Manage iSCSI credentials

ONTAP 9.12.1 REST API reference

NetApp
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Manage iSCSI credentials

Protocols SAN iSCSI credentials endpoint overview

Overview

An iSCSI credentials object defines authentication credentials to be used between an initiator and ONTAP. It identifies an authentication type, user names, and passwords that must be used to authenticate a specific initiator.

The iSCSI credentials REST API allows you to create, update, delete, and discover iSCSI credentials.

How iSCSI authentication works

An iSCSI credentials object defines the authentication credentials to be used between an initiator and ONTAP. While establishing an iSCSI connection, the initiator sends a login request to ONTAP to begin an iSCSI session. ONTAP then either permits or denies the login request, or determines that a login is not required.

For an initiator, you can specify an authentication type, user names and passwords, and a whitelist of optional network addresses from which the initiator is allowed to connect.

iSCSI authentication methods

- Challenge-Handshake Authentication Protocol (CHAP) - The initiator logs in using a CHAP user name and password. There are two types of CHAP user names and passwords:

  - Inbound - ONTAP authenticates the initiator. Inbound settings are required if you are using CHAP authentication.

  - Outbound - These are optional credentials to enable the initiator to authenticate ONTAP. You can use credentials only if inbound credentials are also being used.

- deny - The initiator is denied access to ONTAP.

- none - ONTAP does not require authentication for the initiator. The CHAP inbound/outbound password can be any valid string or an even number of valid hexidecimal digits preceded by '0X' or '0x'.

Initiator address list

The initiator address list is a way to specify valid IP addresses from which the initiator is allowed to connect. If the list is specified and the source address of an iSCSI connection is not in the list, the connection is rejected. Initiator addresses can be specified in either IPv4 or IPv6 format and in one of two forms:

- Range

```
{
  "start": "192.168.0.0",
  "end": "192.168.0.255"
}
```

- Mask

```
{
    "address": "192.168.0.0",
    "netmask": "24"
}
```

Initiator "default"

The default iSCSI authentication definition is created when the iSCSI service is created. An iSCSI credentials object with *default* as the initiator name identifies the default authentication for an SVM. The default credentials are used for any initiator that does not have specific iSCSI credentials. The default iSCSI authentication method is *none*, but can be changed to *deny* or *CHAP*. The default credentials object does not support an initiator address list.

Examples

Creating iSCSI credentials requiring no authentication

```
# The API:
POST /api/protocols/san/iscsi/credentials

# The call:
curl -X POST 'https://<mgmt-ip>/api/protocols/san/iscsi/credentials' -H
'Accept: application/hal+json' -d '{ "svm": { "name": "svm1" },
"initiator": "iqn.1992-08.com.netapp:initiator1", "authentication_type":
"none" }'
```

Creating iSCSI credentials using CHAP inbound authentication

```
# The API:
POST /api/protocols/san/iscsi/credentials

# The call:
curl -X POST 'https://<mgmt-ip>/api/protocols/san/iscsi/credentials' -H
'Accept: application/hal+json' -d '{ "svm": { "name": "svm1" },
"initiator": "iqn.1992-08.com.netapp:initiator2", "authentication_type":
"CHAP", "chap": { "inbound": { "user": "user1", "password": "password1" }
} }'
```

Retrieving all properties of all iSCSI credentials

The `fields` query parameter is used to request all iSCSI credentials properties.

Passwords are not included in the GET output.

```
# The API:
GET /api/protocols/san/iscsi/credentials

# The call:
curl -X GET 'https://<mgmt-
ip>/api/protocols/san/iscsi/credentials?fields=*' -H 'Accept:
application/hal+json'

# The response:
{
"records": [
  {
    "svm": {
      "uuid": "19d04b8e-94d7-11e8-8370-005056b48fd2",
      "name": "svm1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/19d04b8e-94d7-11e8-8370-005056b48fd2"
        }
      }
    },
    "initiator": "default",
    "authentication_type": "none",
    "_links": {
      "self": {
        "href": "/api/protocols/san/iscsi/credentials/19d04b8e-94d7-11e8-
8370-005056b48fd2/default"
      }
    }
  },
  {
    "svm": {
      "uuid": "19d04b8e-94d7-11e8-8370-005056b48fd2",
      "name": "svm1",
      "_links": {
        "self": {
          "href": "/api/svm/svms/19d04b8e-94d7-11e8-8370-005056b48fd2"
        }
      }
    },
    "initiator": "iqn.1992-08.com.netapp:initiator1",
    "authentication_type": "none",
    "_links": {
      "self": {
```

```json
          "href": "/api/protocols/san/iscsi/credentials/19d04b8e-94d7-11e8-
8370-005056b48fd2/iqn.1992-08.com.netapp:initiator1"
        }
      }
    },
    {
      "svm": {
        "uuid": "19d04b8e-94d7-11e8-8370-005056b48fd2",
        "name": "svm1",
        "_links": {
          "self": {
            "href": "/api/svm/svms/19d04b8e-94d7-11e8-8370-005056b48fd2"
          }
        }
      },
      "initiator": "iqn.1992-08.com.netapp:initiator2",
      "authentication_type": "chap",
      "chap": {
        "inbound": {
          "user": "user1"
        }
      },
      "_links": {
        "self": {
          "href": "/api/protocols/san/iscsi/credentials/19d04b8e-94d7-11e8-
8370-005056b48fd2/iqn.1992-08.com.netapp:initiator2"
        }
      }
    },
    {
      "svm": {
        "uuid": "25f617cf-94d7-11e8-8370-005056b48fd2",
        "name": "svm2",
        "_links": {
          "self": {
            "href": "/api/svm/svms/25f617cf-94d7-11e8-8370-005056b48fd2"
          }
        }
      },
      "initiator": "default",
      "authentication_type": "none",
      "_links": {
        "self": {
          "href": "/api/protocols/san/iscsi/credentials/25f617cf-94d7-11e8-
8370-005056b48fd2/default"
        }
```

```
      }
    },
    {
      "svm": {
        "uuid": "25f617cf-94d7-11e8-8370-005056b48fd2",
        "name": "svm2",
        "_links": {
          "self": {
            "href": "/api/svm/svms/25f617cf-94d7-11e8-8370-005056b48fd2"
          }
        }
      },
      "initiator": "iqn.1992-08.com.netapp:initiator2",
      "authentication_type": "none",
      "_links": {
        "self": {
          "href": "/api/protocols/san/iscsi/credentials/25f617cf-94d7-11e8-
8370-005056b48fd2/iqn.1992-08.com.netapp:initiator2"
        }
      }
    },
    {
      "svm": {
        "uuid": "25f617cf-94d7-11e8-8370-005056b48fd2",
        "name": "svm2",
        "_links": {
          "self": {
            "href": "/api/svm/svms/25f617cf-94d7-11e8-8370-005056b48fd2"
          }
        }
      },
      "initiator": "iqn.1992-08.com.netapp:initiator3",
      "authentication_type": "deny",
      "_links": {
        "self": {
          "href": "/api/protocols/san/iscsi/credentials/25f617cf-94d7-11e8-
8370-005056b48fd2/iqn.1992-08.com.netapp:initiator3"
        }
      }
    }
  ],
  "num_records": 6,
  "_links": {
    "self": {
      "href": "/api/protocols/san/iscsi/credentials?fields=*"
    }
```

```
      }
    }
```

Retrieving specific iSCSI credentials

```
# The API:
GET /api/protocols/san/iscsi/credentials/{svm.uuid}/{initiator}

# The call:
curl -X GET 'https://<mgmt-
ip>/api/protocols/san/iscsi/credentials/25f617cf-94d7-11e8-8370-
005056b48fd2/iqn.1992-08.com.netapp:initiator2' -H 'Accept:
application/hal+json'

# The response:
{
"svm": {
  "uuid": "25f617cf-94d7-11e8-8370-005056b48fd2",
  "name": "svm2",
  "_links": {
    "self": {
      "href": "/api/svm/svms/25f617cf-94d7-11e8-8370-005056b48fd2"
    }
  }
},
"initiator": "iqn.1992-08.com.netapp:initiator2",
"authentication_type": "chap",
"chap": {
  "inbound": {
    "user": "user1"
  }
},
"_links": {
  "self": {
    "href": "/api/protocols/san/iscsi/credentials/25f617cf-94d7-11e8-8370-
005056b48fd2/iqn.1992-08.com.netapp:initiator2"
  }
}
}
```

Updating the authentication type of iSCSI credentials

```
# The API:
PATCH /api/protocols/san/iscsi/credentials/{svm.uuid}/{initiator}

# The call:
curl -X PATCH 'https://<mgmt-
ip>/api/protocols/san/iscsi/credentials/25f617cf-94d7-11e8-8370-
005056b48fd2/iqn.1992-08.com.netapp:initiator2' -H 'Accept:
application/hal+json' -d '{ "authentication_type": "chap", "chap": {
"inbound": { "user": "user1", "password": "password1" } } }'
```

Updating the initiator address list of iSCSI credentials

```
# The API:
PATCH /api/protocols/san/iscsi/credentials/{svm.uuid}/{initiator}

# The call:
curl -X PATCH 'https://<mgmt-
ip>/api/protocols/san/iscsi/credentials/25f617cf-94d7-11e8-8370-
005056b48fd2/iqn.1992-08.com.netapp:initiator2' -H 'Accept:
application/hal+json' -d '{ "initiator_address": { "ranges": [ { "start":
"192.168.0.0", "end": "192.168.255.255" } ] } }'
```

Deleting iSCSI credentials

```
# The API:
DELETE /api/protocols/san/iscsi/credentials/{svm.uuid}/{initiator}

# The call:
curl -X DELETE 'https://<mgmt-
ip>/api/protocols/san/iscsi/credentials/25f617cf-94d7-11e8-8370-
005056b48fd2/iqn.1992-08.com.netapp:initiator2' -H 'Accept:
application/hal+json'
```

Retrieve iSCSI credentials

GET `/protocols/san/iscsi/credentials`

Introduced In: 9.6

Retrieves iSCSI credentials.

Related ONTAP commands

- `vserver iscsi security show`

Learn more

- DOC /protocols/san/iscsi/credentials

Parameters

Name	Type	In	Required	Description
svm.uuid	string	query	False	Filter by svm.uuid
svm.name	string	query	False	Filter by svm.name
chap.outbound.user	string	query	False	Filter by chap.outbound.user • maxLength: 128 • minLength: 1
chap.inbound.user	string	query	False	Filter by chap.inbound.user • maxLength: 128 • minLength: 1
initiator_address.masks.address	string	query	False	Filter by initiator_address.masks.address
initiator_address.masks.family	string	query	False	Filter by initiator_address.masks.family
initiator_address.masks.netmask	string	query	False	Filter by initiator_address.masks.netmask
initiator_address.ranges.start	string	query	False	Filter by initiator_address.ranges.start
initiator_address.ranges.family	string	query	False	Filter by initiator_address.ranges.family

Name	Type	In	Required	Description
initiator_address.ranges.end	string	query	False	Filter by initiator_address.ranges.end
authentication_type	string	query	False	Filter by authentication_type
initiator	string	query	False	Filter by initiator
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.
return_records	boolean	query	False	The default is true for GET calls. When set to false, only the number of records is returned. • Default value: 1
return_timeout	integer	query	False	The number of seconds to allow the call to execute before returning. When iterating over a collection, the default is 15 seconds. ONTAP returns earlier if either max records or the end of the collection is reached. • Default value: 1 • Max value: 120 • Min value: 0
order_by	array[string]	query	False	Order results by specified fields and optional [asc

Response

```
Status: 200, Ok
```

Name	Type	Description
_links	_links	
num_records	integer	The number of records in the response.
records	array[iscsi_credentials]	

Example response

```json
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "authentication_type": "chap",
    "initiator": "iqn.1998-01.com.corp.iscsi:name1",
    "initiator_address": {
      "masks": {
        "address": "10.10.10.7",
        "family": "ipv4",
        "netmask": "24"
      },
      "ranges": {
        "end": "10.10.10.7",
        "family": "ipv4",
        "start": "10.10.10.7"
      }
    },
    "svm": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "svm1",
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    }
  }
}
```

Error

Status: Default, Error

Name	Type	Description
error	error	

Example error

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

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

Name	Type	Description
next	href	
self	href	

_links

Name	Type	Description
self	href	

inbound

Inbound CHAP credentials.

Name	Type	Description
password	string	The inbound CHAP password. Write-only; optional in POST and PATCH.
user	string	The inbound CHAP user name. Optional in POST and PATCH.

outbound

Output CHAP credentials.

To clear previously set outbound CHAP credentials, set property `chap.outbound.user` to an empty string in PATCH.

Name	Type	Description
password	string	The outbound CHAP password. Write-only; optional in POST and PATCH.

Name	Type	Description
user	string	The outbound CHAP user name. Optional in POST and PATCH. To clear previously set outbound CHAP credentials, set this property to an empty string in PATCH.

chap

Challenge-Handshake Authentication Protocol (CHAP) credentials.

Name	Type	Description
inbound	inbound	Inbound CHAP credentials.
outbound	outbound	Output CHAP credentials. To clear previously set outbound CHAP credentials, set property `chap.outbound.user` to an empty string in PATCH.

ip_info

IP information

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

ip_address_range

IP address range

Name	Type	Description
end	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6

Name	Type	Description
start	string	IPv4 or IPv6 address

initiator_address

Initiator address ranges.

Name	Type	Description
masks	array[ip_info]	
ranges	array[ip_address_range]	

svm

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

iscsi_credentials

Name	Type	Description
_links	_links	
authentication_type	string	The iSCSI authentication type. Required in POST; optional in PATCH.
chap	chap	Challenge-Handshake Authentication Protocol (CHAP) credentials.
initiator	string	The iSCSI initiator to which the credentials apply. Required in POST.
initiator_address	initiator_address	Initiator address ranges.
svm	svm	

error_arguments

Name	Type	Description
code	string	Argument code

Name	Type	Description
message	string	Message argument

error

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

Create iSCSI credentials

POST `/protocols/san/iscsi/credentials`

Introduced In: 9.6

Creates iSCSI credentials.

Required properties

- `svm.uuid` or `svm.name` - Existing SVM in which to create the iSCSI credentials.
- `initiator` - Initiator for which the iSCSI credentials are to be created.
- `authentication_type` - Type of authentication to use for the credentials.

Recommended optional properties

- `chap.inbound.user` - In-bound CHAP authentication user name.
- `chap.inbound.password` - In-bound CHAP authentication password.
- `chap.outbound.user` - Out-bound CHAP authentication user name.
- `chap.outbound.password` - Out-bound CHAP authentication password.

Related ONTAP commands

- `vserver iscsi security create`

Learn more

- DOC /protocols/san/iscsi/credentials

Parameters

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

Request Body

Name	Type	Description
_links	_links	
authentication_type	string	The iSCSI authentication type. Required in POST; optional in PATCH.
chap	chap	Challenge-Handshake Authentication Protocol (CHAP) credentials.
initiator	string	The iSCSI initiator to which the credentials apply. Required in POST.
initiator_address	initiator_address	Initiator address ranges.
svm	svm	

Example request

```json
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "authentication_type": "chap",
  "initiator": "iqn.1998-01.com.corp.iscsi:name1",
  "initiator_address": {
    "masks": {
      "address": "10.10.10.7",
      "family": "ipv4",
      "netmask": "24"
    },
    "ranges": {
      "end": "10.10.10.7",
      "family": "ipv4",
      "start": "10.10.10.7"
    }
  },
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```

Response

```
Status: 201, Created
```

Name	Type	Description
_links	_links	
num_records	integer	The number of records in the response.

Name	Type	Description
records	array[iscsi_credentials]	

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "authentication_type": "chap",
    "initiator": "iqn.1998-01.com.corp.iscsi:name1",
    "initiator_address": {
      "masks": {
        "address": "10.10.10.7",
        "family": "ipv4",
        "netmask": "24"
      },
      "ranges": {
        "end": "10.10.10.7",
        "family": "ipv4",
        "start": "10.10.10.7"
      }
    },
    "svm": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "svm1",
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    }
  }
}
```

Headers

Name	Description	Type
Location	Useful for tracking the resource location	string

Error

```
Status: Default
```

ONTAP Error Response Codes

Error Code	Description
2621462	An SVM with the specified UUID does not exist.
2621706	Both the SVM UUID and SVM name were supplied, but they do not refer to the same SVM.
2621707	No SVM was specified. Either `svm.name` or `svm.uuid` must be supplied.
5373969	A non-empty qualifier is required after the prefix. An example of a valid IQN is *iqn.1995-08.com.example:string*.
5373970	The IQN prefix is invalid. The correct IQN prefix is *iqn*. An example of a valid IQN is *iqn.1995-08.com.example:string*.
5373971	The date field is invalid. A valid date field is *yyyy-mm*. An example of a valid IQN is *iqn.1995-08.com.example:string*.
5373972	The naming authority and string fields can contain only the characters *a-z*, *0-9*, *.*, *:*, and *-*.
5373977	The EUI-64 identifier field must be exactly 16 hexadecimal digits.
5373978	The EUI formatted initiator name supplied is invalid. A valid EUI format is *eui.XXXXXXXXXXXXXXXX*, where X is a hexadecimal digit.
5373997	The initiator name supplied in invalid. The valid initiator name formats are *iqn.1995-08.com.example:string* or *eui.0123456789abcdef*.
5374078	The iSCSI service does not exist.
5374142	An iSCSI security credential already exists for the specified initiator.
5374145	The iSCSI security password must contain an even number of valid hex digits.

Error Code	Description
5374147	The CHAP inbound and outbound passwords must be different.
5374149	The inbound user and password properties are required for CHAP authentication.
5374150	Outbound CHAP authentication requires an outbound password.
5374855	The value for property `initiator_address.ranges.start` is greater than the value for property `initiator_address.ranges.end`.
5374856	The value for property `initiator_address.ranges.start` does not belong to the same IP address family as the value for property `initiator_address.ranges.end`.
5374900	Setting the CHAP authentication properties are not supported with authentication types *none* or *deny*.

Name	Type	Description
error	error	

Example error

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

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

Name	Type	Description
self	href	

inbound

Inbound CHAP credentials.

Name	Type	Description
password	string	The inbound CHAP password. Write-only; optional in POST and PATCH.
user	string	The inbound CHAP user name. Optional in POST and PATCH.

outbound

Output CHAP credentials.

To clear previously set outbound CHAP credentials, set property `chap.outbound.user` to an empty string in PATCH.

Name	Type	Description
password	string	The outbound CHAP password. Write-only; optional in POST and PATCH.
user	string	The outbound CHAP user name. Optional in POST and PATCH. To clear previously set outbound CHAP credentials, set this property to an empty string in PATCH.

chap

Challenge-Handshake Authentication Protocol (CHAP) credentials.

Name	Type	Description
inbound	inbound	Inbound CHAP credentials.
outbound	outbound	Output CHAP credentials. To clear previously set outbound CHAP credentials, set property `chap.outbound.user` to an empty string in PATCH.

ip_info

IP information

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

ip_address_range

IP address range

Name	Type	Description
end	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
start	string	IPv4 or IPv6 address

initiator_address

Initiator address ranges.

Name	Type	Description
masks	array[ip_info]	
ranges	array[ip_address_range]	

svm

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

iscsi_credentials

Name	Type	Description
_links	_links	
authentication_type	string	The iSCSI authentication type. Required in POST; optional in PATCH.
chap	chap	Challenge-Handshake Authentication Protocol (CHAP) credentials.
initiator	string	The iSCSI initiator to which the credentials apply. Required in POST.
initiator_address	initiator_address	Initiator address ranges.
svm	svm	

_links

Name	Type	Description
next	href	
self	href	

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

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

Delete iSCSI credentials

DELETE /protocols/san/iscsi/credentials/{svm.uuid}/{initiator}

Introduced In: 9.6

Deletes specified iSCSI credentials.

Related ONTAP commands

- `vserver iscsi security delete`

Learn more

- DOC /protocols/san/iscsi/credentials

Parameters

Name	Type	In	Required	Description
svm.uuid	string	path	True	The unique identifier of an SVM.
initiator	string	path	True	The iSCSI initiator of the credentials object.

Response

```
Status: 200, Ok
```

Error

```
Status: Default
```

ONTAP Error Response Codes

Error Code	Description
2621462	An SVM with the specified UUID does not exist.
2621706	Both the SVM UUID and SVM name were supplied, but they do not refer to the same SVM.
2621707	No SVM was specified. Either `svm.name` or `svm.uuid` must be supplied.
5374148	The default security credential cannot be deleted for an SVM.
5374895	The iSCSI security credential does not exist on the specified SVM.

Name	Type	Description
error	error	

Example error

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

Definitions

See Definitions

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

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

Retrieve specific iSCSI credentials

GET /protocols/san/iscsi/credentials/{svm.uuid}/{initiator}

Introduced In: 9.6

Retrieves specified iSCSI credentials.

Related ONTAP commands

- `vserver iscsi security show`

Learn more

- DOC /protocols/san/iscsi/credentials

Parameters

Name	Type	In	Required	Description
svm.uuid	string	path	True	The unique identifier of an SVM.

Name	Type	In	Required	Description
initiator	string	path	True	The iSCSI initiator of the credentials object.
fields	array[string]	query	False	Specify the fields to return.

Response

```
Status: 200, Ok
```

Name	Type	Description
_links	_links	
authentication_type	string	The iSCSI authentication type. Required in POST; optional in PATCH.
chap	chap	Challenge-Handshake Authentication Protocol (CHAP) credentials.
initiator	string	The iSCSI initiator to which the credentials apply. Required in POST.
initiator_address	initiator_address	Initiator address ranges.
svm	svm	

Example response

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "authentication_type": "chap",
  "initiator": "iqn.1998-01.com.corp.iscsi:name1",
  "initiator_address": {
    "masks": {
      "address": "10.10.10.7",
      "family": "ipv4",
      "netmask": "24"
    },
    "ranges": {
      "end": "10.10.10.7",
      "family": "ipv4",
      "start": "10.10.10.7"
    }
  },
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```

Error

```
Status: Default, Error
```

Name	Type	Description
error	error	

Example error

```json
{
  "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	

inbound

Inbound CHAP credentials.

Name	Type	Description
password	string	The inbound CHAP password. Write-only; optional in POST and PATCH.
user	string	The inbound CHAP user name. Optional in POST and PATCH.

outbound

Output CHAP credentials.

To clear previously set outbound CHAP credentials, set property `chap.outbound.user` to an empty string in PATCH.

Name	Type	Description
password	string	The outbound CHAP password. Write-only; optional in POST and PATCH.
user	string	The outbound CHAP user name. Optional in POST and PATCH. To clear previously set outbound CHAP credentials, set this property to an empty string in PATCH.

chap

Challenge-Handshake Authentication Protocol (CHAP) credentials.

Name	Type	Description
inbound	inbound	Inbound CHAP credentials.
outbound	outbound	Output CHAP credentials. To clear previously set outbound CHAP credentials, set property `chap.outbound.user` to an empty string in PATCH.

ip_info

IP information

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

ip_address_range

IP address range

Name	Type	Description
end	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
start	string	IPv4 or IPv6 address

initiator_address

Initiator address ranges.

Name	Type	Description
masks	array[ip_info]	
ranges	array[ip_address_range]	

svm

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

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

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

Update iSCSI credentials

PATCH /protocols/san/iscsi/credentials/{svm.uuid}/{initiator}

Introduced In: 9.6

Updates specified iSCSI credentials.

Related ONTAP commands

- vserver iscsi security add-initiator-address-ranges
- vserver iscsi security default
- vserver iscsi security modify
- vserver iscsi security remove-initiator-address-ranges

Learn more

- DOC /protocols/san/iscsi/credentials

Parameters

Name	Type	In	Required	Description
svm.uuid	string	path	True	The unique identifier of an SVM.
initiator	string	path	True	The iSCSI initiator of the credentials object.
add_initiator_addresses	boolean	query	False	If *true*, the initiator addresses in the body merge into the existing addresses in the iSCSI security object rather than replace the existing addresses. • Default value:
remove_initiator_addresses	boolean	query	False	If *true*, the initiator addresses in the body are removed from the existing addresses in the iSCSI security object rather than replace the existing addresses. • Default value:

Request Body

Name	Type	Description
_links	_links	
authentication_type	string	The iSCSI authentication type. Required in POST; optional in PATCH.
chap	chap	Challenge-Handshake Authentication Protocol (CHAP) credentials.

Name	Type	Description
initiator	string	The iSCSI initiator to which the credentials apply. Required in POST.
initiator_address	initiator_address	Initiator address ranges.
svm	svm	

Example request

```json
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "authentication_type": "chap",
  "initiator": "iqn.1998-01.com.corp.iscsi:name1",
  "initiator_address": {
    "masks": {
      "address": "10.10.10.7",
      "family": "ipv4",
      "netmask": "24"
    },
    "ranges": {
      "end": "10.10.10.7",
      "family": "ipv4",
      "start": "10.10.10.7"
    }
  },
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```

Response

```
Status: 200, Ok
```

Error

```
Status: Default
```

ONTAP Error Response Codes

Error Code	Description
2621462	An SVM with the specified UUID does not exist.
2621706	Both the SVM UUID and SVM name were supplied, but they do not refer to the same SVM.
2621707	No SVM was specified. Either `svm.name` or `svm.uuid` must be supplied.
5374145	The iSCSI security password must contain an even number of valid hex digits.
5374147	The CHAP inbound and outbound passwords must be different.
5374149	The inbound user and password properties are required for CHAP authentication.
5374150	Outbound CHAP authentication requires an outbound password.
5374155	The functionality is not supported for the default security credential.
5374855	The value for property `initiator_address.ranges.start` is greater than the value for property `initiator_address.ranges.end`.
5374856	The value for property `initiator_address.ranges.start` does not belong to the same IP address family as the value for property `initiator_address.ranges.end`.
5374895	The iSCSI security credential does not exist on the specified SVM.
5374900	Setting the CHAP authentication properties are not supported with authentication types *none* or *deny*.

Name	Type	Description
error	error	

Example error

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

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

Name	Type	Description
self	href	

inbound

Inbound CHAP credentials.

Name	Type	Description
password	string	The inbound CHAP password. Write-only; optional in POST and PATCH.
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outbound

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password	string	The outbound CHAP password. Write-only; optional in POST and PATCH.
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chap

Challenge-Handshake Authentication Protocol (CHAP) credentials.

Name	Type	Description
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outbound	outbound	Output CHAP credentials. To clear previously set outbound CHAP credentials, set property `chap.outbound.user` to an empty string in PATCH.

ip_info

IP information

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

ip_address_range

IP address range

Name	Type	Description
end	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
start	string	IPv4 or IPv6 address

initiator_address

Initiator address ranges.

Name	Type	Description
masks	array[ip_info]	
ranges	array[ip_address_range]	

svm

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

iscsi_credentials

Name	Type	Description
_links	_links	
authentication_type	string	The iSCSI authentication type. Required in POST; optional in PATCH.
chap	chap	Challenge-Handshake Authentication Protocol (CHAP) credentials.
initiator	string	The iSCSI initiator to which the credentials apply. Required in POST.
initiator_address	initiator_address	Initiator address ranges.
svm	svm	

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

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

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