



# **Secure file access by using SMB share ACLs**

**ONTAP 9**

NetApp  
April 25, 2023

# Table of Contents

- Secure file access by using SMB share ACLs ..... 1
  - Guidelines for managing SMB share-level ACLs ..... 1
  - Create SMB share access control lists ..... 1
  - Commands for managing SMB share access control lists ..... 4

# Secure file access by using SMB share ACLs

## Guidelines for managing SMB share-level ACLs

You can change share-level ACLs to give users more or less access rights to the share. You can configure share-level ACLs by using either Windows users and groups or UNIX users and groups.

After you create a share, by default, the share-level ACL gives read access to the standard group named Everyone. Read access in the ACL means that all users in the domain and all trusted domains have read-only access to the share.

You can change a share-level ACL by using the Microsoft Management Console (MMC) on a Windows client or the ONTAP command line.

The following guidelines apply when you use the MMC:

- The user and group names specified must be Windows names.
- You can specify only Windows permissions.

The following guidelines apply when you use the ONTAP command line:

- The user and group names specified can be Windows names or UNIX names.

If a user and group type is not specified when creating or modifying ACLs, the default type is Windows users and groups.

- You can specify only Windows permissions.

## Create SMB share access control lists

Configuring share permissions by creating access control lists (ACLs) for SMB shares enables you to control the level of access to a share for users and groups.

### About this task

You can configure share-level ACLs by using local or domain Windows user or group names or UNIX user or group names.

Before creating a new ACL, you should delete the default share ACL `Everyone / Full Control`, which poses a security risk.

In workgroup mode, the local domain name is the SMB server name.

### Steps

1. Delete the default share ACL: ``vserver cifs share access-control delete -vserver vserver_name -share share_name -user-or-group Everyone``
2. Configure the new ACL:

| If you want to configure ACLs by using a... | Enter the command...  |
|---|---|
| Windows user                                | <pre>vserver cifs share access-control create -vserver vserver_name -share share_name -user-group-type windows -user-or-group Windows_domain_name\user_name -permission access_right</pre>  |
| Windows group                               | <pre>vserver cifs share access-control create -vserver vserver_name -share share_name -user-group-type windows -user-or-group Windows_domain_name\group_name -permission access_right</pre> |
| UNIX user                                   | <pre>vserver cifs share access-control create -vserver vserver_name -share share_name -user-group-type unix-user -user-or-group UNIX_user_name -permission access_right</pre>               |
| UNIX group                                  | <pre>vserver cifs share access-control create -vserver vserver_name -share share_name -user-group-type unix-group -user-or-group UNIX_group_name -permission access_right</pre>             |

3. Verify that the ACL applied to the share is correct by using the `vserver cifs share access-control show` command.

### Example

The following command gives Change permissions to the “Sales Team” Windows group for the “sales” share on the “vs1.example.com” SVM:

```
cluster1::> vsserver cifs share access-control create -vsserver
vs1.example.com -share sales -user-or-group "DOMAIN\Sales Team"
-permission Change

cluster1::> vsserver cifs share access-control show -vsserver
vs1.example.com
```

| Vserver         | Share Name | User/Group Name        | User/Group Type | Access Permission |
|-----------------|------------|------------------------|-----------------|-------------------|
| vs1.example.com | c\$        | BUILTIN\Administrators | windows         | Full_Control      |
| vs1.example.com | sales      | DOMAIN\Sales Team      | windows         | Change            |

The following command gives Read permission to the “engineering” UNIX group for the “eng” share on the “vs2.example.com” SVM:

```
cluster1::> vsserver cifs share access-control create -vsserver
vs2.example.com -share eng -user-group-type unix-group -user-or-group
engineering -permission Read

cluster1::> vsserver cifs share access-control show -vsserver
vs2.example.com
```

| Vserver         | Share Name | User/Group Name        | User/Group Type | Access Permission |
|-----------------|------------|------------------------|-----------------|-------------------|
| vs2.example.com | c\$        | BUILTIN\Administrators | windows         | Full_Control      |
| vs2.example.com | eng        | engineering            | unix-group      | Read              |

The following commands give Change permission to the local Windows group named “Tiger Team” and Full\_Control permission to the local Windows user named “Sue Chang” for the “datavol5” share on the “vs1” SVM:

```
cluster1::> vsriver cifs share access-control create -vsriver vs1 -share
datavol5 -user-group-type windows -user-or-group "Tiger Team" -permission
Change
```

```
cluster1::> vsriver cifs share access-control create -vsriver vs1 -share
datavol5 -user-group-type windows -user-or-group "Sue Chang" -permission
Full_Control
```

```
cluster1::> vsriver cifs share access-control show -vsriver vs1
```

| Vsriver      | Share    | User/Group             | User/Group | Access       |
|--------------|----------|------------------------|------------|--------------|
| Permission   | Name     | Name                   | Type       |              |
| -----        | -----    | -----                  | -----      |              |
| -----        |          |                        |            |              |
| vs1          | c\$      | BUILTIN\Administrators | windows    |              |
| Full_Control |          |                        |            |              |
| vs1          | datavol5 | Tiger Team             | windows    | Change       |
| vs1          | datavol5 | Sue Chang              | windows    | Full_Control |

## Commands for managing SMB share access control lists

You need to know the commands for managing SMB access control lists (ACLs), which includes creating, displaying, modifying, and deleting them.

| If you want to... | Use this command...                                   |
|-------------------|---|
| Create a new ACL  | <code>vsriver cifs share access-control create</code> |
| Display ACLs      | <code>vsriver cifs share access-control show</code>   |
| Modify an ACL     | <code>vsriver cifs share access-control modify</code> |
| Delete an ACL     | <code>vsriver cifs share access-control delete</code> |

## 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.