



Secure file access by using SMB share ACLs

ONTAP 9

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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 | <code>vserver cifs share access-control create -vserver <i>vserver_name</i> -share <i>share_name</i> -user-group-type windows -user-or-group <i>Windows_domain_name</i>\\<i>user_name</i> -permission <i>access_right</i></code> |
| Windows group | <code>vserver cifs share access-control create -vserver <i>vserver_name</i> -share <i>share_name</i> -user-group-type windows -user-or-group <i>Windows_group_name</i> -permission <i>access_right</i></code> |
| UNIX user | <code>vserver cifs share access-control create -vserver <i>vserver_name</i> -share <i>share_name</i> -user-group-type unix-user -user-or-group <i>UNIX_user_name</i> -permission <i>access_right</i></code> |
| UNIX group | <code>vserver cifs share access-control create -vserver <i>vserver_name</i> -share <i>share_name</i> -user-group-type unix-group -user-or-group <i>UNIX_group_name</i> -permission <i>access_right</i></code> |

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::> vserver cifs share access-control create -vserver
vs1.example.com -share sales -user-or-group "Sales Team" -permission
Change

cluster1::> vserver cifs share access-control show
```

| Vserver | Share | User/Group | User/Group | Access |
|-----------------|-------|------------------------|------------|--------|
| Permission | Name | Name | Type | |
| ----- | ----- | ----- | ----- | |
| ----- | | | | |
| 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 eng
-permission Read

cluster1::> vsserver cifs share access-control show
```

| Vserver | Share Name | User/Group Name | User/Group Type | Access |
|-----------------|---------------|------------------------|--------------------|--------------|
| 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::> vsserver cifs share access-control create -vsserver vs1 -share
datavol5 -user-group-type windows -user-or-group "Tiger Team" -permission
Change

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

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

| Vserver | Share Name | User/Group Name | User/Group Type | Access |
|---------|---------------|------------------------|--------------------|--------------|
| vs1 | c\$ | BUILTIN\Administrators | windows | Full_Control |
| vs1 | datavol5 | DOMAIN\“Tiger Team” | windows | Change |
| vs1 | datavol5 | DOMAIN\“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>vserver cifs share access-control create</code> |
| Display ACLs | <code>vserver cifs share access-control show</code> |
| Modify an ACL | <code>vserver cifs share access-control modify</code> |
| Delete an ACL | <code>vserver cifs share access-control delete</code> |

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