to site-scope. |
| schema | string | The name of the schema template used by the SVM.<br>• AD-IDMU - Active Directory Identity Management for UNIX<br>• AD-SFU - Active Directory Services for UNIX<br>• MS-AD-BIS - Active Directory Identity Management for UNIX<br>• RFC-2307 - Schema based on RFC 2307<br>• Custom schema |
| servers | array[string] | |

| Name | Type | Description |
| --- | --- | --- |
| session_security | string | Specifies the level of security to be used for LDAP communications:<br>• none - no signing or sealing<br>• sign - sign LDAP traffic<br>• seal - seal and sign LDAP traffic |
| skip_config_validation | boolean | Indicates whether or not the validation for the specified LDAP configuration is disabled. |
| status | status | |
| try_channel_binding | boolean | Specifies whether or not channel binding is attempted in the case of TLS/LDAPS. |
| use_start_tls | boolean | Specifies whether or not to use Start TLS over LDAP connections. |
| user_dn | string | Specifies the user Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for user lookups. |
| user_scope | string | Specifies the default search scope for LDAP for user lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |

**Example request**


```
{
  "ad_domain": "example.com",
  "base_dn": "dc=domainB,dc=example,dc=com",
  "base_scope": "string",
  "bind_dn": "cn=Administrators,cn=users,dc=domainB,dc=example,dc=com",
  "bind_password": "abc",
  "group_dn": "cn=abc,users,dc=com",
  "group_membership_filter": "",
  "group_scope": "string",
  "min_bind_level": "string",
  "netgroup_byhost_dn": "cn=abc,users,dc=com",
  "netgroup_byhost_scope": "string",
  "netgroup_dn": "cn=abc,users,dc=com",
  "netgroup_scope": "string",
  "port": 389,
  "preferred_ad_servers": [
    "11.11.11.11"
  ],
  "schema": "ad_idmu",
  "servers": [
    [
      "10.10.10.10",
      "domainB.example.com"
    ]
  ],
  "session_security": "string",
  "status": {
    "code": 65537300,
    "dn_message": [
      "string"
    ],
    "ipv4": {
      "code": 65537300,
      "dn_messages": [
        "string"
      ],
      "message": "string",
      "state": "string"
    },
    "ipv4_state": "string",
    "ipv6": {
      "code": 65537300,
      "dn_messages": [
        "string"
```

```
        ],
        "message": "string",
        "state": "string"
      },
      "ipv6_state": "string",
      "message": "string",
      "state": "string"
    },
    "user_dn": "cn=abc,users,dc=com",
    "user_scope": "string"
}
```


### Response

```
Status: 200, Ok
```

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
|---|---|
| 262186 | LDAP Servers cannot be used with Active Directory domain and/or preferred Active Directory servers |
| 2621488 | Invalid SVM context |
| 2621706 | The specified SVM UUID is incorrect for the specified SVM name |
| 4915203 | The specified LDAP schema does not exist |
| 262222 | The specified LDAP servers or preferred Active Directory servers contain duplicate server entries |
| 4915229 | DNS resolution failed due to an internal error. Contact technical support if this issue persists |
| 4915231 | DNS resolution failed for one or more of the specified LDAP servers. Verify that a valid DNS server is configured |
| 23724132 | DNS resolution failed for all the specified LDAP servers. Verify that a valid DNS server is configured |

| Error Code | Description |
| --- | --- |
| 4915234 | The specified LDAP server or preferred Active Directory server is not supported because it is one of the following: multicast, loopback, 0.0.0.0, or broadcast |
| 4915248 | LDAP servers cannot be empty or "-". Specified Active Directory domain is invalid because it is empty or "-" or it contains either the special characters or "-" at the start or end of the domain. |
| 4915251 | STARTTLS and LDAPS cannot be used together |
| 4915257 | The LDAP configuration is invalid. Verify that the distinguished names and bind password are correct |
| 4915258 | The LDAP configuration is invalid. Verify that the Active Directory domain or servers are reachable and that the network configuration is correct |
| 4915259 | LDAP configurations with Active Directory domains are not supported on admin SVM. |
| 23724130 | Cannot use an IPv6 name server address because there are no IPv6 LIFs |
| 4915252 | LDAP Referral is not supported with STARTTLS, with session security levels sign, seal or with LDAPS. |
| 4915266 | LDAP site discovery restriction cannot be applied to a mixed version cluster. |
| 656484 | The default site needs to be specified to enable site restriction. |
| 4915206 | CIFS server is not configured for the vserver. LDAP client configuration requires CIFS server for binding. |
| 4915244 | RPC failure occurred during validation of the LDAP configuration. |
| 4915268 | The bind_as_cifs_server field cannot be set to true when the CIFS server is in workgroup mode. |
| 4915269 | The bind_as_cifs_server field cannot be set to true when the CIFS server is in realm mode. |

**Definitions**

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

ipv4

| Name | Type | Description |
|---|---|---|
| code | integer | Code corresponding to the error message. If there is no error, it is 0 to indicate success. |
| dn_messages | array[string] | |
| message | string | Provides additional details on the error. |
| state | string | Status of the LDAP service. |

ipv6

| Name | Type | Description |
|---|---|---|
| code | integer | Code corresponding to the error message. If there is no error, it is 0 to indicate success. |
| dn_messages | array[string] | |
| message | string | Provides additional details on the error. |
| state | string | Status of the LDAP service. |

status

| Name | Type | Description |
|---|---|---|
| code | integer | This field is no longer supported. Use ipv4.code or ipv6.code instead. |
| dn_message | array[string] | |
| ipv4 | ipv4 | |

| Name | Type | Description |
|---|---|---|
| ipv4_state | string | This field is no longer supported. Use ipv4.state instead. |
| ipv6 | ipv6 | |
| ipv6_state | string | This field is no longer supported. Use ipv6.state instead. |
| message | string | This field is no longer supported. Use ipv4.message or ipv6.message instead. |
| state | string | The status of the LDAP service for the SVM. The LDAP service is up if either `ipv4_state` or `ipv6_state` is up. The LDAP service is down if both `ipv4_state` and `ipv6_state` are down. |

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

ldap_service

| Name | Type | Description |
|---|---|---|
| ad_domain | string | This parameter specifies the name of the Active Directory domain used to discover LDAP servers for use by this client. This is mutually exclusive with `servers` during POST and PATCH. |
| base_dn | string | Specifies the default base DN for all searches. |

| Name | Type | Description |
| --- | --- | --- |
| base_scope | string | Specifies the default search scope for LDAP queries:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| bind_as_cifs_server | boolean | Specifies whether or not CIFS server's credentials are used to bind to the LDAP server. |
| bind_dn | string | Specifies the user that binds to the LDAP servers. |
| bind_password | string | Specifies the bind password for the LDAP servers. |
| group_dn | string | Specifies the group Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for group lookups. |
| group_membership_filter | string | Specifies the custom filter used for group membership lookups from an LDAP server. |
| group_scope | string | Specifies the default search scope for LDAP for group lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| is_netgroup_byhost_enabled | boolean | Specifies whether or not netgroup by host querying is enabled. |

| Name | Type | Description |
| --- | --- | --- |
| is_owner | boolean | Specifies whether or not the SVM owns the LDAP client configuration. |
| ldaps_enabled | boolean | Specifies whether or not LDAPS is enabled. |
| min_bind_level | string | The minimum bind authentication level. Possible values are:<br>• anonymous - anonymous bind<br>• simple - simple bind<br>• sasl - Simple Authentication and Security Layer (SASL) bind |
| netgroup_byhost_dn | string | Specifies the netgroup Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for netgroup by host lookups. |
| netgroup_byhost_scope | string | Specifies the default search scope for LDAP for netgroup by host lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| netgroup_dn | string | Specifies the netgroup Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for netgroup lookups. |

| Name | Type | Description |
| --- | --- | --- |
| netgroup_scope | string | Specifies the default search scope for LDAP for netgroup lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |
| port | integer | The port used to connect to the LDAP Servers. |
| preferred_ad_servers | array[string] | |
| query_timeout | integer | Specifies the maximum time to wait for a query response from the LDAP server, in seconds. |
| referral_enabled | boolean | Specifies whether or not LDAP referral is enabled. |
| restrict_discovery_to_site | boolean | Specifies whether or not LDAP server discovery is restricted to site-scope. |
| schema | string | The name of the schema template used by the SVM.<br>• AD-IDMU - Active Directory Identity Management for UNIX<br>• AD-SFU - Active Directory Services for UNIX<br>• MS-AD-BIS - Active Directory Identity Management for UNIX<br>• RFC-2307 - Schema based on RFC 2307<br>• Custom schema |
| servers | array[string] | |

| Name | Type | Description |
| --- | --- | --- |
| session_security | string | Specifies the level of security to be used for LDAP communications:<br>• none - no signing or sealing<br>• sign - sign LDAP traffic<br>• seal - seal and sign LDAP traffic |
| skip_config_validation | boolean | Indicates whether or not the validation for the specified LDAP configuration is disabled. |
| status | status | |
| try_channel_binding | boolean | Specifies whether or not channel binding is attempted in the case of TLS/LDAPS. |
| use_start_tls | boolean | Specifies whether or not to use Start TLS over LDAP connections. |
| user_dn | string | Specifies the user Distinguished Name (DN) that is used as the starting point in the LDAP directory tree for user lookups. |
| user_scope | string | Specifies the default search scope for LDAP for user lookups:<br>• base - search the named entry only<br>• onelevel - search all entries immediately below the DN<br>• subtree - search the named DN entry and the entire subtree below the DN |

error_arguments

| Name | Type | Description |
| --- | --- | --- |
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# Manage LDAP schemas

## Manage LDAP schemas

### Overview

ONTAP provides four default LDAP schemas. These are:

- MS-AD-BIS Based on RFC-2307bis. This is the preferred LDAP schema for most standard Windows 2012 and later LDAP deployments.
- AD-IDMU Based on Active Directory Identity Management for UNIX. This schema is appropriate for most Windows 2008, Windows 2012, and later AD servers.
- AD-SFU Based on Active Directory Services for UNIX. This schema is appropriate for most Windows 2003 and earlier AD servers.
- RFC-2307 Based on RFC-2307 (an approach that uses LDAP as a network information service). This schema is appropriate for most UNIX AD servers.

### Examples

#### Retrieving LDAP schema information

```
# The API:
GET /api/name-services/ldap-schemas

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/ldap-schemas"

# The response:
{
"records": [
{
  "owner": {
```

```
    "uuid": "eda950c6-0a0c-11ec-bfcf-0050568e9150",
    "name": "athiraacluster-1",
    "_links": {
      "self": {
        "href": "/api/svm/svms/eda950c6-0a0c-11ec-bfcf-0050568e9150"
      }
    }
  },
  "name": "AD-IDMU",
  "_links": {
    "self": {
      "href": "/api/name-services/ldap-schemas/eda950c6-0a0c-11ec-bfcf-
0050568e9150/AD-IDMU"
    }
  }
},
{
  "owner": {
    "uuid": "eda950c6-0a0c-11ec-bfcf-0050568e9150",
    "name": "athiraacluster-1",
    "_links": {
      "self": {
        "href": "/api/svm/svms/eda950c6-0a0c-11ec-bfcf-0050568e9150"
      }
    }
  },
  "name": "AD-SFU",
  "_links": {
    "self": {
      "href": "/api/name-services/ldap-schemas/eda950c6-0a0c-11ec-bfcf-
0050568e9150/AD-SFU"
    }
  }
},
{
  "owner": {
    "uuid": "eda950c6-0a0c-11ec-bfcf-0050568e9150",
    "name": "athiraacluster-1",
    "_links": {
      "self": {
        "href": "/api/svm/svms/eda950c6-0a0c-11ec-bfcf-0050568e9150"
      }
    }
  },
  "name": "MS-AD-BIS",
  "_links": {
```

```
    "self": {
      "href": "/api/name-services/ldap-schemas/eda950c6-0a0c-11ec-bfcf-
0050568e9150/MS-AD-BIS"
    }
  }
},
{
  "owner": {
    "uuid": "eda950c6-0a0c-11ec-bfcf-0050568e9150",
    "name": "athiraacluster-1",
    "_links": {
      "self": {
        "href": "/api/svm/svms/eda950c6-0a0c-11ec-bfcf-0050568e9150"
      }
    }
  },
  "name": "RFC-2307",
  "_links": {
    "self": {
      "href": "/api/name-services/ldap-schemas/eda950c6-0a0c-11ec-bfcf-
0050568e9150/RFC-2307"
    }
  }
}
],
"num_records": 4,
"_links": {
"self": {
  "href": "/api/name-services/ldap-schemas"
}
}
}
```

#### Retrieving LDAP schema information for a given SVM and "name"

```
# The API:
GET /api/name-services/ldap-schemas

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/ldap-schemas/eda950c6-
0a0c-11ec-bfcf-0050568e9150/RFC-2307"
```

```
# The response:
{
"owner": {
"uuid": "eda950c6-0a0c-11ec-bfcf-0050568e9150",
"name": "svm1",
"_links": {
  "self": {
    "href": "/api/svm/svms/eda950c6-0a0c-11ec-bfcf-0050568e9150"
  }
}
},
"name": "RFC-2307",
"comment": "Schema based on RFC 2307 (read-only)",
"name_mapping": {
"account": {
  "unix": "unixAccount",
  "windows": "windowsAccount"
},
"windows_to_unix": {
  "attribute": "windowsAccount",
  "no_domain_prefix": false,
  "object_class": "posixAccount"
}
},
"rfc2307": {
"attribute": {
  "gecos": "gecos",
  "gid_number": "gidNumber",
  "home_directory": "homeDirectory",
  "login_shell": "loginShell",
  "uid": "uid",
  "uid_number": "uidNumber",
  "user_password": "userPassword"
},
"cn": {
  "group": "cn",
  "netgroup": "cn"
},
"member": {
  "nis_netgroup": "memberNisNetgroup",
  "uid": "memberUid"
},
"nis": {
  "netgroup_triple": "nisNetgroupTriple",
  "netgroup": "nisNetgroup",
  "object": "nisObject",
```

```
  "mapname": "nisMapName",
  "mapentry": "nisMapEntry"
},
"posix": {
  "account": "posixAccount",
  "group": "posixGroup"
}
},
"rfc2307bis": {
"enabled": false,
"group_of_unique_names": "groupOfUniqueNames",
"maximum_groups": 256,
"unique_member": "uniqueMember"
},
"scope": "cluster",
"global_schema": true,
"_links": {
"self": {
  "href": "/api/name-services/ldap-schemas/eda950c6-0a0c-11ec-bfcf-
0050568e9150/RFC-2307"
}
}
}
```

#### Creating an LDAP schema

```
# The API:
POST /api/name-services/ldap-schemas

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/ldap-schemas" -H
"accept: application/json" -H "authorization: Basic <CREDENTIALS>" -H
"Content-Type: application/json" -d "{ \"name\": \"schema\",\"template\":
{ \"name\": \"AD-IDMU\" }, \"owner\": { \"uuid\": \"52ba8197-0a23-11ec-
9622-0050568e9150\", \"name\" : \"svm1\" }}"
```

#### Updating an LDAP schema

```
# The API:
PATCH /api/name-services/ldap-schemas/{owner.uuid}/{name}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/ldap-schemas/52ba8197-
0a23-11ec-9622-0050568e9150/schema" -H "authorization: Basic
<CREDENTIALS>" -H "Content-Type: application/json" -d "{ \"comment\":
\"This is a comment for schema\"}"
```

#### Deleting an LDAP schema

```
# The API:
DELETE /api/name-services/ldap-schemas/{owner.uuid}/{name}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/name-services/ldap-schemas/52ba8197-
0a23-11ec-9622-0050568e9150/schema"
```

## Retrieve all LDAP schemas

GET `/name-services/ldap-schemas`

**Introduced In:** 9.11

Retrieves all the LDAP schemas.

#### Related ONTAP commands

- `vserver services name-service ldap client schema show`

#### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| global_schema | boolean | query | False | Filter by global_schema |
| name | string | query | False | Filter by name<br>• maxLength: 32<br>• minLength: 1 |

| Name | Type | In | Required | Description |
| --- | --- | --- | --- | --- |
| rfc2307bis.maximum_groups | integer | query | False | Filter by rfc2307bis.maximum_groups<br>• Max value: 1024<br>• Min value: 1 |
| rfc2307bis.enabled | boolean | query | False | Filter by rfc2307bis.enabled |
| rfc2307bis.group_of_unique_names | string | query | False | Filter by rfc2307bis.group_of_unique_names |
| rfc2307bis.unique_member | string | query | False | Filter by rfc2307bis.unique_member |
| rfc2307.attribute.home_directory | string | query | False | Filter by rfc2307.attribute.home_directory |
| rfc2307.attribute.user_password | string | query | False | Filter by rfc2307.attribute.user_password |
| rfc2307.attribute.gid_number | string | query | False | Filter by rfc2307.attribute.gid_number |
| rfc2307.attribute.login_shell | string | query | False | Filter by rfc2307.attribute.login_shell |
| rfc2307.attribute.gecos | string | query | False | Filter by rfc2307.attribute.gecos |
| rfc2307.attribute.uid | string | query | False | Filter by rfc2307.attribute.uid |
| rfc2307.attribute.uid_number | string | query | False | Filter by rfc2307.attribute.uid_number |

| Name | Type | In | Required | Description |
| --- | --- | --- | --- | --- |
| rfc2307.posix.account | string | query | False | Filter by rfc2307.posix.account |
| rfc2307.posix.group | string | query | False | Filter by rfc2307.posix.group |
| rfc2307.member.uid | string | query | False | Filter by rfc2307.member.uid |
| rfc2307.member.nis_netgroup | string | query | False | Filter by rfc2307.member.nis_netgroup |
| rfc2307.cn.group | string | query | False | Filter by rfc2307.cn.group |
| rfc2307.cn.netgroup | string | query | False | Filter by rfc2307.cn.netgroup |
| rfc2307.nis.object | string | query | False | Filter by rfc2307.nis.object |
| rfc2307.nis.mapname | string | query | False | Filter by rfc2307.nis.mapname |
| rfc2307.nis.netgroup_triple | string | query | False | Filter by rfc2307.nis.netgroup_triple |
| rfc2307.nis.netgroup | string | query | False | Filter by rfc2307.nis.netgroup |
| rfc2307.nis.mapentry | string | query | False | Filter by rfc2307.nis.mapentry |
| owner.name | string | query | False | Filter by owner.name |
| owner.uuid | string | query | False | Filter by owner.uuid |
| comment | string | query | False | Filter by comment |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| name_mapping.account.unix | string | query | False | Filter by name_mapping.account.unix |
| name_mapping.account.windows | string | query | False | Filter by name_mapping.account.windows |
| name_mapping.windows_to_unix.attribute | string | query | False | Filter by name_mapping.windows_to_unix.attribute |
| name_mapping.windows_to_unix.object_class | string | query | False | Filter by name_mapping.windows_to_unix.object_class |
| name_mapping.windows_to_unix.no_domain_prefix | boolean | query | False | Filter by name_mapping.windows_to_unix.no_domain_prefix |
| scope | string | query | False | Filter by scope |
| 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.<br>• 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.<br>• Max value: 120<br>• Min value: 0<br>• Default value: 15 |
| 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 LDAP schema records. |
| records | array[ldap_schema] | |

**Example response**


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "comment": "Schema based on Active Directory Services for UNIX
(read-only).",
      "global_schema": 1,
      "name": "AD-SFU-v1",
      "name_mapping": {
        "account": {
          "unix": "windowsAccount",
          "windows": "windowsAccount"
        },
        "windows_to_unix": {
          "attribute": "windowsAccount",
          "no_domain_prefix": "",
          "object_class": "User"
        }
      },
      "owner": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "rfc2307": {
        "attribute": {
          "gecos": "name",
```

```
          "gid_number": "msSFU30GidNumber",
          "home_directory": "msSFU30HomeDirectory",
          "login_shell": "msSFU30LoginShell",
          "uid": "sAMAccountName",
          "uid_number": "msSFU30UidNumber",
          "user_password": "msSFU30Password"
        },
        "cn": {
          "group": "cn",
          "netgroup": "name"
        },
        "member": {
          "nis_netgroup": "msSFU30MemberNisNetgroup",
          "uid": "msSFU30MemberUid"
        },
        "nis": {
          "mapentry": "msSFU30NisMapEntry",
          "mapname": "msSFU30NisMapName",
          "netgroup": "msSFU30NisNetGroup",
          "netgroup_triple": "msSFU30MemberOfNisNetgroup",
          "object": "msSFU30NisObject"
        },
        "posix": {
          "account": "User",
          "group": "Group"
        }
      },
      "rfc2307bis": {
        "enabled": "",
        "group_of_unique_names": "groupOfUniqueNames",
        "maximum_groups": 256,
        "unique_member": "uniqueMember"
      },
      "scope": "string"
    }
  ]
}
```


**Error**

```
Status: Default, Error
```

| Name | Type | Description |
| --- | --- | --- |
| error | returned_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 | |

ldap_schema_account

| Name | Type | Description |
|---|---|---|
| unix | string | Attribute name used to retrieve UNIX account information. |
| windows | string | Attribute name used to retrieve Windows account information for a UNIX user account. |

windows_to_unix

| Name | Type | Description |
|---|---|---|
| attribute | string | Attribute name used to retrieve the UNIX account information for a Windows user account. |
| no_domain_prefix | boolean | Indicates whether or not the name for Windows to UNIX name mapping should have a domain prefix. |
| object_class | string | Name used to represent the windowsToUnix object class. |

ldap_schema_name_mapping

| Name | Type | Description |
|---|---|---|
| account | ldap_schema_account | |
| windows_to_unix | windows_to_unix | |

owner

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

attribute

| Name | Type | Description |
|---|---|---|
| gecos | string | RFC 2307 gecos attribute. |
| gid_number | string | RFC 2307 gidNumber attribute. |
| home_directory | string | RFC 2307 homeDirectory attribute. |
| login_shell | string | RFC 2307 loginShell attribute. |
| uid | string | RFC 1274 userid attribute used by RFC 2307 as UID. |
| uid_number | string | RFC 2307 uidNumber attribute. |
| user_password | string | RFC 2256 userPassword attribute used by RFC 2307. |

cn

| Name | Type | Description |
|---|---|---|
| group | string | RFC 2256 cn attribute used by RFC 2307 when working with groups. |

| Name | Type | Description |
| --- | --- | --- |
| netgroup | string | RFC 2256 cn attribute used by RFC 2307 when working with netgroups. |

member

| Name | Type | Description |
| --- | --- | --- |
| nis_netgroup | string | RFC 2307 memberNisNetgroup attribute. |
| uid | string | RFC 2307 memberUid attribute. |

nis

| Name | Type | Description |
| --- | --- | --- |
| mapentry | string | RFC 2307 nisMapEntry attribute. |
| mapname | string | RFC 2307 nisMapName attribute. |
| netgroup | string | RFC 2307 nisNetgroup object class. |
| netgroup_triple | string | RFC 2307 nisNetgroupTriple attribute. |
| object | string | RFC 2307 nisObject object class. |

posix

| Name | Type | Description |
| --- | --- | --- |
| account | string | RFC 2307 posixAccount object class. |
| group | string | RFC 2307 posixGroup object class. |

rfc2307

| Name | Type | Description |
| --- | --- | --- |
| attribute | attribute | |
| cn | cn | |

| Name | Type | Description |
|---|---|---|
| member | member | |
| nis | nis | |
| posix | posix | |

rfc2307bis

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Indicates whether RFC 2307bis is enabled for the client schema. |
| group_of_unique_names | string | RFC 2307bis groupOfUniqueNames object class. |
| maximum_groups | integer | Maximum number of groups supported when RFC 2307bis is enabled. |
| unique_member | string | RFC 2307bis uniqueMember attribute. |

template

The existing schema template you want to copy.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the schema. |

ldap_schema

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| comment | string | Comment to associate with the schema. |
| global_schema | boolean | A global schema that can be used by all the SVMs. |
| name | string | The name of the schema being created, modified or deleted. |
| name_mapping | ldap_schema_name_mapping | |

| Name | Type | Description |
|---|---|---|
| owner | owner | SVM, applies only to SVM-scoped objects. |
| rfc2307 | rfc2307 | |
| rfc2307bis | rfc2307bis | |
| scope | string | Scope of the entity. Set to "cluster" for cluster owned objects and to "svm" for SVM owned objects. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 an LDAP schema

POST `/name-services/ldap-schemas`

**Introduced In:** 9.11

Creates an LDAP schema.

### Important notes

- To create a new schema, first create a copy of the default schemas provided by ONTAP and then modify the copy accordingly.
- If no value is specified for the owner.uuid or owner.name fields, the cserver UUID and name are used by default.

### Related ONTAP commands

- `vserver services name-service ldap client schema copy`

### Parameters

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

### Request Body

| Name | Type | Description |
|---|---|---|
| global_schema | boolean | A global schema that can be used by all the SVMs. |
| name | string | The name of the schema being created, modified or deleted. |
| owner | owner | SVM, applies only to SVM-scoped objects. |
| scope | string | Scope of the entity. Set to "cluster" for cluster owned objects and to "svm" for SVM owned objects. |
| template | template | The existing schema template you want to copy. |

### Example request

```
{
  "global_schema": 1,
  "name": "AD-SFU-v1",
  "owner": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "scope": "string",
  "template": {
    "name": "AD-SFU-v1"
  }
}
```

### Response

```
Status: 201, Created
```

| Name | Type | Description |
|---|---|---|
| global_schema | boolean | A global schema that can be used by all the SVMs. |
| name | string | The name of the schema being created, modified or deleted. |
| owner | owner | SVM, applies only to SVM-scoped objects. |
| scope | string | Scope of the entity. Set to "cluster" for cluster owned objects and to "svm" for SVM owned objects. |
| template | template | The existing schema template you want to copy. |

### Example response


```
{
  "global_schema": 1,
  "name": "AD-SFU-v1",
  "owner": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "scope": "string",
  "template": {
    "name": "AD-SFU-v1"
  }
}
```


#### Headers

| Name | Description | Type |
|---|---|---|
| Location | Useful for tracking the resource location | string |

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
|---|---|
| 2621706 | The specified SVM UUID is incorrect for the specified SVM name. |
| 4915221 | LDAP schema name in use in data SVM. |
| 4915222 | LDAP schema name in use in admin SVM. |

### Definitions

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

ldap_schema_account

| Name | Type | Description |
|---|---|---|
| unix | string | Attribute name used to retrieve UNIX account information. |
| windows | string | Attribute name used to retrieve Windows account information for a UNIX user account. |

windows_to_unix

| Name | Type | Description |
|---|---|---|
| attribute | string | Attribute name used to retrieve the UNIX account information for a Windows user account. |
| no_domain_prefix | boolean | Indicates whether or not the name for Windows to UNIX name mapping should have a domain prefix. |
| object_class | string | Name used to represent the windowsToUnix object class. |

ldap_schema_name_mapping

| Name | Type | Description |
|---|---|---|
| account | ldap_schema_account | |
| windows_to_unix | windows_to_unix | |

owner

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

attribute

| Name | Type | Description |
|---|---|---|
| gecos | string | RFC 2307 gecos attribute. |
| gid_number | string | RFC 2307 gidNumber attribute. |
| home_directory | string | RFC 2307 homeDirectory attribute. |
| login_shell | string | RFC 2307 loginShell attribute. |
| uid | string | RFC 1274 userid attribute used by RFC 2307 as UID. |
| uid_number | string | RFC 2307 uidNumber attribute. |
| user_password | string | RFC 2256 userPassword attribute used by RFC 2307. |

cn

| Name | Type | Description |
|---|---|---|
| group | string | RFC 2256 cn attribute used by RFC 2307 when working with groups. |
| netgroup | string | RFC 2256 cn attribute used by RFC 2307 when working with netgroups. |

member

| Name | Type | Description |
| --- | --- | --- |
| nis_netgroup | string | RFC 2307 memberNisNetgroup attribute. |
| uid | string | RFC 2307 memberUid attribute. |

nis

| Name | Type | Description |
| --- | --- | --- |
| mapentry | string | RFC 2307 nisMapEntry attribute. |
| mapname | string | RFC 2307 nisMapName attribute. |
| netgroup | string | RFC 2307 nisNetgroup object class. |
| netgroup_triple | string | RFC 2307 nisNetgroupTriple attribute. |
| object | string | RFC 2307 nisObject object class. |

posix

| Name | Type | Description |
| --- | --- | --- |
| account | string | RFC 2307 posixAccount object class. |
| group | string | RFC 2307 posixGroup object class. |

rfc2307

| Name | Type | Description |
| --- | --- | --- |
| attribute | attribute | |
| cn | cn | |
| member | member | |
| nis | nis | |
| posix | posix | |

rfc2307bis

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Indicates whether RFC 2307bis is enabled for the client schema. |
| group_of_unique_names | string | RFC 2307bis groupOfUniqueNames object class. |
| maximum_groups | integer | Maximum number of groups supported when RFC 2307bis is enabled. |
| unique_member | string | RFC 2307bis uniqueMember attribute. |

template

The existing schema template you want to copy.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the schema. |

ldap_schema

| Name | Type | Description |
|---|---|---|
| global_schema | boolean | A global schema that can be used by all the SVMs. |
| name | string | The name of the schema being created, modified or deleted. |
| owner | owner | SVM, applies only to SVM-scoped objects. |
| scope | string | Scope of the entity. Set to "cluster" for cluster owned objects and to "svm" for SVM owned objects. |
| template | template | The existing schema template you want to copy. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 existing schema

DELETE `/name-services/ldap-schemas/{owner.uuid}/{name}`

**Introduced In:** 9.11

Deletes an existing schema.

### Related ONTAP commands

- `vserver services name-service ldap client schema delete`

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| owner.uuid | string | path | True | UUID of the owner to which this object belongs. |
| name | string | path | True | LDAP schema name. |

### Response

```
Status: 200, Ok
```

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
|---|---|
| 4915204 | Failed to delete. The LDAP schema is being used by at least one LDAP client configuration. |
| 4915205 | The LDAP schema is a default schema and cannot be modified or deleted. |
| 4915217 | LDAP schema is owned by the admin SVM. |

| Name | Type | Description |
|---|---|---|
| error | returned_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 |

returned_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 the LDAP schema details for an owner and schema

GET `/name-services/ldap-schemas/{owner.uuid}/{name}`

**Introduced In:** 9.11

Retrieves LDAP schema details for a given owner and schema.

### Related ONTAP commands

- `vserver services name-service ldap client schema show`

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| owner.uuid | string | path | True | UUID of the owner to which this object belongs. |
| name | string | path | True | LDAP schema name. |
| fields | array[string] | query | False | Specify the fields to return. |

### Response

```
Status: 200, Ok
```

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| comment | string | Comment to associate with the schema. |
| global_schema | boolean | A global schema that can be used by all the SVMs. |
| name | string | The name of the schema being created, modified or deleted. |
| name_mapping | ldap_schema_name_mapping | |
| owner | owner | SVM, applies only to SVM-scoped objects. |
| rfc2307 | rfc2307 | |
| rfc2307bis | rfc2307bis | |
| scope | string | Scope of the entity. Set to "cluster" for cluster owned objects and to "svm" for SVM owned objects. |

**Example response**


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "comment": "Schema based on Active Directory Services for UNIX (read-
only).",
  "global_schema": 1,
  "name": "AD-SFU-v1",
  "name_mapping": {
    "account": {
      "unix": "windowsAccount",
      "windows": "windowsAccount"
    },
    "windows_to_unix": {
      "attribute": "windowsAccount",
      "no_domain_prefix": "",
      "object_class": "User"
    }
  },
  "owner": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "rfc2307": {
    "attribute": {
      "gecos": "name",
      "gid_number": "msSFU30GidNumber",
      "home_directory": "msSFU30HomeDirectory",
      "login_shell": "msSFU30LoginShell",
      "uid": "sAMAccountName",
      "uid_number": "msSFU30UidNumber",
      "user_password": "msSFU30Password"
    },
    "cn": {
      "group": "cn",
      "netgroup": "name"
    },
```

```
    "member": {
      "nis_netgroup": "msSFU30MemberNisNetgroup",
      "uid": "msSFU30MemberUid"
    },
    "nis": {
      "mapentry": "msSFU30NisMapEntry",
      "mapname": "msSFU30NisMapName",
      "netgroup": "msSFU30NisNetGroup",
      "netgroup_triple": "msSFU30MemberOfNisNetgroup",
      "object": "msSFU30NisObject"
    },
    "posix": {
      "account": "User",
      "group": "Group"
    }
  },
  "rfc2307bis": {
    "enabled": "",
    "group_of_unique_names": "groupOfUniqueNames",
    "maximum_groups": 256,
    "unique_member": "uniqueMember"
  },
  "scope": "string"
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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 | |

ldap_schema_account

| Name | Type | Description |
|---|---|---|
| unix | string | Attribute name used to retrieve UNIX account information. |
| windows | string | Attribute name used to retrieve Windows account information for a UNIX user account. |

windows_to_unix

| Name | Type | Description |
|---|---|---|
| attribute | string | Attribute name used to retrieve the UNIX account information for a Windows user account. |
| no_domain_prefix | boolean | Indicates whether or not the name for Windows to UNIX name mapping should have a domain prefix. |
| object_class | string | Name used to represent the windowsToUnix object class. |

ldap_schema_name_mapping

| Name | Type | Description |
|---|---|---|
| account | ldap_schema_account | |
| windows_to_unix | windows_to_unix | |

owner

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

attribute

| Name | Type | Description |
|---|---|---|
| gecos | string | RFC 2307 gecos attribute. |
| gid_number | string | RFC 2307 gidNumber attribute. |
| home_directory | string | RFC 2307 homeDirectory attribute. |
| login_shell | string | RFC 2307 loginShell attribute. |
| uid | string | RFC 1274 userid attribute used by RFC 2307 as UID. |
| uid_number | string | RFC 2307 uidNumber attribute. |
| user_password | string | RFC 2256 userPassword attribute used by RFC 2307. |

cn

| Name | Type | Description |
|---|---|---|
| group | string | RFC 2256 cn attribute used by RFC 2307 when working with groups. |
| netgroup | string | RFC 2256 cn attribute used by RFC 2307 when working with netgroups. |

member

| Name | Type | Description |
| --- | --- | --- |
| nis_netgroup | string | RFC 2307 memberNisNetgroup attribute. |
| uid | string | RFC 2307 memberUid attribute. |

nis

| Name | Type | Description |
| --- | --- | --- |
| mapentry | string | RFC 2307 nisMapEntry attribute. |
| mapname | string | RFC 2307 nisMapName attribute. |
| netgroup | string | RFC 2307 nisNetgroup object class. |
| netgroup_triple | string | RFC 2307 nisNetgroupTriple attribute. |
| object | string | RFC 2307 nisObject object class. |

posix

| Name | Type | Description |
| --- | --- | --- |
| account | string | RFC 2307 posixAccount object class. |
| group | string | RFC 2307 posixGroup object class. |

rfc2307

| Name | Type | Description |
| --- | --- | --- |
| attribute | attribute | |
| cn | cn | |
| member | member | |
| nis | nis | |
| posix | posix | |

rfc2307bis

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Indicates whether RFC 2307bis is enabled for the client schema. |
| group_of_unique_names | string | RFC 2307bis groupOfUniqueNames object class. |
| maximum_groups | integer | Maximum number of groups supported when RFC 2307bis is enabled. |
| unique_member | string | RFC 2307bis uniqueMember attribute. |

template

The existing schema template you want to copy.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the schema. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 the LDAP schema details for an owner and schema

PATCH `/name-services/ldap-schemas/{owner.uuid}/{name}`

**Introduced In:** 9.11

Updates LDAP schema details for a given owner and schema.

### Important notes

- The default LDAP schemas provided by ONTAP cannot be modified.
- LDAP schemas can only be modified by the owner of the schema.

### Related ONTAP commands

- `vserver services name-service ldap client schema modify`

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| owner.uuid | string | path | True | UUID of the owner to which this object belongs. |
| name | string | path | True | LDAP schema name. |

### Request Body

| Name | Type | Description |
|---|---|---|
| comment | string | Comment to associate with the schema. |
| global_schema | boolean | A global schema that can be used by all the SVMs. |
| name_mapping | ldap_schema_name_mapping | |
| rfc2307 | rfc2307 | |
| rfc2307bis | rfc2307bis | |
| scope | string | Scope of the entity. Set to "cluster" for cluster owned objects and to "svm" for SVM owned objects. |

**Example request**

```
{
  "comment": "Schema based on Active Directory Services for UNIX (read-only).",
  "global_schema": 1,
  "name_mapping": {
    "account": {
      "unix": "windowsAccount",
      "windows": "windowsAccount"
    },
    "windows_to_unix": {
      "attribute": "windowsAccount",
      "no_domain_prefix": "",
      "object_class": "User"
    }
  },
  "rfc2307": {
    "attribute": {
      "gecos": "name",
      "gid_number": "msSFU30GidNumber",
      "home_directory": "msSFU30HomeDirectory",
      "login_shell": "msSFU30LoginShell",
      "uid": "sAMAccountName",
      "uid_number": "msSFU30UidNumber",
      "user_password": "msSFU30Password"
    },
    "cn": {
      "group": "cn",
      "netgroup": "name"
    },
    "member": {
      "nis_netgroup": "msSFU30MemberNisNetgroup",
      "uid": "msSFU30MemberUid"
    },
    "nis": {
      "mapentry": "msSFU30NisMapEntry",
      "mapname": "msSFU30NisMapName",
      "netgroup": "msSFU30NisNetGroup",
      "netgroup_triple": "msSFU30MemberOfNisNetgroup",
      "object": "msSFU30NisObject"
    },
    "posix": {
      "account": "User",
      "group": "Group"
    }
```

```
  },
  "rfc2307bis": {
    "enabled": "",
    "group_of_unique_names": "groupOfUniqueNames",
    "maximum_groups": 256,
    "unique_member": "uniqueMember"
  },
  "scope": "string"
}
```


### Response

```
Status: 200, Ok
```

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
|---|---|
| 4915205 | The LDAP schema is a default schema and cannot be modified or deleted. |
| 4915217 | LDAP schema is owned by the admin SVM. |
| 4915223 | LDAP schema does not belong to the admin SVM. |

### Definitions

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

ldap_schema_account

| Name | Type | Description |
|---|---|---|
| unix | string | Attribute name used to retrieve UNIX account information. |
| windows | string | Attribute name used to retrieve Windows account information for a UNIX user account. |

windows_to_unix

| Name | Type | Description |
|---|---|---|
| attribute | string | Attribute name used to retrieve the UNIX account information for a Windows user account. |
| no_domain_prefix | boolean | Indicates whether or not the name for Windows to UNIX name mapping should have a domain prefix. |
| object_class | string | Name used to represent the windowsToUnix object class. |

ldap_schema_name_mapping

| Name | Type | Description |
|---|---|---|
| account | ldap_schema_account | |
| windows_to_unix | windows_to_unix | |

owner

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

attribute

| Name | Type | Description |
|---|---|---|
| gecos | string | RFC 2307 gecos attribute. |
| gid_number | string | RFC 2307 gidNumber attribute. |
| home_directory | string | RFC 2307 homeDirectory attribute. |
| login_shell | string | RFC 2307 loginShell attribute. |
| uid | string | RFC 1274 userid attribute used by RFC 2307 as UID. |
| uid_number | string | RFC 2307 uidNumber attribute. |
| user_password | string | RFC 2256 userPassword attribute used by RFC 2307. |

cn

| Name | Type | Description |
|---|---|---|
| group | string | RFC 2256 cn attribute used by RFC 2307 when working with groups. |
| netgroup | string | RFC 2256 cn attribute used by RFC 2307 when working with netgroups. |

member

| Name | Type | Description |
| --- | --- | --- |
| nis_netgroup | string | RFC 2307 memberNisNetgroup attribute. |
| uid | string | RFC 2307 memberUid attribute. |

nis

| Name | Type | Description |
| --- | --- | --- |
| mapentry | string | RFC 2307 nisMapEntry attribute. |
| mapname | string | RFC 2307 nisMapName attribute. |
| netgroup | string | RFC 2307 nisNetgroup object class. |
| netgroup_triple | string | RFC 2307 nisNetgroupTriple attribute. |
| object | string | RFC 2307 nisObject object class. |

posix

| Name | Type | Description |
| --- | --- | --- |
| account | string | RFC 2307 posixAccount object class. |
| group | string | RFC 2307 posixGroup object class. |

rfc2307

| Name | Type | Description |
| --- | --- | --- |
| attribute | attribute | |
| cn | cn | |
| member | member | |
| nis | nis | |
| posix | posix | |

rfc2307bis

| Name | Type | Description |
|---|---|---|
| enabled | boolean | Indicates whether RFC 2307bis is enabled for the client schema. |
| group_of_unique_names | string | RFC 2307bis groupOfUniqueNames object class. |
| maximum_groups | integer | Maximum number of groups supported when RFC 2307bis is enabled. |
| unique_member | string | RFC 2307bis uniqueMember attribute. |

template

The existing schema template you want to copy.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the schema. |

ldap_schema

| Name | Type | Description |
|---|---|---|
| comment | string | Comment to associate with the schema. |
| global_schema | boolean | A global schema that can be used by all the SVMs. |
| name_mapping | ldap_schema_name_mapping | |
| rfc2307 | rfc2307 | |
| rfc2307bis | rfc2307bis | |
| scope | string | Scope of the entity. Set to "cluster" for cluster owned objects and to "svm" for SVM owned objects. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |

| Name | Type | Description |
|---|---|---|
| message | string | Message argument |

returned_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. |

# Manage local mapping for hostnames

## Manage local mapping for hostnames

### Overview

Displays and manages local mapping for hostnames.

### Retrieving all hosts table entries

The local-hosts GET endpoint to retrieve all hosts table entries.

### Examples

#### Retrieving all the fields of all hosts table entries.

```
# The API:
GET /api/name-services/local-hosts

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/local-
hosts?return_records=true&return_timeout=15&fields=*" -H "accept:
application/hal+json"

# The response:
{
 "records": [
{
```

```
  "owner": {
  "uuid": "6cdf045c-87ae-11eb-a56a-0050568e0287",
  "name": "svm1",
  "_links": {
     "self": {
     "href": "/api/svm/svms/6cdf045c-87ae-11eb-a56a-0050568e0287"
     }
   }
  },
  "address": "1.1.1.1",
  "hostname": "host.sales.foo.com",
  "aliases": [
          "host1.sales.foo.com",
          "host2.sakes.foo.com"
  ],
  "_links": {
   "self": {
   "href": "/api/name-services/local-hosts/6cdf045c-87ae-11eb-a56a-
0050568e0287/1.1.1.1"
  }
  }
  },
{
  "owner": {
  "uuid": "9d080552-7bff-11eb-a56a-0050568e0287",
  "name": "svm2",
  "_links": {
   "self": {
   "href": "/api/svm/svms/9d080552-7bff-11eb-a56a-0050568e0287"
   }
  }
  },
  "address": "2.2.2.2",
  "hostname": "samplehost2",
  "_links": {
  "self": {
  "href": "/api/name-services/local-hosts/9d080552-7bff-11eb-a56a-
0050568e0287/2.2.2.2"
  }
  }
  }
  ],
  "num_records": 2,
  "_links": {
  "self": {
  "href": "/api/name-services/local-
```

```
hosts?return_records=true&return_timeout=15&fields=*"
  }
  }
}
```

**Retrieving the hosts table entry of a given svm and address(ipv4/ipv6).**

```
# The API:
GET /api/name-services/local-hosts/{owner.uuid}/{address}

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/local-hosts/9d080552-
7bff-11eb-a56a-0050568e0287/3.3.3.3" -H "accept: application/hal+json"

# The response:
{
 "owner": {
 "uuid": "9d080552-7bff-11eb-a56a-0050568e0287",
 "name": "svm1",
 "_links": {
"self": {
  "href": "/api/svm/svms/9d080552-7bff-11eb-a56a-0050568e0287"
 }
}
 },
 "address": "3.3.3.3",
 "hostname": "samplehost3",
 "aliases": [
 "host1.sales.foo.com",
 "host2.sakes.foo.com"
],
 "_links": {
 "self": {
 "href": "/api/name-services/local-hosts/9d080552-7bff-11eb-a56a-
0050568e0287/3.3.3.3"
 }
 }
}
```

### Creating a hosts table entry

The local-hosts POST endpoint creates a new hosts table entry.

### Examples

#### Creating a hosts table entry with all fields.

```
# The API:
POST /api/name-services/local-hosts

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/local-
hosts?return_records=false" -H "accept: application/json" -H "Content-
Type: application/json" -d "{ \"address\": \"3.3.3.3\", \"aliases\": [
\"host1.sales.foo.com\", \"host2.sakes.foo.com\" ],
\"hostname\":\"samplehost3\", \"owner\": { \"name\": \"svm2\", \"uuid\":
\"9d080552-7bff-11eb-a56a-0050568e0287\" }}"
```

#### Creating a hosts table entry with only required fields.

```
# The API:
POST /api/name-services/local-hosts

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/local-
hosts?return_records=false" -H "accept: application/json" -H "Content-
Type: application/json" -d "{ \"address\": \"123.123.123.12\",
\"hostname\": \"host.sales.foo.com\", \"owner\": { \"name\": \"svm2\",
\"uuid\": \"9d080552-7bff-11eb-a56a-0050568e0287\" }}"
```

### Updating a hosts table entry

The local-hosts PATCH endpoint updates an existing hosts table entry.

### Example

#### Updating aliases and hostname of a given svm and address(ipv4/ipv6).

```
# The API:
PATCH /api/name-services/local-hosts/{owner.uuid}/{address}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/local-hosts/9d080552-
7bff-11eb-a56a-0050568e0287/123.123.123.123" -H "accept: application/json"
-H "Content-Type: application/json" -d "{ \"aliases\": [
\"host1.sales.foo.com\", \"host2.sakes.foo.com\" ], \"hostname\":
\"host.sales.foo.com\"}"
```

### Deleting a hosts table entry

The local-hosts DELETE endpoint deletes an existing hosts table entry.

#### Example

#### Deleting the hosts table entry of a given svm and address(ipv4/ipv6).

```
# The API:
DELETE /api/name-services/local-hosts/{owner.uuid}/{address}

#The call:
curl -X DELETE "https://<mgmt-ip>/api/name-services/local-hosts/9d080552-
7bff-11eb-a56a-0050568e0287/1.1.1.1" -H "accept: application/json"
```

## Retrieve IP to hostname mappings for all SVMs in a cluster

GET `/name-services/local-hosts`

**Introduced In:** 9.10

Retrieves all IP to hostname mappings for all SVMs of the cluster.

#### Related ONTAP commands

- `vserver services name-service dns hosts show`

#### Learn more

- DOC /name-services/local-hosts

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| scope | string | query | False | Filter by scope |
| hostname | string | query | False | Filter by hostname<br>• maxLength: 255<br>• minLength: 1 |
| owner.name | string | query | False | Filter by owner.name |
| owner.uuid | string | query | False | Filter by owner.uuid |
| aliases | string | query | False | Filter by aliases |
| address | string | query | False | Filter by address |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 hosts to IP records. |
| records | array[local_host] | |

### Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "address": "123.123.123.123",
      "aliases": [
        "host1.sales.foo.com",
        "host2.sakes.foo.com"
      ],
      "hostname": "host.sales.foo.com",
      "owner": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "scope": "string"
    }
  ]
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
| --- | --- | --- |
| error | returned_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 | |

owner

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

local_host

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| address | string | IPv4/IPv6 address in dotted form. |
| aliases | array[string] | The list of aliases. |
| hostname | string | Canonical hostname. |
| owner | owner | SVM, applies only to SVM-scoped objects. |

| Name | Type | Description |
|---|---|---|
| scope | string | Scope of the entity. Set to "cluster" for cluster owned objects and to "svm" for SVM owned objects. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a new IP to hostname mapping

POST `/name-services/local-hosts`

**Introduced In:** 9.10

Creates a new cluster-scoped or SVM-scoped IP to hostname mapping. For SVM-scoped mappings, include either the SVM name as owner.name or the SVM UUID as owner.uuid in the request body, along with other necessary parameters. For cluster-scoped mappings, specifying owner.uuid or owner.name is not required.

### Required properties

- `address` - IPv4/IPv6 address in dotted form.
- `hostname` - Canonical hostname.

### Optional properties

- `owner.uuid` or `owner.name` - Specify the name or UUID of an existing SVM to create an SVM-scoped IP-to-host mapping.

- `aliases` - The list of aliases.

### Related ONTAP commands

- `vserver services name-service dns hosts create`

### Learn more

- DOC /name-services/local-hosts

### Parameters

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

### Request Body

| Name | Type | Description |
|---|---|---|
| address | string | IPv4/IPv6 address in dotted form. |
| aliases | array[string] | The list of aliases. |
| hostname | string | Canonical hostname. |
| owner | owner | SVM, applies only to SVM-scoped objects. |
| scope | string | Scope of the entity. Set to "cluster" for cluster owned objects and to "svm" for SVM owned objects. |

### Example request

```
{
  "address": "123.123.123.123",
  "aliases": [
    "host1.sales.foo.com",
    "host2.sakes.foo.com"
  ],
  "hostname": "host.sales.foo.com",
  "owner": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "scope": "string"
}
```

### Response

```
Status: 201, Created
```

#### Headers

| Name | Description | Type |
|---|---|---|
| Location | Useful for tracking the resource location | string |

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
|---|---|
| 1377682 | IPv6 is not enabled in the cluster. |
| 1966253 | IPv6 is not enabled in the cluster. Enable IPv6 using command "network options ipv6 modify -enabled true" and try again. |
| 2621706 | The specified owner UUID is incorrect for the specified owner name. |
| 8912896 | Only admin or data Vservers allowed. |

| Error Code | Description |
| --- | --- |
| 23724055 | Internal error. Configuration for Vserver failed. Verify that the cluster is healthy, then try the command again. For further assistance, contact technical support. |
| 23724155 | The specified IPv4 address is not supported because it is one of the following: multicast, loopback, 0.0.0.0, or broadcast. |
| 23724156 | The specified IPv6 address is not supported because it is one of the following: ::, link-local, multicast, v4-compatible, v4-mapped, or loopback. |

Also see the table of common errors in the Response body overview section of this documentation.

**Definitions**

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

owner

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

local_host

| Name | Type | Description |
|---|---|---|
| address | string | IPv4/IPv6 address in dotted form. |
| aliases | array[string] | The list of aliases. |
| hostname | string | Canonical hostname. |
| owner | owner | SVM, applies only to SVM-scoped objects. |
| scope | string | Scope of the entity. Set to "cluster" for cluster owned objects and to "svm" for SVM owned objects. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 existing host object

DELETE `/name-services/local-hosts/{owner.uuid}/{address}`

**Introduced In:** 9.10

Deletes an existing host object.

### Related ONTAP commands

- `vserver services name-service dns hosts delete`

### Learn more

- DOC /name-services/local-hosts

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| owner.uuid | string | path | True | UUID of the owner to which this object belongs. |
| address | string | path | True | The IP address. |

### Response

```
Status: 200, Ok
```

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
| --- | --- |
| 23724055 | Internal error. Configuration for Vserver failed. Verify that the cluster is healthy, then try the command again. For further assistance, contact technical support. |

Also see the table of common errors in the Response body overview section of this documentation.

| Name | Type | Description |
| --- | --- | --- |
| error | returned_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 |

returned_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 a hostname mapping for an SVM

GET `/name-services/local-hosts/{owner.uuid}/{address}`

**Introduced In:** 9.10

For a specified SVM and IP address, returns the corresponding IP to hostname mapping.

### Related ONTAP commands

- `vserver services name-service dns hosts show`

### Learn more

- DOC /name-services/local-hosts

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| owner.uuid | string | path | True | UUID of the owner to which this object belongs. |
| address | string | path | True | The IP address. |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| fields | array[string] | query | False | Specify the fields to return. |

### Response

```
Status: 200, Ok
```

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| address | string | IPv4/IPv6 address in dotted form. |
| aliases | array[string] | The list of aliases. |
| hostname | string | Canonical hostname. |
| owner | owner | SVM, applies only to SVM-scoped objects. |
| scope | string | Scope of the entity. Set to "cluster" for cluster owned objects and to "svm" for SVM owned objects. |

### Example response


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "address": "123.123.123.123",
  "aliases": [
    "host1.sales.foo.com",
    "host2.sakes.foo.com"
  ],
  "hostname": "host.sales.foo.com",
  "owner": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "scope": "string"
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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 | |

owner

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a hostname mapping for an SVM

PATCH `/name-services/local-hosts/{owner.uuid}/{address}`

**Introduced In:** 9.10

For a specified SVM and IP address, modifies the corresponding IP to hostname mapping.

### Related ONTAP commands

- `vserver services name-service dns hosts modify`

### Learn more

- DOC /name-services/local-hosts

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| owner.uuid | string | path | True | UUID of the owner to which this object belongs. |
| address | string | path | True | The IP address. |

### Request Body

| Name | Type | Description |
|---|---|---|
| aliases | array[string] | The list of aliases. |
| hostname | string | Canonical hostname. |
| scope | string | Scope of the entity. Set to "cluster" for cluster owned objects and to "svm" for SVM owned objects. |

### Example request

```
{
  "aliases": [
    "host1.sales.foo.com",
    "host2.sakes.foo.com"
  ],
  "hostname": "host.sales.foo.com",
  "scope": "string"
}
```

### Response

```
Status: 200, Ok
```

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
|---|---|
| 23724055 | Internal error. Configuration for Vserver failed. Verify that the cluster is healthy, then try the command again. For further assistance, contact technical support. |

Also see the table of common errors in the Response body overview section of this documentation.

### Definitions

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

owner

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

local_host

| Name | Type | Description |
|---|---|---|
| aliases | array[string] | The list of aliases. |
| hostname | string | Canonical hostname. |
| scope | string | Scope of the entity. Set to "cluster" for cluster owned objects and to "svm" for SVM owned objects. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# Manage name mappings for SVMs

## Manage name mappings for SVMs

### Overview

Name mapping is used to map CIFS identities to UNIX identities, Kerberos identities to UNIX identities, and UNIX identities to CIFS identities. It needs this information to obtain user credentials and provide proper file access regardless of whether they are connecting from an NFS client or a CIFS client.

The system keeps a set of conversion rules for each Storage Virtual Machine (SVM). Each rule consists of two pieces: a pattern and a replacement. Conversions start at the beginning of the appropriate list and perform a substitution based on the first matching rule. The pattern is a UNIX-style regular expression. The replacement is a string containing escape sequences representing subexpressions from the pattern, as in the UNIX sed program.

Name mappings are applied in the order in which they occur in the priority list; for example, a name mapping that occurs at position 2 in the priority list is applied before a name mapping that occurs at position 3. Each mapping direction (Kerberos-to-UNIX, Windows-to-UNIX, and UNIX-to-Windows) has its own priority list. You are prevented from creating two name mappings with the same pattern.

### Examples

#### Creating a name-mapping with client_match as the ip-address

Use the following API to create a name-mapping. Note the *return_records=true* query parameter is used to obtain the newly created entry in the response.

```
# The API:
POST /api//name-services/name-mappings

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/name-
mappings?return_records=true" -H "accept: application/json" -H "Content-
Type: application/json" -d "{ \"client_match\": \"10.254.101.111/28\",
\"direction\": \"win_unix\", \"index\": 1, \"pattern\":
\"ENGCIFS_AD_USER\", \"replacement\": \"unix_user1\", \"svm\": { \"name\":
\"vs1\", \"uuid\": \"f71d3640-0226-11e9-8526-000c290a8c4b\" }}"

# The response:
{
"num_records": 1,
"records": [
  {
    "svm": {
      "uuid": "f71d3640-0226-11e9-8526-000c290a8c4b",
      "name": "vs1"
    },
    "direction": "win_unix",
    "index": 1,
    "pattern": "ENGCIFS_AD_USER",
    "replacement": "unix_user1",
    "client_match": "10.254.101.111/28"
  }
]
}
```

#### Creating a name-mapping with client_match as the hostname

Use the following API to create a name-mapping. Note the *return_records=true* query parameter is used to obtain the newly created entry in the response.

```
# The API:
POST /api//name-services/name-mappings

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/name-
mappings?return_records=true" -H "accept: application/json" -H "Content-
Type: application/json" -d "{ \"client_match\": \"google.com\",
\"direction\": \"win_unix\", \"index\": 2, \"pattern\":
\"ENGCIFS_AD_USER\", \"replacement\": \"unix_user1\", \"svm\": { \"name\":
\"vs1\", \"uuid\": \"f71d3640-0226-11e9-8526-000c290a8c4b\" }}"

# The response:
{
"num_records": 1,
"records": [
  {
    "svm": {
      "uuid": "f71d3640-0226-11e9-8526-000c290a8c4b",
      "name": "vs1"
    },
    "direction": "win_unix",
    "index": 2,
    "pattern": "ENGCIFS_AD_USER",
    "replacement": "unix_user1",
    "client_match": "google.com"
  }
]
}
```

**Retrieving all name-mapping configurations for all SVMs in the cluster**

```
# The API:
GET /api/name-services/name-mappings

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/name-
mappings?fields=*&return_records=true&return_timeout=15" -H "accept:
application/json"

# The response:
{
"records": [
  {
    "svm": {
      "uuid": "f71d3640-0226-11e9-8526-000c290a8c4b",
      "name": "vs1"
    },
    "direction": "win_unix",
    "index": 1,
    "pattern": "ENGCIFS_AD_USER",
    "replacement": "unix_user1",
    "client_match": "10.254.101.111/28"
  },
  {
    "svm": {
      "uuid": "f71d3640-0226-11e9-8526-000c290a8c4b",
      "name": "vs1"
    },
    "direction": "win_unix",
    "index": 2,
    "pattern": "ENGCIFS_AD_USER",
    "replacement": "unix_user1",
    "client_match": "google.com"
  }
],
"num_records": 2
}
```

**Retrieving a name-mapping configuration for a specific SVM, and for the specified direction and index**

```
# The API:
GET /api/name-services/name-mappings/{svm.uuid}/{direction}/{index}

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/name-mappings/f71d3640-
0226-11e9-8526-000c290a8c4b/win_unix/1" -H "accept: application/json"

# The response:
{
"svm": {
  "uuid": "f71d3640-0226-11e9-8526-000c290a8c4b",
  "name": "vs1"
},
"direction": "win_unix",
"index": 1,
"pattern": "ENGCIFS_AD_USER",
"replacement": "unix_user1",
"client_match": "10.254.101.111/28"
}
```

#### Updating a specific name-mapping configuration

```
# The API:
PATCH /api//name-services/name-mappings/{svm.uuid}/{direction}/{index}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/name-mappings/f71d3640-
0226-11e9-8526-000c290a8c4b/win_unix/1" -H "accept: application/json" -H
"Content-Type: application/json" -d "{ \"client_match\":
\"10.254.101.222/28\", \"pattern\": \"ENGCIFS_LOCAL_USER\",
\"replacement\": \"pcuser\"}"

# swapping a specified namemapping entry by index
curl -X PATCH "https://<mgmt-ip>/api/name-services/name-mappings/f71d3640-
0226-11e9-8526-000c290a8c4b/win-unix/3?new_index=1" -H "accept:
application/json" -H "Content-Type: application/json" -d "{  \"pattern\":
\"ENGCIFS_AD_USER\", \"replacement\": \"unix_user1\"}"
```

```
# The API:
DELETE /api/name-services/name-mappings/{svm.uuid}/{direction}/{index}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/name-services/name-
mappings/f71d3640-0226-11e9-8526-000c290a8c4b/win_unix/1" -H "accept:
application/json"
```

## Retrieve the hostname mapping for all SVMs

GET `/name-services/name-mappings`

**Introduced In:** 9.6

Retrieves the name mapping configuration for all SVMs.

### Related ONTAP commands

- `vserver name-mapping show`

### Learn more

- DOC /name-services/name-mappings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| replacement | string | query | False | Filter by replacement<br>• maxLength: 256<br>• minLength: 1 |
| index | integer | query | False | Filter by index<br>• Max value: 2147483647<br>• Min value: 1 |
| client_match | string | query | False | Filter by client_match |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.name | string | query | False | Filter by svm.name |
| svm.uuid | string | query | False | Filter by svm.uuid |
| pattern | string | query | False | Filter by pattern<br>• maxLength: 256<br>• minLength: 1 |
| direction | string | query | False | Filter by direction |
| 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.<br>• 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.<br>• Max value: 120<br>• Min value: 0<br>• Default value: 15 |
| 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 records |
| records | array[name_mapping] | |

### Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "client_match": "10.254.101.111/28",
      "direction": "win_unix",
      "index": 1,
      "pattern": "ENGCIFS_AD_USER",
      "replacement": "unix_user1",
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      }
    }
  ]
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
| --- | --- | --- |
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

name_mapping

Name mapping is used to map CIFS identities to UNIX identities, Kerberos identities to UNIX identities, UNIX identities to CIFS identities, S3 to UNIX identities and S3 to CIFS identities. It needs this information to obtain user credentials and provide proper file access regardless of whether they are connecting from an NFS client, CIFS client or an S3 client.

| Name | Type | Description |
|---|---|---|
| _links | _links | |

| Name | Type | Description |
| --- | --- | --- |
| client_match | string | Client workstation IP Address which is matched when searching for the pattern. You can specify the value in any of the following formats:<br>• As an IPv4 address with a subnet mask expressed as a number of bits; for instance, 10.1.12.0/24<br>• As an IPv6 address with a subnet mask expressed as a number of bits; for instance, fd20:8b1e:b255:4071::/64<br>• As an IPv4 address with a network mask; for instance, 10.1.16.0/255.255.255.0<br>• As a hostname |
| direction | string | Direction in which the name mapping is applied. The possible values are:<br>• krb_unix - Kerberos principal name to UNIX user name<br>• win_unix - Windows user name to UNIX user name<br>• unix_win - UNIX user name to Windows user name mapping<br>• s3_unix - S3 user name to UNIX user name mapping<br>• s3_win - S3 user name to Windows user name mapping |
| index | integer | Position in the list of name mappings. |

| Name | Type | Description |
|---|---|---|
| pattern | string | Pattern used to match the name while searching for a name that can be used as a replacement. The pattern is a UNIX-style regular expression. Regular expressions are case-insensitive when mapping from Windows to UNIX, and they are case-sensitive for mappings from Kerberos to UNIX and UNIX to Windows. |
| replacement | string | The name that is used as a replacement, if the pattern associated with this entry matches. |
| svm | svm | SVM, applies only to SVM-scoped objects. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 hostname mappings for an SVM

POST `/name-services/name-mappings`

**Introduced In:** 9.6

Creates name mappings for an SVM.

### Required properties

- `svm.uuid` or `svm.name` - Existing SVM in which to create the name mapping.
- `index` - Name mapping's position in the priority list.
- `direction` - Direction of the name mapping.
- `pattern` - Pattern to match to. Maximum length is 256 characters.
- `replacement` - Replacement pattern to match to. Maximum length is 256 characters.

### Recommended optional properties

- `client_match` - Hostname or IP address added to match the pattern to the client's workstation IP address.

### Related ONTAP commands

- `vserver name-mapping create`
- `vserver name-mapping insert`

### Learn more

- DOC /name-services/name-mappings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| insert_name_map | boolean | query | False | Create a name mapping at a specified position<br>• Introduced in: 9.17<br>• Default value: |
| return_records | boolean | query | False | The default is false. If set to true, the records are returned.<br>• Default value: |

### Request Body

| Name | Type | Description |
| --- | --- | --- |
| client_match | string | Client workstation IP Address which is matched when searching for the pattern. You can specify the value in any of the following formats:<br>• As an IPv4 address with a subnet mask expressed as a number of bits; for instance, 10.1.12.0/24<br>• As an IPv6 address with a subnet mask expressed as a number of bits; for instance, fd20:8b1e:b255:4071::/64<br>• As an IPv4 address with a network mask; for instance, 10.1.16.0/255.255.255.0<br>• As a hostname |
| direction | string | Direction in which the name mapping is applied. The possible values are:<br>• krb_unix - Kerberos principal name to UNIX user name<br>• win_unix - Windows user name to UNIX user name<br>• unix_win - UNIX user name to Windows user name mapping<br>• s3_unix - S3 user name to UNIX user name mapping<br>• s3_win - S3 user name to Windows user name mapping |
| index | integer | Position in the list of name mappings. |
| pattern | string | Pattern used to match the name while searching for a name that can be used as a replacement. The pattern is a UNIX-style regular expression. Regular expressions are case-insensitive when mapping from Windows to UNIX, and they are case-sensitive for mappings from Kerberos to UNIX and UNIX to Windows. |

| Name | Type | Description |
|---|---|---|
| replacement | string | The name that is used as a replacement, if the pattern associated with this entry matches. |
| svm | svm | SVM, applies only to SVM-scoped objects. |

**Example request**

```
{
  "client_match": "10.254.101.111/28",
  "direction": "win_unix",
  "index": 1,
  "pattern": "ENGCIFS_AD_USER",
  "replacement": "unix_user1",
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```

**Response**

```
Status: 201, Created
```

| Name | Type | Description |
|---|---|---|
| num_records | integer | Number of records |
| records | array[name_mapping] | |

### Example response


```
{
  "num_records": 1,
  "records": [
    {
      "client_match": "10.254.101.111/28",
      "direction": "win_unix",
      "index": 1,
      "pattern": "ENGCIFS_AD_USER",
      "replacement": "unix_user1",
      "svm": {
        "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 |
|---|---|
| 65798185 | Failed to resolve the specified hostname |
| 65798173 | The name mapping pattern already exists with a more generic IP qualifier |
| 65798149 | Invalid index for the name mapping entry |
| 2621706 | The specified svm.uuid and svm.name refer to different SVMs |

### Definitions

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

name_mapping

Name mapping is used to map CIFS identities to UNIX identities, Kerberos identities to UNIX identities, UNIX identities to CIFS identities, S3 to UNIX identities and S3 to CIFS identities. It needs this information to obtain user credentials and provide proper file access regardless of whether they are connecting from an NFS client, CIFS client or an S3 client.

| Name | Type | Description |
|---|---|---|
| client_match | string | Client workstation IP Address which is matched when searching for the pattern. You can specify the value in any of the following formats:<br>• As an IPv4 address with a subnet mask expressed as a number of bits; for instance, 10.1.12.0/24<br>• As an IPv6 address with a subnet mask expressed as a number of bits; for instance, fd20:8b1e:b255:4071::/64<br>• As an IPv4 address with a network mask; for instance, 10.1.16.0/255.255.255.0<br>• As a hostname |

| Name | Type | Description |
| --- | --- | --- |
| direction | string | Direction in which the name mapping is applied. The possible values are:<br>• krb_unix - Kerberos principal name to UNIX user name<br>• win_unix - Windows user name to UNIX user name<br>• unix_win - UNIX user name to Windows user name mapping<br>• s3_unix - S3 user name to UNIX user name mapping<br>• s3_win - S3 user name to Windows user name mapping |
| index | integer | Position in the list of name mappings. |
| pattern | string | Pattern used to match the name while searching for a name that can be used as a replacement. The pattern is a UNIX-style regular expression. Regular expressions are case-insensitive when mapping from Windows to UNIX, and they are case-sensitive for mappings from Kerberos to UNIX and UNIX to Windows. |
| replacement | string | The name that is used as a replacement, if the pattern associated with this entry matches. |
| svm | svm | SVM, applies only to SVM-scoped objects. |

error_arguments

| Name | Type | Description |
| --- | --- | --- |
| code | string | Argument code |
| message | string | Message argument |

returned_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 name mapping configuration

DELETE `/name-services/name-mappings/{svm.uuid}/{direction}/{index}`

**Introduced In:** 9.6

Deletes the name mapping configuration.

### Related ONTAP commands

- `vserver name-mapping delete`

### Learn more

- DOC /name-services/name-mappings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| direction | string | path | True | Direction |
| index | integer | path | True | Position of the entry in the list |
| 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 | returned_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 |

returned_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 the name mapping configuration for an SVM

GET `/name-services/name-mappings/{svm.uuid}/{direction}/{index}`

**Introduced In:** 9.6

Retrieves the name mapping configuration of an SVM.

### Related ONTAP commands

- `vserver name-mapping show`

### Learn more

- DOC /name-services/name-mappings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| direction | string | path | True | Direction |
| index | integer | path | True | Position of the entry in the list |

| 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 | |
| client_match | string | Client workstation IP Address which is matched when searching for the pattern. You can specify the value in any of the following formats:<br>• As an IPv4 address with a subnet mask expressed as a number of bits; for instance, 10.1.12.0/24<br>• As an IPv6 address with a subnet mask expressed as a number of bits; for instance, fd20:8b1e:b255:4071::/64<br>• As an IPv4 address with a network mask; for instance, 10.1.16.0/255.255.255.0<br>• As a hostname |

| Name | Type | Description |
| --- | --- | --- |
| direction | string | Direction in which the name mapping is applied. The possible values are:<br>• krb_unix - Kerberos principal name to UNIX user name<br>• win_unix - Windows user name to UNIX user name<br>• unix_win - UNIX user name to Windows user name mapping<br>• s3_unix - S3 user name to UNIX user name mapping<br>• s3_win - S3 user name to Windows user name mapping |
| index | integer | Position in the list of name mappings. |
| pattern | string | Pattern used to match the name while searching for a name that can be used as a replacement. The pattern is a UNIX-style regular expression. Regular expressions are case-insensitive when mapping from Windows to UNIX, and they are case-sensitive for mappings from Kerberos to UNIX and UNIX to Windows. |
| replacement | string | The name that is used as a replacement, if the pattern associated with this entry matches. |
| svm | svm | SVM, applies only to SVM-scoped objects. |

### Example response


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "client_match": "10.254.101.111/28",
  "direction": "win_unix",
  "index": 1,
  "pattern": "ENGCIFS_AD_USER",
  "replacement": "unix_user1",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 the name mapping configuration for an SVM

PATCH `/name-services/name-mappings/{svm.uuid}/{direction}/{index}`

**Introduced In:** 9.6

Updates the name mapping configuration of an SVM. The positions can be swapped by providing the `new_index` property. Swapping is not allowed for entries that have `client_match` property configured.

### Related ONTAP commands

- `vserver name-mapping modify`
- `vserver name-mapping swap`

### Learn more

- DOC /name-services/name-mappings

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| direction | string | path | True | Direction |
| index | integer | path | True | Position of the entry in the list |
| new_index | integer | query | False | New position of the Index after a swap is completed.<br>• Introduced in: 9.7 |
| svm.uuid | string | path | True | UUID of the SVM to which this object belongs. |

### Request Body

| Name | Type | Description |
| --- | --- | --- |
| client_match | string | Client workstation IP Address which is matched when searching for the pattern. You can specify the value in any of the following formats:<br>• As an IPv4 address with a subnet mask expressed as a number of bits; for instance, 10.1.12.0/24<br>• As an IPv6 address with a subnet mask expressed as a number of bits; for instance, fd20:8b1e:b255:4071::/64<br>• As an IPv4 address with a network mask; for instance, 10.1.16.0/255.255.255.0<br>• As a hostname |
| pattern | string | Pattern used to match the name while searching for a name that can be used as a replacement. The pattern is a UNIX-style regular expression. Regular expressions are case-insensitive when mapping from Windows to UNIX, and they are case-sensitive for mappings from Kerberos to UNIX and UNIX to Windows. |
| replacement | string | The name that is used as a replacement, if the pattern associated with this entry matches. |

**Example request**

```
{
  "client_match": "10.254.101.111/28",
  "pattern": "ENGCIFS_AD_USER",
  "replacement": "unix_user1"
}
```

**Response**

```
Status: 200, Ok
```

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
| --- | --- |
| 65798185 | Failed to resolve the specified hostname |
| 65798179 | Cannot swap entries because one or both entries have host name or address configured. |
| | Delete and re-create the new entry at the specified position. |

### Definitions

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

name_mapping

Name mapping is used to map CIFS identities to UNIX identities, Kerberos identities to UNIX identities, UNIX identities to CIFS identities, S3 to UNIX identities and S3 to CIFS identities. It needs this information to obtain user credentials and provide proper file access regardless of whether they are connecting from an NFS client, CIFS client or an S3 client.

| Name | Type | Description |
|---|---|---|
| client_match | string | Client workstation IP Address which is matched when searching for the pattern. You can specify the value in any of the following formats:<br>• As an IPv4 address with a subnet mask expressed as a number of bits; for instance, 10.1.12.0/24<br>• As an IPv6 address with a subnet mask expressed as a number of bits; for instance, fd20:8b1e:b255:4071::/64<br>• As an IPv4 address with a network mask; for instance, 10.1.16.0/255.255.255.0<br>• As a hostname |

| Name | Type | Description |
|---|---|---|
| pattern | string | Pattern used to match the name while searching for a name that can be used as a replacement. The pattern is a UNIX-style regular expression. Regular expressions are case-insensitive when mapping from Windows to UNIX, and they are case-sensitive for mappings from Kerberos to UNIX and UNIX to Windows. |
| replacement | string | The name that is used as a replacement, if the pattern associated with this entry matches. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# Display netgroup file details

## Display netgroup file details

### Overview

Displays the netgroup file details or raw netgroup file of an SVM. Note: The GET collection endpoint is not supported for netgroup files.

### Examples

#### Retrieving the netgroup file status of a given SVM

```
# The API:
GET /api/name-services/netgroup-files/{svm.uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/netgroup-files/53942195-
1709-11ec-b0d4-0050568efd14" -H "accept: application/hal+json"

# The response:
{
"svm": {
  "uuid": "53942195-1709-11ec-b0d4-0050568efd14",
  "name": "svm1"
},
"timestamp": "2021-10-04T13:05:06+05:30",
"hash_value": "729b6e43cee04bcee18efa3aa689881d",
"hash_value_by_host": "eb109a44056a47bdeb4b407ec821a14b",
"file_size": 5118686
}
```

#### Retrieving the raw netgroup file of a given SVM

```
# The API:
GET /api/name-services/netgroup-files/{svm.uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/netgroup-files/53942195-
1709-11ec-b0d4-0050568efd14" -H "accept: multipart/form-data"
```

#### Deleting a netgroup file of a given SVM

```
# The API:
DELETE /api/name-services/netgroup-files/{svm.uuid}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/name-services/netgroup-
files/53942195-1709-11ec-b0d4-0050568efd14" -H "accept: application/json"
```

## Delete a netgroup file for an SVM

DELETE `/name-services/netgroup-files/{svm.uuid}`

**Introduced In:** 9.11

Deletes the netgroup file for a given SVM.

### Related ONTAP commands

- `vserver services name-service netgroup file delete`

### Learn more

- DOC /name-services/netgroup-files/{svm.uuid}

### 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 | returned_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 |

returned_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 the netgroup file details

GET `/name-services/netgroup-files/{svm.uuid}`

**Introduced In:** 9.11

Retrieves the netgroup file details for a given SVM if the header is set as "accept: application/json". If the header is set as "accept: multipart/form-data", the raw netgroup file of the given SVM is retrieved.

### Important notes

- For a raw netgroup file, set the header as "accept: multipart/form-data" else "accept: application/json" for netgroup file details.
- Maximum size supported for raw netgroup file is 5MB, but netgroup file details of any valid SVM can be retrieved if present.

### Related ONTAP commands

- `vserver services name-service netgroup status`
- `vserver services name-service netgroup file show`

### Learn more

- DOC /name-services/netgroup-files/{svm.uuid}

### Parameters

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

### Response

```
Status: 200, Ok
```

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| file_size | integer | File size of the netgroup definitions file in bytes. |
| hash_value | string | Hash value of the netgroup definitions. |
| hash_value_by_host | string | Hash value of the netgroup-by-host database. |

| Name | Type | Description |
|---|---|---|
| svm | svm | SVM, applies only to SVM-scoped objects. |
| timestamp | string | Load time for netgroup definitions. |

**Example response**


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "file_size": 5118686,
  "hash_value": "e53ec87782356bd6786f146ce0a48449",
  "hash_value_by_host": "e012b7f62e4810936725ed1239018314",
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "timestamp": "string"
}
```


**Error**

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# Manage NIS server configurations

## Manage NIS server configurations

### 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 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 |
|---|---|---|---|---|
| servers | string | query | False | Filter by servers<br>• maxLength: 255<br>• minLength: 1<br>• Introduced in: 9.7 |
| svm.name | string | query | False | Filter by svm.name<br>• Introduced in: 9.7 |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.uuid | string | query | False | Filter by svm.uuid<br>• Introduced in: 9.7 |
| binding_details.server | string | query | False | Filter by binding_details.server<br>• maxLength: 255<br>• minLength: 1<br>• Introduced in: 9.11 |
| binding_details.status.code | string | query | False | Filter by binding_details.status.code<br>• Introduced in: 9.11 |
| binding_details.status.message | string | query | False | Filter by binding_details.status.message<br>• Introduced in: 9.11 |
| domain | string | query | False | Filter by domain<br>• maxLength: 64<br>• minLength: 1<br>• Introduced in: 9.7 |
| bound_servers | string | query | False | Filter by bound_servers<br>• maxLength: 255<br>• minLength: 1<br>• Introduced in: 9.7 |
| fields | array[string] | query | False | Specify the fields to return. |

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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": [
        {
          "server": "string",
          "status": {
            "code": "string",
            "message": "string"
          }
        }
      ],
      "bound_servers": [
        "string"
      ],
      "domain": "domainA.example.com",
      "servers": [
        "10.10.10.10",
        "example.com"
      ],
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      }
    }
```

```
  ]
}
```

### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |

| Name | Type | Description |
|---|---|---|
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

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 | SVM, applies only to SVM-scoped objects. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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.<br>• Default value: |

### Request Body

| 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 | SVM, applies only to SVM-scoped objects. |

**Example request**


```
{
  "binding_details": [
    {
      "server": "string",
      "status": {
        "code": "string",
        "message": "string"
      }
    }
  ],
  "bound_servers": [
    "string"
  ],
  "domain": "domainA.example.com",
  "servers": [
    "10.10.10.10",
    "example.com"
  ],
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```

### Response

```
Status: 201, Created
```

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

### Example response


```
{
  "num_records": 1,
  "records": [
    {
      "binding_details": [
        {
          "server": "string",
          "status": {
            "code": "string",
            "message": "string"
          }
        }
      ],
      "bound_servers": [
        "string"
      ],
      "domain": "domainA.example.com",
      "servers": [
        "10.10.10.10",
        "example.com"
      ],
      "svm": {
        "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 |
| 23724111 | Empty NIS servers cannot be specified. |
| 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 |

### Definitions

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

nis_service

| 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 | SVM, applies only to SVM-scoped objects. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 | returned_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 |

returned_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 the 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 |
|---|---|---|
| _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 | SVM, applies only to SVM-scoped objects. |

### Example response


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "binding_details": [
    {
      "server": "string",
      "status": {
        "code": "string",
        "message": "string"
      }
    }
  ],
  "bound_servers": [
    "string"
  ],
  "domain": "domainA.example.com",
  "servers": [
    "10.10.10.10",
    "example.com"
  ],
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 the 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 |
|---|---|---|
| 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. |

### Example request

```
{
  "binding_details": [
    {
      "server": "string",
      "status": {
        "code": "string",
        "message": "string"
      }
    }
  ],
  "bound_servers": [
    "string"
  ],
  "domain": "domainA.example.com",
  "servers": [
    "10.10.10.10",
    "example.com"
  ]
}
```

### 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 |
| 23724111 | Empty NIS servers cannot be specified. |
| 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 |

### Definitions

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

nis_service

| 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. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# Manage UNIX group configurations

## Manage UNIX group configurations

### Overview

You can use this API to display local UNIX group information and to control UNIX group configurations.

### Retrieving UNIX group information

The UNIX group GET endpoint retrieves all of the local UNIX groups configurations for data SVMs.

### Examples

#### Retrieving all of the fields for all of the UNIX group configurations

The UNIX group GET endpoint retrieves all of the local UNIX groups configurations for data SVMs.

```
# The API:
/api/name-services/unix-groups

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

# The response:
{
"records": [
  {
    "svm": {
      "uuid": "b009a9e7-4081-b576-7575-ada21efcaf16",
      "name": "vs1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/b009a9e7-4081-b576-7575-ada21efcaf16"
        }
      }
    },
    "name": "group1",
    "id": 11,
    "users": [
      {
        "name": "user1"
      },
      {
        "name": "user2"
      },
      {
        "name": "user3"
      }
    ],
    "_links": {
      "self": {
        "href": "/api/name-services/unix-groups/b009a9e7-4081-b576-7575-
ada21efcaf16/group1"
```

```
      }
    }
  },
  {
    "svm": {
      "uuid": "b009a9e7-4081-b576-7575-ada21efcaf16",
      "name": "vs1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/b009a9e7-4081-b576-7575-ada21efcaf16"
        }
      }
    },
    "name": "group2",
    "id": 12,
    "users": [
      {
        "name": "user1"
      },
      {
        "name": "user2"
      }
    ],
    "_links": {
      "self": {
        "href": "/api/name-services/unix-groups/b009a9e7-4081-b576-7575-
ada21efcaf16/group2"
      }
    }
  },
  {
    "svm": {
      "uuid": "b009a9e7-4081-b576-7575-ada21efcad17",
      "name": "vs2",
      "_links": {
        "self": {
          "href": "/api/svm/svms/b009a9e7-4081-b576-7575-ada21efcad17"
        }
      }
    },
    "name": "group1",
    "id": 11,
    "users": [
      {
        "name": "user2"
      },
```

```
      {
        "name": "user3"
      }
    ],
    "_links": {
      "self": {
        "href": "/api/name-services/unix-groups/b009a9e7-4081-b576-7575-
ada21efcad17/group1"
      }
    }
  }
],
"num_records": 3,
"_links": {
  "self": {
    "href": "/api/name-services/unix-groups?fields=*"
  }
}
}
```

**Retrieving all of the UNIX group configurations whose group name is 'group1'.**

```
# The API:
/api/name-services/unix-groups

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/unix-groups?name=group1"
-H "accept: application/hal+json"

# The response:
{
"records": [
  {
    "svm": {
      "uuid": "b009a9e7-4081-b576-7575-ada21efcaf16",
      "name": "vs1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/b009a9e7-4081-b576-7575-ada21efcaf16"
        }
      }
    },
    "name": "group1",
    "id": 11,
    "_links": {
      "self": {
        "href": "/api/name-services/unix-groups/b009a9e7-4081-b576-7575-
ada21efcaf16/group1"
      }
    }
  },
],
"num_records": 1,
"_links": {
  "self": {
    "href": "/api/name-services/unix-groups?name=group1"
  }
}
}
```

#### Creating a UNIX group configuration

The UNIX group POST endpoint creates a UNIX group configuration for the specified SVM.

#### Example

```
# The API:
/api/name-services/unix-groups

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/unix-groups" -H "accept:
application/hal+json" -H "Content-Type: application/json" -d '{ "svm":
{"uuid": "179d3c85-7053-11e8-b9b8-005056b41bd1"}, "name": "group1", "id":
111}'
```

### Updating a UNIX group configuration

The UNIX group PATCH endpoint updates the UNIX group ID of the specified UNIX group and the specified SVM.

### Example

#### Modify the group ID of group1 to 112

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

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/unix-groups/179d3c85-
7053-11e8-b9b8-005056b41bd1/group1" -H "accept: application/hal+json" -H
"Content-Type: application/json" -d '{ "id": 112}'
```

### Deleting a UNIX group configuration

The UNIX group DELETE endpoint deletes the specified UNIX group of the specified SVM.

### Example

#### Delete the group 'group1'

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

# The call:
curl -X DELETE "https://<mgmt-ip>/api/name-services/unix-groups/179d3c85-
7053-11e8-b9b8-005056b41bd1/group1" -H "accept: application/hal+json"
```

## Retrieve UNIX groups for all SVMs

GET `/name-services/unix-groups`

**Introduced In:** 9.9

Retrieves the UNIX groups for all of the SVMs. UNIX users who are the members of the group are also displayed.

### Related ONTAP commands

- `vserver services name-service unix-group show`

### Learn more

- DOC /name-services/unix-groups

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| users.name | string | query | False | Filter by users.name |
| id | integer | query | False | Filter by id |
| name | string | query | False | Filter by name |
| svm.name | string | query | False | Filter by svm.name |
| svm.uuid | string | query | False | Filter by svm.uuid |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 | |
| current_count | integer | Number of UNIX groups and members. |
| num_records | integer | Number of UNIX group records. |
| records | array[unix_group] | |

### Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "group1",
      "skip_name_validation": true,
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "users": [
        {
          "name": "string"
        }
      ]
    }
  ]
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
| --- | --- | --- |
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

users

| Name | Type | Description |
|---|---|---|
| name | string | UNIX user who belongs to the specified UNIX group and the SVM. |

unix_group

| Name | Type | Description |
|---|---|---|
| _links | _links | |

| Name | Type | Description |
|---|---|---|
| id | integer | UNIX group ID of the specified user. |
| name | string | UNIX group name to be added to the local database. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| users | array[users] | |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a local UNIX group configuration for an SVM

POST `/name-services/unix-groups`

**Introduced In:** 9.9

Creates the local UNIX group configuration for the specified SVM.

Group name and group ID are mandatory parameters.

### Important notes

- The default limit for local UNIX groups and group members is 32768.

### Learn more

- DOC /name-services/unix-groups

### Parameters

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

### Request Body

| Name | Type | Description |
|---|---|---|
| id | integer | UNIX group ID of the specified user. |
| name | string | UNIX group name to be added to the local database. |
| skip_name_validation | boolean | Indicates whether or not the validation for the specified UNIX group name is disabled. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| users | array[users] | |

### Example request

```
{
  "name": "group1",
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "users": [
    {
      "name": "string"
    }
  ]
}
```

### Response

```
Status: 201, Created
```

#### Headers

| Name | Description | Type |
|---|---|---|
| Location | Useful for tracking the resource location | string |

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
|---|---|
| 2621706 | The specified SVM UUID is incorrect for the specified SVM name. |
| 2621516 | This operation is only supported on a data SVM. |
| 3277025 | Maximum supported limit of UNIX group count reached. |
| 3277051 | Invalid characters in group name. Valid characters are 0-9, A-Z, a-z, ".", "_" and "-". Names cannot start with "-". |

| Error Code | Description |
| --- | --- |
| 23724067 | Group name too long. Maximum supported length is 64 characters. |
| 23724141 | Duplicate group ID. Group ID must be unique. |

**Definitions**

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

users

| Name | Type | Description |
|---|---|---|
| name | string | UNIX user who belongs to the specified UNIX group and the SVM. |

unix_group

| Name | Type | Description |
|---|---|---|
| id | integer | UNIX group ID of the specified user. |
| name | string | UNIX group name to be added to the local database. |
| skip_name_validation | boolean | Indicates whether or not the validation for the specified UNIX group name is disabled. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| users | array[users] | |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a UNIX group configuration for an SVM

DELETE `/name-services/unix-groups/{svm.uuid}/{name}`

**Introduced In:** 9.9

Deletes a UNIX group configuration for the specified SVM.

### Related ONTAP commands

- `vserver services name-service unix-group delete`

### Learn more

- DOC /name-services/unix-groups

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| name | string | path | True | UNIX group name. |
| 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 | returned_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 |

returned_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 UNIX group information for a group and SVM

GET `/name-services/unix-groups/{svm.uuid}/{name}`

**Introduced In:** 9.9

Retrieves UNIX group information for the specified group and SVM. UNIX users who are part of this group are also retrieved.

### Related ONTAP commands

- `vserver services name-service unix-group show`

### Learn more

- DOC /name-services/unix-groups

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| name | string | path | True | UNIX group name. |

| 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 | |
| id | integer | UNIX group ID of the specified user. |
| name | string | UNIX group name to be added to the local database. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| users | array[users] | |

### Example response


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "group1",
  "skip_name_validation": true,
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "users": [
    {
      "name": "string"
    }
  ]
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

users

| Name | Type | Description |
|---|---|---|
| name | string | UNIX user who belongs to the specified UNIX group and the SVM. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 UNIX group information for a group in an SVM

PATCH `/name-services/unix-groups/{svm.uuid}/{name}`

**Introduced In:** 9.9

Updates the UNIX group information of the specified group in the specified SVM.

### Learn more

- DOC /name-services/unix-groups

### Parameters

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

### Request Body

| Name | Type | Description |
|---|---|---|
| id | integer | UNIX group ID of the specified user. |
| users | array[users] | |

### Example request

```
{
  "skip_name_validation": true,
  "users": [
    {}
  ]
}
```

### Response

```
Status: 200, Ok
```

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
| --- | --- |
| 23724141 | Duplicate group ID. Group ID must be unique. |

### Definitions

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

users

unix_group

| Name | Type | Description |
|---|---|---|
| id | integer | UNIX group ID of the specified user. |
| users | array[users] | |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

# Manage UNIX group users

## Manage UNIX group users

### Overview

You can use this API to retrieve, add or delete UNIX users for an SVM’s UNIX group.

### Retrieving UNIX users from an SVM’s UNIX group

The UNIX group users GET endpoint retrieves UNIX users of the specified UNIX group and the SVM.

### Examples

#### Retrieving all users from the group 'pcuser'

```
# The API:
/api/name-services/unix-groups/{svm.uuid}/{unix_group.name}/users

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/unix-groups/f06686a2-
c901-11eb-94b4-0050568e9f2c/pcuser/users" -H "accept:
application/hal+json"

# The response:
{
 "records": [
 {
  "svm": {
    "uuid": "f06686a2-c901-11eb-94b4-0050568e9f2c",
    "name": "svm1"
  },
  "unix_group": {
    "name": "pcuser"
  },
  "name": "user1",
  "_links": {
    "self": {
      "href": "/api/name-services/unix-groups/f06686a2-c901-11eb-94b4-
0050568e9f2c/pcuser/users/user1"
    }
  }
 }
],
 "num_records": 1,
 "_links": {
 "self": {
   "href": "/api/name-services/unix-groups/f06686a2-c901-11eb-94b4-
0050568e9f2c/pcuser/users/?fields=*"
 }
}
}
```

**Retrieving user 'user1' from the group 'pcuser'**

```
# The API:
/api/name-services/unix-groups/{svm.uuid}/{unix_group.name}/users/{name}

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/unix-groups/f06686a2-
c901-11eb-94b4-0050568e9f2c/pcuser/users/user1" -H "accept:
application/hal+json"

# The response:
{
 "svm": {
 "uuid": "f06686a2-c901-11eb-94b4-0050568e9f2c",
 "name": "svm1"
 },
 "unix_group": {
 "name": "pcuser"
 },
 "name": "user1",
 "_links": {
 "self": {
   "href": "/api/name-services/unix-groups/f06686a2-c901-11eb-94b4-
0050568e9f2c/pcuser/users/user1"
 }
}
}
```

### Adding users to a UNIX group

The UNIX group users POST endpoint adds UNIX users to the specified UNIX group and the SVM. Multiple users can be added in a single call using the "records" parameter.

### Examples

#### Adding a single user to the group 'group1'

```
# The API:
/api/name-services/unix-groups/{svm.uuid}/{unix_group.name}/users

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/unix-groups/179d3c85-
7053-11e8-b9b8-005056b41bd1/group1/users" -H "accept:
application/hal+json" -H "Content-Type: application/json" -d '{ "name":
"user4" }'
```

#### Adding multiple users to the group 'group1' in a single REST call

```
# The API:
/api/name-services/unix-groups/{svm.uuid}/{unix_group.name}/users

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/unix-groups/179d3c85-
7053-11e8-b9b8-005056b41bd1/group1/users" -H "accept:
application/hal+json" -H "Content-Type: application/json" -d '{ "records":
[{"name":"user1"}, {"name":"user2"}, {"name":"user3"}]}'
```

### Deleting a user from a group of a specific SVM

### Example

#### Delete the user 'user1' from group 'group1' in SVM 'vs1'

```
# The API:
/api/name-services/unix-groups/{svm.uuid}/{unix_group.name}/users/{name}

# The call:
curl -X DELETE "https://<mgmt-ip>/api/name-services/unix-groups/179d3c85-
7053-11e8-b9b8-005056b41bd1/group1/users/user1" -H "accept:
application/hal+json"
```

## Retrieve users for a UNIX group and SVM

GET `/name-services/unix-groups/{svm.uuid}/{unix_group.name}/users`

**Introduced In:** 9.10

Retrieves users for the specified UNIX group and SVM.

### Related ONTAP commands

- `vserver services name-service unix-group show`

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| unix_group.name | string | path | True | UNIX group name. |
| name | string | query | False | Filter by name |

| 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. |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 | |

| Name | Type | Description |
| --- | --- | --- |
| num_records | integer | Number of UNIX user records in a given SVM and group. |
| records | array[unix_group_users] | |

**Example response**


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "string",
      "skip_name_validation": true,
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "unix_group": {
        "name": "string"
      }
    }
  ]
}
```

### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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 | |

records

| Name | Type | Description |
|---|---|---|
| name | string | UNIX user who belongs to the specified UNIX group and the SVM. |

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

unix_group

| Name | Type | Description |
|---|---|---|
| name | string | UNIX group name. |

unix_group_users

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | UNIX user who belongs to the specified UNIX group and the SVM. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| unix_group | unix_group | |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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. |

## Add users to a UNIX group and SVM

POST `/name-services/unix-groups/{svm.uuid}/{unix_group.name}/users`

**Introduced In:** 9.9

Adds users to the specified UNIX group and SVM.

### Important notes

- Multiple users can be added in a single call using the "records" parameter.
- "records" parameter must not be specified when "name" parameter is specified.

- Specified users are appended to the existing list of users.
- Duplicate users are ignored.

### Related ONTAP commands

- `vserver services name-service unix-group adduser`
- `vserver services name-service unix-group addusers`

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| unix_group.name | string | path | True | UNIX group name. |
| return_records | boolean | query | False | The default is false. If set to true, the records are returned.<br>• Default value: |
| svm.uuid | string | path | True | UUID of the SVM to which this object belongs. |

### Request Body

| Name | Type | Description |
|---|---|---|
| name | string | UNIX user who belongs to the specified UNIX group and the SVM. |
| records | array[records] | An array of UNIX users specified to add multiple users to a UNIX group in a single API call. Not allowed when the `name` property is used. |
| skip_name_validation | boolean | Indicates whether or not the validation for the specified UNIX user names is disabled. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| unix_group | unix_group | |

### Example request

```
{
  "name": "string",
  "records": [
    {
      "name": "string"
    }
  ],
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "unix_group": {
    "name": "string"
  }
}
```

### Response

```
Status: 201, Created
```

#### Headers

| Name | Description | Type |
|---|---|---|
| Location | Useful for tracking the resource location | string |

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
|---|---|
| 262179 | Invalid arguments in records. |
| 3276897 | The specified UNIX group does not exist in the SVM. |
| 3277025 | Maximum supported limit of UNIX group membership count reached. |

| Error Code | Description |
| --- | --- |
| 3277051 | Invalid characters in user name. Valid characters are 0-9, A-Z, a-z, ".", "_" and "-". Names cannot start with "-". |
| 23724066 | User name too long. Maximum supported length is 64 characters. |
| 23724142 | "records" field must not be specified when a single user is added. |
| 23724143 | SVM UUID, UNIX group name and skip-name-validation are invalid fields for "records" parameter. |

**Definitions**

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

records

| Name | Type | Description |
|---|---|---|
| name | string | UNIX user who belongs to the specified UNIX group and the SVM. |

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

unix_group

| Name | Type | Description |
|---|---|---|
| name | string | UNIX group name. |

unix_group_users

| Name | Type | Description |
|---|---|---|
| name | string | UNIX user who belongs to the specified UNIX group and the SVM. |

| Name | Type | Description |
|---|---|---|
| records | array[records] | An array of UNIX users specified to add multiple users to a UNIX group in a single API call. Not allowed when the `name` property is used. |
| skip_name_validation | boolean | Indicates whether or not the validation for the specified UNIX user names is disabled. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| unix_group | unix_group | |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a user from a UNIX group

DELETE `/name-services/unix-groups/{svm.uuid}/{unix_group.name}/users/{name}`

**Introduced In:** 9.9

Deletes a user from the specified UNIX group.

### Related ONTAP commands

- `vserver services name-service unix-group deluser`

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| unix_group.name | string | path | True | UNIX group name. |
| name | string | path | True | UNIX user to be deleted from the group. |
| svm.uuid | string | path | True | UUID of the SVM to which this object belongs. |

### Response

```
Status: 200, Ok
```

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
|---|---|
| 3276897 | The specified UNIX group does not exist in the SVM. |

| Name | Type | Description |
|---|---|---|
| error | returned_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 |

returned_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 users for a UNIX group and SVM

GET `/name-services/unix-groups/{svm.uuid}/{unix_group.name}/users/{name}`

**Introduced In:** 9.10

Retrieves users for the specified UNIX group and SVM.

### Related ONTAP commands

- `vserver services name-service unix-group show`

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| unix_group.name | string | path | True | UNIX group name. |
| name | string | path | True | UNIX user to be retrieved from the group. |
| fields | array[string] | query | False | Specify the fields to return. |
| svm.uuid | string | path | True | UUID of the SVM to which this object belongs. |

### Response

```
Status: 200, Ok
```

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | UNIX user who belongs to the specified UNIX group and the SVM. |
| svm | svm | SVM, applies only to SVM-scoped objects. |
| unix_group | unix_group | |

### Example response


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "name": "string",
  "skip_name_validation": true,
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "unix_group": {
    "name": "string"
  }
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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 | |

records

| Name | Type | Description |
|---|---|---|
| name | string | UNIX user who belongs to the specified UNIX group and the SVM. |

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

unix_group

| Name | Type | Description |
|---|---|---|
| name | string | UNIX group name. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |

| Name | Type | Description |
|---|---|---|
| message | string | Message argument |

returned_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. |

# Manage UNIX user configurations

## Manage UNIX user configurations

### Overview

You can use this API to display local UNIX user information and to control UNIX user configurations.

### Retrieving UNIX user information

You can use the UNIX user GET endpoint to retrieve all of the local UNIX user configurations for data SVMs.

### Examples

#### Retrieving all of the fields for UNIX user configurations for all SVMs

```
# The API:
/api/name-services/unix-users

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/unix-users?fields=*" -H
"accept: application/json"

# The response:
{
"records": [
  {
    "svm": {
```

```
      "uuid": "25b363a6-2971-11eb-88e1-0050568eefd4",
      "name": "vs1"
    },
    "name": "string",
    "id": 7,
    "primary_gid": 0,
    "full_name": "string"
  },
  {
    "svm": {
      "uuid": "3f479a01-2971-11eb-88e1-0050568eefd4",
      "name": "vs2"
    },
    "name": "nobody",
    "id": 65535,
    "primary_gid": 65535,
    "full_name": ""
  },
  {
    "svm": {
      "uuid": "3f479a01-2971-11eb-88e1-0050568eefd4",
      "name": "vs2"
    },
    "name": "pcuser",
    "id": 65534,
    "primary_gid": 65534,
    "full_name": ""
  },
  {
    "svm": {
      "uuid": "3f479a01-2971-11eb-88e1-0050568eefd4",
      "name": "vs2"
    },
    "name": "root",
    "id": 0,
    "primary_gid": 1,
    "full_name": ""
  }
],
"num_records": 4
}
```

#### Retrieving the UNIX user configuration of a specific SVM

```
# The API:
/api/name-services/unix-users

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/unix-
users?svm.uuid=25b363a6-2971-11eb-88e1-0050568eefd4&fields=*" -H "accept:
application/json"

# The response:
{
"records": [
  {
    "svm": {
      "uuid": "25b363a6-2971-11eb-88e1-0050568eefd4",
      "name": "vs1"
    },
    "name": "user1",
    "id": 1,
    "primary_gid": 1,
    "full_name": "Full User Name for user1"
  }
],
"num_records": 1
}
```

#### Retrieving a UNIX user configuration of a specific SVM and user

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

# The call:
curl -X GET "https://<mgmt-ip>/api/name-services/unix-users/25b363a6-2971-
11eb-88e1-0050568eefd4/user1" -H "accept: application/json"

# The response:
{
"svm": {
  "uuid": "25b363a6-2971-11eb-88e1-0050568eefd4",
  "name": "vs1"
},
"name": "user1",
"id": 1,
"primary_gid": 1,
"full_name": "Full User Name for user1"
}
```

### Creating a UNIX user configuration

The UNIX user POST endpoint creates a UNIX user configuration for the specified SVM.

### Examples

#### Creating a UNIX user configuration with all fields specified

```
# The API:
/api/name-services/unix-users

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/unix-users" -H "accept:
application/json" -d "{ \"full_name\": \"Full user name\", \"id\": 7,
\"name\": \"user2\", \"primary_gid\": 10, \"skip_name_validation\": false,
\"svm\": { \"name\": \"vs1\", \"uuid\": \"25b363a6-2971-11eb-88e1-
0050568eefd4\" }}"
```

#### Creating a UNIX user configuration with only mandatory fields specified

```
# The API:
/api/name-services/unix-users

# The call:
curl -X POST "https://<mgmt-ip>/api/name-services/unix-users" -H "accept:
application/json" -d "{ \"id\": 8, \"name\": \"user9\", \"primary_gid\":
10, \"svm\": { \"name\": \"vs1\", \"uuid\": \"25b363a6-2971-11eb-88e1-
0050568eefd4\" }}"
```

#### Updating a UNIX user configuration

The UNIX user PATCH endpoint updates the UNIX user configuration for the specified user and SVM. The following example shows a PATCH operation:

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

# The call:
curl -X PATCH "https://<mgmt-ip>/api/name-services/unix-users/25b363a6-
2971-11eb-88e1-0050568eefd4/user1" -H "accept: application/json" -d "{
\"full_name\": \"Full name\", \"id\": 7, \"primary_gid\": 10 }"
```

#### Deleting a UNIX user configuration

The UNIX user DELETE endpoint deletes the specified UNIX user for the specified SVM. The following example shows a DELETE operation:

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

# The call:
curl -X DELETE "https://<mgmt-ip>/api/name-services/unix-users/25b363a6-
2971-11eb-88e1-0050568eefd4/user1" -H "accept: application/json"
```

## Retrieve all UNIX users for all SVMs

GET `/name-services/unix-users`

**Introduced In:** 9.9

Retrieves all of the UNIX users for all of the SVMs.

### Important notes

- The current UNIX users count can be retrieved from the num_records field by calling the API with the parameter "return_records=false".

### Related ONTAP commands

- `vserver services name-service unix-user show`

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| svm.name | string | query | False | Filter by svm.name |
| svm.uuid | string | query | False | Filter by svm.uuid |
| name | string | query | False | Filter by name |
| full_name | string | query | False | Filter by full_name |
| id | integer | query | False | Filter by id |
| primary_gid | integer | query | False | Filter by primary_gid |
| 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.<br>• 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.<br>• Default value: 15<br>• Max value: 120<br>• 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 UNIX user records. |
| records | array[unix_user] | |

### Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "full_name": "Full User Name for user1",
      "name": "user1",
      "skip_name_validation": true,
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      }
    }
  ]
}
```


### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

unix_user

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| full_name | string | User's full name. |
| id | integer | UNIX user ID of the specified user. |
| name | string | UNIX user name to be added to the local database. |

| Name | Type | Description |
|---|---|---|
| primary_gid | integer | Primary group ID to which the user belongs. |
| svm | svm | SVM, applies only to SVM-scoped objects. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a local UNIX user configuration for an SVM

POST `/name-services/unix-users`

**Introduced In:** 9.9

Creates the local UNIX user configuration for an SVM.

### Important notes

- The default limit for local UNIX users is 32768.

### Parameters

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

### Request Body

| Name | Type | Description |
|---|---|---|
| full_name | string | User's full name. |
| id | integer | UNIX user ID of the specified user. |
| name | string | UNIX user name to be added to the local database. |
| primary_gid | integer | Primary group ID to which the user belongs. |
| skip_name_validation | boolean | Indicates whether or not the validation for the specified UNIX user name is disabled. |
| svm | svm | SVM, applies only to SVM-scoped objects. |

### Example request

```
{
  "full_name": "Full User Name for user1",
  "name": "user1",
  "svm": {
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```

### Response

```
Status: 201, Created
```

| Name | Type | Description |
|---|---|---|
| num_records | integer | Number of UNIX user records. |
| records | array[unix_user] | |

**Example response**

```
{
  "num_records": 1,
  "records": [
    {
      "full_name": "Full User Name for user1",
      "name": "user1",
      "svm": {
        "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 |
|---|---|
| 2621706 | The specified SVM UUID is incorrect for the specified SVM name |
| 2621516 | This operation is only supported on a data SVM |
| 23724066 | The specified UNIX user name is too long. Maximum supported length is 64 characters. |
| 3277051 | The specified UNIX user name contains invalid characters. Valid characters are 0-9, A-Z, a-z, ".", "_" and "-". |

| Error Code | Description |
| --- | --- |
| 23724128 | The specified UNIX user full-name contains the invalid character ':'. |
| 23724089 | The specified UNIX user full-name is too long. Maximum supported length is 256 characters. |
| 23724055 | Internal error. Failed to create the UNIX user for the SVM. Verify that the cluster is healthy, then try the command again. |
| 23724090 | Configuring individual entries is not supported because file-only configuration is enabled. |
| 3277025 | Failed to create the UNIX user for the SVM because the system limit has been reached. |

**Definitions**

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

unix_user

| Name | Type | Description |
|---|---|---|
| full_name | string | User's full name. |
| id | integer | UNIX user ID of the specified user. |
| name | string | UNIX user name to be added to the local database. |
| primary_gid | integer | Primary group ID to which the user belongs. |
| skip_name_validation | boolean | Indicates whether or not the validation for the specified UNIX user name is disabled. |
| svm | svm | SVM, applies only to SVM-scoped objects. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 a UNIX user configuration for an SVM

DELETE `/name-services/unix-users/{svm.uuid}/{name}`

**Introduced In:** 9.9

Deletes a UNIX user configuration for the specified SVM.

### Related ONTAP commands

- `vserver services name-service unix-user delete`

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| name | string | path | True | UNIX user name |
| 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 | returned_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 |

returned_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 UNIX user information for a user and SVM

GET `/name-services/unix-users/{svm.uuid}/{name}`

**Introduced In:** 9.9

Retrieves UNIX user information for the specified user and SVM.

### Related ONTAP commands

- `vserver services name-service unix-user show`

### Parameters

| Name | Type | In | Required | Description |
|---|---|---|---|---|
| name | string | path | True | UNIX user name |
| 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 | |
| full_name | string | User's full name. |
| id | integer | UNIX user ID of the specified user. |
| name | string | UNIX user name to be added to the local database. |
| primary_gid | integer | Primary group ID to which the user belongs. |
| svm | svm | SVM, applies only to SVM-scoped objects. |

### Example response


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "full_name": "Full User Name for user1",
  "name": "user1",
  "skip_name_validation": true,
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```

### Error

```
Status: Default, Error
```

| Name | Type | Description |
|---|---|---|
| error | returned_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

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| _links | _links | |
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_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 UNIX user information for a user and SVM

PATCH `/name-services/unix-users/{svm.uuid}/{name}`

**Introduced In:** 9.9

Updates UNIX user information for the specified user and SVM.

### Parameters

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

### Request Body

| Name | Type | Description |
|---|---|---|
| full_name | string | User's full name. |
| id | integer | UNIX user ID of the specified user. |
| primary_gid | integer | Primary group ID to which the user belongs. |

### Example request

```
{
  "full_name": "Full User Name for user1",
  "skip_name_validation": true
}
```

### Response

```
Status: 200, Ok
```

### Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
| --- | --- |
| 23724128 | The specified Unix user full-name contains invalid character ':' |
| 23724089 | The specified UNIX user full-name is too long. Maximum supported length is 256 characters. |
| 23724055 | Internal error. Failed to modify the UNIX user for the SVM. Verify that the cluster is healthy, then try the command again. |
| 23724090 | Configuring individual entries is not supported because file-only configuration is enabled. |

**Definitions**

**See Definitions**

href

| Name | Type | Description |
|---|---|---|
| href | string | |

_links

svm

SVM, applies only to SVM-scoped objects.

| Name | Type | Description |
|---|---|---|
| name | string | The name of the SVM. This field cannot be specified in a PATCH method. |
| uuid | string | The unique identifier of the SVM. This field cannot be specified in a PATCH method. |

unix_user

| Name | Type | Description |
|---|---|---|
| full_name | string | User's full name. |
| id | integer | UNIX user ID of the specified user. |
| primary_gid | integer | Primary group ID to which the user belongs. |

error_arguments

| Name | Type | Description |
|---|---|---|
| code | string | Argument code |
| message | string | Message argument |

returned_error

| Name | Type | Description |
|---|---|---|
| arguments | array[error_arguments] | Message arguments |

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

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