



Set up an SMB server in a workgroup

ONTAP 9

NetApp
April 19, 2023

Table of Contents

- Set up an SMB server in a workgroup 1
 - Set up an SMB server in a workgroup overview 1
 - Create an SMB server in a workgroup 1
 - Create local user accounts 2
 - Create local groups 3
 - Manage local group membership 4

Set up an SMB server in a workgroup

Set up an SMB server in a workgroup overview

Setting up an SMB server as a member in a workgroup consists of creating the SMB server, and then creating local users and groups.

You can configure an SMB server in a workgroup when the Microsoft Active Directory domain infrastructure is not available.

An SMB server in workgroup mode supports only NTLM authentication and does not support Kerberos authentication.

Create an SMB server in a workgroup

You can use the `vserver cifs create` command to create an SMB server on the SVM and specify the workgroup to which it belongs.

Before you begin

The SVM and LIFs that you are using to serve data must have been configured to allow the SMB protocol. The LIFs must be able to connect to the DNS servers that are configured on the SVM.

About this task

SMB servers in workgroup mode do not support the following SMB features:

- SMB3 Witness protocol
- SMB3 CA shares
- SQL over SMB
- Folder Redirection
- Roaming Profiles
- Group Policy Object (GPO)
- Volume Snapshot Service (VSS)

The `vserver cifs` man pages contain additional optional configuration parameters and naming requirements.

Steps

1. Verify that SMB is licensed on your cluster: `system license show -package cifs`

If it is not, contact your sales representative.

A CIFS license is not required if the SMB server will be used for authentication only.

2. Create the SMB server in a workgroup: `vserver cifs create -vserver vserver_name -cifs -server cifs_server_name -workgroup workgroup_name [-comment text]`

The following command creates the SMB server “smb_server01” in the workgroup “workgroup01”:

```
cluster1::> vserver cifs create -vserver vs1.example.com -cifs-server
SMB_SERVER01 -workgroup workgroup01
```

3. Verify the SMB server configuration by using the `vserver cifs show` command.

In the following example, the command output shows that a SMB server named “smb_server01” was created on SVM vs1.example.com in the workgroup “workgroup01”:

```
cluster1::> vserver cifs show -vserver vs0

Vserver: vs1.example.com
CIFS Server NetBIOS Name: SMB_SERVER01
NetBIOS Domain/Workgroup Name: workgroup01
Fully Qualified Domain Name: -
Organizational Unit: -
Default Site Used by LIFs Without Site Membership: -
Workgroup Name: workgroup01
Authentication Style: workgroup
CIFS Server Administrative Status: up
CIFS Server Description:
List of NetBIOS Aliases: -
```

After you finish

For a CIFS server in a workgroup, you must create local users, and optionally local groups, on the SVM.

Related information

[SMB management](#)

Create local user accounts

You can create a local user account that can be used to authorize access to data contained in the SVM over an SMB connection. You can also use local user accounts for authentication when creating an SMB session.

About this task

Local user functionality is enabled by default when the SVM is created.

When you create a local user account, you must specify a user name and you must specify the SVM with which to associate the account.

The `vserver cifs users-and-groups local-user` man pages contain details about optional parameters and naming requirements.

Steps

1. Create the local user: `vserver cifs users-and-groups local-user create -vserver vserver_name -user-name user_name optional_parameters`

The following optional parameters might be useful:

- `-full-name`

The user's full name.

- `-description`

A description for the local user.

- `-is-account-disabled {true|false}`

Specifies whether the user account is enabled or disabled. If this parameter is not specified, the default is to enable the user account.

The command prompts for the local user's password.

2. Enter a password for the local user, and then confirm the password.
3. Verify that the user was successfully created: `vserver cifs users-and-groups local-user show -vserver vserver_name`

Example

The following example creates a local user "SMB_SERVER01\sue", with a full name "Sue Chang", associated with SVM vs1.example.com:

```
cluster1::> vserver cifs users-and-groups local-user create -vserver
vs1.example.com -user-name SMB_SERVER01\sue -full-name "Sue Chang"

Enter the password:
Confirm the password:

cluster1::> vserver cifs users-and-groups local-user show
Vserver  User Name                Full Name  Description
-----  -
vs1      SMB_SERVER01\Administrator Built-in administrator
account
vs1      SMB_SERVER01\sue          Sue Chang
```

Create local groups

You can create local groups that can be used for authorizing access to data associated with the SVM over an SMB connection. You can also assign privileges that define what user rights or capabilities a member of the group has.

About this task

Local group functionality is enabled by default when the SVM is created.

When you create a local group, you must specify a name for the group and you must specify the SVM with

which to associate the group. You can specify a group name with or without the local domain name, and you can optionally specify a description for the local group. You cannot add a local group to another local group.

The `vserver cifs users-and-groups local-group` man pages contain details about optional parameters and naming requirements.

Steps

- 1. Create the local group: `vserver cifs users-and-groups local-group create -vserver vserver_name -group-name group_name`

The following optional parameter might be useful:

- `-description`

A description for the local group.

- 2. Verify that the group was successfully created: `vserver cifs users-and-groups local-group show -vserver vserver_name`

Example

The following example creates a local group “SMB_SERVER01\engineering” associated with SVM vs1:

```
cluster1::> vserver cifs users-and-groups local-group create -vserver
vs1.example.com -group-name SMB_SERVER01\engineering

cluster1::> vserver cifs users-and-groups local-group show -vserver
vs1.example.com
```

Vserver	Group Name	Description
vs1.example.com	BUILTIN\Administrators	Built-in Administrators group
vs1.example.com	BUILTIN\Backup Operators	Backup Operators group
vs1.example.com	BUILTIN\Power Users	Restricted administrative privileges
vs1.example.com	BUILTIN\Users	All users
vs1.example.com	SMB_SERVER01\engineering	
vs1.example.com	SMB_SERVER01\sales	

After you finish

You must add members to the new group.

Manage local group membership

You can manage local group membership by adding and removing local or domain users, or adding and removing domain groups. This is useful if you want to control access to data based on access controls placed on the group, or if you want users to have privileges associated with that group.

About this task

If you no longer want a local user, domain user, or domain group to have access rights or privileges based on membership in a group, you can remove the member from the group.

You must keep the following in mind when adding members to a local group:

- You cannot add users to the special *Everyone* group.
- You cannot add a local group to another local group.
- To add a domain user or group to a local group, ONTAP must be able to resolve the name to a SID.

You must keep the following in mind when removing members from a local group:

- You cannot remove members from the special *Everyone* group.
- To remove a member from a local group, ONTAP must be able to resolve their name to a SID.

Steps

1. Add a member to or remove a member from a group.

- **Add a member:** `vserver cifs users-and-groups local-group add-members -vserver vserver_name -group-name group_name -member-names name[,...]`

You can specify a comma-delimited list of local users, domain users, or domain groups to add to the specified local group.

- **Remove a member:** `vserver cifs users-and-groups local-group remove-members -vserver vserver_name -group-name group_name -member-names name[,...]`

You can specify a comma-delimited list of local users, domain users, or domain groups to remove from the specified local group.

Examples

The following example adds a local user “SMB_SERVER01\sue” to the local group “SMB_SERVER01\engineering” on SVM vs1.example.com:

```
cluster1::> vserver cifs users-and-groups local-group add-members -vserver
vs1.example.com -group-name SMB_SERVER01\engineering -member-names
SMB_SERVER01\sue
```

The following example removes the local users “SMB_SERVER01\sue” and “SMB_SERVER01\james” from the local group “SMB_SERVER01\engineering” on SVM vs1.example.com:

```
cluster1::> vserver cifs users-and-groups local-group remove-members
-vserver vs1.example.com -group-name SMB_SERVER\engineering -member-names
SMB_SERVER\sue,SMB_SERVER\james
```

Copyright information

Copyright © 2023 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.