



Manage Google Cloud KMS

REST API reference

NetApp
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Manage Google Cloud KMS

Security gcp-kms endpoint overview

Overview

Google Cloud Key Management Services is a cloud key management service (KMS) that provides a secure store for encryption keys. This feature allows the NetApp Cloud Volume Services for GCP to securely store its encryption keys using Google Cloud KMS. The properties `state`, `google_reachability` and `ekmip_reachability` are considered advanced properties and are populated only when explicitly requested.

In order to use Google Cloud KMS with NetApp Cloud Volume Services for GCP, a user must:

1. deploy a Google Cloud application with appropriate access to the Google Cloud KMS
2. provide NetApp Cloud Volume Services for GCP with the necessary details, such as, project ID, key ring name, location, key name and application credentials.

Note

This feature is only available to the NetApp Cloud Volume Services for GCP.

Examples

Enabling GCKMS for an SVM

The following example shows how to enable GCKMS at the SVM-scope. Note the `return_records=true` query parameter is used to obtain the newly created key manager configuration.

```

# The API:
POST /api/security/gcp-kms

# The call:
curl -X POST 'https://<mgmt-ip>/api/security/gcp-kms?return_records=true'
-H 'accept: application/hal+json' -d '{"svm": {"uuid": "f36ff553-e713-11ea-
bd56-005056bb4222"}, "project_id": "testProj",
"key_ring_name": "testKeyRing", "key_ring_location": "global", "key_name": "key1", "application_credentials": "myAppCred"}'

# The response:
{
  "num_records": 1,
  "records": [
    {
      "uuid": "f72098a2-e908-11ea-bd56-005056bb4222",
      "svm": {
        "uuid": "f36ff553-e713-11ea-bd56-005056bb4222",
        "name": "vs0"
      },
      "project_id": "testProj",
      "key_ring_name": "testKeyRing",
      "key_ring_location": "global",
      "key_name": "key1",
      "_links": {
        "self": {
          "href": "/api/security/gcp-kms/f72098a2-e908-11ea-bd56-
005056bb4222"
        }
      }
    }
  ]
}

```

Retrieving all GCKMS configurations

The following example shows how to retrieve all GCKMS configurations.

```

# The API:
GET /api/security/gcp-kms

# The call:
curl -X GET 'https://<mgmt-ip>/api/security/gcp-kms?fields='

# The response:
{
  "records": [
    {
      "uuid": "f72098a2-e908-11ea-bd56-005056bb4222",
      "scope": "svm",
      "svm": {
        "uuid": "f36ff553-e713-11ea-bd56-005056bb4222",
        "name": "vs0"
      },
      "project_id": "testProj",
      "key_ring_name": "testKeyRing",
      "key_ring_location": "global",
      "key_name": "key1",
      "_links": {
        "self": {
          "href": "/api/security/gcp-kms/f72098a2-e908-11ea-bd56-005056bb4222"
        }
      }
    },
    "num_records": 1,
    "_links": {
      "self": {
        "href": "/api/security/gcp-kms?fields='"
      }
    }
  ]
}

```

Retrieving a specific GCKMS configuration

The following example shows how to retrieve information for a specific GCKMS configuration.

```

# The API:
GET /api/security/gcp-kms/{uuid}

# The call:
curl -X GET 'https://<mgmt-ip>/api/security/gcp-kms/f72098a2-e908-11ea-
bd56-005056bb4222?fields=*'

# The response:
{
  "uuid": "f72098a2-e908-11ea-bd56-005056bb4222",
  "scope": "svm",
  "svm": {
    "uuid": "f36ff553-e713-11ea-bd56-005056bb4222",
    "name": "vs0"
  },
  "project_id": "testProj",
  "key_ring_name": "testKeyRing",
  "key_ring_location": "global",
  "key_name": "key1",
  "_links": {
    "self": {
      "href": "/api/security/gcp-kms/f72098a2-e908-11ea-bd56-005056bb4222"
    }
  }
}

```

Retrieving a specific GCKMS's advanced properties

The following example shows how to retrieve advanced properties for a specific GCKMS configuration.

```

# The API:
GET /api/security/gcp-kms/{uuid}

# The call:
curl -X GET 'https://<mgmt-ip>/api/security/gcp-kms/f72098a2-e908-11ea-
bd56-005056bb4222?fields=state,google_reachability,ekmip_reachability'

# The response:
{
  "uuid": "f72098a2-e908-11ea-bd56-005056bb4222",
  "state": {
    "cluster_state": false,
    "message": "The Google Cloud Key Management Service key protection is

```

```
unavailable on the following nodes: cluster1-node1.",  
    "code": 65537708  
},  
"google_reachability": {  
    "reachable": true,  
    "message": "",  
    "code": 0  
},  
"ekmip_reachability": [  
    {  
        "node": {  
            "uuid": "d208115f-7721-11eb-bf83-005056bb150e",  
            "name": "node1",  
            "_links": {  
                "self": {  
                    "href": "/api/cluster/nodes/d208115f-7721-11eb-bf83-  
005056bb150e"  
                }  
            }  
        },  
        "reachable": true,  
        "message": "",  
        "code": 0  
},  
    {  
        "node": {  
            "uuid": "e208115f-7721-11eb-bf83-005056bb150e",  
            "name": "node2",  
            "_links": {  
                "self": {  
                    "href": "/api/cluster/nodes/e208115f-7721-11eb-bf83-  
005056bb150e"  
                }  
            }  
        },  
        "reachable": true,  
        "message": "",  
        "code": 0  
}  
],  
"_links": {  
    "self": {  
        "href": "/api/security/gcp-kms/f72098a2-e908-11ea-bd56-005056bb4222"  
    }  
}
```

Updating the application credentials of a specific GCKMS configuration

The following example shows how to update the application credentials for a specific GCKMS configuration.

```
# The API:  
PATCH /api/security/gcp-kms/{uuid}  
  
# The call:  
curl -X PATCH 'https://<mgmt-ip>/api/security/gcp-kms/f72098a2-e908-11ea-  
bd56-005056bb4222/' -d '{"application_credentials": "newAppCred"}'
```

Deleting a specific GCKMS configuration

The following example shows how to delete a specific GCKMS configuration.

```
# The API:  
DELETE /api/security/gcp-kms/{uuid}  
  
# The call:  
curl -X DELETE 'https://<mgmt-ip>/api/security/gcp-kms/f72098a2-e908-11ea-  
bd56-005056bb4222'
```

Restoring keys from KMIP server

The following example shows how to restore keys for a GCKMS configuration.

```
# The API:  
POST /api/security/gcp-kms/{uuid}/restore  
  
# The call:  
curl -X POST 'https://<mgmt-ip>/api/security/gcp-kms/33820b57-ec90-11ea-  
875e-005056bbf3f0/restore'
```

Retrieve Google Cloud KMS configurations for all clusters and SVMs

GET /security/gcp-kms

Introduced In: 9.9

Retrieves Google Cloud KMS configurations for all clusters and SVMs. Note: This method is only available to the NetApp Cloud Volume Services for GCP.

Related ONTAP commands

- `security key-manager external gcp show`
- `security key-manager external gcp check`

Parameters

| Name | Type | In | Required | Description |
|-------------------------------|---------|-------|----------|---|
| scope | string | query | False | Filter by scope |
| google_reachability_code | integer | query | False | Filter by google_reachability_code |
| google_reachability_reachable | boolean | query | False | Filter by google_reachability_reachable |
| google_reachability_message | string | query | False | Filter by google_reachability_message |
| key_ring_name | string | query | False | Filter by key_ring_name |
| state.cluster_state | boolean | query | False | Filter by state.cluster_state |
| state.code | integer | query | False | Filter by state.code |
| state.message | string | query | False | Filter by state.message |
| key_ring_location | string | query | False | Filter by key_ring_location |
| svm.uuid | string | query | False | Filter by svm.uuid |
| svm.name | string | query | False | Filter by svm.name |
| ekmip_reachability_node.name | string | query | False | Filter by ekmip_reachability_node.name |

| Name | Type | In | Required | Description |
|----------------------------------|---------------|-------|----------|---|
| ekmip_reachability.n ode.uuid | string | query | False | Filter by ekmip_reachability.n ode.uuid |
| ekmip_reachability.r eachable | boolean | query | False | Filter by ekmip_reachability.r eachable |
| ekmip_reachability.m essage | string | query | False | Filter by ekmip_reachability.m essage |
| ekmip_reachability.c ode | integer | query | False | Filter by ekmip_reachability.c ode |
| proxy_port | integer | query | False | Filter by proxy_port |
| uuid | string | query | False | Filter by uuid |
| proxy_type | string | query | False | Filter by proxy_type |
| proxy_username | string | query | False | Filter by proxy_username |
| project_id | string | query | False | Filter by project_id |
| proxy_host | string | query | False | Filter by proxy_host |
| key_name | string | query | False | Filter by key_name |
| 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_timeout | integer | query | False | <p>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.</p> <ul style="list-style-type: none"> • Default value: 1 • Max value: 120 • Min value: 0 |
| return_records | boolean | query | False | <p>The default is true for GET calls. When set to false, only the number of records is returned.</p> <ul style="list-style-type: none"> • Default value: 1 |
| order_by | array[string] | query | False | Order results by specified fields and optional [asc] |

Response

Status: 200, Ok

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

Example response

```
{  
  "_links": {  
    "next": {  
      "href": "/api/resourcelink"  
    },  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "records": [  
    {  
      "_links": {  
        "self": {  
          "href": "/api/resourcelink"  
        }  
      },  
      "ekmip_reachability": [  
        {  
          "code": "346758",  
          "message": "embedded KMIP server status unavailable on  
node.",  
          "node": {  
            "_links": {  
              "self": {  
                "href": "/api/resourcelink"  
              }  
            },  
            "name": "node1",  
            "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"  
          }  
        }  
      ]  
    },  
    "google_reachability": {  
      "code": "346758",  
      "message": "Google Cloud KMS service is not reachable from all  
nodes - <reason>."  
    },  
    "key_name": "cryptokey1",  
    "key_ring_location": "global",  
    "key_ring_name": "gcpapp1-keyring",  
    "project_id": "gcpapp1",  
    "proxy_host": "proxy.eng.com",  
    "proxy_port": "1234",  
    "proxy_type": "http",  
  ]  
}
```

```

"proxy_username": "proxyuser",
"scope": "string",
"state": {
    "code": "346758",
    "message": "Top-level internal key protection key (KEK) is
unavailable on the following nodes with the associated reasons: Node:
node1. Reason: No volumes created yet for the SVM. Wrapped KEK status
will be available after creating encrypted volumes."
},
"svm": {
    "_links": {
        "self": {
            "href": "/api/resourcelink"
        }
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
},
"uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
]
}

```

Error

Status: Default

ONTAP Error Response Codes

| Error Code | Description |
|------------|--|
| 65537551 | Top-level internal key protection key (KEK) unavailable on one or more nodes. |
| 65537552 | Embedded KMIP server status not available. |
| 65537730 | The Google Cloud Key Management Service is unreachable from one or more nodes. |

| 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 | |

node

| Name | Type | Description |
|--------|--------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

ekmip_reachability

Provides the connectivity status for the given SVM on the given node to all EKMIP servers configured on all nodes of the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the `fields` query parameter or GET for all advanced properties is enabled.

| Name | Type | Description |
|---------|---------|---|
| code | integer | Code corresponding to the error message. Returns a 0 if a given SVM is able to communicate to the EKMIP servers of all of the nodes in the cluster. |
| message | string | Error message set when cluster-wide EKMIP server availability from the given SVM and node is false. |
| node | node | |

| Name | Type | Description |
|-----------|---------|--|
| reachable | boolean | Set to true if the given SVM on the given node is able to communicate to all EKMIP servers configured on all nodes in the cluster. |

google_reachability

Indicates whether or not the Google Cloud KMS service is reachable from all nodes in the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the `fields` query parameter or GET for all advanced properties is enabled.

| Name | Type | Description |
|-----------|---------|--|
| code | integer | Code corresponding to the error message. Returns a 0 if Google Cloud KMS service is reachable from all nodes in the cluster. |
| message | string | Set to the error message when 'reachable' is false. |
| reachable | boolean | Set to true if the Google Cloud KMS service is reachable from all nodes of the cluster. |

state

Google Cloud Key Management Services is a cloud key management service (KMS) that provides a secure store for encryption keys. This object indicates whether or not the Google Cloud KMS key protection is available on all nodes in the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the `fields` query parameter or GET for all advanced properties is enabled.

| Name | Type | Description |
|---------------|---------|--|
| cluster_state | boolean | Set to true when Google Cloud KMS key protection is available on all nodes of the cluster. |
| code | integer | Error code corresponding to the status message. Returns 0 if Google Cloud KMS key protection is available in all nodes of the cluster. |

| Name | Type | Description |
|---------|--------|--|
| message | string | Error message set when top-level internal key protection key (KEK) availability on cluster is false. |

svm

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

gcp_kms

| Name | Type | Description |
|---------------------|---|---|
| _links | _links | |
| ekmip_reachability | array[ekmip_reachability] | |
| google_reachability | google_reachability | Indicates whether or not the Google Cloud KMS service is reachable from all nodes in the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the <code>fields</code> query parameter or GET for all advanced properties is enabled. |
| key_name | string | Key Identifier of Google Cloud KMS key encryption key. |
| key_ring_location | string | Google Cloud KMS key ring location. |
| key_ring_name | string | Google Cloud KMS key ring name of the deployed Google Cloud application. |

| Name | Type | Description |
|----------------|---------|---|
| project_id | string | Google Cloud project (application) ID of the deployed Google Cloud application that has appropriate access to the Google Cloud KMS. |
| proxy_host | string | Proxy host name. |
| proxy_port | integer | Proxy port number. |
| proxy_type | string | Type of proxy. |
| proxy_username | string | Proxy username. |
| scope | string | Set to "svm" for interfaces owned by an SVM. Otherwise, set to "cluster". |
| state | state | Google Cloud Key Management Services is a cloud key management service (KMS) that provides a secure store for encryption keys. This object indicates whether or not the Google Cloud KMS key protection is available on all nodes in the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the <code>fields</code> query parameter or GET for all advanced properties is enabled. |
| svm | svm | |
| uuid | string | A unique identifier for the Google Cloud KMS. |

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 Google Cloud KMS configuration for an SVM

POST /security/gcp-kms

Introduced In: 9.9

Configures the Google Cloud KMS configuration for the specified SVM. Note: This method is only available to the NetApp Cloud Volume Services for GCP.

Required properties

- `svm.uuid` or `svm.name` - Existing SVM in which to create a Google Cloud KMS.
- `project_id` - Google Cloud project (application) ID of the deployed Google Cloud application with appropriate access to the Google Cloud KMS.
- `key_ring_name` - Google Cloud KMS key ring name of the deployed Google Cloud application with appropriate access to the specified Google Cloud KMS.
- `key_ring_location` - Google Cloud KMS key ring location.
- `key_name` - Key Identifier of the Google Cloud KMS key encryption key.
- `application_credentials` - Google Cloud application's service account credentials required to access the specified KMS. It is a JSON file containing an email address and the private key of the service account holder.

Optional properties

- `proxy_type` - Type of proxy (http/https) if proxy configuration is used.
- `proxy_host` - Proxy hostname if proxy configuration is used.
- `proxy_port` - Proxy port number if proxy configuration is used.

- proxy_username - Proxy username if proxy configuration is used.
- proxy_password - Proxy password if proxy configuration is used.

Related ONTAP commands

- security key-manager external gcp enable

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"> • Default value: |

Request Body

| Name | Type | Description |
|-------------------------|---|---|
| application_credentials | string | Google Cloud application's service account credentials required to access the specified KMS. It is a JSON file containing an email address and the private key of the service account holder. |
| ekmip_reachability | array[ekmip_reachability] | |
| key_name | string | Key Identifier of Google Cloud KMS key encryption key. |
| key_ring_location | string | Google Cloud KMS key ring location. |
| key_ring_name | string | Google Cloud KMS key ring name of the deployed Google Cloud application. |
| project_id | string | Google Cloud project (application) ID of the deployed Google Cloud application that has appropriate access to the Google Cloud KMS. |
| proxy_host | string | Proxy host name. |

| Name | Type | Description |
|----------------|---------------------|---|
| proxy_password | string | Proxy password. Password is not audited. |
| proxy_port | integer | Proxy port number. |
| proxy_type | string | Type of proxy. |
| proxy_username | string | Proxy username. |
| svm | svm | |
| uuid | string | A unique identifier for the Google Cloud KMS. |

Example request

```
{  
  "application_credentials": "{ type: service_account, project_id:  
project-id, private_key_id: key-id, private_key: -----BEGIN PRIVATE  
KEY-----\nprivate-key\n-----END PRIVATE KEY-----\n, client_email:  
service-account-email, client_id: client-id, auth_uri: <a  
href=\"https://accounts.google.com/o/oauth2/auth\" class=\"  
bare\">https://accounts.google.com/o/oauth2/auth</a>, token_uri: <a  
href=\"https://accounts.google.com/o/oauth2/token\" class=\"  
bare\">https://accounts.google.com/o/oauth2/token</a>,  
auth_provider_x509_cert_url: <a href=\"https://www.googleapis.com/oauth  
2/v1/certs\" class=\"bare\">https://www.googleapis.com/oauth2/v1/  
certs</a>, client_x509_cert_url: <a  
href=\"https://www.googleapis.com/robot/v1/metadata/x509/service-  
account-email\" class=\"bare\">https://www.googleapis.com/robot/v1/  
metadata/x509/service-account-email</a> }",  
  "ekmip_reachability": [  
    {  
      "code": "346758",  
      "message": "embedded KMIP server status unavailable on node.",  
      "node": {  
        "name": "node1",  
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"  
      }  
    }  
  ],  
  "key_name": "cryptokey1",  
  "key_ring_location": "global",  
  "key_ring_name": "gcpapp1-keyring",  
  "project_id": "gcpapp1",  
  "proxy_host": "proxy.eng.com",  
  "proxy_password": "proxypassword",  
  "proxy_port": "1234",  
  "proxy_type": "http",  
  "proxy_username": "proxyuser",  
  "svm": {  
    "name": "svml1",  
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"  
  },  
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"  
}
```

Response

Status: 201, Created

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

Example response

```

{
  "records": [
    {
      "application_credentials": "{ type: service_account, project_id: project-id, private_key_id: key-id, private_key: -----BEGIN PRIVATE KEY-----\nprivate-key\n-----END PRIVATE KEY-----\n, client_email: service-account-email, client_id: client-id, auth_uri: <a href=\"https://accounts.google.com/o/oauth2/auth\" class=\"bare\">https://accounts.google.com/o/oauth2/auth</a>, token_uri: <a href=\"https://accounts.google.com/o/oauth2/token\" class=\"bare\">https://accounts.google.com/o/oauth2/token</a>, auth_provider_x509_cert_url: <a href=\"https://www.googleapis.com/oauth2/v1/certs\" class=\"bare\">https://www.googleapis.com/oauth2/v1/certs</a>, client_x509_cert_url: <a href=\"https://www.googleapis.com/robot/v1/metadata/x509/service-account-email\" class=\"bare\">https://www.googleapis.com/robot/v1/metadata/x509/service-account-email</a> }",
      "ekmip_reachability": [
        {
          "code": "346758",
          "message": "embedded KMIP server status unavailable on node.",
          "node": {
            "name": "node1",
            "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
          }
        }
      ],
      "key_name": "cryptokey1",
      "key_ring_location": "global",
      "key_ring_name": "gcpapp1-keyring",
      "project_id": "gcpapp1",
      "proxy_host": "proxy.eng.com",
      "proxy_password": "proxypassword",
      "proxy_port": "1234",
      "proxy_type": "http",
      "proxy_username": "proxyuser",
      "svm": {
        "name": "svml1",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      },
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ]
}

```

Error

Status: Default

ONTAP Error Response Codes

| Error Code | Description |
|------------|--|
| 65537703 | The Google Cloud Key Management Service is not supported for the admin Vserver. |
| 65537704 | The Google Cloud Key Management Service is not supported in MetroCluster configurations. |
| 65537706 | Internal error. Failed to encrypt the application credentials. |
| 65537713 | Internal Error. Failed to store the application credentials. |
| 65537719 | Failed to enable the Google Cloud Key Management Service for SVM <svm-name> because invalid application credentials were provided.</svm-name> |
| 65537720 | Failed to configure Google Cloud Key Management Service for SVM <svm-name> because a key manager has already been configured for this SVM. Use the REST API GET method "/api/security/key-managers" to view all of the configured key managers.</svm-name> |

Definitions

See Definitions

href

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

_links

node

| Name | Type | Description |
|------|--------|-------------|
| name | string | |
| uuid | string | |

ekmip_reachability

Provides the connectivity status for the given SVM on the given node to all EKMIP servers configured on all nodes of the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the `fields` query parameter or GET for all advanced properties is enabled.

| Name | Type | Description |
|-----------|---------|---|
| code | integer | Code corresponding to the error message. Returns a 0 if a given SVM is able to communicate to the EKMIP servers of all of the nodes in the cluster. |
| message | string | Error message set when cluster-wide EKMIP server availability from the given SVM and node is false. |
| node | node | |
| reachable | boolean | Set to true if the given SVM on the given node is able to communicate to all EKMIP servers configured on all nodes in the cluster. |

google_reachability

Indicates whether or not the Google Cloud KMS service is reachable from all nodes in the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the `fields` query parameter or GET for all advanced properties is enabled.

| Name | Type | Description |
|-----------|---------|--|
| code | integer | Code corresponding to the error message. Returns a 0 if Google Cloud KMS service is reachable from all nodes in the cluster. |
| message | string | Set to the error message when 'reachable' is false. |
| reachable | boolean | Set to true if the Google Cloud KMS service is reachable from all nodes of the cluster. |

state

Google Cloud Key Management Services is a cloud key management service (KMS) that provides a secure store for encryption keys. This object indicates whether or not the Google Cloud KMS key protection is available on all nodes in the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the `fields` query parameter or GET for all advanced properties is enabled.

| Name | Type | Description |
|---------------|---------|--|
| cluster_state | boolean | Set to true when Google Cloud KMS key protection is available on all nodes of the cluster. |
| code | integer | Error code corresponding to the status message. Returns 0 if Google Cloud KMS key protection is available in all nodes of the cluster. |
| message | string | Error message set when top-level internal key protection key (KEK) availability on cluster is false. |

svm

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

gcp_kms

| Name | Type | Description |
|-------------------------|---------------------------|---|
| application_credentials | string | Google Cloud application's service account credentials required to access the specified KMS. It is a JSON file containing an email address and the private key of the service account holder. |
| ekmip_reachability | array[ekmip_reachability] | |
| key_name | string | Key Identifier of Google Cloud KMS key encryption key. |
| key_ring_location | string | Google Cloud KMS key ring location. |
| key_ring_name | string | Google Cloud KMS key ring name of the deployed Google Cloud application. |
| project_id | string | Google Cloud project (application) ID of the deployed Google Cloud application that has appropriate access to the Google Cloud KMS. |
| proxy_host | string | Proxy host name. |
| proxy_password | string | Proxy password. Password is not audited. |
| proxy_port | integer | Proxy port number. |
| proxy_type | string | Type of proxy. |
| proxy_username | string | Proxy username. |
| svm | svm | |
| uuid | string | A unique identifier for the Google Cloud KMS. |

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. |

Re-key the internal key in the key hierarchy for an SVM

POST /security/gcp-kms/{gcp_kms.uuid}/rekey-internal

Introduced In: 9.9

Rekeys the internal key in the key hierarchy for an SVM with a Google Cloud KMS configuration. Note: This method is only available to the NetApp Cloud Volume Services for GCP.

Related ONTAP commands

- `security key-manager external gcp rekey-internal`

Parameters

| Name | Type | In | Required | Description |
|--------------|--------|------|----------|--|
| gcp_kms.uuid | string | path | True | UUID of the existing Google Cloud KMS configuration. |

| Name | Type | In | Required | Description |
|----------------|---------|-------|----------|--|
| 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"> • Default value: 1 • Max value: 120 • Min value: 0 |
| 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"> • Default value: |

Response

Status: 202, Accepted

Error

Status: Default

ONTAP Error Response Codes

| Error Code | Description |
|------------|--|
| 65537547 | One or more volume encryption keys for encrypted volumes of this data SVM are stored in the key manager configured for the admin SVM. Use the REST API POST method to migrate this data SVM's keys from the admin SVM's key manager to this data SVM's key manager before running the rekey operation. |
| 65537559 | There are no existing internal keys for the SVM. A rekey operation is allowed for an SVM with one or more encryption keys. |
| 65537721 | Google Cloud KMS is not configured for the given SVM. |

Definitions

See Definitions

`error_arguments`

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

`error`

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

Restore keys for an SVM from a Google Cloud KMS

POST /security/gcp-kms/{gcp_kms.uuid}/restore

Introduced In: 9.9

Restores the keys for an SVM from a configured Google Cloud KMS. Note: This method is only available to the NetApp Cloud Volume Services for GCP.

Related ONTAP commands

- `security key-manager external gcp restore`

Parameters

| Name | Type | In | Required | Description |
|--------------|--------|------|----------|--|
| gcp_kms.uuid | string | path | True | UUID of the existing Google Cloud KMS configuration. |

| Name | Type | In | Required | Description |
|----------------|---------|-------|----------|--|
| 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"> • Default value: 1 • Max value: 120 • Min value: 0 |
| 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"> • Default value: |

Response

Status: 202, Accepted

Error

Status: Default

ONTAP Error Response Codes

| Error Code | Description |
|------------|--|
| 65537721 | The Google Cloud Key Management Service is not configured for the given SVM. |
| 65537722 | Failed to restore keys on the following SVMs. |

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. |

Delete a Google Cloud KMS configuration

DELETE /security/gcp-kms/{uuid}

Introduced In: 9.9

Deletes a Google Cloud KMS configuration. Note: This method is only available to the NetApp Cloud Volume Services for GCP.

Related ONTAP commands

- `security key-manager external gcp disable`

Parameters

| Name | Type | In | Required | Description |
|------|--------|------|----------|-----------------------|
| uuid | string | path | True | Google Cloud KMS UUID |

Response

```
Status: 200, Ok
```

Error

```
Status: Default
```

ONTAP Error Response Codes

| Error Code | Description |
|------------|--|
| 65536242 | One or more Storage Encryption devices are assigned an authentication key. |
| 65536817 | Internal error. Failed to determine if it is safe to disable key manager. |
| 65536827 | Internal error. Failed to determine if the given SVM has any encrypted volumes. |
| 65536834 | Internal error. Failed to get existing key-server details for the given SVM. |
| 65536867 | Volume encryption keys (VEK) for one or more encrypted volumes are stored on the key manager configured for the given SVM. |
| 65536883 | Internal error. Volume encryption key is missing for a volume. |
| 65536884 | Internal error. Volume encryption key is invalid for a volume. |
| 65536924 | Cannot remove key manager that still contains one or more NSE (NetApp Storage Encryption) authentication keys. |
| 65537721 | The Google Cloud Key Management Service is not configured for the SVM. |

| Error Code | Description |
|------------|---|
| 196608080 | One or more nodes in the cluster have the root volume encrypted using NVE (NetApp Volume Encryption). |
| 196608301 | Internal error. Failed to get encryption type. |
| 196608305 | NAE aggregates found 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

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 the Google Cloud KMS configuration

GET /security/gcp-kms/{uuid}

Introduced In: 9.9

Retrieves the Google Cloud KMS configuration for the SVM specified by the UUID. Note: This method is only available to the NetApp Cloud Volume Services for GCP.

Related ONTAP commands

- `security key-manager external gcp show`
- `security key-manager external gcp check`

Parameters

| Name | Type | In | Required | Description |
|--------|---------------|-------|----------|-------------------------------|
| uuid | string | path | True | Google Cloud KMS UUID |
| fields | array[string] | query | False | Specify the fields to return. |

Response

Status: 200, Ok

| Name | Type | Description |
|---------------------|---|---|
| _links | _links | |
| ekmip_reachability | array[ekmip_reachability] | |
| google_reachability | google_reachability | Indicates whether or not the Google Cloud KMS service is reachable from all nodes in the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the <code>fields</code> query parameter or GET for all advanced properties is enabled. |
| key_name | string | Key Identifier of Google Cloud KMS key encryption key. |
| key_ring_location | string | Google Cloud KMS key ring location. |
| key_ring_name | string | Google Cloud KMS key ring name of the deployed Google Cloud application. |
| project_id | string | Google Cloud project (application) ID of the deployed Google Cloud application that has appropriate access to the Google Cloud KMS. |
| proxy_host | string | Proxy host name. |
| proxy_port | integer | Proxy port number. |
| proxy_type | string | Type of proxy. |
| proxy_username | string | Proxy username. |
| scope | string | Set to "svm" for interfaces owned by an SVM. Otherwise, set to "cluster". |

| Name | Type | Description |
|-------|-----------------------|---|
| state | state | Google Cloud Key Management Services is a cloud key management service (KMS) that provides a secure store for encryption keys. This object indicates whether or not the Google Cloud KMS key protection is available on all nodes in the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the <code>fields</code> query parameter or GET for all advanced properties is enabled. |
| svm | svm | |
| uuid | string | A unique identifier for the Google Cloud KMS. |

Example response

```
{  
  "_links": {  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "ekmip_reachability": [  
    {  
      "code": "346758",  
      "message": "embedded KMIP server status unavailable on node.",  
      "node": {  
        "_links": {  
          "self": {  
            "href": "/api/resourcelink"  
          }  
        },  
        "name": "node1",  
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"  
      }  
    }  
  ],  
  "google_reachability": {  
    "code": "346758",  
    "message": "Google Cloud KMS service is not reachable from all  
nodes - <reason>."  
  },  
  "key_name": "cryptokey1",  
  "key_ring_location": "global",  
  "key_ring_name": "gcpapp1-keyring",  
  "project_id": "gcpapp1",  
  "proxy_host": "proxy.eng.com",  
  "proxy_port": "1234",  
  "proxy_type": "http",  
  "proxy_username": "proxyuser",  
  "scope": "string",  
  "state": {  
    "code": "346758",  
    "message": "Top-level internal key protection key (KEK) is  
unavailable on the following nodes with the associated reasons: Node:  
node1. Reason: No volumes created yet for the SVM. Wrapped KEK status  
will be available after creating encrypted volumes."  
  },  
  "svm": {  
    "_links": {
```

```

    "self": {
      "href": "/api/resourcelink"
    },
    "name": "svm1",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  },
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}

```

Error

Status: Default

ONTAP Error Response Codes

| Error Code | Description |
|------------|--|
| 65537551 | Top-level internal key protection key (KEK) unavailable on one or more nodes. |
| 65537552 | Embedded KMIP server status not available. |
| 65537730 | The Google Cloud Key Management Service is unreachable from one or more nodes. |

| 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 | |

node

| Name | Type | Description |
|--------|--------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

ekmip_reachability

Provides the connectivity status for the given SVM on the given node to all EKMIP servers configured on all nodes of the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the `fields` query parameter or GET for all advanced properties is enabled.

| Name | Type | Description |
|-----------|---------|---|
| code | integer | Code corresponding to the error message. Returns a 0 if a given SVM is able to communicate to the EKMIP servers of all of the nodes in the cluster. |
| message | string | Error message set when cluster-wide EKMIP server availability from the given SVM and node is false. |
| node | node | |
| reachable | boolean | Set to true if the given SVM on the given node is able to communicate to all EKMIP servers configured on all nodes in the cluster. |

google_reachability

Indicates whether or not the Google Cloud KMS service is reachable from all nodes in the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the `fields` query parameter or GET for all advanced properties is enabled.

| Name | Type | Description |
|-----------|---------|--|
| code | integer | Code corresponding to the error message. Returns a 0 if Google Cloud KMS service is reachable from all nodes in the cluster. |
| message | string | Set to the error message when 'reachable' is false. |
| reachable | boolean | Set to true if the Google Cloud KMS service is reachable from all nodes of the cluster. |

state

Google Cloud Key Management Services is a cloud key management service (KMS) that provides a secure store for encryption keys. This object indicates whether or not the Google Cloud KMS key protection is available on all nodes in the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the `fields` query parameter or GET for all advanced properties is enabled.

| Name | Type | Description |
|---------------|---------|--|
| cluster_state | boolean | Set to true when Google Cloud KMS key protection is available on all nodes of the cluster. |
| code | integer | Error code corresponding to the status message. Returns 0 if Google Cloud KMS key protection is available in all nodes of the cluster. |
| message | string | Error message set when top-level internal key protection key (KEK) availability on cluster is false. |

svm

| Name | Type | Description |
|---------------------|------------------------|----------------------|
| <code>_links</code> | _links | |
| name | string | The name of the SVM. |

| Name | Type | Description |
|------|--------|-----------------------------------|
| 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 the Google Cloud KMS configuration

PATCH /security/gcp-kms/{uuid}

Introduced In: 9.9

Updates the Google Cloud KMS configuration. Note: This method is only available to the NetApp Cloud Volume Services for GCP.

Optional properties

- `key_name` - Key Identifier of the Google Cloud KMS key encryption key.
- `application_credentials` - New credentials used to verify the application's identity to the Google Cloud KMS.
- `proxy_type` - Type of proxy (http/https) if proxy configuration is used.
- `proxy_host` - Proxy hostname if proxy configuration is used.
- `proxy_port` - Proxy port number if proxy configuration is used.
- `proxy_username` - Proxy username if proxy configuration is used.
- `proxy_password` - Proxy password if proxy configuration is used.

- `project_id` - Google Cloud project (application) ID of the deployed Google Cloud application with appropriate access to the Google Cloud KMS.
- `key_ring_name` - Google Cloud KMS key ring name of the deployed Google Cloud application with appropriate access to the specified Google Cloud KMS.
- `key_ring_location` - Google Cloud KMS key ring location.

Related ONTAP commands

- `security key-manager external gcp update-credentials`
- `security key-manager external gcp rekey-external`

Parameters

| Name | Type | In | Required | Description |
|-----------------------------|---------|-------|----------|--|
| <code>uuid</code> | string | path | True | Google Cloud KMS UUID |
| <code>return_timeout</code> | 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"> • Default value: 1 • Max value: 120 • Min value: 0 |

Request Body

| Name | Type | Description |
|-------------------------|---|---|
| application_credentials | string | Google Cloud application's service account credentials required to access the specified KMS. It is a JSON file containing an email address and the private key of the service account holder. |
| ekmip_reachability | array[ekmip_reachability] | |
| key_name | string | Key Identifier of Google Cloud KMS key encryption key. |
| key_ring_location | string | Google Cloud KMS key ring location. |
| key_ring_name | string | Google Cloud KMS key ring name of the deployed Google Cloud application. |
| project_id | string | Google Cloud project (application) ID of the deployed Google Cloud application that has appropriate access to the Google Cloud KMS. |
| proxy_host | string | Proxy host name. |
| proxy_password | string | Proxy password. Password is not audited. |
| proxy_port | integer | Proxy port number. |
| proxy_type | string | Type of proxy. |
| proxy_username | string | Proxy username. |
| svm | svm | |
| uuid | string | A unique identifier for the Google Cloud KMS. |

Example request

```
{  
  "application_credentials": "{ type: service_account, project_id:  
project-id, private_key_id: key-id, private_key: -----BEGIN PRIVATE  
KEY-----\nprivate-key\n-----END PRIVATE KEY-----\n, client_email:  
service-account-email, client_id: client-id, auth_uri: <a  
href=\"https://accounts.google.com/o/oauth2/auth\" class=\"  
bare\">https://accounts.google.com/o/oauth2/auth</a>, token_uri: <a  
href=\"https://accounts.google.com/o/oauth2/token\" class=\"  
bare\">https://accounts.google.com/o/oauth2/token</a>,  
auth_provider_x509_cert_url: <a href=\"https://www.googleapis.com/oauth  
2/v1/certs\" class=\"bare\">https://www.googleapis.com/oauth2/v1/  
certs</a>, client_x509_cert_url: <a  
href=\"https://www.googleapis.com/robot/v1/metadata/x509/service-  
account-email\" class=\"bare\">https://www.googleapis.com/robot/v1/  
metadata/x509/service-account-email</a> }",  
  "ekmip_reachability": [  
    {  
      "code": "346758",  
      "message": "embedded KMIP server status unavailable on node.",  
      "node": {  
        "name": "node1",  
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"  
      }  
    }  
  ],  
  "key_name": "cryptokey1",  
  "key_ring_location": "global",  
  "key_ring_name": "gcpapp1-keyring",  
  "project_id": "gcpapp1",  
  "proxy_host": "proxy.eng.com",  
  "proxy_password": "proxypassword",  
  "proxy_port": "1234",  
  "proxy_type": "http",  
  "proxy_username": "proxyuser",  
  "svm": {  
    "name": "svml1",  
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"  
  },  
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"  
}
```

Response

Status: 200, Ok

Response

Status: 202, Accepted

Error

Status: Default

ONTAP Error Response Codes

| Error Code | Description |
|------------|--|
| 65537541 | No inputs were provided for the patch request. |
| 65537547 | One or more volume encryption keys for encrypted volumes of this data SVM are stored in the key manager configured for the admin SVM. Use the REST API POST method to migrate this data SVM's keys from the admin SVM's key manager to this data SVM's key manager before running the rekey operation. |
| 65537713 | Internal Error. Failed to store the application credentials. |
| 65537714 | The "application_credentials" field must be specified. |
| 65537721 | The Google Cloud Key Management Service is not configured for the SVM. |
| 65537724 | Failed to update the Google Cloud Key Management Service because invalid application credentials were provided. |
| 65537729 | External rekey failed on one or more nodes. Use the REST API PATCH method "/api/security/gcp-kms/{uuid}" to try the rekey operation again. |
| 65537732 | ONTAP 9.9.1 does not allow modification of the following fields, "project_id", "key_ring_name" and "key_ring_location". |

Definitions

See Definitions

href

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

_links

node

| Name | Type | Description |
|------|--------|-------------|
| name | string | |
| uuid | string | |

ekmip_reachability

Provides the connectivity status for the given SVM on the given node to all EKMIP servers configured on all nodes of the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the `fields` query parameter or GET for all advanced properties is enabled.

| Name | Type | Description |
|-----------|---------|---|
| code | integer | Code corresponding to the error message. Returns a 0 if a given SVM is able to communicate to the EKMIP servers of all of the nodes in the cluster. |
| message | string | Error message set when cluster-wide EKMIP server availability from the given SVM and node is false. |
| node | node | |
| reachable | boolean | Set to true if the given SVM on the given node is able to communicate to all EKMIP servers configured on all nodes in the cluster. |

google_reachability

Indicates whether or not the Google Cloud KMS service is reachable from all nodes in the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the `fields` query parameter or GET for all advanced properties is enabled.

| Name | Type | Description |
|-----------|---------|--|
| code | integer | Code corresponding to the error message. Returns a 0 if Google Cloud KMS service is reachable from all nodes in the cluster. |
| message | string | Set to the error message when 'reachable' is false. |
| reachable | boolean | Set to true if the Google Cloud KMS service is reachable from all nodes of the cluster. |

state

Google Cloud Key Management Services is a cloud key management service (KMS) that provides a secure store for encryption keys. This object indicates whether or not the Google Cloud KMS key protection is available on all nodes in the cluster. This is an advanced property; there is an added cost to retrieving its value. The property is not populated for either a collection GET or an instance GET unless it is explicitly requested using the `fields` query parameter or GET for all advanced properties is enabled.

| Name | Type | Description |
|---------------|---------|--|
| cluster_state | boolean | Set to true when Google Cloud KMS key protection is available on all nodes of the cluster. |
| code | integer | Error code corresponding to the status message. Returns 0 if Google Cloud KMS key protection is available in all nodes of the cluster. |
| message | string | Error message set when top-level internal key protection key (KEK) availability on cluster is false. |

svm

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

gcp_kms

| Name | Type | Description |
|-------------------------|---------------------------|---|
| application_credentials | string | Google Cloud application's service account credentials required to access the specified KMS. It is a JSON file containing an email address and the private key of the service account holder. |
| ekmip_reachability | array[ekmip_reachability] | |
| key_name | string | Key Identifier of Google Cloud KMS key encryption key. |
| key_ring_location | string | Google Cloud KMS key ring location. |
| key_ring_name | string | Google Cloud KMS key ring name of the deployed Google Cloud application. |
| project_id | string | Google Cloud project (application) ID of the deployed Google Cloud application that has appropriate access to the Google Cloud KMS. |
| proxy_host | string | Proxy host name. |
| proxy_password | string | Proxy password. Password is not audited. |
| proxy_port | integer | Proxy port number. |
| proxy_type | string | Type of proxy. |
| proxy_username | string | Proxy username. |
| svm | svm | |
| uuid | string | A unique identifier for the Google Cloud KMS. |

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. |

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