NetApp

Manage SVMs

REST API reference

NetApp
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Manage SVMs

SVM svms endpoint overview

Managing SVMs

Cluster administrators can manage any SVM bound to the cluster. In addition, SVMs can also be managed by their SVM administrators. The SVM administrator manages the SVM resources, such as volumes, protocols and services, depending on the capabilities assigned by the cluster administrator. SVM administrators cannot create, modify, or delete SVMs. The cluster administrator manages SVM create, modify, or delete operations.

While configuring CIFS, you must also configure IP interfaces and DNS. No other protocol configuration is allowed when configuring NVMe. NFS, FCP, CIFS and iSCSI protocols can be configured together.

SVM administrators might have all or some of the following administration capabilities:

1. Data access protocol configuration Configures data access protocols, such as NFS, CIFS, iSCSI, and Fibre Channel (FC) protocol (Fibre Channel over Ethernet included).
2. Services configuration Configures services such as LDAP, NIS, and DNS.
3. Monitoring SVM Monitors jobs, network connections, network interfaces, and SVM health.
4. Updating the TLS certificate for this SVM.

Retrieve SVMs and SVM properties

GET `/svm/svms`

Introduced In: 9.6

Retrieves a list of SVMs and individual SVM properties. This includes protocol configurations such as CIFS and NFS, export policies, name service configurations, and network services.

Important notes

- The SVM object includes a large set of fields and can be expensive to retrieve. Use this API to list the collection of SVMs, and to retrieve only the full details of individual SVMs as needed.
- It is not recommended to create or delete more than five SVMs in parallel.
- REST APIs only expose a data SVM as an SVM.

Expensive properties

There is an added cost to retrieving values for these properties. They are not included by default in GET results and must be explicitly requested using the `fields` query parameter. See Requesting specific fields to learn more.

- `snapmirror.*`

Related ONTAP commands

- `vserver show`

Examples

1. Retrieves a list of SVMs in the cluster sorted by name

```
GET "/api/svm/svms?order_by=name"
```

1. Retrieves a list of SVMs in the cluster that have the NFS protocol enabled

```
GET "/api/svm/svms?nfs.enabled=true"
```

1. Retrieves a list of SVMs in the cluster that have the CIFS protocol enabled

```
GET "/api/svm/svms?cifs.enabled=true"
```

1. Retrieves a list of SVMs in the cluster that have the S3 protocol enabled

```
GET "/api/svm/svms?s3.enabled=true"
```

Learn more

- DOC /svm/svms

Parameters

Name	Type	In	Required	Description
nis.enabled	boolean	query	False	Filter by nis.enabled
nis.servers	string	query	False	Filter by nis.servers
nis.domain	string	query	False	Filter by nis.domain
nvme.enabled	boolean	query	False	Filter by nvme.enabled
language	string	query	False	Filter by language
nfs.enabled	boolean	query	False	Filter by nfs.enabled
comment	string	query	False	Filter by comment
aggregates.name	string	query	False	Filter by aggregates.name

Name	Type	In	Required	Description
aggregates.uuid	string	query	False	Filter by aggregates.uuid
subtype	string	query	False	Filter by subtype
dns.servers	string	query	False	Filter by dns.servers
dns.domains	string	query	False	Filter by dns.domains
fcp.enabled	boolean	query	False	Filter by fcp.enabled
iscsi.enabled	boolean	query	False	Filter by iscsi.enabled
name	string	query	False	Filter by name
ipspace.uuid	string	query	False	Filter by ipspace.uuid
ipspace.name	string	query	False	Filter by ipspace.name
ldap.base_dn	string	query	False	Filter by ldap.base_dn
ldap.servers	string	query	False	Filter by ldap.servers
ldap.enabled	boolean	query	False	Filter by ldap.enabled
ldap.bind_dn	string	query	False	Filter by ldap.bind_dn
ldap.ad_domain	string	query	False	Filter by ldap.ad_domain
uuid	string	query	False	Filter by uuid
cifs.name	string	query	False	Filter by cifs.name
cifs.ad_domain.fqdn	string	query	False	Filter by cifs.ad_domain.fqdn

Name	Type	In	Required	Description
cifs.ad_domain.organizational_unit	string	query	False	Filter by cifs.ad_domain.organizational_unit
cifs.enabled	boolean	query	False	Filter by cifs.enabled
s3.name	string	query	False	Filter by s3.name • Introduced in: 9.7
s3.enabled	boolean	query	False	Filter by s3.enabled • Introduced in: 9.7
nsswitch.netgroup	string	query	False	Filter by nsswitch.netgroup
nsswitch.group	string	query	False	Filter by nsswitch.group
nsswitch.hosts	string	query	False	Filter by nsswitch.hosts
nsswitch.namemap	string	query	False	Filter by nsswitch.namemap
nsswitch.passwd	string	query	False	Filter by nsswitch.passwd
fc_interfaces.name	string	query	False	Filter by fc_interfaces.name • Introduced in: 9.7
fc_interfaces.data_protocol	string	query	False	Filter by fc_interfaces.data_protocol • Introduced in: 9.7
snapshot_policy.uuid	string	query	False	Filter by snapshot_policy.uuid

Name	Type	In	Required	Description
snapshot_policy.name	string	query	False	Filter by snapshot_policy.name
state	string	query	False	Filter by state
certificate.uuid	string	query	False	Filter by certificate.uuid • Introduced in: 9.7
fields	array[string]	query	False	Specify the fields to return.
max_records	integer	query	False	Limit the number of records returned.
return_records	boolean	query	False	The default is true for GET calls. When set to false, only the number of records is returned. • Default value: 1
return_timeout	integer	query	False	The number of seconds to allow the call to execute before returning. When iterating over a collection, the default is 15 seconds. ONTAP returns earlier if either max records or the end of the collection is reached. • Default value: 1 • Max value: 120 • Min value: 0
order_by	array[string]	query	False	Order results by specified fields and optional [asc

Response

```
Status: 200, Ok
```

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

Example response

```json
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "aggregates": [
        {
          "_links": {
            "self": {
              "href": "/api/resourcelink"
            }
          },
          "name": "aggr1",
          "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
        }
      ],
      "certificate": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "cert1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "cifs": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "ad_domain": {
          "fqdn": "example.com",
```

```json
        "organizational_unit": "string"
      },
      "name": "CIFS1"
    },
    "comment": "string",
    "dns": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "domains": [
        "example.com",
        "example2.example3.com"
      ],
      "servers": [
        "10.224.65.20",
        "2001:db08:a0b:12f0::1"
      ]
    },
    "fc_interfaces": [
      {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "data_protocol": "string",
        "name": "lif1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      }
    ],
    "fcp": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      }
    },
    "ip_interfaces": [
      {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
```

```json
        "ip": {
          "address": "10.10.10.7"
        },
        "name": "lif1",
        "services": [
          "data_nfs"
        ],
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      }
    ],
    "ipspace": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "exchange",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "iscsi": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      }
    },
    "language": "c.utf_8",
    "ldap": {
      "ad_domain": "string",
      "base_dn": "string",
      "bind_dn": "string",
      "servers": [
        "string"
      ]
    },
    "name": "svm1",
    "nfs": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      }
    },
    "nis": {
      "_links": {
        "self": {
```

```
        "href": "/api/resourcelink"
      }
    },
    "domain": "string",
    "servers": [
      "string"
    ]
  },
  "nsswitch": {
    "group": [
      "string"
    ],
    "hosts": [
      "string"
    ],
    "namemap": [
      "string"
    ],
    "netgroup": [
      "string"
    ],
    "passwd": [
      "string"
    ]
  },
  "nvme": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    }
  },
  "s3": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "certificate": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "cert1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
```

```
        },
        "name": "s3-server-1"
      },
      "snapmirror": {
        "protected_volumes_count": 0
      },
      "snapshot_policy": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "default",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "state": "running",
      "subtype": "string",
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7",
      "volume_efficiency_policy": {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "name": "default",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      }
    }
  ]
}
```

Error

```
Status: Default, Error
```

Name	Type	Description
error	error	

Example error

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

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

Name	Type	Description
next	href	
self	href	

_links

Name	Type	Description
self	href	

aggregates

Aggregate

Name	Type	Description
_links	_links	
name	string	
uuid	string	

certificate

Certificate for incoming TLS connection requests.

Name	Type	Description
_links	_links	
name	string	Certificate name
uuid	string	Certificate UUID

ad_domain

Name	Type	Description
fqdn	string	The fully qualified domain name of the Windows Active Directory to which this CIFS server belongs. A CIFS server appears as a member of Windows server object in the Active Directory store.
organizational_unit	string	Specifies the organizational unit within the Active Directory domain to associate with the CIFS server.

cifs

Name	Type	Description
_links	_links	
ad_domain	ad_domain	
enabled	boolean	Specifies whether or not the CIFS service is administratively enabled.
name	string	The NetBIOS name of the CIFS server.

dns

Name	Type	Description
_links	_links	

Name	Type	Description
domains	array[string]	A list of DNS domains. Domain names have the following requirements: - The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_". - The first character of each label, delimited by ".", must be one of the following characters: A through Z or a through z or 0 through 9. - The last character of each label, delimited by ".", must be one of the following characters: A through Z, a through z, or 0 through 9. - The top level domain must contain only the following characters: A through Z, a through z. - The system reserves the following names:"all", "local", and "localhost".
servers	array[string]	The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses.

node

The node on which the FC port is located.

Name	Type	Description
name	string	The name of the node on which the FC port is located.

fc_port_reference

An FC port is the physical port of an FC adapter on a cluster node that can be connected to an FC network.

Name	Type	Description
_links	_links	

Name	Type	Description
name	string	The name of the FC port.
node	node	The node on which the FC port is located.
uuid	string	The unique identifier of the FC port.

location

The location of the Fibre Channel interface is defined by the location of its port.

Name	Type	Description
port	fc_port_reference	An FC port is the physical port of an FC adapter on a cluster node that can be connected to an FC network.

fc_interface_svm

Name	Type	Description
_links	_links	
data_protocol	string	The data protocol for which the Fibre Channel interface is configured.
name	string	The name of the Fibre Channel interface.
uuid	string	The unique identifier of the Fibre Channel interface.

fcp

Name	Type	Description
_links	_links	
enabled	boolean	Enable Fiber Channel Protocol (FCP)? Setting to true creates a service if not already created.

ip

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address

broadcast_domain

Broadcast domain UUID along with a readable name.

Name	Type	Description
_links	_links	
name	string	Name of the broadcast domain, scoped to its IPspace
uuid	string	Broadcast domain UUID

home_node

Name	Type	Description
_links	_links	
name	string	
uuid	string	

location

Home_node is optional.

Name	Type	Description
broadcast_domain	broadcast_domain	Broadcast domain UUID along with a readable name.
home_node	home_node	

ip_interface_svm

Interface parameters. Name and home_node are optional.

Name	Type	Description
_links	_links	
ip	ip	IP information
name	string	The name of the interface (optional).

Name	Type	Description
services	array[string]	The services associated with the interface.
uuid	string	The UUID that uniquely identifies the interface.

ipspace

Either the UUID or name may be supplied on input.

Name	Type	Description
_links	_links	
name	string	IPspace name
uuid	string	IPspace UUID

iscsi

Name	Type	Description
_links	_links	
enabled	boolean	Enable iSCSI? Setting to true creates a service if not already created.

ldap

Name	Type	Description
ad_domain	string	This parameter specifies the name of the Active Directory domain used to discover LDAP servers for use by this client. This is mutually exclusive with `servers` during POST.
base_dn	string	Specifies the default base DN for all searches.
bind_dn	string	Specifies the user that binds to the LDAP servers. SVM API supports anonymous binding. For Simple and SASL LDAP binding, use the LDAP API endpoint.

Name	Type	Description
enabled	boolean	Enable LDAP? Setting to true creates a configuration if not already created.
servers	array[string]	

nfs

Name	Type	Description
_links	_links	
enabled	boolean	Enable NFS? Setting to true creates a service if not already created.

nis

Name	Type	Description
_links	_links	
domain	string	The NIS domain to which this configuration belongs.
enabled	boolean	Enable NIS? Setting to true creates a configuration if not already created.
servers	array[string]	A list of hostnames or IP addresses of NIS servers used by the NIS domain configuration.

nsswitch

Name service switch configuration

Name	Type	Description
group	array[string]	Group sources
hosts	array[string]	Host sources
namemap	array[string]	NameMap sources
netgroup	array[string]	NetGroup sources
passwd	array[string]	Password sources

nvme

Name	Type	Description
_links	_links	
enabled	boolean	Enable NVMe? Setting to true creates a service if not already created.

ip_info

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
netmask	string	Input as netmask length (16) or IPv4 mask (255.255.0.0). For IPv6, you must set the netmask length. The default value is 64. Output is always netmask length.

network_route_for_svm

Name	Type	Description
destination	ip_info	IP information
gateway	string	The IP address of the gateway router leading to the destination.

certificate

Specifies the certificate that will be used for creating HTTPS connections to the S3 server.

Name	Type	Description
_links	_links	
name	string	Certificate name
uuid	string	Certificate UUID

s3

Name	Type	Description
_links	_links	
certificate	certificate	Specifies the certificate that will be used for creating HTTPS connections to the S3 server.
enabled	boolean	Specifies whether or not to enable S3. Setting this value to true creates a service if one is not yet created.
is_http_enabled	boolean	Specifies whether HTTP is enabled on the S3 server. By default, HTTP is disabled on the S3 server.
is_https_enabled	boolean	Specifies whether HTTPS is enabled on the S3 server. By default, HTTPS is enabled on the S3 server.
name	string	Specifies the name of the S3 server. A server name length can range from 1 to 15 characters and can only contain the following combination of characters 0-9, A-Z, a-z, ".", and "-".
port	integer	Specifies the HTTP listener port for the S3 server. By default, HTTP is enabled on port 80.
secure_port	integer	Specifies the HTTPS listener port for the S3 server. By default, HTTPS is enabled on port 443.

snapmirror

Specifies attributes for SVM DR protection.

Name	Type	Description
is_protected	boolean	Specifies whether the SVM is a SnapMirror source SVM, using SnapMirror to protect its data.
protected_volumes_count	integer	Specifies the number of SVM DR protected volumes in the SVM.

snapshot_policy

This is a reference to the Snapshot copy policy.

Name	Type	Description
_links	_links	
name	string	
uuid	string	

volume_efficiency_policy

This is a reference to the volume efficiency policy.

Name	Type	Description
_links	_links	
name	string	Name of the volume efficiency policy
uuid	string	Unique identifier of the volume efficiency policy.

svm

Name	Type	Description
_links	_links	
aggregates	array[aggregates]	List of allowed aggregates for SVM volumes. An administrator is allowed to create volumes on these aggregates.
aggregates_delegated	boolean	This property is true when the administrator has delegated the aggregates for the SVM volumes.
certificate	certificate	Certificate for incoming TLS connection requests.
cifs	cifs	
comment	string	Comment
dns	dns	
fc_interfaces	array[fc_interface_svm]	FC Interface for the SVM
fcp	fcp	

Name	Type	Description
ip_interfaces	array[ip_interface_svm]	IP interfaces for the SVM
ipspace	ipspace	Either the UUID or name may be supplied on input.
iscsi	iscsi	
language	string	Default volume language code. UTF-8 encoded languages are valid in POST or PATCH. Non UTF-8 language encodings are for backward compatibility and are not valid input for POST and PATCH requests.
ldap	ldap	
name	string	The name of the SVM.
nfs	nfs	
nis	nis	
nsswitch	nsswitch	Name service switch configuration
nvme	nvme	
s3	s3	
snapmirror	snapmirror	Specifies attributes for SVM DR protection.
snapshot_policy	snapshot_policy	This is a reference to the Snapshot copy policy.
state	string	SVM State
subtype	string	SVM subtype. The SVM subtype sync_destination is created automatically when an SVM of subtype sync_source is created on the source MetroCluster cluster. A POST request with sync_destination as SVM subtype is invalid.
uuid	string	The unique identifier of the SVM.

Name	Type	Description
volume_efficiency_policy	volume_efficiency_policy	This is a reference to the volume efficiency policy.

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.

Create and provision an SVM

POST `/svm/svms`

Introduced In: 9.6

Creates and provisions an SVM. If no IPspace is provided, then the SVM is created on the `Default` IPspace.

- The number of parallel SVMs that can be created must not be greater than five.
- If a sixth SVM POST request is issued, the following error message is generated: "Maximum allowed SVM jobs exceeded. Wait for the existing SVM jobs to complete and try again."

Required properties

- `name` - Name of the SVM to be created.

Recommended optional properties

- `ipspace.name` or `ipspace.uuid` - IPspace of the SVM
- `ip_interfaces` - If provided, the following fields are required:

- `ip_interfaces.name` - Name of the interface

- `ip_interfaces.ip.address` - IP address

- `ip_interfaces.ip.netmask` - Netmask length or IP address

- `ip_interfaces.location.broadcast_domain.uuid` or
  `ip_interfaces.location.broadcast_domain.name` - Broadcast domain name or UUID belonging
  to the same IPspace of the SVM.

- `routes` - If provided, the following field is required:

  - `routes.gateway` - Gateway IP address

- `cifs` - If provided, interfaces, routes and DNS must be provided. The following fields are also required:

  - `cifs.name` - Name of the CIFS server to be created for the SVM.

  - `cifs.ad_domain.fqdn` - Fully qualified domain name

  - `cifs.ad_domain.user` - Administrator username

  - `cifs.ad_domain.password` - User password

- `ldap` - If provided, the following fields are required:

  - `ldap.servers` or `ldap.ad_domain` - LDAP server list or Active Directory domain

  - `ldap.bind_dn` - Bind DN

  - `ldap.base_dn` - Base DN

- `nis` - If provided, the following fields are required:

  - `nis.servers` - NIS servers

  - `nis.domain` - NIS domain

- `dns` - If provided, the following fields are required:

  - `dns.servers` - Name servers

  - `dns.domains` - Domains

- `fc_interfaces` - If provided, the following fields are required:

  - `fc_interfaces.name` - Fibre Channel interface name

  - `fc_interfaces.data_protocol` - Fibre Channel interface data protocol

  - `fc_interfaces.location.port.uuid` or `fc_interfaces.location.port.name` and
    `fc_interfaces.location.port.node.name` - Either port UUID or port name and node name
    together must be provided.

- `s3` - If provided, the following field should also be specified:

  - <code>s3.name</code> - Name of the S3 server. If <code>s3.name' is not specified while
    </code>s3.enabled` is set to 'true', the S3 server will be created with the default name
    '<svm.name>_S3Server'.</svm.name>

Default property values

If not specified in POST, the following default property values are assigned:

- language - *C.UTF-8*

- `ipspace.name` - *Default*

- `snapshot_policy.name` - *Default*

- subtype - *Default* (*sync-source* if MetroCluster configuration)

Related ONTAP commands

- `vserver create`

- `vserver add-aggregates`

- `network interface create`

- `network route create`

- `vserver services name-service dns create`

- `vserver nfs create`

- `vserver services name-service ldap client create`

- `vserver cifs create`

- `vserver services name-service nis-domain create`

- `vserver iscsi create`

- `vserver nvme create`

- `vserver fcp create`

- `vserver services name-service ns-switch create`

- `vserver object-store-server create`

Examples

1. Creates an SVM with default "snapshot_policy"

```
  POST "/api/svm/svms" '{"name":"testVs",
"snapshot_policy":{"name":"default"}}'
```

1. Creates an SVM and configures NFS, ISCSI and FCP

```
  POST "/api/svm/svms" '{"name":"testVs", "nfs":{"enabled":"true"},
"fcp":{"enabled":"true"}, "iscsi":{"enabled":"true"}}'
```

1. Creates an SVM and configures NVMe

```
  POST "/api/svm/svms" '{"name":"testVs", "nvme":{"enabled":"true"}}'
```

1. Creates an SVM and configures LDAP

```
   POST "/api/svm/svms" '{"name":"testVs",
"snapshot_policy":{"name":"default"},
"ldap":{"servers":["10.140.101.1","10.140.101.2"], "ad_domain":"abc.com",
"base_dn":"dc=netapp,dc=com", "bind_dn":"dc=netapp,dc=com"}}'
```

1. Creates an SVM and configures NIS

```
   POST "/api/svm/svms" '{"name":"testVs",
"snapshot_policy":{"name":"default"}, "nis":{"enabled":"true",
"domain":"def.com","servers":["10.224.223.130", "10.224.223.131"]}}'
```

1. Creates an SVM and configures DNS

```
   POST "/api/svm/svms" '{"name":"testVs",
"snapshot_policy":{"name":"default"},
"dns":{"domains":["abc.com","def.com"], "servers":["10.224.223.130",
"10.224.223.131"]}}'
```

1. Creates an SVM and configures a LIF

```
   POST "/api/svm/svms" '{"name":"testVs", "ip_interfaces":
[{"name":"lif1", "ip":{"address":"10.10.10.7", "netmask":
"255.255.255.0"}, "location":{"broadcast_domain":{"name":"bd1"},
"home_node":{"name":"node1"}}, "service_policy": "default-management"}]}'
```

1. Creates an SVM and configures a LIF with IPV6 address

```
   POST "/api/svm/svms" '{"name":"testVs", "ip_interfaces":
[{"name":"lif2", "ip":{"address":"fd22:8b1e:b255:202:2a0:98ff:fe01:7d5b",
"netmask":"24"}, "location":{"broadcast_domain":{"name":"bd1"},
"home_node":{"name":"node1"}}, "service_policy": "default-management"}]}'
```

1. Creates an SVM and configures CIFS

```
   POST "/api/svm/svms" '{"name":"testVs", "cifs":{"name":"CIFDOC",
"ad_domain":{"fqdn":"abc.def.com", "organizational_unit":"CN=Computers",
"user":"cif_admin", "password":"abc123"}},
"ip_interfaces":[{"name":"lif1", "ip":{"address":"10.10.10.7", "netmask":
"255.255.255.0"}, "location":{"broadcast_domain":{"name":"bd1"},
"home_node":{"name":"node1"}}, "service_policy": "default-
management"}],"routes": [{"destination": {"address": "0.0.0.0", "netmask":
"0"}, "gateway": "10.10.10.7"}], "dns":{"domains":["abc.def.com",
"def.com"], "servers":["10.224.223.130", "10.224.223.131"]}}'
```

1. Creates an SVM and configures an S3 server

```
   POST "/api/svm/svms" '{"name":"svm5", "s3":{"name":"s3-server-1",
"enabled":true}}'
```

Learn more

- DOC /svm/svms

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:

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

Request Body

Name	Type	Description
aggregates	array[aggregates]	List of allowed aggregates for SVM volumes. An administrator is allowed to create volumes on these aggregates.
aggregates_delegated	boolean	This property is true when the administrator has delegated the aggregates for the SVM volumes.
cifs	cifs	
comment	string	Comment

Name	Type	Description
dns	dns	
fc_interfaces	array[fc_interface_svm]	FC Interface for the SVM
fcp	fcp	
ip_interfaces	array[ip_interface_svm]	IP interfaces for the SVM
ipspace	ipspace	Either the UUID or name may be supplied on input.
iscsi	iscsi	
language	string	Default volume language code. UTF-8 encoded languages are valid in POST or PATCH. Non UTF-8 language encodings are for backward compatibility and are not valid input for POST and PATCH requests.
ldap	ldap	
name	string	The name of the SVM.
nfs	nfs	
nis	nis	
nsswitch	nsswitch	Name service switch configuration
nvme	nvme	
routes	array[network_route_for_svm]	Optional array of routes for the SVM
s3	s3	
snapmirror	snapmirror	Specifies attributes for SVM DR protection.
snapshot_policy	snapshot_policy	This is a reference to the Snapshot copy policy.

Name	Type	Description
subtype	string	SVM subtype. The SVM subtype sync_destination is created automatically when an SVM of subtype sync_source is created on the source MetroCluster cluster. A POST request with sync_destination as SVM subtype is invalid.
uuid	string	The unique identifier of the SVM.
volume_efficiency_policy	volume_efficiency_policy	This is a reference to the volume efficiency policy.

Example request

```json
{
  "aggregates": [
    {
      "name": "aggr1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ],
  "cifs": {
    "ad_domain": {
      "fqdn": "example.com",
      "organizational_unit": "string",
      "password": "string",
      "user": "string"
    },
    "name": "CIFS1"
  },
  "comment": "string",
  "dns": {
    "domains": [
      "example.com",
      "example2.example3.com"
    ],
    "servers": [
      "10.224.65.20",
      "2001:db08:a0b:12f0::1"
    ]
  },
  "fc_interfaces": [
    {
      "data_protocol": "string",
      "location": {
        "port": {
          "name": "0a",
          "node": {
            "name": "node1"
          },
          "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
        }
      },
      "name": "lif1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ],
  "ip_interfaces": [
```

```
        {
          "ip": {
            "address": "10.10.10.7",
            "netmask": "24"
          },
          "location": {
            "broadcast_domain": {
              "name": "bd1",
              "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
            },
            "home_node": {
              "name": "node1",
              "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
            }
          },
          "name": "lif1",
          "service_policy": "string",
          "services": [
            "data_nfs"
          ],
          "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
        }
      ],
      "ipspace": {
        "name": "exchange",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "language": "c.utf_8",
      "ldap": {
        "ad_domain": "string",
        "base_dn": "string",
        "bind_dn": "string",
        "servers": [
          "string"
        ]
      },
      "name": "svm1",
      "nis": {
        "domain": "string",
        "servers": [
          "string"
        ]
      },
      "nsswitch": {
        "group": [
          "string"
```

```
        ],
        "hosts": [
          "string"
        ],
        "namemap": [
          "string"
        ],
        "netgroup": [
          "string"
        ],
        "passwd": [
          "string"
        ]
      },
      "routes": [
        {
          "destination": {
            "address": "10.10.10.7",
            "netmask": "24"
          },
          "gateway": "10.1.1.1"
        }
      ],
      "s3": {
        "certificate": {
          "name": "cert1",
          "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
        },
        "name": "s3-server-1"
      },
      "snapmirror": {
        "protected_volumes_count": 0
      },
      "snapshot_policy": {
        "name": "default",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      },
      "subtype": "string",
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7",
      "volume_efficiency_policy": {
        "name": "default",
        "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
      }
    }
```

Response

```
Status: 202, Accepted
```

Name	Type	Description
job	job_link	

Example response

```
{
  "job": {
    "uuid": "string"
  }
}
```

Error

```
Status: Default
```

ONTAP Error Response Codes

Error codes	Description
2621580	Cannot specify options other than SVM name, comment and ipspace for a Vserver that is being configured as the destination for SVM DR.
2621634	"sync-source" SVM can only be created in a MetroCluster configuration.
2621657	"sync-destination" SVM can only be created by the system.
13434884	Cannot create an SVM because of incorrect fields.
13434885	Non-UTF8 language(s) not supported.
13434888	IPspace UUID and IPspace name mismatch.
13434889	Internal Error. Wait and retry.
13434894	Maximum allowed SVM jobs exceeded. Wait for the existing SVM jobs to complete and try again.
13434908	Invalid SVM name. The name is already in use by another SVM, IPSpace or cluster.
13434909	Internal Error. Failed to identify the aggregate to host SVM root volume.

Error codes	Description
13434910	Internal Error. Failed to allocate new SVM ID.
13434911	Invalid SVM name. Maximum supported length is 41 if SVM is of type \"sync-source\", otherwise 47.
13434912	Failed to find IPspace.
13434913	Internal error: Failed to check if an SVM create operation is in progress. Contact technical support for assistance.
13434914	Request to create the root volume of the SVM failed because there is not enough space in specified aggregate.
13434915	Failed to unlock the SVM because SVM create or delete job is in progress. Wait a few minutes, and then try the command again.
13434916	SVM is in the process of being created. Wait a few minutes, and then try the command again.
13434917	SVM creation successful.
13434918	IPspace name not provided for creating an SVM.

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

aggregates

Aggregate

Name	Type	Description
name	string	
uuid	string	

certificate

Certificate for incoming TLS connection requests.

Name	Type	Description
name	string	Certificate name
uuid	string	Certificate UUID

ad_domain

Name	Type	Description
fqdn	string	The fully qualified domain name of the Windows Active Directory to which this CIFS server belongs. A CIFS server appears as a member of Windows server object in the Active Directory store.
organizational_unit	string	Specifies the organizational unit within the Active Directory domain to associate with the CIFS server.
password	string	The account password used to add this CIFS server to the Active Directory. This is not audited. Valid in POST only.

Name	Type	Description
user	string	The user account used to add this CIFS server to the Active Directory. Valid in POST only.

cifs

Name	Type	Description
ad_domain	ad_domain	
enabled	boolean	Specifies whether or not the CIFS service is administratively enabled.
name	string	The NetBIOS name of the CIFS server.

dns

Name	Type	Description
domains	array[string]	A list of DNS domains. Domain names have the following requirements: • The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_". • The first character of each label, delimited by ".", must be one of the following characters: A through Z or a through z or 0 through 9. • The last character of each label, delimited by ".", must be one of the following characters: A through Z, a through z, or 0 through 9. • The top level domain must contain only the following characters: A through Z, a through z. • The system reserves the following names:"all", "local", and "localhost".

Name	Type	Description
servers	array[string]	The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses.

node

The node on which the FC port is located.

Name	Type	Description
name	string	The name of the node on which the FC port is located.

fc_port_reference

An FC port is the physical port of an FC adapter on a cluster node that can be connected to an FC network.

Name	Type	Description
name	string	The name of the FC port.
node	node	The node on which the FC port is located.
uuid	string	The unique identifier of the FC port.

location

The location of the Fibre Channel interface is defined by the location of its port.

Name	Type	Description
port	fc_port_reference	An FC port is the physical port of an FC adapter on a cluster node that can be connected to an FC network.

fc_interface_svm

Name	Type	Description
data_protocol	string	The data protocol for which the Fibre Channel interface is configured.

Name	Type	Description
location	location	The location of the Fibre Channel interface is defined by the location of its port.
name	string	The name of the Fibre Channel interface.
uuid	string	The unique identifier of the Fibre Channel interface.

fcp

Name	Type	Description
enabled	boolean	Enable Fiber Channel Protocol (FCP)? Setting to true creates a service if not already created.

ip

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address
netmask	string	Input as netmask length (16) or IPv4 mask (255.255.0.0).

broadcast_domain

Broadcast domain UUID along with a readable name.

Name	Type	Description
name	string	Name of the broadcast domain, scoped to its IPspace
uuid	string	Broadcast domain UUID

home_node

Name	Type	Description
name	string	
uuid	string	

location

Home_node is optional.

Name	Type	Description
broadcast_domain	broadcast_domain	Broadcast domain UUID along with a readable name.
home_node	home_node	

ip_interface_svm

Interface parameters. Name and home_node are optional.

Name	Type	Description
ip	ip	IP information
location	location	Home_node is optional.
name	string	The name of the interface (optional).
service_policy	string	Built-in service policies for SVMs.
services	array[string]	The services associated with the interface.
uuid	string	The UUID that uniquely identifies the interface.

ipspace

Either the UUID or name may be supplied on input.

Name	Type	Description
name	string	IPspace name
uuid	string	IPspace UUID

iscsi

Name	Type	Description
enabled	boolean	Enable iSCSI? Setting to true creates a service if not already created.

ldap

Name	Type	Description
ad_domain	string	This parameter specifies the name of the Active Directory domain used to discover LDAP servers for use by this client. This is mutually exclusive with `servers` during POST.
base_dn	string	Specifies the default base DN for all searches.
bind_dn	string	Specifies the user that binds to the LDAP servers. SVM API supports anonymous binding. For Simple and SASL LDAP binding, use the LDAP API endpoint.
enabled	boolean	Enable LDAP? Setting to true creates a configuration if not already created.
servers	array[string]	

nfs

Name	Type	Description
enabled	boolean	Enable NFS? Setting to true creates a service if not already created.

nis

Name	Type	Description
domain	string	The NIS domain to which this configuration belongs.
enabled	boolean	Enable NIS? Setting to true creates a configuration if not already created.
servers	array[string]	A list of hostnames or IP addresses of NIS servers used by the NIS domain configuration.

nsswitch

Name service switch configuration

Name	Type	Description
group	array[string]	Group sources
hosts	array[string]	Host sources
namemap	array[string]	NameMap sources
netgroup	array[string]	NetGroup sources
passwd	array[string]	Password sources

nvme

Name	Type	Description
enabled	boolean	Enable NVMe? Setting to true creates a service if not already created.

ip_info

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address
netmask	string	Input as netmask length (16) or IPv4 mask (255.255.0.0). For IPv6, you must set the netmask length. The default value is 64. Output is always netmask length.

network_route_for_svm

Name	Type	Description
destination	ip_info	IP information
gateway	string	The IP address of the gateway router leading to the destination.

certificate

Specifies the certificate that will be used for creating HTTPS connections to the S3 server.

Name	Type	Description
name	string	Certificate name
uuid	string	Certificate UUID

s3

Name	Type	Description
certificate	certificate	Specifies the certificate that will be used for creating HTTPS connections to the S3 server.
enabled	boolean	Specifies whether or not to enable S3. Setting this value to true creates a service if one is not yet created.
is_http_enabled	boolean	Specifies whether HTTP is enabled on the S3 server. By default, HTTP is disabled on the S3 server.
is_https_enabled	boolean	Specifies whether HTTPS is enabled on the S3 server. By default, HTTPS is enabled on the S3 server.
name	string	Specifies the name of the S3 server. A server name length can range from 1 to 15 characters and can only contain the following combination of characters 0-9, A-Z, a-z, ".", and "-".
port	integer	Specifies the HTTP listener port for the S3 server. By default, HTTP is enabled on port 80.
secure_port	integer	Specifies the HTTPS listener port for the S3 server. By default, HTTPS is enabled on port 443.

snapmirror

Specifies attributes for SVM DR protection.

Name	Type	Description
is_protected	boolean	Specifies whether the SVM is a SnapMirror source SVM, using SnapMirror to protect its data.
protected_volumes_count	integer	Specifies the number of SVM DR protected volumes in the SVM.

snapshot_policy

This is a reference to the Snapshot copy policy.

Name	Type	Description
name	string	
uuid	string	

volume_efficiency_policy

This is a reference to the volume efficiency policy.

Name	Type	Description
name	string	Name of the volume efficiency policy
uuid	string	Unique identifier of the volume efficiency policy.

svm

Name	Type	Description
aggregates	array[aggregates]	List of allowed aggregates for SVM volumes. An administrator is allowed to create volumes on these aggregates.
aggregates_delegated	boolean	This property is true when the administrator has delegated the aggregates for the SVM volumes.
cifs	cifs	
comment	string	Comment
dns	dns	
fc_interfaces	array[fc_interface_svm]	FC Interface for the SVM

Name	Type	Description
fcp	fcp	
ip_interfaces	array[ip_interface_svm]	IP interfaces for the SVM
ipspace	ipspace	Either the UUID or name may be supplied on input.
iscsi	iscsi	
language	string	Default volume language code. UTF-8 encoded languages are valid in POST or PATCH. Non UTF-8 language encodings are for backward compatibility and are not valid input for POST and PATCH requests.
ldap	ldap	
name	string	The name of the SVM.
nfs	nfs	
nis	nis	
nsswitch	nsswitch	Name service switch configuration
nvme	nvme	
routes	array[network_route_for_svm]	Optional array of routes for the SVM
s3	s3	
snapmirror	snapmirror	Specifies attributes for SVM DR protection.
snapshot_policy	snapshot_policy	This is a reference to the Snapshot copy policy.
subtype	string	SVM subtype. The SVM subtype sync_destination is created automatically when an SVM of subtype sync_source is created on the source MetroCluster cluster. A POST request with sync_destination as SVM subtype is invalid.
uuid	string	The unique identifier of the SVM.

Name	Type	Description
volume_efficiency_policy	volume_efficiency_policy	This is a reference to the volume efficiency policy.

job_link

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

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 SVM

DELETE /svm/svms/{uuid}

Introduced In: 9.6

Deletes an SVM. As a prerequisite, SVM objects must be deleted first. SnapMirror relationships must be deleted and data volumes must be offline and deleted.

- The number of parallel SVMs that can be created must not be greater than five.
- If a sixth SVM POST request is issued, the following error message is generated: "Maximum allowed SVM jobs exceeded. Wait for the existing SVM jobs to complete and try again."

Related ONTAP commands

- `vserver delete`

Example

Deleting an individual SVM in the cluster.

```
DELETE "/api/svm/svms/f16f0935-5281-11e8-b94d-005056b46485"
```

Learn more

- DOC /svm/svms

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Filter by UUID

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

Response

```
Status: 202, Accepted
```

Name	Type	Description
job	job_link	

Example response

```
{
  "job": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "uuid": "string"
  }
}
```

Error

```
Status: Default
```

ONTAP Error Response Codes

Error codes	Description
13434894	Maximum allowed SVM jobs exceeded. Wait and retry.

Name	Type	Description
error	error	

Example error

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

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

Name	Type	Description
self	href	

job_link

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

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 SVM properties

GET `/svm/svms/{uuid}`

Introduced In: 9.6

Retrieves the properties for an individual SVM. This includes protocol configurations such as CIFS and NFS, export policies, name service configurations, and network services.

Important notes

- The SVM object includes a large set of fields and can be expensive to retrieve.
- REST APIs only expose a data SVM as an SVM.

Expensive properties

There is an added cost to retrieving values for these properties. They are not included by default in GET results and must be explicitly requested using the `fields` query parameter. See Requesting specific fields to learn more.

- snapmirror.*

Example

Retrieving an individual SVM in the cluster

```
GET "/api/svm/svms/f16f0935-5281-11e8-b94d-005056b46485"
```

Parameters

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

Response

```
Status: 200, Ok
```

Name	Type	Description
_links	_links	
aggregates	array[aggregates]	List of allowed aggregates for SVM volumes. An administrator is allowed to create volumes on these aggregates.

Name	Type	Description
aggregates_delegated	boolean	This property is true when the administrator has delegated the aggregates for the SVM volumes.
certificate	certificate	Certificate for incoming TLS connection requests.
cifs	cifs	
comment	string	Comment
dns	dns	
fc_interfaces	array[fc_interface_svm]	FC Interface for the SVM
fcp	fcp	
ip_interfaces	array[ip_interface_svm]	IP interfaces for the SVM
ipspace	ipspace	Either the UUID or name may be supplied on input.
iscsi	iscsi	
language	string	Default volume language code. UTF-8 encoded languages are valid in POST or PATCH. Non UTF-8 language encodings are for backward compatibility and are not valid input for POST and PATCH requests.
ldap	ldap	
name	string	The name of the SVM.
nfs	nfs	
nis	nis	
nsswitch	nsswitch	Name service switch configuration
nvme	nvme	
s3	s3	
snapmirror	snapmirror	Specifies attributes for SVM DR protection.
snapshot_policy	snapshot_policy	This is a reference to the Snapshot copy policy.

Name	Type	Description
state	string	SVM State
subtype	string	SVM subtype. The SVM subtype sync_destination is created automatically when an SVM of subtype sync_source is created on the source MetroCluster cluster. A POST request with sync_destination as SVM subtype is invalid.
uuid	string	The unique identifier of the SVM.
volume_efficiency_policy	volume_efficiency_policy	This is a reference to the volume efficiency policy.

Example response

```json
{
  "_links": {
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "aggregates": [
    {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "aggr1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ],
  "certificate": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "cert1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "cifs": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "ad_domain": {
      "fqdn": "example.com",
      "organizational_unit": "string"
    },
    "name": "CIFS1"
  },
  "comment": "string",
  "dns": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
```

```
      },
      "domains": [
        "example.com",
        "example2.example3.com"
      ],
      "servers": [
        "10.224.65.20",
        "2001:db08:a0b:12f0::1"
      ]
    },
    "fc_interfaces": [
      {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "data_protocol": "string",
        "name": "lif1",
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      }
    ],
    "fcp": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      }
    },
    "ip_interfaces": [
      {
        "_links": {
          "self": {
            "href": "/api/resourcelink"
          }
        },
        "ip": {
          "address": "10.10.10.7"
        },
        "name": "lif1",
        "services": [
          "data_nfs"
        ],
        "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
      }
    ],
```

```
  "ipspace": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "exchange",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "iscsi": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    }
  },
  "language": "c.utf_8",
  "ldap": {
    "ad_domain": "string",
    "base_dn": "string",
    "bind_dn": "string",
    "servers": [
      "string"
    ]
  },
  "name": "svm1",
  "nfs": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    }
  },
  "nis": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "domain": "string",
    "servers": [
      "string"
    ]
  },
  "nsswitch": {
    "group": [
```

```
            "string"
          ],
          "hosts": [
            "string"
          ],
          "namemap": [
            "string"
          ],
          "netgroup": [
            "string"
          ],
          "passwd": [
            "string"
          ]
        },
        "nvme": {
          "_links": {
            "self": {
              "href": "/api/resourcelink"
            }
          }
        },
        "s3": {
          "_links": {
            "self": {
              "href": "/api/resourcelink"
            }
          },
          "certificate": {
            "_links": {
              "self": {
                "href": "/api/resourcelink"
              }
            },
            "name": "cert1",
            "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
          },
          "name": "s3-server-1"
        },
        "snapmirror": {
          "protected_volumes_count": 0
        },
        "snapshot_policy": {
          "_links": {
            "self": {
              "href": "/api/resourcelink"
```

```
      }
    },
    "name": "default",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "state": "running",
  "subtype": "string",
  "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7",
  "volume_efficiency_policy": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "default",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
  }
}
```

Error

```
Status: Default, Error
```

Name	Type	Description
error	error	

Example error

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

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

Name	Type	Description
self	href	

aggregates

Aggregate

Name	Type	Description
_links	_links	
name	string	
uuid	string	

certificate

Certificate for incoming TLS connection requests.

Name	Type	Description
_links	_links	
name	string	Certificate name
uuid	string	Certificate UUID

ad_domain

Name	Type	Description
fqdn	string	The fully qualified domain name of the Windows Active Directory to which this CIFS server belongs. A CIFS server appears as a member of Windows server object in the Active Directory store.

Name	Type	Description
organizational_unit	string	Specifies the organizational unit within the Active Directory domain to associate with the CIFS server.

cifs

Name	Type	Description
_links	_links	
ad_domain	ad_domain	
enabled	boolean	Specifies whether or not the CIFS service is administratively enabled.
name	string	The NetBIOS name of the CIFS server.

dns

Name	Type	Description
_links	_links	

Name	Type	Description
domains	array[string]	A list of DNS domains. Domain names have the following requirements: • The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_". • The first character of each label, delimited by ".", must be one of the following characters: A through Z or a through z or 0 through 9. • The last character of each label, delimited by ".", must be one of the following characters: A through Z, a through z, or 0 through 9. • The top level domain must contain only the following characters: A through Z, a through z. • The system reserves the following names:"all", "local", and "localhost".
servers	array[string]	The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses.

node

The node on which the FC port is located.

Name	Type	Description
name	string	The name of the node on which the FC port is located.

fc_port_reference

An FC port is the physical port of an FC adapter on a cluster node that can be connected to an FC network.

Name	Type	Description
_links	_links	

Name	Type	Description
name	string	The name of the FC port.
node	node	The node on which the FC port is located.
uuid	string	The unique identifier of the FC port.

location

The location of the Fibre Channel interface is defined by the location of its port.

Name	Type	Description
port	fc_port_reference	An FC port is the physical port of an FC adapter on a cluster node that can be connected to an FC network.

fc_interface_svm

Name	Type	Description
_links	_links	
data_protocol	string	The data protocol for which the Fibre Channel interface is configured.
name	string	The name of the Fibre Channel interface.
uuid	string	The unique identifier of the Fibre Channel interface.

fcp

Name	Type	Description
_links	_links	
enabled	boolean	Enable Fiber Channel Protocol (FCP)? Setting to true creates a service if not already created.

ip

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address

broadcast_domain

Broadcast domain UUID along with a readable name.

Name	Type	Description
_links	_links	
name	string	Name of the broadcast domain, scoped to its IPspace
uuid	string	Broadcast domain UUID

home_node

Name	Type	Description
_links	_links	
name	string	
uuid	string	

location

Home_node is optional.

Name	Type	Description
broadcast_domain	broadcast_domain	Broadcast domain UUID along with a readable name.
home_node	home_node	

ip_interface_svm

Interface parameters. Name and home_node are optional.

Name	Type	Description
_links	_links	
ip	ip	IP information
name	string	The name of the interface (optional).

Name	Type	Description
services	array[string]	The services associated with the interface.
uuid	string	The UUID that uniquely identifies the interface.

ipspace

Either the UUID or name may be supplied on input.

Name	Type	Description
_links	_links	
name	string	IPspace name
uuid	string	IPspace UUID

iscsi

Name	Type	Description
_links	_links	
enabled	boolean	Enable iSCSI? Setting to true creates a service if not already created.

ldap

Name	Type	Description
ad_domain	string	This parameter specifies the name of the Active Directory domain used to discover LDAP servers for use by this client. This is mutually exclusive with `servers` during POST.
base_dn	string	Specifies the default base DN for all searches.
bind_dn	string	Specifies the user that binds to the LDAP servers. SVM API supports anonymous binding. For Simple and SASL LDAP binding, use the LDAP API endpoint.

Name	Type	Description
enabled	boolean	Enable LDAP? Setting to true creates a configuration if not already created.
servers	array[string]	

nfs

Name	Type	Description
_links	_links	
enabled	boolean	Enable NFS? Setting to true creates a service if not already created.

nis

Name	Type	Description
_links	_links	
domain	string	The NIS domain to which this configuration belongs.
enabled	boolean	Enable NIS? Setting to true creates a configuration if not already created.
servers	array[string]	A list of hostnames or IP addresses of NIS servers used by the NIS domain configuration.

nsswitch

Name service switch configuration

Name	Type	Description
group	array[string]	Group sources
hosts	array[string]	Host sources
namemap	array[string]	NameMap sources
netgroup	array[string]	NetGroup sources
passwd	array[string]	Password sources

nvme

Name	Type	Description
_links	_links	
enabled	boolean	Enable NVMe? Setting to true creates a service if not already created.

ip_info

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address
family	string	IPv4 or IPv6
netmask	string	Input as netmask length (16) or IPv4 mask (255.255.0.0). For IPv6, you must set the netmask length. The default value is 64. Output is always netmask length.

network_route_for_svm

Name	Type	Description
destination	ip_info	IP information
gateway	string	The IP address of the gateway router leading to the destination.

certificate

Specifies the certificate that will be used for creating HTTPS connections to the S3 server.

Name	Type	Description
_links	_links	
name	string	Certificate name
uuid	string	Certificate UUID

s3

Name	Type	Description
_links	_links	
certificate	certificate	Specifies the certificate that will be used for creating HTTPS connections to the S3 server.
enabled	boolean	Specifies whether or not to enable S3. Setting this value to true creates a service if one is not yet created.
is_http_enabled	boolean	Specifies whether HTTP is enabled on the S3 server. By default, HTTP is disabled on the S3 server.
is_https_enabled	boolean	Specifies whether HTTPS is enabled on the S3 server. By default, HTTPS is enabled on the S3 server.
name	string	Specifies the name of the S3 server. A server name length can range from 1 to 15 characters and can only contain the following combination of characters 0-9, A-Z, a-z, ".", and "-".
port	integer	Specifies the HTTP listener port for the S3 server. By default, HTTP is enabled on port 80.
secure_port	integer	Specifies the HTTPS listener port for the S3 server. By default, HTTPS is enabled on port 443.

snapmirror

Specifies attributes for SVM DR protection.

Name	Type	Description
is_protected	boolean	Specifies whether the SVM is a SnapMirror source SVM, using SnapMirror to protect its data.
protected_volumes_count	integer	Specifies the number of SVM DR protected volumes in the SVM.

snapshot_policy

This is a reference to the Snapshot copy policy.

Name	Type	Description
_links	_links	
name	string	
uuid	string	

volume_efficiency_policy

This is a reference to the volume efficiency policy.

Name	Type	Description
_links	_links	
name	string	Name of the volume efficiency policy
uuid	string	Unique identifier of the volume efficiency policy.

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 SVM properties

PATCH `/svm/svms/{uuid}`

Introduced In: 9.6

Updates one or more of the following properties of an individual SVM: SVM name, SVM default volume language code, SVM comment, and SVM state.

Related ONTAP commands

- `vserver modify`
- `vserver rename`
- `vserver start`
- `vserver stop`
- `security ssl modify`

Examples

1. Stops an SVM and updates the "comment" field for an individual SVM

```
  PATCH "/api/svm/svms/f16f0935-5281-11e8-b94d-005056b46485"
'{"state":"stopped", "comment":"This SVM is stopped."}'
```

1. Starts an SVM and updates the "comment" field for an individual SVM

```
  PATCH "/api/svm/svms/f16f0935-5281-11e8-b94d-005056b46485"
'{"state":"running", "comment":"This SVM is running."}'
```

1. Updates the "language" field for an individual SVM

```
  PATCH "/api/svm/svms/f16f0935-5281-11e8-b94d-005056b46485"
'{"language":"en.UTF-8"}'
```

1. Updates the "name" field for an SVM or renames the SVM

```
  PATCH "/api/svm/svms/f16f0935-5281-11e8-b94d-005056b46485"
'{"name":"svm_new"}'
```

1. Updates the aggregates for an individual SVM

```
  PATCH "/api/svm/svms/f16f0935-5281-11e8-b94d-005056b46485"
'{"aggregates":{"name":["aggr1","aggr2","aggr3"]}}'
```

1. Updates the Snapshot copy policy for an individual SVM

```
  PATCH "/api/svm/svms/f16f0935-5281-11e8-b94d-005056b46485"
'{"snapshot_policy":{"name":"custom1"}}'
```

1. Updates the TLS certificate for an individual SVM

```
  PATCH "/api/svm/svms/f16f0935-5281-11e8-b94d-005056b46485"
'{"certificate":{"uuid":"1cd8a442-86d1-11e0-ae1c-123478563412"}}'
```

Learn more

- DOC /svm/svms

Parameters

Name	Type	In	Required	Description
uuid	string	path	True	Filter by UUID
```

| 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. <br><br> • Default value: 1 <br><br> • Max value: 120 <br><br> • Min value: 0 |

## Request Body

| Name | Type | Description |
|------|------|-------------|
| aggregates | array[aggregates] | List of allowed aggregates for SVM volumes. An administrator is allowed to create volumes on these aggregates. |
| aggregates_delegated | boolean | This property is true when the administrator has delegated the aggregates for the SVM volumes. |
| certificate | certificate | Certificate for incoming TLS connection requests. |

| Name | Type | Description |
|---|---|---|
| comment | string | Comment |
| fc_interfaces | array[fc_interface_svm] | FC Interface for the SVM |
| ip_interfaces | array[ip_interface_svm] | IP interfaces for the SVM |
| language | string | Default volume language code. UTF-8 encoded languages are valid in POST or PATCH. Non UTF-8 language encodings are for backward compatibility and are not valid input for POST and PATCH requests. |
| name | string | The name of the SVM. |
| nsswitch | nsswitch | Name service switch configuration |
| snapmirror | snapmirror | Specifies attributes for SVM DR protection. |
| snapshot_policy | snapshot_policy | This is a reference to the Snapshot copy policy. |
| state | string | SVM State |
| uuid | string | The unique identifier of the SVM. |
| volume_efficiency_policy | volume_efficiency_policy | This is a reference to the volume efficiency policy. |

**Example request**

```json
{
  "aggregates": [
    {
      "name": "aggr1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ],
  "certificate": {
    "name": "cert1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "comment": "string",
  "fc_interfaces": [
    {
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ],
  "ip_interfaces": [
    {
      "services": [
        "data_nfs"
      ],
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    }
  ],
  "language": "c.utf_8",
  "name": "svm1",
  "nsswitch": {
    "group": [
      "string"
    ],
    "hosts": [
      "string"
    ],
    "namemap": [
      "string"
    ],
    "netgroup": [
      "string"
    ],
    "passwd": [
      "string"
    ]
  },
```

```
    "snapmirror": {
      "protected_volumes_count": 0
    },
    "snapshot_policy": {
      "name": "default",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "state": "running",
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7",
    "volume_efficiency_policy": {
      "name": "default",
      "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"
    }
  }
```

Response

```
Status: 202, Accepted
```

Name	Type	Description
job	job_link	

Example response

```
{
  "job": {
    "uuid": "string"
  }
}
```

Error

```
Status: Default
```

ONTAP Error Response Codes

Error codes	Description
13434880	Failed to modify SVM parameters.
13434881	Failed to rename SVM.

Error codes	Description
13434883	SVM parameters except name modified successfully.
13434885	Non-UTF8 language(s) not supported.
13434886	Invalid Snapshot copy policy.
13434902	Modification of NSSwitch parameters failed for the SVM.
13434906	Operation not supported for an SVM of type sync-destination.
12451843	Certificate does not exist.
13434908	Invalid SVM name. The name is already in use by another SVM, IPSpace or cluster.
13434916	SVM is in the process of being created. Wait a few minutes, and then try the command again.
13434915	Failed to unlock the SVM because SVM create or delete job is in progress. Wait a few minutes, and then try the command again.
13434911	Invalid SVM name. Maximum supported length is 41 if SVM is of type \"sync-source\", otherwise 47.

Definitions

See Definitions

href

Name	Type	Description
href	string	

_links

aggregates

Aggregate

Name	Type	Description
name	string	
uuid	string	

certificate

Certificate for incoming TLS connection requests.

Name	Type	Description
name	string	Certificate name
uuid	string	Certificate UUID

ad_domain

cifs

Name	Type	Description
ad_domain	ad_domain	
enabled	boolean	Specifies whether or not the CIFS service is administratively enabled.
name	string	The NetBIOS name of the CIFS server.

dns

Name	Type	Description
domains	array[string]	A list of DNS domains. Domain names have the following requirements: • The name must contain only the following characters: A through Z, a through z, 0 through 9, ".", "-" or "_". • The first character of each label, delimited by ".", must be one of the following characters: A through Z or a through z or 0 through 9. • The last character of each label, delimited by ".", must be one of the following characters: A through Z, a through z, or 0 through 9. • The top level domain must contain only the following characters: A through Z, a through z. • The system reserves the following names:"all", "local", and "localhost".
servers	array[string]	The list of IP addresses of the DNS servers. Addresses can be either IPv4 or IPv6 addresses.

node

The node on which the FC port is located.

Name	Type	Description
name	string	The name of the node on which the FC port is located.

fc_port_reference

An FC port is the physical port of an FC adapter on a cluster node that can be connected to an FC network.

Name	Type	Description
name	string	The name of the FC port.

Name	Type	Description
node	node	The node on which the FC port is located.
uuid	string	The unique identifier of the FC port.

location

The location of the Fibre Channel interface is defined by the location of its port.

Name	Type	Description
port	fc_port_reference	An FC port is the physical port of an FC adapter on a cluster node that can be connected to an FC network.

fc_interface_svm

Name	Type	Description
uuid	string	The unique identifier of the Fibre Channel interface.

fcp

Name	Type	Description
enabled	boolean	Enable Fiber Channel Protocol (FCP)? Setting to true creates a service if not already created.

ip

IP information

broadcast_domain

Broadcast domain UUID along with a readable name.

Name	Type	Description
name	string	Name of the broadcast domain, scoped to its IPspace
uuid	string	Broadcast domain UUID

home_node

Name	Type	Description
name	string	
uuid	string	

location

Home_node is optional.

Name	Type	Description
broadcast_domain	broadcast_domain	Broadcast domain UUID along with a readable name.
home_node	home_node	

ip_interface_svm

Interface parameters. Name and home_node are optional.

Name	Type	Description
ip	ip	IP information
services	array[string]	The services associated with the interface.
uuid	string	The UUID that uniquely identifies the interface.

ipspace

Either the UUID or name may be supplied on input.

Name	Type	Description
name	string	IPspace name
uuid	string	IPspace UUID

iscsi

Name	Type	Description
enabled	boolean	Enable iSCSI? Setting to true creates a service if not already created.

ldap

Name	Type	Description
ad_domain	string	This parameter specifies the name of the Active Directory domain used to discover LDAP servers for use by this client. This is mutually exclusive with `servers` during POST.
base_dn	string	Specifies the default base DN for all searches.
bind_dn	string	Specifies the user that binds to the LDAP servers. SVM API supports anonymous binding. For Simple and SASL LDAP binding, use the LDAP API endpoint.
enabled	boolean	Enable LDAP? Setting to true creates a configuration if not already created.
servers	array[string]	

nfs

Name	Type	Description
enabled	boolean	Enable NFS? Setting to true creates a service if not already created.

nis

Name	Type	Description
domain	string	The NIS domain to which this configuration belongs.
enabled	boolean	Enable NIS? Setting to true creates a configuration if not already created.
servers	array[string]	A list of hostnames or IP addresses of NIS servers used by the NIS domain configuration.

nsswitch

Name service switch configuration

Name	Type	Description
group	array[string]	Group sources
hosts	array[string]	Host sources
namemap	array[string]	NameMap sources
netgroup	array[string]	NetGroup sources
passwd	array[string]	Password sources

nvme

Name	Type	Description
enabled	boolean	Enable NVMe? Setting to true creates a service if not already created.

ip_info

IP information

Name	Type	Description
address	string	IPv4 or IPv6 address
netmask	string	Input as netmask length (16) or IPv4 mask (255.255.0.0). For IPv6, you must set the netmask length. The default value is 64. Output is always netmask length.

network_route_for_svm

Name	Type	Description
destination	ip_info	IP information
gateway	string	The IP address of the gateway router leading to the destination.

certificate

Specifies the certificate that will be used for creating HTTPS connections to the S3 server.

Name	Type	Description
name	string	Certificate name
uuid	string	Certificate UUID

s3

Name	Type	Description
certificate	certificate	Specifies the certificate that will be used for creating HTTPS connections to the S3 server.
enabled	boolean	Specifies whether or not to enable S3. Setting this value to true creates a service if one is not yet created.
is_http_enabled	boolean	Specifies whether HTTP is enabled on the S3 server. By default, HTTP is disabled on the S3 server.
is_https_enabled	boolean	Specifies whether HTTPS is enabled on the S3 server. By default, HTTPS is enabled on the S3 server.
name	string	Specifies the name of the S3 server. A server name length can range from 1 to 15 characters and can only contain the following combination of characters 0-9, A-Z, a-z, ".", and "-".
port	integer	Specifies the HTTP listener port for the S3 server. By default, HTTP is enabled on port 80.
secure_port	integer	Specifies the HTTPS listener port for the S3 server. By default, HTTPS is enabled on port 443.

snapmirror

Specifies attributes for SVM DR protection.

Name	Type	Description
is_protected	boolean	Specifies whether the SVM is a SnapMirror source SVM, using SnapMirror to protect its data.
protected_volumes_count	integer	Specifies the number of SVM DR protected volumes in the SVM.

snapshot_policy

This is a reference to the Snapshot copy policy.

Name	Type	Description
name	string	
uuid	string	

volume_efficiency_policy

This is a reference to the volume efficiency policy.

Name	Type	Description
name	string	Name of the volume efficiency policy
uuid	string	Unique identifier of the volume efficiency policy.

svm

Name	Type	Description
aggregates	array[aggregates]	List of allowed aggregates for SVM volumes. An administrator is allowed to create volumes on these aggregates.
aggregates_delegated	boolean	This property is true when the administrator has delegated the aggregates for the SVM volumes.
certificate	certificate	Certificate for incoming TLS connection requests.
comment	string	Comment
fc_interfaces	array[fc_interface_svm]	FC Interface for the SVM

Name	Type	Description
ip_interfaces	array[ip_interface_svm]	IP interfaces for the SVM
language	string	Default volume language code. UTF-8 encoded languages are valid in POST or PATCH. Non UTF-8 language encodings are for backward compatibility and are not valid input for POST and PATCH requests.
name	string	The name of the SVM.
nsswitch	nsswitch	Name service switch configuration
snapmirror	snapmirror	Specifies attributes for SVM DR protection.
snapshot_policy	snapshot_policy	This is a reference to the Snapshot copy policy.
state	string	SVM State
uuid	string	The unique identifier of the SVM.
volume_efficiency_policy	volume_efficiency_policy	This is a reference to the volume efficiency policy.

job_link

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

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.