Manage Azure Key Vaults

ONTAP 9.9.1 REST API reference

NetApp
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Security azure-key-vaults endpoint overview

Overview

Azure Key Vault (AKV) is a cloud key management service (KMS) that provides a secure store for secrets. This feature allows the Azure NetApp Files Cloud Volume Services to securely store its encryption keys using AKV. In order to use AKV with Azure NetApp Files Cloud Volume Services, you must first deploy an Azure application with the appropriate access to an AKV and then provide Azure NetApp Files Cloud Volume Services with the necessary details, such as key vault name, application ID so that Azure NetApp Files Cloud Volume Services can communicate with the deployed Azure application. The properties "state", "azure_reachability" and "ekmip_reachability" are considered advanced properties and are populated only when explicitly requested. Note: This feature is only available to the Azure NetApp Files Cloud Volume Services.

Examples

Creating an AKV for a cluster

The example AKV is configured at the cluster-scope. Note the *return_records=true* query parameter is used to obtain the newly created key manager configuration.

```
# The API:
POST /api/security/azure-key-vaults

# The call:
curl -X POST 'https://<mgmt-ip>/api/security/azure-key-
vaults?return_records=true' -H 'accept: application/hal+json' -d "{
\"client_id\": \"client1\", \"tenant_id\": \"tenant1\", \"name\":
\"https:://mykeyvault.azure.vault.net/\", \"key_id\": \"https://keyvault-
test.vault.azure.net/keys/key1/a8e619fd8f234db3b0b95c59540e2a74\",
\"client_secret\" : \"myclientPwd\" }"

# The response:
{
"num_records": 1,
"records": [
  {
    "uuid": "85619643-9a06-11ea-8d52-005056bbeba5",
    "client_id": "client1",
    "tenant_id": "tenant1",
    "name": "https:://mykeyvault.azure.vault.net/",
    "key_id": "https://keyvault-test.vault.azure.net/keys/key1",
    "_links": {
      "self": {
        "href": "/api/security/azure-key-vaults/85619643-9a06-11ea-8d52-
005056bbeba5"
      }
    }
  }
]
}
```

Creating an AKV for an SVM

The example AKV is configured for a specific SVM. Note the *return_records=true* query parameter is used to obtain the newly created key manager configuration.

```
# The API:
POST /api/security/azure-key-vaults

# The call:
curl -X POST 'https://<mgmt-ip>/api/security/azure-key-
vaults?return_records=true' -H 'accept: application/hal+json' -d "{
\"svm\": { \"uuid\": \"4f7abf4c-9a07-11ea-8d52-005056bbeba5\" },
\"client_id\": \"client1\", \"tenant_id\": \"tenant1\", \"name\":
\"https:://mykeyvault.azure.vault.net/\", \"key_id\": \"https://keyvault-
test.vault.azure.net/keys/key1\", \"client_secret\" : \"myclientPwd\" }"

# The response:
{
"num_records": 1,
"records": [
  {
    "uuid": "024cd3cf-9a08-11ea-8d52-005056bbeba5",
    "svm": {
      "uuid": "4f7abf4c-9a07-11ea-8d52-005056bbeba5",
      "name": "vs0"
    },
    "client_id": "client1",
    "tenant_id": "tenant1",
    "name": "https:://mykeyvault.azure.vault.net/",
    "key_id": "https://keyvault-test.vault.azure.net/keys/key1",
    "_links": {
      "self": {
        "href": "/api/security/azure-key-vaults/024cd3cf-9a08-11ea-8d52-
005056bbeba5"
      }
    }
  }
]
}
```

Retrieving the AKVs configured for all clusters and SVMs

The following example shows how to retrieve all configured AKVs along with their configurations.

```
# The API:
GET /api/security/azure-key-vaults

# The call:
```

```
curl -X GET 'https://<mgmt-ip>/api/security/azure-key-vaults?fields=*'

# The response:
{
"records": [
  {
    "uuid": "024cd3cf-9a08-11ea-8d52-005056bbeba5",
    "scope": "svm",
    "svm": {
      "uuid": "4f7abf4c-9a07-11ea-8d52-005056bbeba5",
      "name": "vs0"
    },
    "client_id": "client1",
    "tenant_id": "tenant1",
    "name": "https:://mykeyvault.azure.vault.net/",
    "key_id": "https://keyvault-test.vault.azure.net/keys/key1",
    "_links": {
      "self": {
        "href": "/api/security/azure-key-vaults/024cd3cf-9a08-11ea-8d52-
005056bbeba5"
      }
    }
  },
  {
    "uuid": "85619643-9a06-11ea-8d52-005056bbeba5",
    "scope": "cluster",
    "client_id": "client1",
    "tenant_id": "tenant1",
    "name": "https:://mykeyvault.azure.vault.net/",
    "key_id": "https://keyvault-test.vault.azure.net/keys/key1",
    "_links": {
      "self": {
        "href": "/api/security/azure-key-vaults/85619643-9a06-11ea-8d52-
005056bbeba5"
      }
    }
  }
],
"num_records": 2,
"_links": {
  "self": {
    "href": "/api/security/azure-key-vaults?fields=*"
  }
}
}
```

Retrieving the AKV configured for a specific SVM

The following example retrieves a configured AKV for a specific SVM.

```
# The API:
GET /api/security/azure-key-vaults

# The call:
curl -X GET 'https://<mgmt-ip>/api/security/azure-key-vaults/85619643-
9a06-11ea-8d52-005056bbeba5?fields=*'

# The response:
{
"uuid": "85619643-9a06-11ea-8d52-005056bbeba5",
"scope": "cluster",
"client_id": "client1",
"tenant_id": "tenant1",
"name": "https:://mykeyvault.azure.vault.net/",
"key_id": "https://keyvault-test.vault.azure.net/keys/key1",
"_links": {
  "self": {
    "href": "/api/security/azure-key-vaults/85619643-9a06-11ea-8d52-
005056bbeba5"
  }
}
}
```

Retrieving the advanced properties of an AKV configured for a specific SVM

The following example retrieves the advanced properties of a configured AKV for a specific SVM.

```
# The API:
GET /api/security/azure-key-vaults

# The call:
curl -X GET 'https://<mgmt-ip>/api/security/azure-key-vaults/85619643-
9a06-11ea-8d52-
005056bbeba5?fields=state,azure_reachability,ekmip_reachability"'
{
"uuid": "fc0b7718-18c9-11eb-88e3-005056bb605d",
"name": "https://10.234.237.18",
"state": {
  "cluster_state": true,
  "message": "",
```

```
  "code": 0
},
"azure_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/azure-key-vaults/fc0b7718-18c9-11eb-88e3-
005056bb605d"
  }
}
}
```

Updating the client password of a specific SVM

The following example updates the client password of a configured AKV for a specific SVM.

```
# The API:
PATCH /api/security/azure-key-vaults

# The call:
curl -X PATCH 'https://<mgmt-ip>/api/security/azure-key-vaults/85619643-
9a06-11ea-8d52-005056bbeba5' -d "{ \"client_secret\": \"newSecret\" }"
```

Deleting an AKV configuration for a specific SVM

The following example deletes a configured AKV for a specific SVM.

```
# The API:
DELETE /api/security/azure-key-vaults

# The call:
curl -X DELETE 'https://<mgmt-ip>/api/security/azure-key-vaults/85619643-
9a06-11ea-8d52-005056bbeba5'
```

Restoring the keys for a specific SVM configured with an AKV

The following example restores all the keys of a specific SVM configured with an AKV.

```
# The API:
POST security/azure-key-vaults/{azure_key_vault.uuid}/restore

# The call:
curl -X POST 'https://<mgmt-ip>/api/security/azure-key-vaults/85619643-
9a06-11ea-8d52-005056bbeba5/restore'

# The response:
{
"job": {
  "uuid": "6ab6946f-9a0c-11ea-8d52-005056bbeba5",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/6ab6946f-9a0c-11ea-8d52-005056bbeba5"
    }
  }
}
}
```

Rekeying the internal key for a specific SVM configured with an AKV

The following example rekeys the internal key of a specific SVM configured with an AKV.

```
# The API:
POST security/azure-key-vaults/{azure_key_vault.uuid}/rekey-internal

# The call:
curl -X POST 'https://<mgmt-ip>/api/security/azure-key-vaults/85619643-
9a06-11ea-8d52-005056bbeba5/rekey-internal'

# The response:
{
"job": {
  "uuid": "6ab6946f-9a0c-11ea-8d52-005056bbeba5",
  "_links": {
    "self": {
      "href": "/api/cluster/jobs/6ab6946f-9a0c-11ea-8d52-005056bbeba5"
    }
  }
}
}
```

Retrieve AKVs configured for all clusters and SVMs

GET `/security/azure-key-vaults`

Introduced In: 9.8

Retrieves AKVs configured for all clusters and SVMs. Note: This method is only available to the Azure NetApp Files Cloud Volume Services.

Related ONTAP commands

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

Parameters

Name	Type	In	Required	Description
state.code	integer	query	False	Filter by state.code
state.available	boolean	query	False	Filter by state.available
state.message	string	query	False	Filter by state.message
scope	string	query	False	Filter by scope
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
ekmip_reachability.node.uuid	string	query	False	Filter by ekmip_reachability.node.uuid
ekmip_reachability.reachable	boolean	query	False	Filter by ekmip_reachability.reachable
ekmip_reachability.message	string	query	False	Filter by ekmip_reachability.message

Name	Type	In	Required	Description
ekmip_reachability.code	integer	query	False	Filter by ekmip_reachability.code
proxy_port	integer	query	False	Filter by proxy_port
uuid	string	query	False	Filter by uuid
proxy_username	string	query	False	Filter by proxy_username
proxy_type	string	query	False	Filter by proxy_type
name	string	query	False	Filter by name
client_id	string	query	False	Filter by client_id
azure_reachability.message	string	query	False	Filter by azure_reachability.message
azure_reachability.reachable	boolean	query	False	Filter by azure_reachability.reachable
azure_reachability.code	integer	query	False	Filter by azure_reachability.code
proxy_host	string	query	False	Filter by proxy_host
key_id	string	query	False	Filter by key_id
tenant_id	string	query	False	Filter by tenant_id
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	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	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	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[azure_key_vault]	

Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "azure_reachability": {
      "code": "346758",
      "message": "AKV service is not reachable from all nodes -
reason."
    },
    "client_id": "aaaaaaaa-bbbb-aaaa-bbbb-aaaaaaaaaaaa",
    "client_secret": "abcdef",
    "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"
      }
    },
    "key_id": "https://keyvault1.vault.azure.net/keys/key1",
    "name": "https://kmip-akv-keyvault.vault.azure.net/",
    "proxy_host": "proxy.eng.com",
    "proxy_password": "proxypassword",
    "proxy_port": "1234",
    "proxy_type": "http",
    "proxy_username": "proxyuser",
    "scope": "svm",
    "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"
    },
    "tenant_id": "zzzzzzzz-yyyy-zzzz-yyyy-zzzzzzzzzzzz",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  }
}
```


Error

```
Status: Default, Error
```

Name	Type	Description
error	error	

Example error


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

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

Name	Type	Description
next	href	
self	href	

_links

Name	Type	Description
self	href	

azure_reachability

Indicates whether or not the AKV service is reachable from all the 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 status message. Returns a 0 if AKV service is reachable from all nodes in the cluster.
message	string	Error message set when reachability is false.
reachable	boolean	Set to true when the AKV service is reachable from all nodes of the cluster.

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.

state

Indicates whether or not the AKV wrapped internal key is available cluster wide. 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
available	boolean	Set to true when an AKV wrapped internal key is present on all nodes of the cluster.
code	integer	Code corresponding to the status message. Returns a 0 if AKV wrapped key is available on all nodes in the cluster.
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.

azure_key_vault

Name	Type	Description
_links	_links	
azure_reachability	azure_reachability	Indicates whether or not the AKV service is reachable from all the 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.
client_id	string	Application client ID of the deployed Azure application with appropriate access to an AKV.
client_secret	string	Password used by the application to prove its identity to AKV.
ekmip_reachability	array[ekmip_reachability]	
key_id	string	Key Identifier of AKV key encryption key.
name	string	Name of the deployed AKV that is used by the Azure NetApp Files Cloud Volume Services for storing keys.
proxy_host	string	Proxy host.
proxy_password	string	Proxy password. Password is not audited.
proxy_port	integer	Proxy port.

Name	Type	Description
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	Indicates whether or not the AKV wrapped internal key is available cluster wide. 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.
svm	svm	
tenant_id	string	Directory (tenant) ID of the deployed Azure application with appropriate access to an AKV.
uuid	string	A unique identifier for the Azure Key Vault (AKV).

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

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

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

Create an AKV configuration for all clusters and SVMs

POST `/security/azure-key-vaults`

Introduced In: 9.8

Configures the AKV configuration for all clusters and SVMs. Note: This method is only available to the Azure NetApp Files Cloud Volume Services.

Required properties

- `svm.uuid` or `svm.name` - Existing SVM in which to create a AKV.
- `client_id` - Application (client) ID of the deployed Azure application with appropriate access to an AKV.
- `tenant_id` - Directory (tenant) ID of the deployed Azure application with appropriate access to an AKV.
- `client_secret` - Password used by the application to prove its identity to AKV.
- `key_id`- Key Identifier of AKV encryption key.
- `name` - Name of the deployed AKV used by the Azure NetApp Files Cloud Volume Services for storing keys.

Optional properties

- `proxy_type` - Type of proxy (http, https etc.) 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 azure enable`
- `security key-manager external azure update-config`

Parameters

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

Request Body

Name	Type	Description
_links	_links	
azure_reachability	azure_reachability	Indicates whether or not the AKV service is reachable from all the 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.
client_id	string	Application client ID of the deployed Azure application with appropriate access to an AKV.
client_secret	string	Password used by the application to prove its identity to AKV.
ekmip_reachability	array[ekmip_reachability]	
key_id	string	Key Identifier of AKV key encryption key.
name	string	Name of the deployed AKV that is used by the Azure NetApp Files Cloud Volume Services for storing keys.
proxy_host	string	Proxy host.
proxy_password	string	Proxy password. Password is not audited.
proxy_port	integer	Proxy port.

Name	Type	Description
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	Indicates whether or not the AKV wrapped internal key is available cluster wide. 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.
svm	svm	
tenant_id	string	Directory (tenant) ID of the deployed Azure application with appropriate access to an AKV.
uuid	string	A unique identifier for the Azure Key Vault (AKV).

Example request


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "azure_reachability": {
    "code": "346758",
    "message": "AKV service is not reachable from all nodes - reason."
  },
  "client_id": "aaaaaaaa-bbbb-aaaa-bbbb-aaaaaaaaaaaa",
  "client_secret": "abcdef",
  "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"
    }
  },
  "key_id": "https://keyvault1.vault.azure.net/keys/key1",
  "name": "https://kmip-akv-keyvault.vault.azure.net/",
  "proxy_host": "proxy.eng.com",
  "proxy_password": "proxypassword",
  "proxy_port": "1234",
  "proxy_type": "http",
  "proxy_username": "proxyuser",
  "scope": "svm",
  "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"
    },
    "tenant_id": "zzzzzzzz-yyyy-zzzz-yyyy-zzzzzzzzzzzz",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  }
```


Response

```
Status: 201, Created
```

Name	Type	Description
_links	_links	
num_records	integer	Number of records
records	array[azure_key_vault]	

Example response


```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "azure_reachability": {
      "code": "346758",
      "message": "AKV service is not reachable from all nodes -
reason."
    },
    "client_id": "aaaaaaaa-bbbb-aaaa-bbbb-aaaaaaaaaaaa",
    "client_secret": "abcdef",
    "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"
      }
    },
    "key_id": "https://keyvault1.vault.azure.net/keys/key1",
    "name": "https://kmip-akv-keyvault.vault.azure.net/",
    "proxy_host": "proxy.eng.com",
    "proxy_password": "proxypassword",
    "proxy_port": "1234",
    "proxy_type": "http",
    "proxy_username": "proxyuser",
    "scope": "svm",
    "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"
    },
    "tenant_id": "zzzzzzzz-yyyy-zzzz-yyyy-zzzzzzzzzzzz",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  }
}
```


Error

```
Status: Default
```

ONTAP Error Response Codes

Error Code	Description
3735553	Failed to create self-signed certificate.
3735664	The specified key size is not supported in FIPS mode.
3735665	The specified hash function is not supported in FIPS mode.
3735700	The specified key size is not supported.
52559972	The certificates start date is later than the current date.
65537500	A key manager has already been configured for this SVM.
65537504	Internal error. Failed to store configuration in internal database.
65537505	One or more volume encryption keys of the given SVM are stored on a key manager configured for the admin SVM.

Error Code	Description
65537506	AKV is not supported in MetroCluster configurations.
65537512	AKV cannot be configured for the given SVM as not all nodes in the cluster can enable the Azure Key Vault feature.
65537514	Failed to check if the Azure Key Vault feature is enabled.
65537518	Failed to find an interface with Cluster role.
65537523	Invalid key ID format. Example key ID format":" "https://mykeyvault.vault.azure.net/keys/key1".
65537526	Failed to enable Azure Key Vault feature.

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	

azure_reachability

Indicates whether or not the AKV service is reachable from all the 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 status message. Returns a 0 if AKV service is reachable from all nodes in the cluster.
message	string	Error message set when reachability is false.
reachable	boolean	Set to true when the AKV service is reachable from all nodes of the cluster.

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.

state

Indicates whether or not the AKV wrapped internal key is available cluster wide. 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
available	boolean	Set to true when an AKV wrapped internal key is present on all nodes of the cluster.
code	integer	Code corresponding to the status message. Returns a 0 if AKV wrapped key is available on all nodes in the cluster.
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.

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

azure_key_vault

Name	Type	Description
_links	_links	
azure_reachability	azure_reachability	Indicates whether or not the AKV service is reachable from all the 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.
client_id	string	Application client ID of the deployed Azure application with appropriate access to an AKV.
client_secret	string	Password used by the application to prove its identity to AKV.
ekmip_reachability	array[ekmip_reachability]	
key_id	string	Key Identifier of AKV key encryption key.
name	string	Name of the deployed AKV that is used by the Azure NetApp Files Cloud Volume Services for storing keys.
proxy_host	string	Proxy host.
proxy_password	string	Proxy password. Password is not audited.
proxy_port	integer	Proxy port.
proxy_type	string	Type of proxy.
proxy_username	string	Proxy username.

Name	Type	Description
scope	string	Set to "svm" for interfaces owned by an SVM. Otherwise, set to "cluster".
state	state	Indicates whether or not the AKV wrapped internal key is available cluster wide. 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.
svm	svm	
tenant_id	string	Directory (tenant) ID of the deployed Azure application with appropriate access to an AKV.
uuid	string	A unique identifier for the Azure Key Vault (AKV).

_links

Name	Type	Description
next	href	
self	href	

error_arguments

Name	Type	Description
code	string	Argument code
message	string	Message argument

error

Name	Type	Description
arguments	array[error_arguments]	Message arguments

Name	Type	Description
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/azure-key-vaults/{azure_key_vault.uuid}/rekey-internal`

Introduced In: 9.8

Rekeys the internal key in the key hierarchy for an SVM with an AKV configuration. Note: This method is only available to the Azure NetApp Files Cloud Volume Services.

Related ONTAP commands

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

Parameters

Name	Type	In	Required	Description
azure_key_vault.uuid	string	path	True	UUID of the existing AKV configuration.

Name	Type	In	Required	Description
return_timeout	integer	query	False	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: 1 • Max value: 120 • Min value: 0
return_records	boolean	query	False	The default is false. If set to true, the records are returned. • Default value:

Response

```
Status: 202, Accepted
```

Error

```
Status: Default
```

ONTAP Error Response Codes

Error Code	Description
65537120	Azure Key Vault is not configured for the given SVM.
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.

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.

Restore keys for an SVM from a configured AKV

POST `/security/azure-key-vaults/{azure_key_vault.uuid}/restore`

Introduced In: 9.8

Restore the keys for an SVM from a configured AKV. Note: This method is only available to the Azure NetApp Files Cloud Volume Services.

Related ONTAP commands

- `security key-manager external azure restore`

Parameters

Name	Type	In	Required	Description
azure_key_vault.uuid	string	path	True	UUID of the existing AKV configuration.

Name	Type	In	Required	Description
return_timeout	integer	query	False	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: 1 • Max value: 120 • Min value: 0
return_records	boolean	query	False	The default is false. If set to true, the records are returned. • Default value:

Response

```
Status: 202, Accepted
```

Error

```
Status: Default
```

ONTAP Error Response Codes

Error Code	Description
65537120	Azure Key Vault is not configured for the given SVM.
65537515	Failed to restore keys on some nodes 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.

Delete an AKV configuration

DELETE `/security/azure-key-vaults/{uuid}`

Introduced In: 9.8

Deletes an AKV configuration. Note: This method is only available to the Azure NetApp Files Cloud Volume Services.

Related ONTAP commands

- `security key-manager external azure disable`

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	AKV 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 key manager is safe to disable.
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 authentication keys.
65537120	Azure Key Vault is not configured for the given SVM.
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 AKV configuration for an SVM specified by the UUID

GET `/security/azure-key-vaults/{uuid}`

Introduced In: 9.8

Retrieves the AKV configuration for the SVM specified by the UUID. Note: This method is only available to the Azure NetApp Files Cloud Volume Services.

Related ONTAP commands

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

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	AKV UUID
fields	array[string]	query	False	Specify the fields to return.

Response

```
Status: 200, Ok
```

Name	Type	Description
_links	_links	
azure_reachability	azure_reachability	Indicates whether or not the AKV service is reachable from all the 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.
client_id	string	Application client ID of the deployed Azure application with appropriate access to an AKV.
client_secret	string	Password used by the application to prove its identity to AKV.
ekmip_reachability	array[ekmip_reachability]	

Name	Type	Description
key_id	string	Key Identifier of AKV key encryption key.
name	string	Name of the deployed AKV that is used by the Azure NetApp Files Cloud Volume Services for storing keys.
proxy_host	string	Proxy host.
proxy_password	string	Proxy password. Password is not audited.
proxy_port	integer	Proxy port.
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	Indicates whether or not the AKV wrapped internal key is available cluster wide. 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.
svm	svm	
tenant_id	string	Directory (tenant) ID of the deployed Azure application with appropriate access to an AKV.
uuid	string	A unique identifier for the Azure Key Vault (AKV).

Example response


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "azure_reachability": {
    "code": "346758",
    "message": "AKV service is not reachable from all nodes - reason."
  },
  "client_id": "aaaaaaaa-bbbb-aaaa-bbbb-aaaaaaaaaaaa",
  "client_secret": "abcdef",
  "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"
    }
  },
  "key_id": "https://keyvault1.vault.azure.net/keys/key1",
  "name": "https://kmip-akv-keyvault.vault.azure.net/",
  "proxy_host": "proxy.eng.com",
  "proxy_password": "proxypassword",
  "proxy_port": "1234",
  "proxy_type": "http",
  "proxy_username": "proxyuser",
  "scope": "svm",
  "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"
  },
  "tenant_id": "zzzzzzzz-yyyy-zzzz-yyyy-zzzzzzzzzzzz",
  "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
}
```


Error

```
Status: Default, Error
```

Name	Type	Description
error	error	

Example error


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


Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

Name	Type	Description
self	href	

azure_reachability

Indicates whether or not the AKV service is reachable from all the 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 status message. Returns a 0 if AKV service is reachable from all nodes in the cluster.
message	string	Error message set when reachability is false.
reachable	boolean	Set to true when the AKV service is reachable from all nodes of the cluster.

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.

state

Indicates whether or not the AKV wrapped internal key is available cluster wide. 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
available	boolean	Set to true when an AKV wrapped internal key is present on all nodes of the cluster.
code	integer	Code corresponding to the status message. Returns a 0 if AKV wrapped key is available on all nodes in the cluster.
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.

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 AKV configuration

PATCH `/security/azure-key-vaults/{uuid}`

Introduced In: 9.8

Updates the AKV configuration. Note: This method is only available to the Azure NetApp Files Cloud Volume Services.

Optional properties

- `client_secret` - New password used to prove the application's identity to the AKV.
- `key_id`- Key Identifier of the new AKV key encryption key.
- `proxy_type` - Type of proxy (http, https etc.) 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.
- `client_id` - Application (client) ID of the deployed Azure application with appropriate access to an AKV.

- `tenant_id` - Directory (tenant) ID of the deployed Azure application with appropriate access to an AKV.

Related ONTAP commands

- `security key-manager external azure update-client-secret`
- `security key-manager external azure rekey-external`
- `security key-manager external azure update-config`

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	AKV UUID
return_timeout	integer	query	False	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: 1 • Max value: 120 • Min value: 0

Request Body

Name	Type	Description
_links	_links	
azure_reachability	azure_reachability	Indicates whether or not the AKV service is reachable from all the 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.
client_id	string	Application client ID of the deployed Azure application with appropriate access to an AKV.
client_secret	string	Password used by the application to prove its identity to AKV.
ekmip_reachability	array[ekmip_reachability]	
key_id	string	Key Identifier of AKV key encryption key.
name	string	Name of the deployed AKV that is used by the Azure NetApp Files Cloud Volume Services for storing keys.
proxy_host	string	Proxy host.
proxy_password	string	Proxy password. Password is not audited.
proxy_port	integer	Proxy port.
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	Indicates whether or not the AKV wrapped internal key is available cluster wide. 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.
svm	svm	
tenant_id	string	Directory (tenant) ID of the deployed Azure application with appropriate access to an AKV.
uuid	string	A unique identifier for the Azure Key Vault (AKV).

Example request


```
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "azure_reachability": {
    "code": "346758",
    "message": "AKV service is not reachable from all nodes - reason."
  },
  "client_id": "aaaaaaaa-bbbb-aaaa-bbbb-aaaaaaaaaaaa",
  "client_secret": "abcdef",
  "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"
    }
  },
  "key_id": "https://keyvault1.vault.azure.net/keys/key1",
  "name": "https://kmip-akv-keyvault.vault.azure.net/",
  "proxy_host": "proxy.eng.com",
  "proxy_password": "proxypassword",
  "proxy_port": "1234",
  "proxy_type": "http",
  "proxy_username": "proxyuser",
  "scope": "svm",
  "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"
    },
    "tenant_id": "zzzzzzzz-yyyy-zzzz-yyyy-zzzzzzzzzzzz",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  }
```


Response

```
Status: 200, Ok
```

Response

```
Status: 202, Accepted
```

Error

```
Status: Default
```

ONTAP Error Response Codes

Error Code	Description
65537120	Azure Key Vault is not configured for the given SVM.
65537504	Internal error. Failed to store configuration in internal database.
65537517	The field "client_secret" must be specified.
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.

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	

azure_reachability

Indicates whether or not the AKV service is reachable from all the 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 status message. Returns a 0 if AKV service is reachable from all nodes in the cluster.
message	string	Error message set when reachability is false.
reachable	boolean	Set to true when the AKV service is reachable from all nodes of the cluster.

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.

state

Indicates whether or not the AKV wrapped internal key is available cluster wide. 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
available	boolean	Set to true when an AKV wrapped internal key is present on all nodes of the cluster.
code	integer	Code corresponding to the status message. Returns a 0 if AKV wrapped key is available on all nodes in the cluster.
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.

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

azure_key_vault

Name	Type	Description
_links	_links	
azure_reachability	azure_reachability	Indicates whether or not the AKV service is reachable from all the 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.
client_id	string	Application client ID of the deployed Azure application with appropriate access to an AKV.
client_secret	string	Password used by the application to prove its identity to AKV.
ekmip_reachability	array[ekmip_reachability]	
key_id	string	Key Identifier of AKV key encryption key.
name	string	Name of the deployed AKV that is used by the Azure NetApp Files Cloud Volume Services for storing keys.
proxy_host	string	Proxy host.
proxy_password	string	Proxy password. Password is not audited.
proxy_port	integer	Proxy port.
proxy_type	string	Type of proxy.
proxy_username	string	Proxy username.

Name	Type	Description
scope	string	Set to "svm" for interfaces owned by an SVM. Otherwise, set to "cluster".
state	state	Indicates whether or not the AKV wrapped internal key is available cluster wide. 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.
svm	svm	
tenant_id	string	Directory (tenant) ID of the deployed Azure application with appropriate access to an AKV.
uuid	string	A unique identifier for the Azure Key Vault (AKV).

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.