



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

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# 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<br>Name | User/Group<br>Name     | User/Group<br>Type | Access<br>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<br>Name | User/Group<br>Name     | User/Group<br>Type | Access<br>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> |

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