Configure SMB/CIFS access to an existing SVM

System Manager Classic

NetApp
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Adding access for SMB/CIFS clients to an existing SVM involves adding CIFS configurations to the SVM, adding a mapping on the DNS server, and verifying CIFS access from a Windows administration host. You can then configure CIFS client access.

Add CIFS access to an existing SVM

Adding CIFS/SMB access to an existing SVM involves creating a data LIF, configuring a CIFS server, provisioning a volume, sharing the volume, and configuring the share permissions.

Before you begin

- You must know which of the following networking components the SVM will use:
  - The node and the specific port on that node where the data logical interface (LIF) will be created
  - The subnet from which the data LIF's IP address will be provisioned, or optionally the specific IP address you want to assign to the data LIF
  - The Active Directory (AD) domain that this SVM will join, along with the credentials required to add the SVM to it
- Any external firewalls must be appropriately configured to allow access to network services.
- The CIFS protocol must be allowed on the SVM.

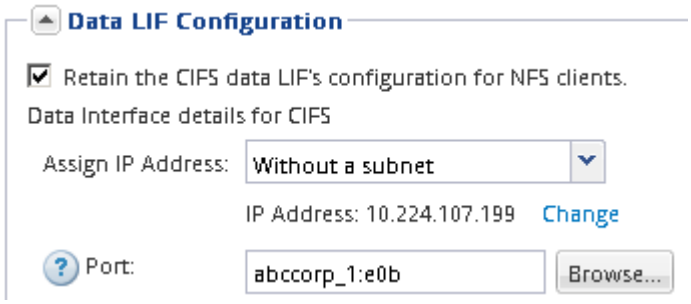
  This is the case if you did not created the SVM following the procedure to configure a SAN protocol.

Steps

1. Navigate to the area where you can configure the protocols of the SVM:
   a. Select the SVM that you want to configure.
   b. In the **Details** pane, next to **Protocols**, click **CIFS**.

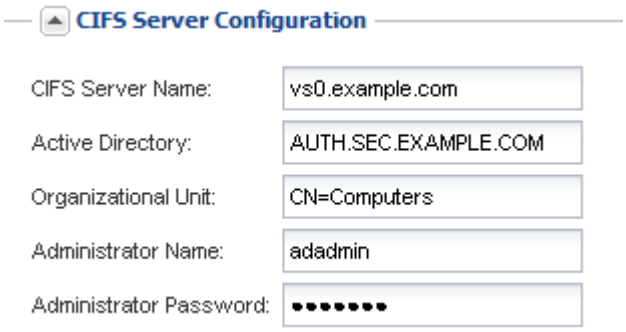
2. In the **Data LIF Configuration** section of the **Configure CIFS protocol** dialog box, create a data LIF for the SVM:
   a. Assign an IP address to the LIF automatically from a subnet you specify or manually enter the address.
   b. Click **Browse** and select a node and port that will be associated with the LIF.

3. In the **CIFS Server Configuration** section, define the CIFS server and configure it to access the AD

domain:

a. Specify a name for the CIFS server that is unique in the AD domain.
b. Specify the FQDN of the AD domain that the CIFS server can join.
c. If you want to associate an organizational unit (OU) within the AD domain other than CN=Computers, enter the OU.
d. Specify the name and password of an administrative account that has sufficient privileges to add the CIFS server to the OU.
e. If you want to avoid unauthorized access to all the shares on this SVM, select the option to encrypt data using SMB 3.0.

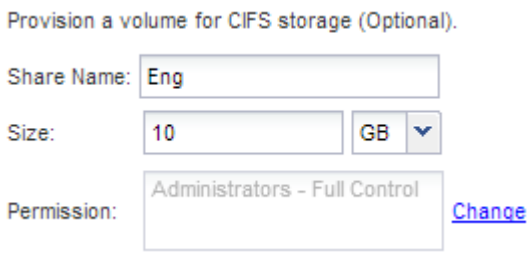


4. Create a volume for CIFS/SMB access and provision a share on it:

a. Name the share that CIFS/SMB clients will use to access the volume.

The name you enter for the share will also be used as the volume name.

b. Specify a size for the volume.



You do not have to specify the aggregate for the volume because it is automatically located on the aggregate with the most available space.

5. **Optional**: Restrict access to the share by modifying the share ACL:

a. In the **Permission** field, click **Change**.
b. Select the Everyone group, and click **Remove**.
c. **Optional**: Click **Add**, and enter the name of an administrator group defined in the Windows Active Directory domain that includes the SVM.
d. Select the new administrator group, and then select **Full Control**.
e. Click **Save and Close**.

6. Click **Submit & Close**, and then click **OK**.

Map the SMB server on the DNS server

Your site's DNS server must have an entry pointing the SMB server name, and any NetBIOS aliases, to the IP address of the data LIF so that Windows users can map a drive to the SMB server name.

Before you begin

You must have administrative access to your site's DNS server. If you do not have administrative access, you must ask the DNS administrator to perform this task.

About this task

If you use NetBIOS aliases for the SMB server name, it is a best practice to create DNS server entry points for each alias.

Steps

1. Log in to the DNS server.
2. Create forward (A - Address record) and reverse (PTR - Pointer record) lookup entries to map the SMB server name to the IP address of the data LIF.
3. If you use NetBIOS aliases, create an Alias canonical name (CNAME resource record) lookup entry to map each alias to the IP address of the SMB server's data LIF.

Results

After the mapping is propagated across the network, Windows users can map a drive to the SMB server name or its NetBIOS aliases.

Verify SMB client access

You should verify that you have configured SMB correctly by accessing and writing data to the share. You should test access using the SMB server name and any NetBIOS aliases.

Steps

1. Log in to a Windows client.
2. Test access using the SMB server name:

   a. In Windows Explorer, map a drive to the share in the following format: `\\SMB_Server_Name\Share_Name`

      If the mapping is not successful, it is possible that the DNS mapping has not yet propagated throughout the network. You must test access using the SMB server name later.

      If the SMB server is named vs1.example.com and the share is named SHARE1, you should enter the following: `\\vs0.example.com\SHARE1`

   b. On the newly created drive, create a test file, and then delete the file.

   You have verified write access to the share using the SMB server name.

3. Repeat Step 2 for any NetBIOS aliases.

Configure and verify CIFS client access

When you are ready, you can give select clients access to the share by setting NTFS file permissions in Windows Explorer and modifying the share ACL in System Manager. Then you should test that the affected users or groups can access the volume.

Steps

1. Decide which clients and users or groups will be given access to the share.
2. On a Windows client, use an administrator role to give the users or groups permissions to the files and folders.
   a. Log in to a Windows client as an administrator who has sufficient administrative rights to manage NTFS permissions.
   b. In Windows Explorer, right-click the drive, and then select **Properties**.
   c. Select the **Security** tab, and adjust the security settings for the groups and users as required.
3. In System Manager, modify the share ACL to give Windows users or groups access to the share.
   a. Navigate to the **Shares** window.
   b. Select the share, and click **Edit**.
   c. Select the **Permissions** tab, and give the users or groups access to the share.
4. On a Windows client, log in as one of the users who now has access to the share and files, and verify that you can access the share and create a file.

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