NetApp

Manage miscellaneous SMB server tasks
ONTAP 9

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Stop or start ONTAP SMB servers

You can stop the CIFS server on a SVM, which can be useful when performing tasks while users are not accessing data over SMB shares. You can restart SMB access by starting the CIFS server. By stopping the CIFS server, you can also modify the protocols allowed on the storage virtual machine (SVM).

Steps

1. Perform one of the following actions:

If you want to…	Enter the command…
Stop the CIFS server	`vserver cifs stop -vserver vserver_name [-foreground {true|false}]`
Start the CIFS server	`vserver cifs start -vserver vserver_name [-foreground {true|false}]`

   `-foreground` specifies whether the command should execute in the foreground or background. If you do not enter this parameter, it is set to `true`, and the command is executed in the foreground.

2. Verify that the CIFS server administrative status is correct by using the `vserver cifs show` command.

Example

The following commands start the CIFS server on SVM vs1:

```
cluster1::> vserver cifs start -vserver vs1

cluster1::> vserver cifs show -vserver vs1

                                      Vserver: vs1
                    CIFS Server NetBIOS Name: VS1
              NetBIOS Domain/Workgroup Name: DOMAIN
                Fully Qualified Domain Name: DOMAIN.LOCAL
Default Site Used by LIFs Without Site Membership:
                         Authentication Style: domain
              CIFS Server Administrative Status: up
```

Related information

- Display information about discovered servers
- Reset and rediscover servers

Move ONTAP SMB servers to different OUs

The CIFS server create-process uses the default organizational unit (OU) CN=Computers during setup unless you specify a different OU. You can move CIFS servers to different OUs after setup.

Steps

1. On the Windows server, open the **Active Directory Users and Computers** tree.
2. Locate the Active Directory object for the storage virtual machine (SVM).
3. Right-click the object and select **Move**.
4. Select the OU that you want to associate with the SVM

Results

The SVM object is placed in the selected OU.

Modify the dynamic DNS domain before moving ONTAP SMB servers

If you want the Active Directory-integrated DNS server to dynamically register the SMB server's DNS records in DNS when you move the SMB server to another domain, you must modify dynamic DNS (DDNS) on the storage virtual machine (SVM) before moving the SMB server.

Before you begin

DNS name services must be modified on the SVM to use the DNS domain that contains the service location records for the new domain that will contain the SMB server computer account. If you are using secure DDNS, you must use Active Directory-integrated DNS name servers.

About this task

Although DDNS (if configured on the SVM) automatically adds the DNS records for data LIFs to the new domain, the DNS records for the original domain are not automatically deleted from the original DNS server. You must delete them manually.

To complete your DDNS modifications before moving the SMB server, see the following topic:

Configure dynamic DNS services

Join ONTAP SMB SVMs to Active Directory domains

You can join a storage virtual machine (SVM) to an Active Directory domain without deleting the existing SMB server by modifying the domain using the `vserver cifs modify` command. You can rejoin the current domain or join a new one.

Before you begin

- The SVM must already have a DNS configuration.
- The DNS configuration for the SVM must be able to serve the target domain.

The DNS servers must contain the service location records (SRV) for the domain LDAP and domain controller servers.

About this task

- The administrative status of the CIFS server must be set to `down` to proceed with Active Directory domain modification.

- If the command completes successfully, the administrative status is automatically set to `up`. Learn more about `up` in the ONTAP command reference.

- When joining a domain, this command might take several minutes to complete.

Steps

1. Join the SVM to the CIFS server domain: `vserver cifs modify -vserver` *vserver_name* `-domain` *domain_name* `-status-admin down`

   Learn more about `vserver cifs modify` in the ONTAP command reference. If you need to reconfigure DNS for the new domain, learn more about `vserver dns modify` in the ONTAP command reference.

   In order to create an Active Directory machine account for the SMB server, you must supply the name and password of a Windows account with sufficient privileges to add computers to the `ou=` *example* `ou` container within the *example*.com domain.

   Beginning with ONTAP 9.7, your AD administrator can provide you with a URI to a keytab file as an alternative to providing you with a name and password to a privileged Windows account. When you receive the URI, include it in the `-keytab-uri` parameter with the `vserver cifs` commands.

2. Verify that the CIFS server is in the desired Active Directory domain: `vserver cifs show`

Example

In the following example, the SMB server "CIFSSERVER1" on SVM vs1 joins the example.com domain using keytab authentication:

```
cluster1::> vserver cifs modify -vserver vs1 -domain example.com -status
-admin down -keytab-uri http://admin.example.com/ontap1.keytab

cluster1::> vserver cifs show

         Server       Status      Domain/Workgroup  Authentication
Vserver  Name         Admin       Name              Style
-------- -----------  ---------   ----------------  --------------
vs1      CIFSSERVER1  up          EXAMPLE           domain
```

Display information about ONTAP SMB NetBIOS over TCP connections

You can display information about NetBIOS over TCP (NBT) connections. This can be useful when troubleshooting NetBIOS-related issues.

Step

1. Use the `vserver cifs nbtstat` command to display information about NetBIOS over TCP connections.

   > ⓘ NetBIOS name service (NBNS) over IPv6 is not supported.

Example

The following example shows the NetBIOS name service information displayed for "cluster1":

```
cluster1::> vserver cifs nbtstat

        Vserver: vs1
        Node:    cluster1-01
        Interfaces:
                10.10.10.32
                10.10.10.33
        Servers:
                17.17.1.2   (active  )
        NBT Scope:
                [ ]
        NBT Mode:
                [h]
        NBT Name     NetBIOS Suffix   State     Time Left     Type
        -----------  ---------------  -------   ---------     -----
        CLUSTER_1    00                         wins    57
        CLUSTER_1    20                         wins    57


        Vserver: vs1
        Node:    cluster1-02
        Interfaces:
                10.10.10.35
        Servers:
                17.17.1.2   (active  )
        CLUSTER_1            00                          wins           58
        CLUSTER_1            20                          wins           58
        4 entries were displayed.
```

ONTAP commands for managing SMB servers

You need to know the commands for creating, displaying, modifying, stopping, starting, and deleting SMB servers. There are also commands to reset and rediscover servers, change or reset machine account passwords, schedule changes for machine account passwords, and add or remove NetBIOS aliases.

If you want to…	Use this command…
Create an SMB server	`vserver cifs create`
Display information about an SMB server	`vserver cifs show`
Modify an SMB server	`vserver cifs modify`
Move an SMB server to another domain	`vserver cifs modify`
Stop an SMB server	`vserver cifs stop`
Start an SMB server	`vserver cifs start`
Delete an SMB server	`vserver cifs delete`
Reset and rediscover servers for the SMB server	`vserver cifs domain discovered-servers reset-servers`
Change the SMB server's machine account password	`vserver cifs domain password change`
Reset the SMB server's machine account password	`vserver cifs domain password change`
Schedule automatic password changes for the SMB server's machine account	`vserver cifs domain password schedule modify`
Add NetBIOS aliases for the SMB server	`vserver cifs add-netbios-aliases`
Remove NetBIOS aliases for the SMB server	`vserver cifs remove-netbios-aliases`

Learn more about `vserver cifs` in the ONTAP command reference.

Related information

What happens to local users and groups when deleting SMB servers

Enable the ONTAP SMB NetBios name service

Beginning with ONTAP 9, the NetBios name service (NBNS, sometimes called Windows Internet Name Service or WINS) is disabled by default. Previously, CIFS-enabled storage virtual machines (SVMs) sent name registration broadcasts regardless of whether WINS was enabled on a network. To limit such broadcasts to configurations where NBNS is required, you must enable NBNS explicitly for new CIFS servers.

Before you begin

- If you are already using NBNS and you upgrade to ONTAP 9, it is not necessary to complete this task. NBNS will continue to work as before.
- NBNS is enabled over UDP (port 137).
- NBNS over IPv6 is not supported.

Steps

1. Set the privilege level to advanced.

   ```
   set -privilege advanced
   ```

2. Enable NBNS on a CIFS server.

   ```
   vserver cifs options  modify -vserver <vserver name> -is-nbns-enabled
   true
   ```

3. Return to the admin privilege level.

   ```
   set -privilege admin
   ```