



# Retrieve and create SNMP users

## ONTAP 9.9.1 REST API reference

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# Table of Contents

- Retrieve and create SNMP users ..... 1
  - Support SNMP users endpoint overview ..... 1
  - Retrieve SNMP users on a cluster ..... 3
  - Create a cluster-scoped or an SVM-scoped SNMP user ..... 12

# Retrieve and create SNMP users

## Support SNMP users endpoint overview

### Overview

Defines, retrieves and adds new SNMP users. An SNMP user can be an SNMPv1/SNMPv2c user or an SNMPv3 user. SNMPv1/SNMPv2c user is also called a "community" user. Use a "community" user to query ONTAP SNMP server over SNMPv1/SNMPv2c protocol. An SNMPv3 user, also called a User-based Security Model (USM) user, can be a local SNMPv3 user or a remote SNMPv3 user. Use a local SNMPv3 user to query ONTAP SNMP server over SNMPv3 and/or to send SNMPv3 traps. A remote SNMPv3 user is configured in ONTAP as well as on a remote switch. ONTAP SNMP client uses a remote SNMPv3 user to query the switch over SNMPv3.

### Examples

**Retrieves a list of SNMP users in the cluster, sorted by SVM UUID**

```
# The API:
GET "/api/support/snmp/users"

# The call:
curl -H "accept: application/hal+json" -X GET "https://<mgmt-
ip>/api/support/snmp/users?order_by=owner.uuid"

# The response:
{
  "records": [
    {
      "engine_id": "80000315052d7d2c4410b8e911bc9f005056bb942e",
      "name": "snmpv1user1",
      "owner": {
        "uuid": "442c7d2d-b810-11e9-bc9f-005056bb942e"
      },
      "_links": {
        "self": {
          "href":
"/api/support/snmp/users/80000315052d7d2c4410b8e911bc9f005056bb942e/snmpv1
user1"
        }
      }
    },
    {
      "engine_id": "80000315058e02057c0fb8e911bc9f005056bb942e",
      "name": "snmpv3user1",
      "owner": {
```

```

      "uuid": "7c05028e-b80f-11e9-bc9f-005056bb942e"
    },
    "_links": {
      "self": {
        "href":
"/api/support/snmp/users/80000315058e02057c0fb8e911bc9f005056bb942e/snmpv3
user1"
      }
    }
  ],
  "num_records": 2,
  "_links": {
    "self": {
      "href": "/api/support/snmp/users?order_by=owner.uuid"
    }
  }
}

```

### Creates an SNMPv1 or SNMPv2c community user

```

# The API:
POST "/api/support/snmp/users"

# The call
curl -H "accept: application/json" -H "Content-Type: application/json" -X
POST "https://<mgmt-ip>/api/support/snmp/users" -d
'{"owner":{"uuid":"02c9e252-41be-11e9-81d5-00a0986138f7",
"name":"cluster1"}, "name":"public", "authentication_method":"community"}'

# The response:
201 Created
{}

```

### Creates a local SNMPv3 user

```

# The API:
POST "/api/support/snmp/users"

# The call
curl -H "accept: application/json" -H "Content-Type: application/json" -X
POST "https://<mgmt-ip>/api/support/snmp/users" -d
'{"owner":{"uuid":"02c9e252-41be-11e9-81d5-00a0986138f7"},
"name":"cluster1"}, {"name":"snmpv3u1", "authentication_method":"usm",
"snmpv3":{"authentication_protocol":"sha",
"authentication_password":"jelly22fi$h", "privacy_protocol":"aes",
"privacy_password":"allBlack$"}}}'

# The response:
201 Created
{}

```

### Creates a remote SNMPv3 user

```

# The API:
POST "/api/support/snmp/users"

# The call
curl -H "accept: application/json" -H "Content-Type: application/json" -X
POST "https://<mgmt-ip>/api/support/snmp/users" -d
'{"owner":{"uuid":"02c9e252-41be-11e9-81d5-00a0986138f7"},
"name":"cluster1"},
"engine_id":"8000031505b67667a26975e9118a480050568e6f74",
"name":"switchuser1", "authentication_method":"usm",
"switch_address":"fdf8:f53b:82e4::53",
"snmpv3":{"authentication_protocol":"md5",
"authentication_password":"TfhIeliw6011S.Rw$3pm"}}}'

# The response:
201 Created
{}

```

## Retrieve SNMP users on a cluster

```
GET /support/snmp/users
```

**Introduced In:** 9.7

Retrieves the list of SNMP users on the cluster.

## Related ONTAP commands

- `security snmpusers`
- `security login show -application snmp`

## Learn more

- [DOC /support/snmp/users](#)

## Parameters

Name	Type	In	Required	Description
engine_id	string	query	False	Filter by engine_id
comment	string	query	False	Filter by comment
owner.uuid	string	query	False	Filter by owner.uuid
owner.name	string	query	False	Filter by owner.name
snmpv3.privacy_protocol	string	query	False	Filter by snmpv3.privacy_protocol
snmpv3.authentication_protocol	string	query	False	Filter by snmpv3.authentication_protocol
switch_address	string	query	False	Filter by switch_address
authentication_method	string	query	False	Filter by authentication_method
name	string	query	False	Filter by name
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.

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. <ul style="list-style-type: none"> <li>• Default value: 1</li> </ul>
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. <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>
order_by	array[string]	query	False	Order results by specified fields and optional [asc

## Response

Status: 200, Ok

Name	Type	Description
_links	<a href="#">_links</a>	
num_records	integer	Number of records.
records	array[ <a href="#">snmp_user</a> ]	

**Example response**

A large, empty rectangular box with a thin, dashed border, occupying most of the page. It is intended for an example response.



```

{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "authentication_method": "usm",
      "comment": "This is a comment.",
      "engine_id": "80000315055415ab26d4aae811ac4d005056bb792e",
      "name": "snmpv3user2",
      "owner": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svml",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "scope": "svm",
      "snmpv3": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "authentication_password": "humTdumt*@t0nAwa11",
        "authentication_protocol": "sha2_256",
        "privacy_password": "p@**GOandCLCt*200",
        "privacy_protocol": "aes128"
      },
      "switch_address": "10.23.34.45"
    }
  ]
}

```

## Error

Status: Default, Error

Name	Type	Description
error	error	

### Example error

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

## Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

Name	Type	Description
next	<a href="#">href</a>	
self	<a href="#">href</a>	

\_links

Name	Type	Description
self	<a href="#">href</a>	

owner

Optional name and UUID of owning Storage Virtual Machine (SVM).

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

snmpv3

Optional parameter that can be specified only for an SNMPv3 user i.e. when 'authentication\_method' is either 'usm' or 'both'. This parameter defines the SNMPv3 credentials for an SNMPv3 user.

Name	Type	Description
_links	<a href="#">_links</a>	
authentication_password	string	Authentication protocol password.
authentication_protocol	string	Authentication protocol.
privacy_password	string	Privacy protocol password.
privacy_protocol	string	Privacy protocol.

snmp\_user

An SNMP user can be an SNMPv1/SNMPv2c user or an SNMPv3 user. SNMPv1/SNMPv2c user is also called a "community" user. An SNMPv3 user, also called a User-based Security Model (USM) user, can be a local SNMPv3 user or a remote SNMPv3 user. A local SNMPv3 user can be used for querying ONTAP SNMP server over SNMPv3 and/or for sending SNMPv3 traps. The local SNMPv3 user used for sending SNMPv3 traps must be configured with the same authentication and privacy credentials on the trap host receiver as well. A remote SNMPv3 user is also configured on a remote switch and used by ONTAP SNMP client functionality to query the remote switch over SNMPv3. An SNMP user is scoped to its owning Storage Virtual Machine (SVM). Owing SVM could be a data SVM or the administrative SVM.

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	
authentication_method	string	Optional authentication method.
comment	string	Optional comment text.
engine_id	string	Optional SNMPv3 engine identifier. For a local SNMP user belonging to the administrative Storage Virtual Machine (SVM), the default value of this parameter is the SNMPv3 engine identifier for the administrative SVM. For a local SNMP user belonging to a data SVM, the default value of this parameter is the SNMPv3 engine identifier for that data SVM. For an SNMPv1/SNMPv2c community, this parameter should not be specified in "POST" method. For a remote switch SNMPv3 user, this parameter specifies the SNMPv3 engine identifier for the remote switch. This parameter can also optionally specify a custom engine identifier.
name	string	SNMP user name.
owner	<a href="#">owner</a>	Optional name and UUID of owning Storage Virtual Machine (SVM).
scope	string	Set to "svm" for data Storage Virtual Machine (SVM) SNMP users and to "cluster" for administrative SVM SNMP users.

Name	Type	Description
snmpv3	<a href="#">snmpv3</a>	Optional parameter that can be specified only for an SNMPv3 user i.e. when 'authentication_method' is either 'usm' or 'both'. This parameter defines the SNMPv3 credentials for an SNMPv3 user.
switch_address	string	Optional remote switch address. It can be an IPv4 address or an IPv6 address. A remote switch can be queried over SNMPv3 using ONTAP SNMP client functionality. Querying such a switch requires an SNMPv3 user (remote switch user) to be configured on the switch. Since ONTAP requires remote switch user's SNMPv3 credentials (to query it), this user must be configured in ONTAP as well. This parameter is specified when configuring such a user. <ul style="list-style-type: none"> <li>• example: 10.23.34.45</li> <li>• Introduced in: 9.7</li> <li>• readCreate: 1</li> </ul>

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code
message	string	Error message

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

## Create a cluster-scoped or an SVM-scoped SNMP user

POST /support/snmp/users

**Introduced In:** 9.7

Creates either a cluster-scoped or an SVM-scoped SNMP user. This user can be an SNMPv1 or SNMPv2c community user or an SNMPv3 user. An SNMPv3 user can be a local SNMPv3 user or a remote SNMPv3 user.

### Required properties

- `owner` - Name and UUID of owning SVM.
- `engine_id` - Engine ID of owning SVM or remote switch.
- `name` - SNMP user name
- `authentication_method` - Authentication method

### Optional properties

- `switch_address` - Optional remote switch address
- `snmpv3` - SNMPv3-specific credentials
- `comment` - Comment text

### Default property values

- `snmpv3.authentication_protocol` - none
- `snmpv3.privacy_protocol` - none

### Related ONTAP commands

- `security login create`
- `system snmp community add`

### Learn more

- [DOC /support/snmp/users](#)

### Parameters

Name	Type	In	Required	Description
return_records	boolean	query	False	<p>The default is false. If set to true, the records are returned.</p> <ul style="list-style-type: none"> <li>• Default value:</li> </ul>
return_timeout	integer	query	False	<p>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.</p> <ul style="list-style-type: none"> <li>• Default value: 1</li> <li>• Max value: 120</li> <li>• Min value: 0</li> </ul>

## Request Body

Name	Type	Description
_links	<a href="#">_links</a>	
authentication_method	string	Optional authentication method.
comment	string	Optional comment text.

Name	Type	Description
engine_id	string	Optional SNMPv3 engine identifier. For a local SNMP user belonging to the administrative Storage Virtual Machine (SVM), the default value of this parameter is the SNMPv3 engine identifier for the administrative SVM. For a local SNMP user belonging to a data SVM, the default value of this parameter is the SNMPv3 engine identifier for that data SVM. For an SNMPv1/SNMPv2c community, this parameter should not be specified in "POST" method. For a remote switch SNMPv3 user, this parameter specifies the SNMPv3 engine identifier for the remote switch. This parameter can also optionally specify a custom engine identifier.
name	string	SNMP user name.
owner	owner	Optional name and UUID of owning Storage Virtual Machine (SVM).
scope	string	Set to "svm" for data Storage Virtual Machine (SVM) SNMP users and to "cluster" for administrative SVM SNMP users.
snmpv3	snmpv3	Optional parameter that can be specified only for an SNMPv3 user i.e. when 'authentication_method' is either 'usm' or 'both'. This parameter defines the SNMPv3 credentials for an SNMPv3 user.



Name	Type	Description
switch_address	string	<p>Optional remote switch address. It can be an IPv4 address or an IPv6 address. A remote switch can be queried over SNMPv3 using ONTAP SNMP client functionality. Querying such a switch requires an SNMPv3 user (remote switch user) to be configured on the switch. Since ONTAP requires remote switch user's SNMPv3 credentials (to query it), this user must be configured in ONTAP as well. This parameter is specified when configuring such a user.</p> <ul style="list-style-type: none"> <li>• example: 10.23.34.45</li> <li>• Introduced in: 9.7</li> <li>• readCreate: 1</li> </ul>

## Example request

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "authentication_method": "usm",
  "comment": "This is a comment.",
  "engine_id": "80000315055415ab26d4aae811ac4d005056bb792e",
  "name": "snmpv3user2",
  "owner": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "scope": "svm",
  "snmpv3": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "authentication_password": "humTdumt*@t0nAwa11",
    "authentication_protocol": "sha2_256",
    "privacy_password": "p@**GOandCLCt*200",
    "privacy_protocol": "aes128"
  },
  "switch_address": "10.23.34.45"
}
```

## Response

Status: 201, Created

Name	Type	Description
<a href="#">_links</a>	<a href="#">_links</a>	

Name	Type	Description
authentication_method	string	Optional authentication method.
comment	string	Optional comment text.
engine_id	string	Optional SNMPv3 engine identifier. For a local SNMP user belonging to the administrative Storage Virtual Machine (SVM), the default value of this parameter is the SNMPv3 engine identifier for the administrative SVM. For a local SNMP user belonging to a data SVM, the default value of this parameter is the SNMPv3 engine identifier for that data SVM. For an SNMPv1/SNMPv2c community, this parameter should not be specified in "POST" method. For a remote switch SNMPv3 user, this parameter specifies the SNMPv3 engine identifier for the remote switch. This parameter can also optionally specify a custom engine identifier.
name	string	SNMP user name.
owner	<a href="#">owner</a>	Optional name and UUID of owning Storage Virtual Machine (SVM).
scope	string	Set to "svm" for data Storage Virtual Machine (SVM) SNMP users and to "cluster" for administrative SVM SNMP users.
snmpv3	<a href="#">snmpv3</a>	Optional parameter that can be specified only for an SNMPv3 user i.e. when 'authentication_method' is either 'usm' or 'both'. This parameter defines the SNMPv3 credentials for an SNMPv3 user.

Name	Type	Description
switch_address	string	<p>Optional remote switch address. It can be an IPv4 address or an IPv6 address. A remote switch can be queried over SNMPv3 using ONTAP SNMP client functionality. Querying such a switch requires an SNMPv3 user (remote switch user) to be configured on the switch. Since ONTAP requires remote switch user's SNMPv3 credentials (to query it), this user must be configured in ONTAP as well. This parameter is specified when configuring such a user.</p> <ul style="list-style-type: none"> <li>• example: 10.23.34.45</li> <li>• Introduced in: 9.7</li> <li>• readCreate: 1</li> </ul>

## Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "authentication_method": "usm",
  "comment": "This is a comment.",
  "engine_id": "80000315055415ab26d4aae811ac4d005056bb792e",
  "name": "snmpv3user2",
  "owner": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "scope": "svm",
  "snmpv3": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "authentication_password": "humTdumt*@t0nAwa11",
    "authentication_protocol": "sha2_256",
    "privacy_password": "p@**GOandCLCt*200",
    "privacy_protocol": "aes128"
  },
  "switch_address": "10.23.34.45"
}
```

## Error

Status: Default

## ONTAP Error Response Codes

Error Code	Description
2621475	This operation is not allowed on a node SVM.
2621601	This operation is not permitted on a system SVM.
5636101	One role for all applications and authentication methods is recommended for a user account.
5636106	Engine ID starting with first bit set as 1 in first octet should have a minimum of 5 or maximum of 32 octets.
5636107	Engine ID specified is based on an IP address, and must therefore be 9 octets in length.
5636108	Engine ID specified is based on an IPv6 address, and must therefore be 21 octets in length.
5636109	Engine ID specified is based on a MAC address, and must therefore be 11 octets in length.
5636110	Engine ID starting with first bit set as 0 in the first octet needs to be 12 octets in length.
5636111	Engine ID cannot have all zeroes.
5636112	Invalid Engine ID specified.
5636113	Cannot enable SNMP user capability for data SVM.
5636116	Cannot read SNMP user capability for data SVM.
5636121	User account name is reserved for use by the system.
5636123	Cannot create an SNMP user with a role other than readonly, none, or admin.
5636124	Cannot create an SNMP user with a role other than vsadmin-readonly, none, or vsadmin.
5636126	Cannot create a user with the user name, group name, or role "autosupport" because it is reserved by the system.
5636148	Failed to discover SNMPv3 engine ID of remote SNMP agent.
5636150	The switch_address parameter can be specified only for administrative SVMs.
5636152	0.0.0.0 cannot be specified as the IP Address for the switch_address parameter.
5636153	Engine ID is already associated with user.
5832711	The only application permitted for user "diag" is "console."
7077897	Invalid character in username. Valid characters:" A-Z, a-z, 0-9, ".", "_", and "-". Note that the user name cannot start with "-".
7077898	The username must contain both letters and numbers.

Error Code	Description
7077899	Username does not meet length requirements.
7077906	Cannot use given role with this SVM because a role with that name has not been defined for the SVM.
9043995	Failed to create SNMP community. Reason:" SNMPv1 and SNMPv2c are not supported when cluster FIPS mode is enabled.
9043999	ONTAP failed to create an SNMPv3 user because SNMPv3 is disabled in the cluster.

Name	Type	Description
error	error	

### Example error

```

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

```

### Definitions

## See Definitions

href

Name	Type	Description
href	string	

\_links

Name	Type	Description
self	<a href="#">href</a>	

owner

Optional name and UUID of owning Storage Virtual Machine (SVM).

Name	Type	Description
_links	<a href="#">_links</a>	
name	string	The name of the SVM.
uuid	string	The unique identifier of the SVM.

snmpv3

Optional parameter that can be specified only for an SNMPv3 user i.e. when 'authentication\_method' is either 'usm' or 'both'. This parameter defines the SNMPv3 credentials for an SNMPv3 user.

Name	Type	Description
_links	<a href="#">_links</a>	
authentication_password	string	Authentication protocol password.
authentication_protocol	string	Authentication protocol.
privacy_password	string	Privacy protocol password.
privacy_protocol	string	Privacy protocol.

snmp\_user

An SNMP user can be an SNMPv1/SNMPv2c user or an SNMPv3 user. SNMPv1/SNMPv2c user is also called a "community" user. An SNMPv3 user, also called a User-based Security Model (USM) user, can be a local SNMPv3 user or a remote SNMPv3 user. A local SNMPv3 user can be used for querying ONTAP SNMP server over SNMPv3 and/or for sending SNMPv3 traps. The local SNMPv3 user used for sending SNMPv3 traps must be configured with the same authentication and privacy credentials on the traphost receiver as well. A remote SNMPv3 user is also configured on a remote switch and used by ONTAP SNMP client functionality to query the remote switch over SNMPv3. An SNMP user is scoped to



its owning Storage Virtual Machine (SVM). Owning SVM could be a data SVM or the administrative SVM.

Name	Type	Description
_links	<a href="#">_links</a>	
authentication_method	string	Optional authentication method.
comment	string	Optional comment text.
engine_id	string	Optional SNMPv3 engine identifier. For a local SNMP user belonging to the administrative Storage Virtual Machine (SVM), the default value of this parameter is the SNMPv3 engine identifier for the administrative SVM. For a local SNMP user belonging to a data SVM, the default value of this parameter is the SNMPv3 engine identifier for that data SVM. For an SNMPv1/SNMPv2c community, this parameter should not be specified in "POST" method. For a remote switch SNMPv3 user, this parameter specifies the SNMPv3 engine identifier for the remote switch. This parameter can also optionally specify a custom engine identifier.
name	string	SNMP user name.
owner	<a href="#">owner</a>	Optional name and UUID of owning Storage Virtual Machine (SVM).
scope	string	Set to "svm" for data Storage Virtual Machine (SVM) SNMP users and to "cluster" for administrative SVM SNMP users.
snmpv3	<a href="#">snmpv3</a>	Optional parameter that can be specified only for an SNMPv3 user i.e. when 'authentication_method' is either 'usm' or 'both'. This parameter defines the SNMPv3 credentials for an SNMPv3 user.

Name	Type	Description
switch_address	string	<p>Optional remote switch address. It can be an IPv4 address or an IPv6 address. A remote switch can be queried over SNMPv3 using ONTAP SNMP client functionality. Querying such a switch requires an SNMPv3 user (remote switch user) to be configured on the switch. Since ONTAP requires remote switch user's SNMPv3 credentials (to query it), this user must be configured in ONTAP as well. This parameter is specified when configuring such a user.</p> <ul style="list-style-type: none"> <li>• example: 10.23.34.45</li> <li>• Introduced in: 9.7</li> <li>• readCreate: 1</li> </ul>

#### error\_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

#### error

Name	Type	Description
arguments	array[ <a href="#">error_arguments</a> ]	Message arguments
code	string	Error code
message	string	Error message
target	string	The target parameter that caused the error.

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