Configure bypass traverse checking

ONTAP 9

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Configure bypass traverse checking overview

Bypass traverse checking is a user right (also known as a *privilege*) that determines whether a user can traverse all the directories in the path to a file even if the user does not have permissions on the traversed directory. You should understand what happens when allowing or disallowing bypass traverse checking, and how to configure bypass traverse checking for users on storage virtual machines (SVMs).

What happens when allowing or disallowing bypass traverse checking

- If allowed, when a user attempts to access a file, ONTAP does not check the traverse permission for the intermediate directories when determining whether to grant or deny access to the file.
- If disallowed, ONTAP checks the traverse (execute) permission for all directories in the path to the file.

  If any of the intermediate directories do not have the “X” (traverse permission), ONTAP denies access to the file.

Configure bypass traverse checking

You can configure bypass traverse checking by using the ONTAP CLI or by configuring Active Directory group policies with this user right.

The `SeChangeNotifyPrivilege` privilege controls whether users are allowed to bypass traverse checking.

- Adding it to local SMB users or groups on the SVM or to domain users or groups allows bypass traverse checking.
- Removing it from local SMB users or groups on the SVM or from domain users or groups disallows bypass traverse checking.

By default, the following BUILTIN groups on the SVM have the right to bypass traverse checking:

- `BUILTIN\Administrators`
- `BUILTIN\Power Users`
- `BUILTIN\Backup Operators`
- `BUILTIN\Users`
- `Everyone`

If you do not want to allow members of one of these groups to bypass traverse checking, you must remove this privilege from the group.

You must keep the following in mind when configuring bypass traverse checking for local SMB users and groups on the SVM by using the CLI:

- If you want to allow members of a custom local or domain group to bypass traverse checking, you must add the `SeChangeNotifyPrivilege` privilege to that group.

- If you want to allow an individual local or domain user to bypass traverse checking and that user is not a member of a group with that privilege, you can add the `SeChangeNotifyPrivilege` privilege to that user account.
- You can disable bypass traverse checking for local or domain users or groups by removing the `SeChangeNotifyPrivilege` privilege at any time.

> To disable bypass travers checking for specified local or domain users or groups, you must also remove the `SeChangeNotifyPrivilege` privilege from the `Everyone` group.

Related information

Allow users or groups to bypass directory traverse checking

Disallow users or groups from bypassing directory traverse checking

Configure character mapping for SMB file name translation on volumes

Create SMB share access control lists

Secure file access by using Storage-Level Access Guard

List of supported privileges

Add privileges to local or domain users or groups

Allow users or groups to bypass directory traverse checking

If you want a user to be able traverse all the directories in the path to a file even if the user does not have permissions on a traversed directory, you can add the `SeChangeNotifyPrivilege` privilege to local SMB users or groups on storage virtual machines (SVMs). By default, users are able to bypass directory traverse checking.

Before you begin

- A SMB server must be exist on the SVM.
- The local users and groups SMB server option must be enabled.
- The local or domain user or group to which the `SeChangeNotifyPrivilege` privilege will be added must already exist.

About this task

When adding privileges to a domain user or group, ONTAP might validate the domain user or group by contacting the domain controller. The command might fail if ONTAP cannot contact the domain controller.

Steps

1. Enable bypass traverse checking by adding the `SeChangeNotifyPrivilege` privilege to a local or domain user or group: `vserver cifs users-and-groups privilege add-privilege -vserver` *`vserver_name`* `-user-or-group-name` *`name`* `-privileges SeChangeNotifyPrivilege`

   The value for the `-user-or-group-name` parameter is a local user or group, or a domain user or group.

2. Verify that the specified user or group has bypass traverse checking enabled: `vserver cifs users-and-groups privilege show -vserver vserver_name -user-or-group-name name`

Example

The following command enables users that belong to the “EXAMPLE\eng” group to bypass directory traverse checking by adding the `SeChangeNotifyPrivilege` privilege to the group:

```
cluster1::> vserver cifs users-and-groups privilege add-privilege -vserver
vs1 -user-or-group-name EXAMPLE\eng -privileges SeChangeNotifyPrivilege

cluster1::> vserver cifs users-and-groups privilege show -vserver vs1
Vserver   User or Group Name    Privileges
--------- -------------------- ---------------
vs1       EXAMPLE\eng          SeChangeNotifyPrivilege
```

Related information

Disallowing users or groups from bypassing directory traverse checking

Disallow users or groups from bypassing directory traverse checking

If you do not want a user to traverse all the directories in the path to a file because the user does not have permissions on the traversed directory, you can remove the `SeChangeNotifyPrivilege` privilege from local SMB users or groups on storage virtual machines (SVMs).

Before you begin

The local or domain user or group from which privileges will be removed must already exist.

About this task

When removing privileges from a domain user or group, ONTAP might validate the domain user or group by contacting the domain controller. The command might fail if ONTAP cannot contact the domain controller.

Steps

1. Disallow bypass traverse checking: `vserver cifs users-and-groups privilege remove-privilege -vserver vserver_name -user-or-group-name name -privileges SeChangeNotifyPrivilege`

   The command removes the `SeChangeNotifyPrivilege` privilege from the local or domain user or group that you specify with the value for the `-user-or-group-name name` parameter.

2. Verify that the specified user or group has bypass traverse checking disabled: `vserver cifs users-and-groups privilege show -vserver vserver_name -user-or-group-name name`

Example

The following command disallows users that belong to the “EXAMPLE\eng” group from bypassing directory traverse checking:

```
cluster1::> vserver cifs users-and-groups privilege show -vserver vs1
Vserver   User or Group Name    Privileges
--------- --------------------- ----------------------
vs1       EXAMPLE\eng           SeChangeNotifyPrivilege

cluster1::> vserver cifs users-and-groups privilege remove-privilege
-vserver vs1 -user-or-group-name EXAMPLE\eng -privileges
SeChangeNotifyPrivilege

cluster1::> vserver cifs users-and-groups privilege show -vserver vs1
Vserver   User or Group Name    Privileges
--------- --------------------- ----------------------
vs1       EXAMPLE\eng           -
```

Related information

Allowing users or groups to bypass directory traverse checking

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