View security key managers

REST API reference

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View security key managers

View security key managers

Overview

Retrieves the key manager keys on the give node. The following operations are supported:

- Get

Examples

Retrieving key manager key-id information for a node

The following example shows how to retrieve key-ids present on a node for a key manager.

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

# The call:
curl -X GET 'https://<mgmt-ip>/api/security/key-managers/f4f98a48-8a5c-
c548-cd03-c6335f5803a8/keys/00000000-0000-0000-0000-000000000000/key-
ids/0000000000000000020000000000005009ad4da8fea2cafe2bed803078b780ebe000000
0000000c01' -H 'accept: application/hal+json'

# The response:
{
  "security_key_manager": {
    "uuid": "f4f98a48-8a5c-c548-cd03-c6335f5803a8"
  },
  "node": {
    "uuid": "00000000-0000-0000-0000-000000000000"
  },
  "key_id":
"0000000000000000020000000000005009ad4da8fea2cafe2bed803078b780ebe000000000
0000c01",
  "svm": {
    "name": "cluster-1"
  },
  "key_tag": "vsim1",
  "key_type": "vek",
  "restored": false,
  "key_store": "onboard",
  "key_user": "datavs",
  "key_manager": "onboard",
  "key_store_type": "okm",
  "encryption_algorithm": "XTS-AES-256",
  "_links": {
    "self": {
      "href": "/api/security/key-managers/f4f98a48-8a5c-c548-cd03-
c6335f5803a8/keys/00000000-0000-0000-0000-000000000000/key-
ids/0000000000000000020000000000005009ad4da8fea2cafe2bed803078b780ebe000000
0000000c01"
    }
  }
}
```

Retrieving key manager key-id information of a specific key-type for a node

The following example shows how to retrieve key-ids of a specific key-type present on a node for a key manager.

```
= The API:

GET /api/security/key-
manager/{security_key_manager.uuid}/keys/{node.uuid}/key-ids

= The call:

curl -X GET "https://+++<mgmt-ip>+++/api/security/key-managers/7c179931-
044b-11ed-b7cd-005056bbc535/keys/44dac31e-0449-11ed-b7cd-005056bbc535/key-
ids?key_type=nse_ak&return_records=true&return_timeout=15" -H "accept:
application/json"+++</mgmt-ip>+++

= The response:

{
  "records": [
    {
      "key_server": "10.225.89.34:5696",
      "key_id":
"00000000000000000200000000001003d5c5f8c497e8e36aa80566e08749a3d000000000
0000000",
      "key_type": "nse_ak"
    },
    {
      "key_server": "10.225.89.34:5696",
      "key_id":
"00000000000000000200000000000100c2dce9a3a15aeb8480db8d49c17d056c000000000
0000000",
      "key_type": "nse_ak"
    }
  ],
  "num_records": 2
}




[[ID4f25b09a3611d322443f275c49cabec1]]
= Retrieve key manager configurations

[.api-doc-operation .api-doc-operation-get]#GET# [.api-doc-code-
```

```
block]#`/security/key-
managers/{security_key_manager.uuid}/keys/{node.uuid}/key-ids`#

*Introduced In:* 9.11

Retrieves key manager configurations.

== Required properties

* `security_key_manager.uuid` - Key manager UUID.
* `node.uuid` - Node UUID.

== Related ONTAP commands

* `security key-manager key query`
* `security key-manager key query -node <node>`
* `security key-manager key query -node <node> -key-manager <key_manager>`


== Parameters

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

|Name
|Type
|In
|Required
|Description

|key_server
|string
|query
|False
a|Filter by key_server

* Introduced in: 9.12


|encryption_algorithm
|string
|query
|False
a|Filter by encryption_algorithm

* Introduced in: 9.12
```

```
|node.name
|string
|query
|False
a|Filter by node.name

* Introduced in: 9.12


|policy
|string
|query
|False
a|Filter by policy

* Introduced in: 9.12


|key_tag
|string
|query
|False
a|Filter by key_tag

* Introduced in: 9.12


|key_manager
|string
|query
|False
a|Filter by key_manager

* Introduced in: 9.12


|svm.name
|string
|query
|False
a|Filter by svm.name

* Introduced in: 9.14


|svm.uuid
```

```
|string
|query
|False
a|Filter by svm.uuid

* Introduced in: 9.14


|crn
|string
|query
|False
a|Filter by crn

* Introduced in: 9.12


|key_store_type
|string
|query
|False
a|Filter by key_store_type

* Introduced in: 9.12


|key_type
|string
|query
|False
a|Filter by key_type

* Introduced in: 9.12


|key_user
|string
|query
|False
a|Filter by key_user

* Introduced in: 9.12


|key_store
|string
|query
```

```
|False
a|Filter by key_store

* Introduced in: 9.12


|restored
|boolean
|query
|False
a|Filter by restored

* Introduced in: 9.12


|scope
|string
|query
|False
a|Filter by scope

* Introduced in: 9.14


|key_id
|string
|query
|False
a|Filter by key_id

* Introduced in: 9.12


|security_key_manager.uuid
|string
|path
|True
a|Key manager UUID.


|node.uuid
|string
|path
|True
a|Node UUID.
```

```
|max_records
|integer
|query
|False
a|Limit the number of records returned.


|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


|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: 15
* Max value: 120
* Min value: 0


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


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

|===
```

```
== 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_keys[key_manager_keys]]
a|

|===


.Example response
[%collapsible%closed]
====
[source,json,subs=+macros]
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "num_records": 1,
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
```

```
      },
      "crn": "CRN=v1:bluemix:public:containers-kubernetes",
      "encryption_algorithm": "XTS-AES-256",
      "key_id":
"000000000000000002000000000001008963c9213194c59555c1bec8db3603c800000000"
,
      "key_manager": "keyserver1.local:5696",
      "key_server": "keyserver1.com:5698",
      "key_store": "string",
      "key_store_type": "string",
      "key_tag": "key#",
      "key_type": "string",
      "key_user": "vs1",
      "node": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "node1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "policy": "IBM_Key_Lore",
      "restored": 1,
      "scope": "string",
      "security_key_manager": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563434"
      },
      "svm": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "svm1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      }
    }
  ]
}
====
```

```
== Error
```

Status: Default

```
ONTAP Error Response Codes

|===
| Error Code | Description

| 65537125
| The provided key manager UUID is not the UUID of a keymanager.
|===

Also see the table of common errors in the
xref:{relative_path}getting_started_with_the_ontap_rest_api.html#Response_
body[Response body] overview section of this documentation.



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

|error
|link:#returned_error[returned_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|

|===


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

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

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

|===


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

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

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

|name
|string
a|

|uuid
|string
a|

|===


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

Security key manager object reference.


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

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

|uuid
|string
a|Key manager UUID


|===


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

SVM, applies only to SVM-scoped objects.
```

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

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

|name
|string
a|The name of the SVM. This field cannot be specified in a PATCH method.


|uuid
|string
a|The unique identifier of the SVM. This field cannot be specified in a
PATCH method.


|===


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

Displays the keys stored in a key manager.


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

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

|crn
|string
a|Cloud resource name.
```

```
|encryption_algorithm
|string
a|Encryption algorithm for the key


|key_id
|string
a|Key identifier.


|key_manager
|string
a|Key manager key server managing the key. Indicates the external key
server when external key manager is configured.


|key_server
|string
a|External key server for key management.


|key_store
|string
a|Security key manager configured for the given key manager UUID. Key
manager keystore value can be onboard or external.


|key_store_type
|string
a|Security key manager keystore type. Keystore type can be onboard,
external, or supported cloud key manager.


|key_tag
|string
a|Additional information associated with the key.


|key_type
|string
a|Encryption Key type.


|key_user
|string
a|SVM associated with the key.
```

```
|node
|link:#node[node]
a|

|policy
|string
a|Key store policy.


|restored
|boolean
a|Indicates whether the key is present locally on the node.


|scope
|string
a|Set to "svm" for interfaces owned by an SVM. Otherwise, set to
"cluster".


|security_key_manager
|link:#security_key_manager[security_key_manager]
a|Security key manager object reference.


|svm
|link:#svm[svm]
a|SVM, applies only to SVM-scoped objects.


|===


[#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


|===


[#returned_error]
[.api-collapsible-fifth-title]
returned_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
====
```

```
[[ID433d5151172ea620732cec6397cb1e11]]
= Retrieve key management key information for specified keys

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

*Introduced In:* 9.11

Retrieves the key management keys information for the specified key_id.

== Related ONTAP commands

* `security key-manager key query -key-id <key_id>`
* `security key-manager key query -key-id <key_id> -node <node>`
* `security key-manager key query -key-id <key_id> -node <node> -key
-manager <key_manager>`


== Parameters

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

|Name
|Type
|In
|Required
|Description

|security_key_manager.uuid
|string
|path
|True
a|Key manager UUID.


|node.uuid
|string
|path
|True
a|Node UUID.


|key_id
|string
```

```
|path
|True
a|Key identifier.


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

|===

== Response
```

Status: 200, Ok

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

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

|crn
|string
a|Cloud resource name.


|encryption_algorithm
|string
a|Encryption algorithm for the key


|key_id
|string
a|Key identifier.


|key_manager
|string
a|Key manager key server managing the key. Indicates the external key
server when external key manager is configured.
```

```
|key_server
|string
a|External key server for key management.


|key_store
|string
a|Security key manager configured for the given key manager UUID. Key
manager keystore value can be onboard or external.


|key_store_type
|string
a|Security key manager keystore type. Keystore type can be onboard,
external, or supported cloud key manager.


|key_tag
|string
a|Additional information associated with the key.


|key_type
|string
a|Encryption Key type.


|key_user
|string
a|SVM associated with the key.


|node
|link:#node[node]
a|

|policy
|string
a|Key store policy.


|restored
|boolean
a|Indicates whether the key is present locally on the node.
```

```
|scope
|string
a|Set to "svm" for interfaces owned by an SVM. Otherwise, set to
"cluster".


|security_key_manager
|link:#security_key_manager[security_key_manager]
a|Security key manager object reference.


|svm
|link:#svm[svm]
a|SVM, applies only to SVM-scoped objects.


|===


.Example response
[%collapsible%closed]
====
[source,json,subs=+macros]
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "crn": "CRN=v1:bluemix:public:containers-kubernetes",
  "encryption_algorithm": "XTS-AES-256",
  "key_id":
"000000000000000002000000000001008963c9213194c59555c1bec8db3603c800000000"
,
  "key_manager": "keyserver1.local:5696",
  "key_server": "keyserver1.com:5698",
  "key_store": "string",
  "key_store_type": "string",
  "key_tag": "key#",
  "key_type": "string",
  "key_user": "vs1",
  "node": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
```

```
      }
    },
    "name": "node1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "policy": "IBM_Key_Lore",
  "restored": 1,
  "scope": "string",
  "security_key_manager": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563434"
  },
  "svm": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
====

== Error
```

Status: Default, Error

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

|error
|link:#returned_error[returned_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|

|===


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

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

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

|===


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

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

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

|name
|string
a|
```

```
|uuid
|string
a|

|===


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

Security key manager object reference.


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

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

|uuid
|string
a|Key manager UUID


|===


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

SVM, applies only to SVM-scoped objects.


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

|_links
```

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

|name
|string
a|The name of the SVM. This field cannot be specified in a PATCH method.


|uuid
|string
a|The unique identifier of the SVM. This field cannot be specified in a
PATCH method.


|===


[#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


|===


[#returned_error]
[.api-collapsible-fifth-title]
returned_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
====



[[ID96459ba7edbe5ac63d2003872cad33e6]]
= Retrieve and restore unrestored keys

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

*Introduced In:* 9.13

Retrieves and restores any current unrestored keys (associated with the
storage controller) from the specified key management server.

== Required properties

* `security_key_manager.uuid` - UUID of the key management server.
The UUID of the external key manager can be retrieved using [`GET
/api/security/key-managers`].
```

```
== Related ONTAP commands

* `security key-manager external restore`


== Parameters

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

|Name
|Type
|In
|Required
|Description

|security_key_manager.uuid
|string
|path
|True
a|Key manager UUID.


|return_timeout
|integer
|query
|False
a|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.

* Default value: 0
* Max value: 120
* Min value: 0


|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

|key_id
|string
a|Key identifier.


|key_server
|string
a|External key server for key management.


|key_tag
|string
a|Additional information associated with the key.


|node
|link:#node[node]
a|

|===


.Example request
[%collapsible%closed]
====
[source,json,subs=+macros]
{
  "key_id":
"00000000000000000200000000001003aa8ce6a4fea3e466620134bea9510a100000000000000000",
  "key_server": "keyserver1.com:5698",
  "key_tag": "Authentication-Key-01",
  "node": {
```

```
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  }
}
====

== Response
```

Status: 202, Accepted

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

|job
|link:#job_link[job_link]
a|

|===


.Example response
[%collapsible%closed]
====
[source,json,subs=+macros]
{
  "job": {
    "uuid": "string"
  }
}
====

== Response
```

Status: 201, Created

```
== Error
```

Status: Default

```
ONTAP Error Response Codes

|===
```

```
| Error Code | Description

| 65536083
| Internal error. Failed to restore the authentication key.

| 65536843
| The key management server is not configured for the SVM.

| 65536855
| Internal error. Failed to restore the volume encryption key.

| 65538500
| This command only restores keys from primary key servers.
|===

Also see the table of common errors in the
xref:{relative_path}getting_started_with_the_ontap_rest_api.html#Response_
body[Response body] overview section of this documentation.


== 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
```

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

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

|uuid
|string
a|

|===


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

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

|key_id
|string
a|Key identifier.


|key_server
|string
a|External key server for key management.


|key_tag
|string
a|Additional information associated with the key.


|node
|link:#node[node]
a|

|===
```

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

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

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


|===


[#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


|===


[#returned_error]
[.api-collapsible-fifth-title]
returned_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

<<<
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