



# Manage authentication keys

ONTAP 9.13.1 REST API reference

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# Manage authentication keys

## Security key-managers security\_key\_manager.uuid auth-keys endpoint overview

### Overview

Used to create and list authentication keys (NSE-AK).

### Example

**Creates an authentication key.**



an external key manager must be configured on the admin SVM, as the authentication key will be associated with the admin SVM. The following example shows how to create an authentication key.

```
# The API:
POST /api/security/key-managers/{security_key_manager.uuid}/auth-keys

# The call:
curl -X POST 'https://<mgmt-ip>/api/security/key-managers/5fb1701a-d922-11e8-bfe8-005056bb017d/auth-keys?return_timeout=15&return_records=true' -H 'accept: application/hal+json'

# The response:
{
  "num_records": 1,
  "records": [
    {
      "key_id":
      "00000000000000000000200000000000100531d8cdc38437c2627b6b1726dd2675c00000000
      000000",
      "key_tag": "vsim1"
    }
  ]
}
```

**Retrieving a list of all of the authentication keys associated with the admin SVM.**

The following example shows how to retrieve a list of all of the authentication keys associated with the admin SVM.

```

# The API:
GET /api/security/key-managers/{security_key_manager.uuid}/auth-keys

# The call:
curl -X GET 'https://<mgmt-ip>/api/security/key-managers/5fb1701a-d922-11e8-bfe8-005056bb017d/auth-keys?fields=*' -H 'accept: application/hal+json'

# The response:
{
  "num_records": 2,
  "records": [
    {
      "security_key_manager": {
        "uuid": "d36a654d-14b4-11ed-b82e-005056bb8f59"
      },
      "key_id":
"00000000000000000200000000000100052ab79fc51a430dbb16f1c0d2054cfe000000000000000",
      "key_tag": "vsim1"
    },
    {
      "security_key_manager": {
        "uuid": "d36a654d-14b4-11ed-b82e-005056bb8f59"
      },
      "key_id":
"000000000000000002000000000001003f32ce2dc55d2764c07da74e722c179b000000000000000",
      "key_tag": "vsim1"
    }
  ]
}

```

### Retrieving a specific authentication key associated with the admin SVM.

The following example shows how to a specific authentication key associated with the admin SVM and return the key-tag.

```

= The API:

GET /api/security/key-managers/{security_key_manager.uuid}/auth-keys/{key-id}

```

= The call:

```
curl -X GET 'https://+++<mgmt-ip>+++/api/security/key-managers/5fb1701a-
d922-11e8-bfe8-005056bb017d/auth-
keys/000000000000000002000000000010041a2dda969b0d179db8f1c78d629d0f100000
0000000000?fields=key_tag' -H 'accept: application/hal+json'+++</mgmt-
ip>+++
```

= The response:

```
{
"security_key_manager": {
  "uuid": "d36a654d-14b4-11ed-b82e-005056bb8f59"
},
"key_id":
"000000000000000002000000000010041a2dda969b0d179db8f1c78d629d0f1000000000
000000",
"key_tag": "vsim1"
}
```

[[ID661c80490b5cc39211796b4815a2a1d4]]

= Retrieve authentication keys associated with the admin SVM

```
[.api-doc-operation .api-doc-operation-get]#GET# [.api-doc-code-
block]#`/security/key-managers/{security_key_manager.uuid}/auth-keys`#
```

\*Introduced In:\* 9.12

Retrieves a list of all authentication keys associated with the admin SVM.

== Related ONTAP commands

\* `security key-manager key query`

== Required properties

\* `security\_key\_manager.uuid` - UUID of the external key manager.

== Parameters

[cols=5\*,options=header]

|===

|Name  
|Type  
|In  
|Required  
|Description

|key\_id  
|string  
|query  
|False  
a|Filter by key\_id

|key\_tag  
|string  
|query  
|False  
a|Filter by key\_tag

|security\_key\_manager.uuid  
|string  
|path  
|True  
a|External key manager UUID

|fields  
|array[string]  
|query  
|False  
a|Specify the fields to return.

|max\_records  
|integer  
|query  
|False  
a|Limit the number of records returned.

|return\_timeout  
|integer  
|query  
|False  
a|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

|return\_records  
|boolean  
|query  
|False

a|The default is true for GET calls. When set to false, only the number of records is returned.

- \* Default value: 1

|order\_by  
|array[string]  
|query  
|False

a|Order results by specified fields and optional [asc|desc] direction. Default direction is 'asc' for ascending.

|===

== Response

Status: 200, Ok

[cols=3\*,options=header]

|===

|Name  
|Type  
|Description

|\_links  
|link:#\_links[\_links]  
a|

|num\_records  
|integer  
a|Number of records

```

|records
|array[link:#key_manager_auth_key[key_manager_auth_key]]
a|

|===

.Example response
[%collapsible%closed]
=====
[source,json,subs=+macros]
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "key_id":
"000000000000000000002000000000001003aa8ce6a4fea3e466620134bea9510a1000000000
000000",
    "key_tag": "Authentication-Key-01",
    "passphrase": "AuthenticationKey_01"
  }
}
=====

== Error

```

**Status: Default**

ONTAP Error Response Codes

```

|===
| Error Code | Description
| 65536074

```



```
| No key servers found.

| 65536828
| External key management is not enabled for the SVM.

| 65536856
| No key servers found.

| 65536896
| External key management is not configured on the partner site.

| 65538800
| External KMIP DKMIP keymanager not configured on administrative Vserver.

| 65538801
| Internal error while accessing keymanager database.

| 65538802
| The UUID provided is not associated with the administrator SVM key
manager.
|===
```

```
[cols=3*,options=header]
```

```
|===
```

```
|Name
```

```
|Type
```

```
|Description
```

```
|error
```

```
|link:#error[error]
```

```
a|
```

```
|===
```

```
.Example error
```

```
[%collapsible%closed]
```

```
=====
```

```
[source,json,subs=+macros]
```

```
{
  "error": {
    "arguments": {
      "code": "string",
      "message": "string"
    },

```

```
"code": "4",
"message": "entry doesn't exist",
"target": "uuid"
}
}
====
```

== Definitions

```
[.api-def-first-level]
.See Definitions
[%collapsible%closed]
//Start collapsible Definitions block
====
```

```
[#href]
[.api-collapsible-fifth-title]
href
```

```
[cols=3*,options=header]
```

```
|===
```

```
|Name
```

```
|Type
```

```
|Description
```

```
|href
```

```
|string
```

```
a|
```

```
|===
```

```
[#_links]
```

```
[.api-collapsible-fifth-title]
```

```
_links
```

```
[cols=3*,options=header]
```

```
|===
```

```
|Name
```

```
|Type
```

```
|Description
```

```
|next
```

```
|link:#href[href]
```

```
a|
```

```
|self
```

```
|link:#href[href]
```

```

a|

|===

[#self_link]
[.api-collapsible-fifth-title]
self_link

[cols=3*,options=header]
|===
|Name
|Type
|Description

|self
|link:#href[href]
a|

|===

[#key_manager_auth_key]
[.api-collapsible-fifth-title]
key_manager_auth_key

[cols=3*,options=header]
|===
|Name
|Type
|Description

|_links
|link:#self_link[self_link]
a|

|key_id
|string
a|Key identifier.

|key_tag
|string
a|Optional parameter to define key-tag for the authentication key, length
0-32 characters.

```

```
|passphrase
|string
a|Authentication passphrase, length 20-32 characters. May contain the '='
character.
```

```
|===
```

```
[#error_arguments]
[.api-collapsible-fifth-title]
error_arguments
```

```
[cols=3*,options=header]
```

```
|===
```

```
|Name
|Type
|Description
```

```
|code
|string
a|Argument code
```

```
|message
|string
a|Message argument
```

```
|===
```

```
[#error]
[.api-collapsible-fifth-title]
error
```

```
[cols=3*,options=header]
```

```
|===
```

```
|Name
|Type
|Description
```

```
|arguments
|array[link:#error_arguments[error_arguments]]
a|Message arguments
```

```

|code
|string
a|Error code

|message
|string
a|Error message

|target
|string
a|The target parameter that caused the error.

|===

//end collapsible .Definitions block
=====

[[ID8e5cde49b616a17e382efe0a4c9c7f5d]]
= Create an authentication key

[.api-doc-operation .api-doc-operation-post]#POST# [.api-doc-code-
block]#`/security/key-managers/{security_key_manager.uuid}/auth-keys`#

*Introduced In:* 9.12

Creates an authentication key.

== Related ONTAP commands

* `security key-manager key create`

== Required properties

* `security_key_manager.uuid` - UUID of the external key manager.

== Parameters

[cols=5*,options=header]
|===

```

```

|Name
|Type
|In
|Required
|Description

|security_key_manager.uuid
|string
|path
|True
a|External key manager UUID

|return_records
|boolean
|query
|False
a|The default is false. If set to true, the records are returned.

* Default value:

|===

== Request Body

[cols=3*,options=header]
|===
|Name
|Type
|Description

|_links
|link:#self_link[self_link]
a|

|key_id
|string
a|Key identifier.

|key_tag
|string
a|Optional parameter to define key-tag for the authentication key, length
0-32 characters.

```

```
|passphrase
|string
a|Authentication passphrase, length 20-32 characters. May contain the '='
character.
```

```
|===
```

```
.Example request
```

```
[%collapsible%closed]
```

```
====
```

```
[source,json,subs=+macros]
```

```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "key_id":
"000000000000000002000000000001003aa8ce6a4fea3e466620134bea9510a1000000000
000000",
  "key_tag": "Authentication-Key-01",
  "passphrase": "AuthenticationKey_01"
}
```

```
====
```

```
== Response
```

Status: 201, Created

```
[cols=3*,options=header]
```

```
|===
```

```
|Name
```

```
|Type
```

```
|Description
```

```
|_links
```

```
|link:#_links[_links]
```

```
a|
```

```
|num_records
```

```
|integer
```

```
a|Number of records
```

```

|records
|array[link:#key_manager_auth_key[key_manager_auth_key]]
a|

|===

.Example response
[%collapsible%closed]
=====
[source,json,subs=+macros]
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "key_id":
"000000000000000000002000000000001003aa8ce6a4fea3e466620134bea9510a1000000000
000000",
    "key_tag": "Authentication-Key-01",
    "passphrase": "AuthenticationKey_01"
  }
}
}
=====

=== Headers

[cols=3*,options=header]
|===
//header
|Name
|Description
|Type
//end header

```



```
//start row
|Location
|Useful for tracking the resource location
|string
//end row
//end table
|===

== Error
```

## Status: Default

### ONTAP Error Response Codes

```
|===
| Error Code | Description

| 65536048
| The maximum number of authentication keys are already configured.

| 65536053
| Invalid passphrase length; passphrase must be 20-32 ASCII-range
characters.

| 65536056
| The key tag value provided contains invalid characters.

| 65536056
| The key-tag option cannot contain any spaces, tabs or new lines.

| 65536074
| No key servers found.

| 65536076
| Failed to push authentication key to any registered key servers.

| 65536160
| Unable to determine the current number of configured authentication
keys.

| 65536264
| Failed to create authentication key.

| 65536265
| Failed to create a key-id for the authentication key.
```

```
| 65536828
| External key management is not enabled for the SVM.

| 65536856
| No key servers found.

| 65536872
| Error cleaning up key database after key creation error.

| 65536896
| External key management is not configured on the partner site.

| 65538800
| External KMIP DKMIP keymanager not configured on administrative Vserver.

| 65538801
| Internal error while accessing keymanager database.

| 65538802
| The UUID provided is not associated with the administrator SVM key
manager.

| 66060289
| Failed to store authentication key on key server.

| 66060304
| Invalid key length.
|===
```

```
[cols=3*,options=header]
```

```
|===
```

```
|Name
```

```
|Type
```

```
|Description
```

```
|error
```

```
|link:#error[error]
```

```
a|
```

```
|===
```

```
.Example error
```

```
[%collapsible%closed]
```

```
====
```

```
[source,json,subs=+macros]
{
  "error": {
    "arguments": {
      "code": "string",
      "message": "string"
    },
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}
====
```

== Definitions

```
[.api-def-first-level]
.See Definitions
[%collapsible%closed]
//Start collapsible Definitions block
====
```

```
[#href]
[.api-collapsible-fifth-title]
href
```

```
[cols=3*,options=header]
|===
|Name
|Type
|Description
```

```
|href
|string
a|
```

```
|===
```

```
[#self_link]
[.api-collapsible-fifth-title]
self_link
```

```
[cols=3*,options=header]
|===
|Name
|Type
```

```

|Description

|self
|link:#href[href]
a|

|===

[#key_manager_auth_key]
[.api-collapsible-fifth-title]
key_manager_auth_key

[cols=3*,options=header]
|===
|Name
|Type
|Description

|_links
|link:#self_link[self_link]
a|

|key_id
|string
a|Key identifier.

|key_tag
|string
a|Optional parameter to define key-tag for the authentication key, length
0-32 characters.

|passphrase
|string
a|Authentication passphrase, length 20-32 characters. May contain the '='
character.

|===

[#_links]
[.api-collapsible-fifth-title]
_links

```

```

[cols=3*,options=header]
|===
|Name
|Type
|Description

|next
|link:#href[href]
a|

|self
|link:#href[href]
a|

|===

[#error_arguments]
[.api-collapsible-fifth-title]
error_arguments

[cols=3*,options=header]
|===
|Name
|Type
|Description

|code
|string
a|Argument code

|message
|string
a|Message argument

|===

[#error]
[.api-collapsible-fifth-title]
error

[cols=3*,options=header]
|===
|Name

```

```

|Type
|Description

|arguments
|array[link:#error_arguments[error_arguments]]
a|Message arguments

|code
|string
a|Error code

|message
|string
a|Error message

|target
|string
a|The target parameter that caused the error.

|===

//end collapsible .Definitions block
=====

[[ID19a72ae0ac47f26437a7d8f5c9062488]]
= Delete an authentication key

[.api-doc-operation .api-doc-operation-delete]#DELETE# [.api-doc-code-
block]#`/security/key-managers/{security_key_manager.uuid}/auth-
keys/{key_id}`#

*Introduced In:* 9.12

Deletes an authentication key.

== Related ONTAP commands

* `security key-manager key delete`

== Required properties

```

```
* `security_key_manager.uuid` - UUID of the external key manager.  
* `key_id` - Key ID of the authentication key to be deleted.
```

== Parameters

```
[cols=5*,options=header]
```

```
|===
```

```
|Name
```

```
|Type
```

```
|In
```

```
|Required
```

```
|Description
```

```
|security_key_manager.uuid
```

```
|string
```

```
|path
```

```
|True
```

```
a|External key manager UUID
```

```
|key_id
```

```
|string
```

```
|path
```

```
|True
```

```
a|Key ID of the authentication key to be deleted.
```

```
|===
```

== Response

Status: 200, Ok

== Error

Status: Default

ONTAP Error Response Codes

```
|===
```

```
| Error Code | Description
```

```
| 65536828
```

```
| External key management is not enabled for the SVM.

| 65536859
| Authentication key-Id provided for deletion is in use.

| 65536860
| Key-id provided for deletion is not an authentication key.

| 65538800
| External KMIP DKMIP keymanager not configured on administrative Vserver.

| 65538801
| Internal error while accessing keymanager database.

| 65538802
| The UUID provided is not associated with the administrator SVM key
manager.

| 66060296
| Failed to delete key from an external key server.
|===
```

```
[cols=3*,options=header]
```

```
|===
```

```
|Name
```

```
|Type
```

```
|Description
```

```
|error
```

```
|link:#error[error]
```

```
a|
```

```
|===
```

```
.Example error
```

```
[%collapsible%closed]
```

```
=====
```

```
[source,json,subs=+macros]
```

```
{
```

```
  "error": {
```

```
    "arguments": {
```

```
      "code": "string",
```

```
      "message": "string"
```

```
    },
```



```
"code": "4",
"message": "entry doesn't exist",
"target": "uuid"
}
}
====
```

== Definitions

```
[.api-def-first-level]
.See Definitions
[%collapsible%closed]
//Start collapsible Definitions block
====
```

```
[#error_arguments]
[.api-collapsible-fifth-title]
error_arguments
```

```
[cols=3*,options=header]
```

```
|===
```

```
|Name
```

```
|Type
```

```
|Description
```

```
|code
```

```
|string
```

```
a|Argument code
```

```
|message
```

```
|string
```

```
a|Message argument
```

```
|===
```

```
[#error]
```

```
[.api-collapsible-fifth-title]
```

```
error
```

```
[cols=3*,options=header]
```

```
|===
```

```
|Name
```

```
|Type
```

```
|Description
```

```
|arguments
|array[link:#error_arguments[error_arguments]]
a|Message arguments
```

```
|code
|string
a|Error code
```

```
|message
|string
a|Error message
```

```
|target
|string
a|The target parameter that caused the error.
```

```
|===
```

```
//end collapsible .Definitions block
=====
```

```
[[ID296652665bd01fc9642e331d93463086]]
= List all authentication keys associated with the admin SVM
```

```
[.api-doc-operation .api-doc-operation-get]#GET# [.api-doc-code-
block]#`/security/key-managers/{security_key_manager.uuid}/auth-
keys/{key_id}`#
```

\*Introduced In:\* 9.12

Retrieves the authentication key identified by the 'key\_id' and associated with the admin SVM.

== Related ONTAP commands

\* `security key-manager key query`

== Required properties

\* `security\_key\_manager.uuid` - UUID of the external key manager.

\* `key\_id` - Key ID of the authentication key to be retrieved.

== Parameters

[cols=5\*,options=header]

|===

|Name

|Type

|In

|Required

|Description

|key\_tag

|string

|query

|False

a|Filter by key\_tag

|security\_key\_manager.uuid

|string

|path

|True

a|External key manager UUID

|key\_id

|string

|path

|True

a|Key ID of the authentication key to be retrieved.

|fields

|array[string]

|query

|False

a|Specify the fields to return.

|max\_records

|integer

|query

|False

a|Limit the number of records returned.

```
|return_timeout
|integer
|query
|False
a|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
```

```
|return_records
|boolean
|query
|False
a|The default is true for GET calls. When set to false, only the number
of records is returned.
```

```
* Default value: 1
```

```
|order_by
|array[string]
|query
|False
a|Order results by specified fields and optional [asc|desc] direction.
Default direction is 'asc' for ascending.
```

```
|===
```

```
== Response
```

Status: 200, Ok

```
[cols=3*,options=header]
|===
|Name
|Type
|Description

|_links
```

```
|link:#self_link[self_link]
```

```
a|
```

```
|key_id
```

```
|string
```

```
a|Key identifier.
```

```
|key_tag
```

```
|string
```

```
a|Optional parameter to define key-tag for the authentication key, length 0-32 characters.
```

```
|passphrase
```

```
|string
```

```
a|Authentication passphrase, length 20-32 characters. May contain the '=' character.
```

```
|===
```

```
.Example response
```

```
[%collapsible%closed]
```

```
====
```

```
[source,json,subs=+macros]
```

```
{
```

```
  "_links": {
```

```
    "self": {
```

```
      "href": "/api/resourcelink"
```

```
    }
```

```
  },
```

```
  "key_id":
```

```
"0000000000000000002000000000001003aa8ce6a4fea3e466620134bea9510a100000000000000",
```

```
  "key_tag": "Authentication-Key-01",
```

```
  "passphrase": "AuthenticationKey_01"
```

```
}
```

```
====
```

```
== Error
```

Status: Default

ONTAP Error Response Codes

```

|===
| Error Code | Description

| 65536074
| No key servers found.

| 65536828
| External key management is not enabled for the SVM.

| 65536856
| No key servers found.

| 65536896
| External key management is not configured on the partner site.

| 65538800
| External KMIP DKMIP keymanager not configured on administrative Vserver.

| 65538801
| Internal error while accessing keymanager database.

| 65538802
| The UUID provided is not associated with the administrator SVM key
manager.
|===

```

```
[cols=3*,options=header]
```

```

|===
|Name
|Type
|Description

```

```

|error
|link:#error[error]
a|

```

```
|===
```

```

.Example error
[%collapsible%closed]
=====
[source,json,subs=+macros]
{

```

```

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

```

====

== Definitions

```

[.api-def-first-level]
.See Definitions
[%collapsible%closed]
//Start collapsible Definitions block

```

====

```

[#href]
[.api-collapsible-fifth-title]
href

```

```

[cols=3*,options=header]

```

|===

```

|Name
|Type
|Description

```

```

|href
|string
a|

```

|===

```

[#self_link]
[.api-collapsible-fifth-title]
self_link

```

```

[cols=3*,options=header]

```

|===

```

|Name
|Type
|Description

```

```

|self
|link:#href[href]
a|

|===

[#error_arguments]
[.api-collapsible-fifth-title]
error_arguments

[cols=3*,options=header]
|===
|Name
|Type
|Description

|code
|string
a|Argument code

|message
|string
a|Message argument

|===

[#error]
[.api-collapsible-fifth-title]
error

[cols=3*,options=header]
|===
|Name
|Type
|Description

|arguments
|array[link:#error_arguments[error_arguments]]
a|Message arguments

|code
|string

```



```
a|Error code

|message
|string
a|Error message

|target
|string
a|The target parameter that caused the error.

|===

//end collapsible .Definitions block
=====
```

```
:leveloffset: -1
```

```
:leveloffset: -1
```

```
<<<
```

```
*Copyright information*
```

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