



# **Manage miscellaneous SMB server tasks**

## **ONTAP 9**

NetApp  
December 01, 2022

# Table of Contents

- Manage miscellaneous SMB server tasks . . . . . 1
  - Stop or start the CIFS server . . . . . 1
  - Move CIFS servers to different OUs . . . . . 2
  - Modify the dynamic DNS domain on the SVM before moving the SMB server . . . . . 2
  - Join a SVM to an Active Directory domain . . . . . 2
  - Display information about NetBIOS over TCP connections . . . . . 3
  - Commands for managing SMB servers . . . . . 4
  - Enable the NetBios name service . . . . . 5

# Manage miscellaneous SMB server tasks

## Stop or start the CIFS server

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  | <code>vserver cifs stop -vserver vserver_name [-foreground {true false}]</code>  |
| Start the CIFS server | <code>vserver cifs start -vserver vserver_name [-foreground {true false}]</code> |

`-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 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

[Displaying information about discovered servers](#)

[Resetting and rediscovering servers](#)

# Move CIFS 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 on the SVM before moving the SMB server

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 a SVM to an Active Directory domain

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”.
- 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`

For more information, see the man page for the `vserver cifs modify` command. If you need to reconfigure DNS for the new domain, see the man page for the `vserver dns modify` command.

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 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.
```

## 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 | <code>vserver cifs create</code> |

|  |   |
|--|---|
| Display information about an SMB server                                  | <code>vserver cifs show</code>  |
| Modify an SMB server   | <code>vserver cifs modify</code>                                      |
| Move an SMB server to another domain                                     | <code>vserver cifs modify</code>                                      |
| Stop an SMB server   | <code>vserver cifs stop</code>  |
| Start an SMB server  | <code>vserver cifs start</code>                                       |
| Delete an SMB server   | <code>vserver cifs delete</code>                                      |
| Reset and rediscover servers for the SMB server                          | <code>vserver cifs domain discovered-servers<br/>reset-servers</code> |
| Change the SMB server's machine account password                         | <code>vserver cifs domain password change</code>                      |
| Reset the SMB server's machine account password                          | <code>vserver cifs domain password change</code>                      |
| Schedule automatic password changes for the SMB server's machine account | <code>vserver cifs domain password schedule<br/>modify</code>         |
| Add NetBIOS aliases for the SMB server                                   | <code>vserver cifs add-netbios-aliases</code>                         |
| Remove NetBIOS aliases for the SMB server                                | <code>vserver cifs remove-netbios-aliases</code>                      |

See the man page for each command for more information.

#### Related information

[What happens to local users and groups when deleting SMB servers](#)

## Enable the 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
```



## Copyright information

Copyright © 2022 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

## Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.