



Manage CIFS services

REST API reference

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Manage CIFS services

Manage CIFS services

Overview

A CIFS server is necessary to provide SMB clients with access to the Storage Virtual Machine (SVM). Before you begin, the following prerequisites must be in place:

- At least one SVM LIF must exist on the SVM.
- The LIFs must be able to connect to the DNS servers configured on the SVM and to an Active Directory domain controller of the domain to which you want to join the CIFS server.
- The DNS servers must contain the service location records that are needed to locate the Active Directory domain services.
- The cluster time must be synchronized to within five minutes of the Active Directory domain controller.

Information on the CIFS server

You must keep the following in mind when creating the CIFS server:

- The CIFS server name might or might not be the same as the SVM name.
- The CIFS server name can be up to 15 characters in length.
- The following characters are not allowed: @ # * () = + [] \ ; : " , < > \ / ?
- You must use the FQDN when specifying the domain.
- The default is to add the CIFS server machine account to the Active Directory "CN=Computer" object.
- You can choose to add the CIFS server to a different organizational unit (OU) by specifying the "organizational_unit" parameter. When specifying the OU, do not specify the domain portion of the distinguished name; only specify the OU or CN portion of the distinguished name. ONTAP appends the value provided for the required "-domain" parameter onto the value provided for the "-ou" parameter to create the Active Directory distinguished name, which is used when joining the Active Directory domain.
- You can optionally choose to add a text comment of up to 48 characters about the CIFS server. If there is a space in the comment text, you must enclose the entire string in quotation marks.
- You can optionally choose to add a comma-delimited list of one or more NetBIOS aliases for the CIFS server.
- The *large-mtu* and *multichannel* features are enabled for the new CIFS server.
- If LDAP is configured with the *use_start_tls* and *session_security* features, the new CIFS server will also have this property set.

Examples

Creating a CIFS server

To create a CIFS server, use the following API. Note the *return_records=true* query parameter used to obtain the newly created entry in the response.

```

# The API:
POST /api/protocols/cifs/services

# The call:
curl -X POST "https://<mgmt-
ip>/api/protocols/cifs/services?return_records=true" -H "accept:
application/json" -H "Content-Type: application/json" -d "{ \"ad_domain\":
{ \"fqdn\": \"CIFS-2008R2-AD.GDL.ENGLAB.NETAPP.COM\",
\"organizational_unit\": \"CN=Computers\", \"password\": \"cifs*123\",
\"user\": \"administrator\" }, \"comment\": \"This CIFS Server Belongs to
CS Department\", \"default_unix_user\": \"string\", \"enabled\": true,
\"name\": \"CIFS-DOC\", \"netbios\": { \"aliases\": [ \"ALIAS_1\",
\"ALIAS_2\", \"ALIAS_3\" ], \"enabled\": false, \"wins_servers\": [
\"10.224.65.20\", \"10.224.65.21\" ] }, \"security\": {
\"kdc_encryption\": false, \"restrict_anonymous\": \"no_enumeration\",
\"smb_encryption\": false, \"smb_signing\": false }, \"svm\": { \"name\":
\"vs1\", \"uuid\": \"ef087155-f9e2-11e8-ac52-0050568ea248\" } }"

# The response:
{
  "num_records": 1,
  "records": [
    {
      "svm": {
        "uuid": "9f5ab4cb-f703-11e8-91cc-0050568eca13",
        "name": "vs1"
      },
      "name": "CIFS-DOC",
      "ad_domain": {
        "fqdn": "CIFS-2008R2-AD.GDL.ENGLAB.NETAPP.COM",
        "user": "administrator",
        "password": "cifs*123",
        "organizational_unit": "CN=Computers"
      },
      "enabled": true,
      "comment": "This CIFS Server Belongs to CS Department",
      "security": {
        "restrict_anonymous": "no_enumeration",
        "smb_signing": false,
        "smb_encryption": false,
        "kdc_encryption": false
      },
      "netbios": {
        "aliases": [
          "ALIAS_1",

```

```

        "ALIAS_2",
        "ALIAS_3"
    ],
    "wins_servers": [
        "10.224.65.20",
        "10.224.65.21"
    ],
    "enabled": false
},
"default_unix_user": "string"
}
],
"job": {
    "uuid": "f232b6da-00a4-11e9-a8c1-0050568eca13",
    "_links": {
        "self": {
            "href": "/api/cluster/jobs/f232b6da-00a4-11e9-a8c1-0050568eca13"
        }
    }
}
}
}

```

Retrieving the full CIFS server configuration for all SVMs in the cluster

```

# The API:
GET /api/protocols/cifs/services

# The call:
curl -X GET "https://<mgmt-
ip>/api/protocols/cifs/services?fields=*&return_records=true&return_timeout=15" -H "accept: application/json"

# The response:
{
"records": [
{
    "svm": {
        "uuid": "9f5ab4cb-f703-11e8-91cc-0050568eca13",
        "name": "vs1"
    },
    "name": "CIFS-DOC",
    "ad_domain": {

```

```

    "fqdn": "CIFS-2008R2-AD.GDL.ENGLAB.NETAPP.COM",
    "organizational_unit": "CN=Computers"
  },
  "enabled": true,
  "comment": "This CIFS Server Belongs to CS Department",
  "security": {
    "restrict_anonymous": "no_enumeration",
    "smb_signing": false,
    "smb_encryption": false,
    "kdc_encryption": false
  },
  "netbios": {
    "aliases": [
      "ALIAS_1",
      "ALIAS_2",
      "ALIAS_3"
    ],
    "wins_servers": [
      "10.224.65.20",
      "10.224.65.21"
    ],
    "enabled": false
  },
  "default_unix_user": "string"
}
],
"num_records": 1
}

```

Retrieving CIFS server configuration details for a specific SVM

```

# The API:
GET /api/protocols/cifs/services/{svm.uuid}

# The call:
curl -X GET "https://<mgmt-ip>/api/protocols/cifs/services/9f5ab4cb-f703-
11e8-91cc-0050568eca13" -H "accept: application/json"

# The response:
{
  "svm": {
    "uuid": "9f5ab4cb-f703-11e8-91cc-0050568eca13",
    "name": "vs1"
  },
  "name": "CIFS-DOC",
  "ad_domain": {
    "fqdn": "CIFS-2008R2-AD.GDL.ENGLAB.NETAPP.COM",
    "organizational_unit": "CN=Computers"
  },
  "enabled": true,
  "comment": "This CIFS Server Belongs to CS Department",
  "security": {
    "restrict_anonymous": "no_enumeration",
    "smb_signing": false,
    "smb_encryption": false,
    "kdc_encryption": false
  },
  "netbios": {
    "aliases": [
      "ALIAS_1",
      "ALIAS_2",
      "ALIAS_3"
    ],
    "wins_servers": [
      "10.224.65.20",
      "10.224.65.21"
    ],
    "enabled": false
  },
  "default_unix_user": "string"
}

```

Updating CIFS server properties for the specified SVM

```
# The API:  
PATCH /api/protocols/cifs/services/{svm.uuid}  
  
# The call:  
curl -X PATCH "https://<mgmt-ip>/api/protocols/cifs/services/9f5ab4cb-  
f703-11e8-91cc-0050568eca13" -H "accept: application/json" -H "Content-  
Type: application/json" -d "{ \"comment\": \"CIFS SERVER MODIFICATION\" }"
```

Removing a CIFS server for a specific SVM

To delete a CIFS server, use the following API. This will delete the CIFS server along with other CIFS configurations such as CIFS share, share ACLs, homedir search-path, and so on.

```
# The API:  
DELETE /api/protocols/cifs/services/{svm.uuid}  
  
# The call:  
curl -X DELETE "https://<mgmt-ip>/api/protocols/cifs/services/9f5ab4cb-  
f703-11e8-91cc-0050568eca13" -H "accept: application/json" -H "Content-  
Type: application/json" -d "{\"ad_domain\": { \"password\": \"cifs*123\",  
\"user\": \"administrator\" } }"
```

Retrieves cifs servers

related ontap commands

- vserver cifs server show
- vserver cifs server options show
- vserver cifs server security show **# learn more**
- [doc /protocols/cifs/services](#docs-nas-protocols_cifs_services)

GET /protocols/cifs/services

Retrieves CIFS servers.

Related ONTAP commands

- `vserver cifs server show`
- `vserver cifs server options show`
- `vserver cifs server security show`

Learn more

- [DOC /protocols/cifs/services](#)

Parameters

| Name | Type | In | Required | Description |
|-----------------------------|---------|-------|----------|---------------------------------------|
| name | string | query | False | Filter by name |
| default_unix_user | string | query | False | Filter by default_unix_user |
| netbios_aliases | string | query | False | Filter by netbios_aliases |
| netbios_wins_servers | string | query | False | Filter by netbios.wins_servers |
| netbios_enabled | boolean | query | False | Filter by netbios.enabled |
| comment | string | query | False | Filter by comment |
| security_smb_encryption | boolean | query | False | Filter by security.smb_encryption |
| security_smb_signing | boolean | query | False | Filter by security.smb_signing |
| security_restrict_anonymous | string | query | False | Filter by security.restrict_anonymous |
| security_kdc_encryption | boolean | query | False | Filter by security.kdc_encryption |
| svm_name | string | query | False | Filter by svm.name |

| Name | Type | In | Required | Description |
|-------------------------------|---------------|-------|----------|--|
| svm.uuid | string | query | False | Filter by svm.uuid |
| ad_domain.organizational_unit | string | query | False | Filter by ad_domain.organizational_unit |
| ad_domain.user | string | query | False | Filter by ad_domain.user |
| ad_domain.fqdn | string | query | False | Filter by ad_domain.fqdn |
| enabled | boolean | query | False | Filter by enabled |
| 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. |
| 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. |
| 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[cifs_service] | |

Example response

```
        "_links": {
            "next": {
                "href": "/api/resourcelink"
            },
            "self": {
                "href": "/api/resourcelink"
            }
        },
        "records": [
            {
                "_links": {
                    "self": {
                        "href": "/api/resourcelink"
                    }
                },
                "ad_domain": {
                    "fqdn": "example.com",
                    "organizational_unit": "string",
                    "user": "string"
                },
                "comment": "This CIFS Server Belongs to CS Department",
                "default_unix_user": "string",
                "name": "CIFS1",
                "netbios": {
                    "aliases": [
                        "ALIAS_1",
                        "ALIAS_2",
                        "ALIAS_3"
                    ],
                    "wins_servers": [
                        "10.224.65.20",
                        "10.224.65.21"
                    ]
                },
                "security": {
                    "restrict_anonymous": "string"
                },
                "svm": {
                    "_links": {
                        "self": {
                            "href": "/api/resourcelink"
                        }
                    }
                }
            }
        ]
    }
}
```

```

        "name": "svml",
        "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 | |

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. POST and PATCH only. |
| organizational_unit | string | Specifies the organizational unit within the Active Directory domain to associate with the CIFS server. POST and PATCH only. |
| user | string | The user account used to add this CIFS server to the Active Directory. POST and DELETE only. |

cifs_netbios

| Name | Type | Description |
|---------|---------------|-------------|
| aliases | array[string] | |

| Name | Type | Description |
|--------------|---------------|--|
| enabled | boolean | Specifies whether NetBios name service (NBNS) is enabled for the CIFS. If this service is enabled, the CIFS server will start sending the broadcast for name registration. |
| wins_servers | array[string] | |

cifs_service_security

| Name | Type | Description |
|----------------|---------|---|
| kdc_encryption | boolean | <p>Specifies whether AES-128 and AES-256 encryption is enabled for all Kerberos-based communication with the Active Directory KDC. To take advantage of the strongest security with Kerberos-based communication, AES-256 and AES-128 encryption can be enabled on the CIFS server. Kerberos-related communication for CIFS is used during CIFS server creation on the SVM, as well as during the SMB session setup phase. The CIFS server supports the following encryption types for Kerberos communication:</p> <ul style="list-style-type: none"> • RC4-HMAC • DES • AES When the CIFS server is created, the domain controller creates a computer machine account in Active Directory. After a newly created machine account authenticates, the KDC and the CIFS server negotiate encryption types. At this time, the KDC becomes aware of the encryption capabilities of the particular machine account and uses those capabilities in subsequent communication with the CIFS server. In addition to negotiating encryption types during CIFS server creation, the encryption types are renegotiated when a machine account password is reset. |

| Name | Type | Description |
|--------------------|---------|---|
| restrict_anonymous | string | <p>Specifies what level of access an anonymous user is granted. An anonymous user (also known as a "null user") can list or enumerate certain types of system information from Windows hosts on the network, including user names and details, account policies, and share names. Access for the anonymous user can be controlled by specifying one of three access restriction settings. The available values are:</p> <ul style="list-style-type: none"> • no_restriction - No access restriction for an anonymous user. • no_enumeration - Enumeration is restricted for an anonymous user. • no_access - All access is restricted for an anonymous user. |
| smb_encryption | boolean | Specifies whether encryption is required for incoming CIFS traffic. |
| smb_signing | boolean | Specifies whether signing is required for incoming CIFS traffic. SMB signing helps to ensure that network traffic between the CIFS server and the client is not compromised. |

svm

SVM, applies only to SVM-scoped objects.

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

cifs_service

| Name | Type | Description |
|-------------------|---------------------------------------|--|
| _links | _links | |
| ad_domain | ad_domain | |
| comment | string | A descriptive text comment for the CIFS server. SMB clients can see the CIFS server comment when browsing servers on the network. If there is a space in the comment, you must enclose the entire string in quotation marks. |
| default_unix_user | string | Specifies the UNIX user to which any authenticated CIFS user is mapped to, if the normal user mapping rules fails. |
| enabled | boolean | Specifies if the CIFS service is administratively enabled. |
| name | string | The name of the CIFS server. |
| netbios | cifs_netbios | |
| security | cifs_service_security | |
| svm | svm | SVM, applies only to SVM-scoped objects. |

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. |

Creates a cifs server each svm can have one cifs server</br>

important notes

- the cifs server name might or might not be the same as the svm name
- the cifs server name can contain up to 15 characters
- the cifs server name does not support the following characters: @ # * () = + [] | ; : " , < > / ? **#** required properties
 - `svmuuid` or `svmname` - existing svm in which to create the cifs server
 - `name` - name of the cifs server
 - `ad_domainfqdn` - fully qualified domain name of the windows active directory to which this cifs server belongs
 - `ad_domainuser` - user account with the access to add the cifs server to the active directory
 - `ad_domainpassword` - account password used to add this cifs server to the active directory **#** recommended optional properties
 - `comment` - add a text comment of up to 48 characters about the cifs server
 - `netbiosaliases` - add a comma-delimited list of one or more netbios aliases for the cifs server
 - `netbioswins_servers` - add a list of windows internet name server (wins) addresses that manage and map the netbios name of the cifs server to their network ip addresses the ip addresses must be ipv4 addresses **#** default property values if not specified in post, the following default property values are assigned:
 - `ad_domainorganizational_unit` - *cn=computers*
 - `enabled` - *true*
 - `restrict_anonymous` - *no_enumeration*
 - `smb_signing` - *false*
 - `smb_encryption` - *false*
 - `kdc_encryption` - *false*
 - `default_unix_user` - *pcuser*
 - `netbios_enabled` - *false* however, if either "netbioswins-server" or "netbiosaliases" is set during post and if `netbios_enabled` is not specified then `netbios_enabled` is set to true **#** related ontap commands
 - `vserver cifs server create`
 - `vserver cifs server options modify`

- vserver cifs security modify
- vserver cifs server add-netbios-aliases **#** learn more
- [doc /protocols/cifs/services](#docs-nas-protocols_cifs_services)

POST /protocols/cifs/services

Creates a CIFS server. Each SVM can have one CIFS server.

Important notes

- The CIFS server name might or might not be the same as the SVM name.
- The CIFS server name can contain up to 15 characters.
- The CIFS server name does not support the following characters: @ # * () = + [] \ ; : " , < > / ?

Required properties

- `svm.uuid` or `svm.name` - Existing SVM in which to create the CIFS server.
- `name` - Name of the CIFS server.
- `ad_domain.fqdn` - Fully qualified domain name of the Windows Active Directory to which this CIFS server belongs.
- `ad_domain.user` - User account with the access to add the CIFS server to the Active Directory.
- `ad_domain.password` - Account password used to add this CIFS server to the Active Directory.

Recommended optional properties

- `comment` - Add a text comment of up to 48 characters about the CIFS server.
- `netbios_aliases` - Add a comma-delimited list of one or more NetBIOS aliases for the CIFS server.
- `netbios.wins_servers` - Add a list of Windows Internet Name Server (WINS) addresses that manage and map the NetBIOS name of the CIFS server to their network IP addresses. The IP addresses must be IPv4 addresses.

Default property values

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

- `ad_domain.organizational_unit` - *CN=Computers*
- `enabled` - *true*
- `restrict_anonymous` - *no_enumeration*
- `smb_signing` - *false*
- `smb_encryption` - *false*
- `kdc_encryption` - *false*
- `default_unix_user` - *pcuser*
- `netbios_enabled` - *false* However, if either "netbios.wins-server" or "netbios_aliases" is set during POST

and if `netbios_enabled` is not specified then `netbios_enabled` is set to true.

Related ONTAP commands

- `vserver cifs server create`
- `vserver cifs server options modify`
- `vserver cifs security modify`
- `vserver cifs server add-netbios-aliases`

Learn more

- [DOC /protocols/cifs/services](#)

Request Body

| Name | Type | Description |
|--------------------------------|---------------------------------------|--|
| <code>_links</code> | _links | |
| <code>ad_domain</code> | ad_domain | |
| <code>comment</code> | string | A descriptive text comment for the CIFS server. SMB clients can see the CIFS server comment when browsing servers on the network. If there is a space in the comment, you must enclose the entire string in quotation marks. |
| <code>default_unix_user</code> | string | Specifies the UNIX user to which any authenticated CIFS user is mapped to, if the normal user mapping rules fails. |
| <code>enabled</code> | boolean | Specifies if the CIFS service is administratively enabled. |
| <code>name</code> | string | The name of the CIFS server. |
| <code>netbios</code> | cifs_netbios | |
| <code>security</code> | cifs_service_security | |
| <code>svm</code> | svm | SVM, applies only to SVM-scoped objects. |

Example request

```
{  
  "_links": {  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "ad_domain": {  
    "fqdn": "example.com",  
    "organizational_unit": "string",  
    "password": "string",  
    "user": "string"  
  },  
  "comment": "This CIFS Server Belongs to CS Department",  
  "default_unix_user": "string",  
  "name": "CIFS1",  
  "netbios": {  
    "aliases": [  
      "ALIAS_1",  
      "ALIAS_2",  
      "ALIAS_3"  
    ],  
    "wins_servers": [  
      "10.224.65.20",  
      "10.224.65.21"  
    ]  
  },  
  "security": {  
    "restrict_anonymous": "string"  
  },  
  "svm": {  
    "_links": {  
      "self": {  
        "href": "/api/resourcelink"  
      }  
    },  
    "name": "svml1",  
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"  
  }  
}
```

Response

Status: 202, Accepted

| Name | Type | Description |
|------|----------|-------------|
| job | job_link | |

Example response

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

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 | |

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. POST and PATCH only. |
| organizational_unit | string | Specifies the organizational unit within the Active Directory domain to associate with the CIFS server. POST and PATCH only. |
| password | string | The account password used to add this CIFS server to the Active Directory. This is not audited. |
| user | string | The user account used to add this CIFS server to the Active Directory. POST and DELETE only. |

cifs_netbios

| Name | Type | Description |
|---------|---------------|-------------|
| aliases | array[string] | |

| Name | Type | Description |
|--------------|---------------|--|
| enabled | boolean | Specifies whether NetBios name service (NBNS) is enabled for the CIFS. If this service is enabled, the CIFS server will start sending the broadcast for name registration. |
| wins_servers | array[string] | |

cifs_service_security

| Name | Type | Description |
|----------------|---------|---|
| kdc_encryption | boolean | <p>Specifies whether AES-128 and AES-256 encryption is enabled for all Kerberos-based communication with the Active Directory KDC. To take advantage of the strongest security with Kerberos-based communication, AES-256 and AES-128 encryption can be enabled on the CIFS server. Kerberos-related communication for CIFS is used during CIFS server creation on the SVM, as well as during the SMB session setup phase. The CIFS server supports the following encryption types for Kerberos communication:</p> <ul style="list-style-type: none"> • RC4-HMAC • DES • AES When the CIFS server is created, the domain controller creates a computer machine account in Active Directory. After a newly created machine account authenticates, the KDC and the CIFS server negotiate encryption types. At this time, the KDC becomes aware of the encryption capabilities of the particular machine account and uses those capabilities in subsequent communication with the CIFS server. In addition to negotiating encryption types during CIFS server creation, the encryption types are renegotiated when a machine account password is reset. |

| Name | Type | Description |
|--------------------|---------|---|
| restrict_anonymous | string | <p>Specifies what level of access an anonymous user is granted. An anonymous user (also known as a "null user") can list or enumerate certain types of system information from Windows hosts on the network, including user names and details, account policies, and share names. Access for the anonymous user can be controlled by specifying one of three access restriction settings. The available values are:</p> <ul style="list-style-type: none"> • no_restriction - No access restriction for an anonymous user. • no_enumeration - Enumeration is restricted for an anonymous user. • no_access - All access is restricted for an anonymous user. |
| smb_encryption | boolean | Specifies whether encryption is required for incoming CIFS traffic. |
| smb_signing | boolean | Specifies whether signing is required for incoming CIFS traffic. SMB signing helps to ensure that network traffic between the CIFS server and the client is not compromised. |

svm

SVM, applies only to SVM-scoped objects.

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

cifs_service

| Name | Type | Description |
|-------------------|---------------------------------------|--|
| _links | _links | |
| ad_domain | ad_domain | |
| comment | string | A descriptive text comment for the CIFS server. SMB clients can see the CIFS server comment when browsing servers on the network. If there is a space in the comment, you must enclose the entire string in quotation marks. |
| default_unix_user | string | Specifies the UNIX user to which any authenticated CIFS user is mapped to, if the normal user mapping rules fails. |
| enabled | boolean | Specifies if the CIFS service is administratively enabled. |
| name | string | The name of the CIFS server. |
| netbios | cifs_netbios | |
| security | cifs_service_security | |
| svm | svm | SVM, applies only to SVM-scoped objects. |

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. |

Deletes a cifs server and related cifs configurations

related ontap commands

- vserver cifs server delete
- vserver cifs remove-netbios-aliases [# learn more](#)
- [\[doc /protocols/cifs/services\]\(#docs-nas-protocols_cifs_services\)](#)

DELETE /protocols/cifs/services/{svm.uuid}

Deletes a CIFS server and related CIFS configurations.

Related ONTAP commands

- vserver cifs server delete
- vserver cifs remove-netbios-aliases

Learn more

- [DOC /protocols/cifs/services](#)

Parameters

| Name | Type | In | Required | Description |
|----------|--------|------|----------|---|
| svm.uuid | string | path | True | UUID of the SVM to which this object belongs. |

Request Body

| Name | Type | Description |
|-----------|-----------|-------------|
| ad_domain | ad_domain | |

Example request

```
{  
  "ad_domain": {  
    "fqdn": "example.com",  
    "organizational_unit": "string",  
    "password": "string",  
    "user": "string"  
  }  
}
```

Response

Status: 202, Accepted

| Name | Type | Description |
|------|----------|-------------|
| job | job_link | |

Example response

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

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

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. POST and PATCH only. |
| organizational_unit | string | Specifies the organizational unit within the Active Directory domain to associate with the CIFS server. POST and PATCH only. |
| password | string | The account password used to add this CIFS server to the Active Directory. This is not audited. |
| user | string | The user account used to add this CIFS server to the Active Directory. POST and DELETE only. |

cifs_service_delete

| Name | Type | Description |
|-----------|-----------|-------------|
| ad_domain | ad_domain | |

href

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

_links

| Name | Type | Description |
|------|------|-------------|
| self | href | |

job_link

| Name | Type | Description |
|--------|--------|-------------|
| _links | _links | |

| 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. |

Retrieves a cifs server

related ontap commands

- vserver cifs server show
- vserver cifs server options show
- vserver cifs server security show # learn more
- [doc /protocols/cifs/services](#docs-nas-protocols_cifs_services)

GET /protocols/cifs/services/{svm.uuid}

Retrieves a CIFS server.

Related ONTAP commands

- vserver cifs server show
- vserver cifs server options show
- vserver cifs server security show

Learn more

- [DOC /protocols/cifs/services](#)

Parameters

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

Response

Status: 200, Ok

| Name | Type | Description |
|-------------------|---------------------------------------|--|
| _links | _links | |
| ad_domain | ad_domain | |
| comment | string | A descriptive text comment for the CIFS server. SMB clients can see the CIFS server comment when browsing servers on the network. If there is a space in the comment, you must enclose the entire string in quotation marks. |
| default_unix_user | string | Specifies the UNIX user to which any authenticated CIFS user is mapped to, if the normal user mapping rules fails. |
| enabled | boolean | Specifies if the CIFS service is administratively enabled. |
| name | string | The name of the CIFS server. |
| netbios | cifs_netbios | |
| security | cifs_service_security | |
| svm | svm | SVM, applies only to SVM-scoped objects. |

Example response

```
{  
  "_links": {  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "ad_domain": {  
    "fqdn": "example.com",  
    "organizational_unit": "string",  
    "user": "string"  
  },  
  "comment": "This CIFS Server Belongs to CS Department",  
  "default_unix_user": "string",  
  "name": "CIFS1",  
  "netbios": {  
    "aliases": [  
      "ALIAS_1",  
      "ALIAS_2",  
      "ALIAS_3"  
    ],  
    "wins_servers": [  
      "10.224.65.20",  
      "10.224.65.21"  
    ]  
  },  
  "security": {  
    "restrict_anonymous": "string"  
  },  
  "svm": {  
    "_links": {  
      "self": {  
        "href": "/api/resourcelink"  
      }  
    },  
    "name": "svm1",  
    "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 | |

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. POST and PATCH only. |
| organizational_unit | string | Specifies the organizational unit within the Active Directory domain to associate with the CIFS server. POST and PATCH only. |
| user | string | The user account used to add this CIFS server to the Active Directory. POST and DELETE only. |

cifs_netbios

| Name | Type | Description |
|--------------|---------------|--|
| aliases | array[string] | |
| enabled | boolean | Specifies whether NetBios name service (NBNS) is enabled for the CIFS. If this service is enabled, the CIFS server will start sending the broadcast for name registration. |
| wins_servers | array[string] | |

cifs_service_security

| Name | Type | Description |
|----------------|---------|--|
| kdc_encryption | boolean | <p>Specifies whether AES-128 and AES-256 encryption is enabled for all Kerberos-based communication with the Active Directory KDC. To take advantage of the strongest security with Kerberos-based communication, AES-256 and AES-128 encryption can be enabled on the CIFS server. Kerberos-related communication for CIFS is used during CIFS server creation on the SVM, as well as during the SMB session setup phase. The CIFS server supports the following encryption types for Kerberos communication:</p> <ul style="list-style-type: none">• RC4-HMAC• DES• AES When the CIFS server is created, the domain controller creates a computer machine account in Active Directory. After a newly created machine account authenticates, the KDC and the CIFS server negotiates encryption types. At this time, the KDC becomes aware of the encryption capabilities of the particular machine account and uses those capabilities in subsequent communication with the CIFS server. In addition to negotiating encryption types during CIFS server creation, the encryption types are renegotiated when a machine account password is reset. |

| Name | Type | Description |
|--------------------|---------|---|
| restrict_anonymous | string | <p>Specifies what level of access an anonymous user is granted. An anonymous user (also known as a "null user") can list or enumerate certain types of system information from Windows hosts on the network, including user names and details, account policies, and share names. Access for the anonymous user can be controlled by specifying one of three access restriction settings. The available values are:</p> <ul style="list-style-type: none"> • no_restriction - No access restriction for an anonymous user. • no_enumeration - Enumeration is restricted for an anonymous user. • no_access - All access is restricted for an anonymous user. |
| smb_encryption | boolean | Specifies whether encryption is required for incoming CIFS traffic. |
| smb_signing | boolean | Specifies whether signing is required for incoming CIFS traffic. SMB signing helps to ensure that network traffic between the CIFS server and the client is not compromised. |

svm

SVM, applies only to SVM-scoped objects.

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

Updates both the mandatory and optional parameters of the cifs configuration ensure the cifs server is administratively disabled when renaming the cifs server or modifying the <i>ad_domain</i> properties

related ontap commands

- vserver cifs server modify
- vserver cifs server options modify
- vserver cifs security modify
- vserver cifs server add-netbios-aliases
- vserver cifs server remove-netbios-aliases **#** learn more
- [doc /protocols/cifs/services](#docs-nas-protocols_cifs_services)

PATCH /protocols/cifs/services/{svm.uuid}

Updates both the mandatory and optional parameters of the CIFS configuration. Ensure the CIFS server is administratively disabled when renaming the CIFS server or modifying the *ad_domain* properties.

Related ONTAP commands

- vserver cifs server modify
- vserver cifs server options modify
- vserver cifs security modify

- vserver cifs server add-netbios-aliases
- vserver cifs server remove-netbios-aliases

Learn more

- [DOC /protocols/cifs/services](#)

Parameters

| Name | Type | In | Required | Description |
|----------|--------|------|----------|---|
| svm.uuid | string | path | True | UUID of the SVM to which this object belongs. |

Request Body

| Name | Type | Description |
|-------------------|---------------------------------------|--|
| _links | _links | |
| ad_domain | ad_domain | |
| comment | string | A descriptive text comment for the CIFS server. SMB clients can see the CIFS server comment when browsing servers on the network. If there is a space in the comment, you must enclose the entire string in quotation marks. |
| default_unix_user | string | Specifies the UNIX user to which any authenticated CIFS user is mapped to, if the normal user mapping rules fails. |
| enabled | boolean | Specifies if the CIFS service is administratively enabled. |
| name | string | The name of the CIFS server. |
| netbios | cifs_netbios | |
| security | cifs_service_security | |
| svm | svm | SVM, applies only to SVM-scoped objects. |

Example request

```
{  
  "_links": {  
    "self": {  
      "href": "/api/resourcelink"  
    }  
  },  
  "ad_domain": {  
    "fqdn": "example.com",  
    "organizational_unit": "string",  
    "password": "string"  
  },  
  "comment": "This CIFS Server Belongs to CS Department",  
  "default_unix_user": "string",  
  "name": "CIFS1",  
  "netbios": {  
    "aliases": [  
      "ALIAS_1",  
      "ALIAS_2",  
      "ALIAS_3"  
    ],  
    "wins_servers": [  
      "10.224.65.20",  
      "10.224.65.21"  
    ]  
  },  
  "security": {  
    "restrict_anonymous": "string"  
  },  
  "svm": {  
    "_links": {  
      "self": {  
        "href": "/api/resourcelink"  
      }  
    },  
    "name": "svml1",  
    "uuid": "02c9e252-41be-11e9-81d5-00a0986138f7"  
  }  
}
```

Response

Status: 202, Accepted

| Name | Type | Description |
|------|----------|-------------|
| job | job_link | |

Example response

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

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 | |

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. POST and PATCH only. |
| organizational_unit | string | Specifies the organizational unit within the Active Directory domain to associate with the CIFS server. POST and PATCH only. |
| password | string | The account password used to add this CIFS server to the Active Directory. This is not audited. |

cifs_netbios

| Name | Type | Description |
|--------------|---------------|--|
| aliases | array[string] | |
| enabled | boolean | Specifies whether NetBios name service (NBNS) is enabled for the CIFS. If this service is enabled, the CIFS server will start sending the broadcast for name registration. |
| wins_servers | array[string] | |

cifs_service_security

| Name | Type | Description |
|----------------|---------|---|
| kdc_encryption | boolean | <p>Specifies whether AES-128 and AES-256 encryption is enabled for all Kerberos-based communication with the Active Directory KDC. To take advantage of the strongest security with Kerberos-based communication, AES-256 and AES-128 encryption can be enabled on the CIFS server. Kerberos-related communication for CIFS is used during CIFS server creation on the SVM, as well as during the SMB session setup phase. The CIFS server supports the following encryption types for Kerberos communication:</p> <ul style="list-style-type: none"> • RC4-HMAC • DES • AES When the CIFS server is created, the domain controller creates a computer machine account in Active Directory. After a newly created machine account authenticates, the KDC and the CIFS server negotiate encryption types. At this time, the KDC becomes aware of the encryption capabilities of the particular machine account and uses those capabilities in subsequent communication with the CIFS server. In addition to negotiating encryption types during CIFS server creation, the encryption types are renegotiated when a machine account password is reset. |

| Name | Type | Description |
|--------------------|---------|---|
| restrict_anonymous | string | <p>Specifies what level of access an anonymous user is granted. An anonymous user (also known as a "null user") can list or enumerate certain types of system information from Windows hosts on the network, including user names and details, account policies, and share names. Access for the anonymous user can be controlled by specifying one of three access restriction settings. The available values are:</p> <ul style="list-style-type: none"> • no_restriction - No access restriction for an anonymous user. • no_enumeration - Enumeration is restricted for an anonymous user. • no_access - All access is restricted for an anonymous user. |
| smb_encryption | boolean | Specifies whether encryption is required for incoming CIFS traffic. |
| smb_signing | boolean | Specifies whether signing is required for incoming CIFS traffic. SMB signing helps to ensure that network traffic between the CIFS server and the client is not compromised. |

svm

SVM, applies only to SVM-scoped objects.

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

cifs_service

| Name | Type | Description |
|-------------------|---------------------------------------|--|
| _links | _links | |
| ad_domain | ad_domain | |
| comment | string | A descriptive text comment for the CIFS server. SMB clients can see the CIFS server comment when browsing servers on the network. If there is a space in the comment, you must enclose the entire string in quotation marks. |
| default_unix_user | string | Specifies the UNIX user to which any authenticated CIFS user is mapped to, if the normal user mapping rules fails. |
| enabled | boolean | Specifies if the CIFS service is administratively enabled. |
| name | string | The name of the CIFS server. |
| netbios | cifs_netbios | |
| security | cifs_service_security | |
| svm | svm | SVM, applies only to SVM-scoped objects. |

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. |

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