Hyper-V SMB 3.0. STORAGE

An SMB file share can now store virtual machine (VM) and SQL Server resources in addition to traditional end-user files like office documents.

SMB protocol is a network file sharing protocol allowing applications to read and write to files and requesting services from a file server. Windows Server 2012 introduces the new 3.0 version of SMB. Now, a Windows Server 2012 Hyper-V host can use a SMB 3.0 file shares as shared storage for storing virtual machine (VM) configuration files, VHDs, and Checkpoints.

This will bring you the following advantages:

- **Ease of provisioning and management**. You can manage file shares instead of storage fabric and LUNs.
- **Increased flexibility**. You can dynamically migrate virtual machines or databases in the data center.
- **Ability to take advantage of existing investment**. You can use your existing network with no specialized storage networking hardware.
- **Reduced capital expenditures**. Capital expenses (acquisition costs) are reduced.
- **Reduced operating expenditures**. You can reduce operating costs because there is no need for specialized storage expertise.

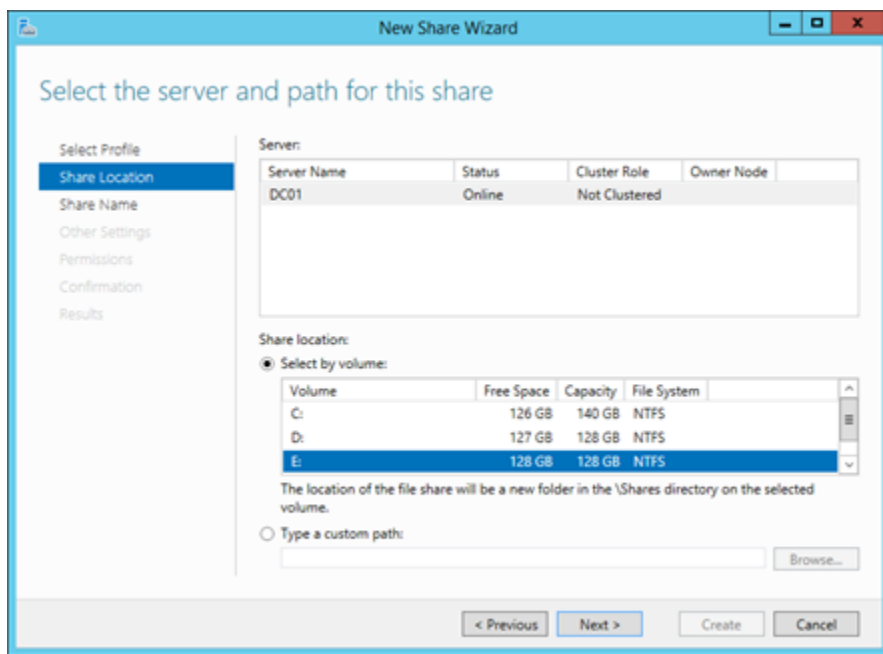## Create an SMB file share by using Server Manager

1- In Server Manager on the left, click File and Storage Services.

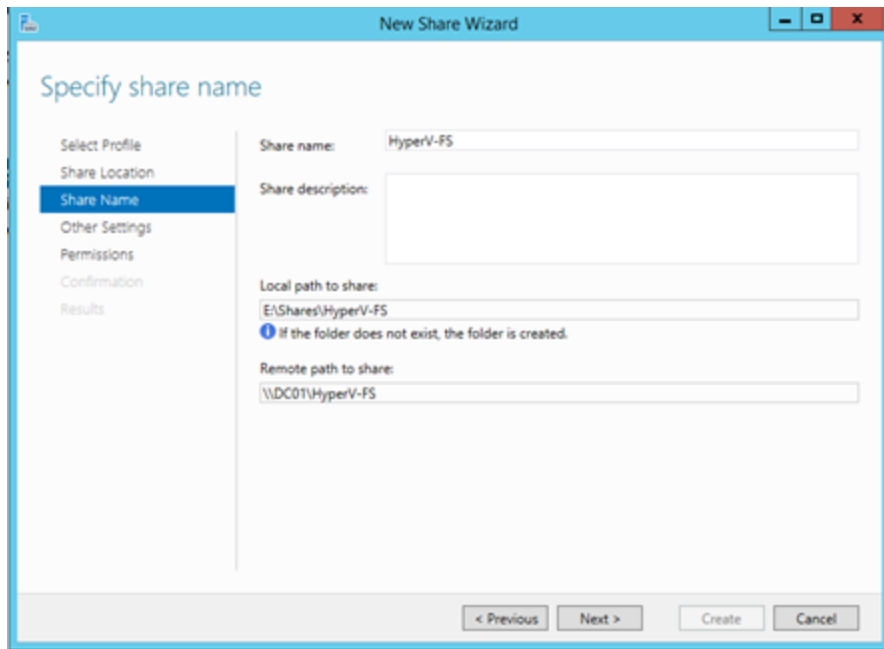2- Click Tasks, and then click New Share to open the New Share Wizard.

3- On the Select Profile page, select SMB Share – Applications, and click Next.
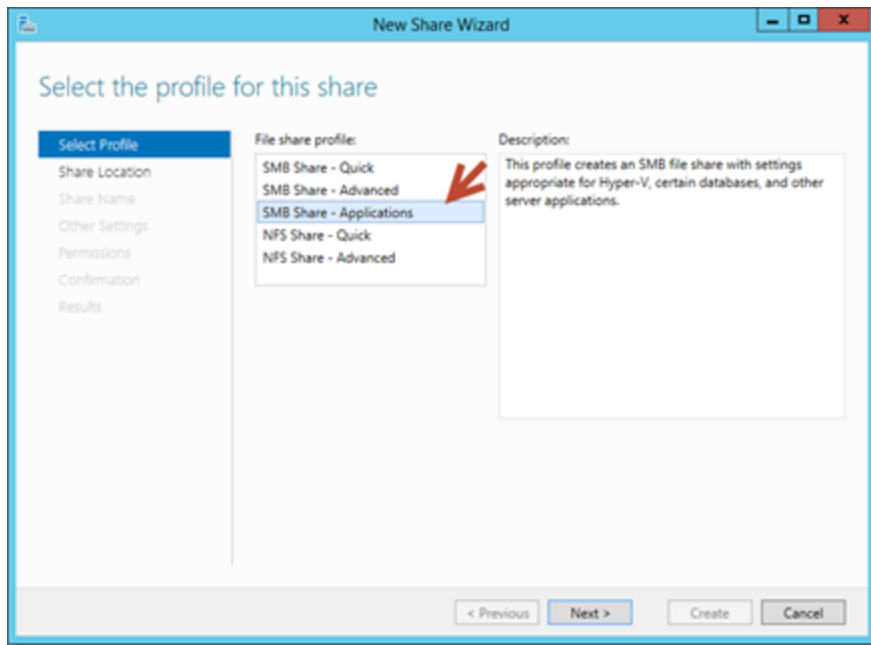
4- On the Share Location page, select a server and a volume, and click Next.
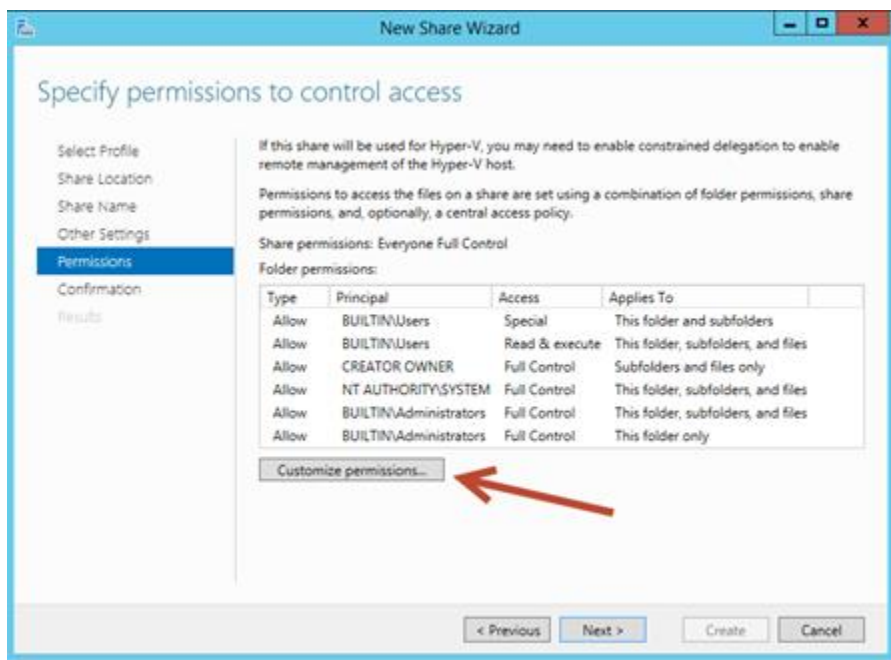

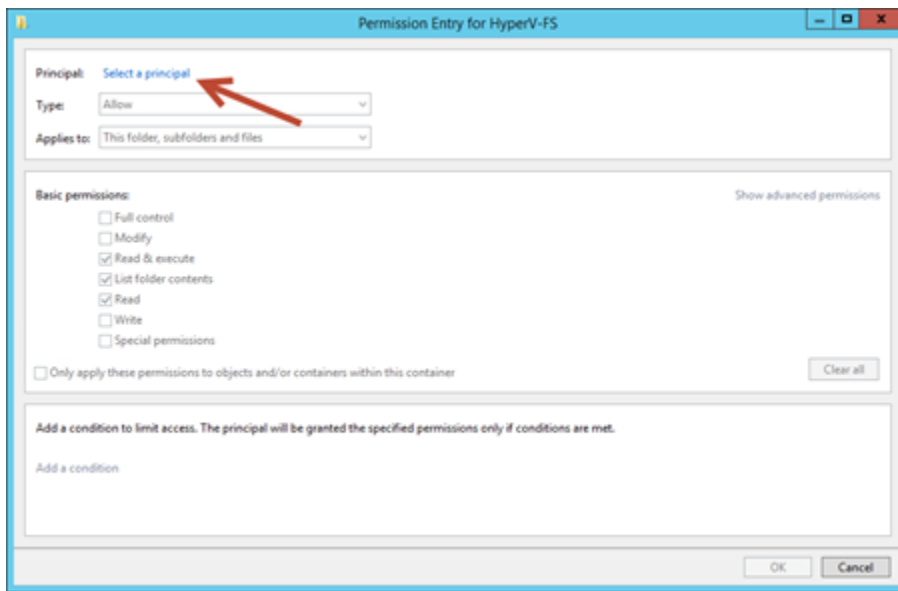5- On the Share Name page, specify a name for the new share, and click Next.
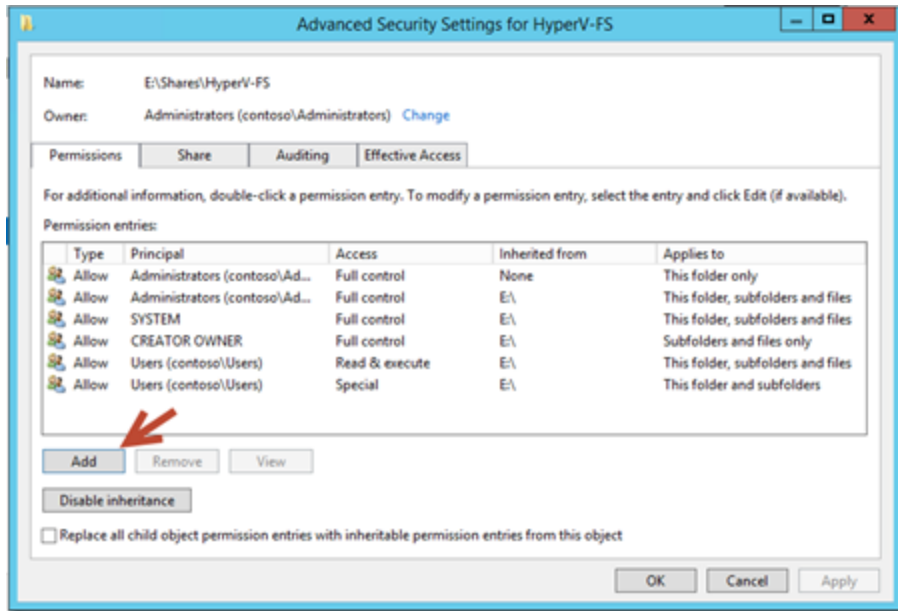
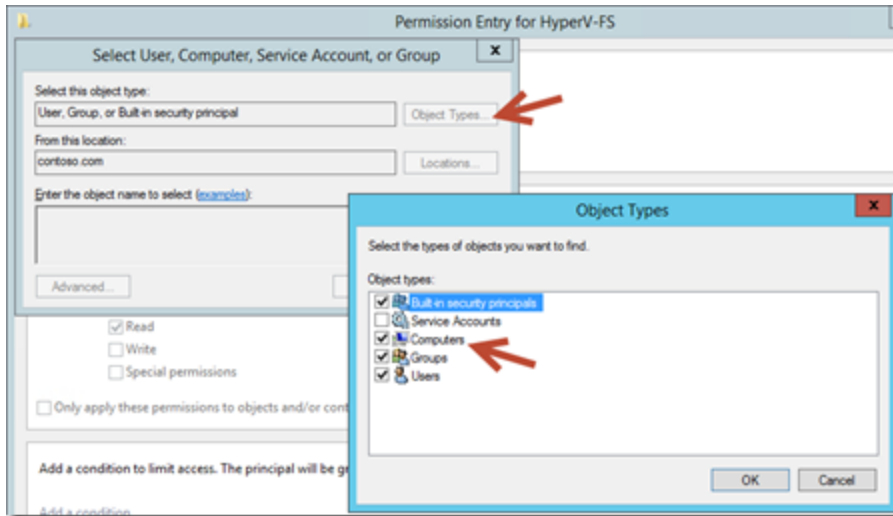6- Click Next in the Configure Share Settings page

7- On the Permissions page, click Customize Permissions.

8- Click Add, click Select a Principal, and then click Object Types.

9- In Object Types, click to select Computers, and click OK.

10- In my case I entered Sever01 (the server we are running Hyper-v on) , and click OK. and in the Permissions Entry, select Full Control, and click OK. (repeat with server02.

13- On the Permissions page, click Next and Click Create to create the SMB file share.

Create a virtual machine and virtual hard disk file on the file share

1- Open Hyper-V Manager. and from the Actions pane, click New and then click Virtual Machine. And the New Virtual Machine wizard opens. Click Next.

2- On the Specify Name and Location page, type a name and location (using a UNC path) I used VM1 and the UNC we just created in step 1.
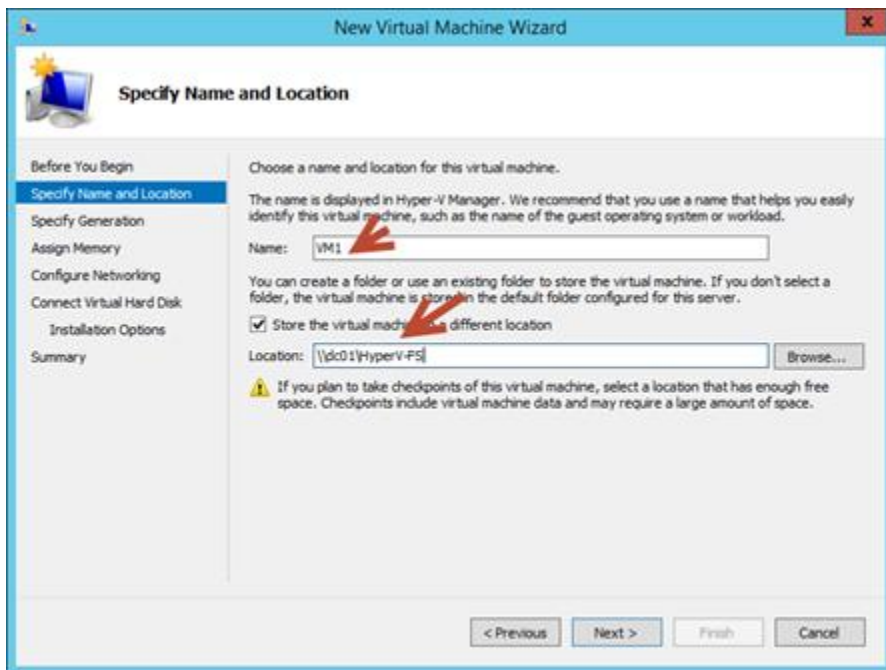
3- In the specify generation I left the defaults and clicked Next.

4- On the Assign Memory page, specify enough memory to start the guest operating system. I set it to 1024

6- On the Configure Networking page, connect the virtual machine to a switch you have created when you installed Hyper-V or create a new one.

7- On the Connect Virtual Hard Disk and Installation Options pages, choose Create a virtual hard disk. Click Next

8- In the Installation Option, Decide if you want to install it now or wait until you're done. In my case I selected the Install the operating system later since i'm running my current lab already in Hyper-v and it's not a good idea to start a virtual machine on an hypervisor that is already running on a virtualized machine….)
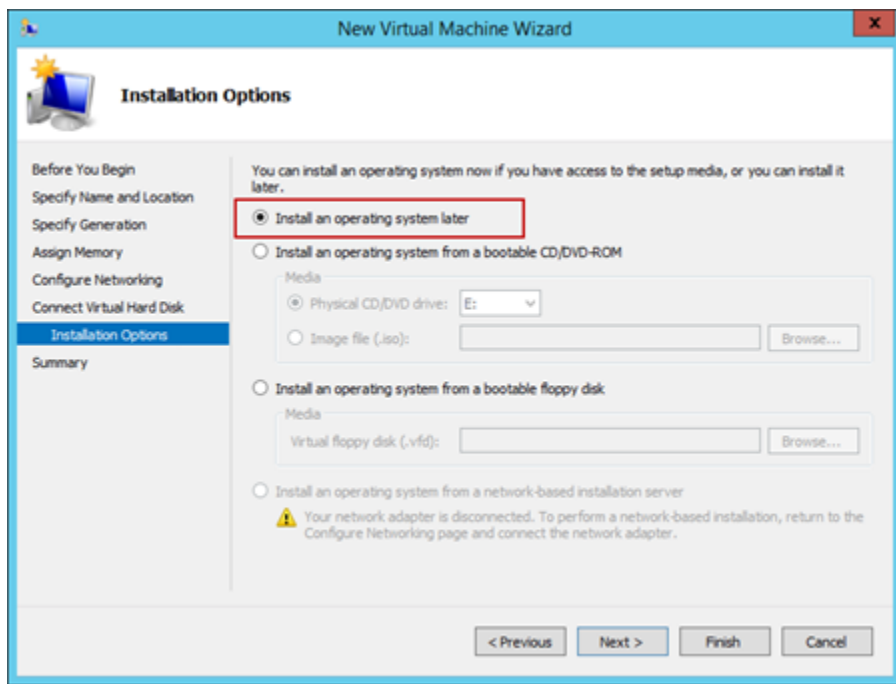
8- On the Summary page, verify your selections and then click Finish.

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