Creating Data Reduction Pools

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For most use cases, using FlashCore Modules with FS9100 the best practice is to use Data Reduction Pools with Fully Allocated volumes. This sheet will guide you through the process to create these volumes. Other specific cases may benefit from another set of options and these are described in:

IBM FlashSystem 9100 Best Practices and Performance Guidelines

We create a storage pool. Figure 1.

Click Create to open the Create Pool wizard. We provide the name DRP-pool. Mark the Data Reduction checkbox to create the Data Reduction Pool. Leaving it unmarked creates a standard storage pool. If an encryption license is installed and enabled, you can additionally select whether the storage pool is encrypted and refer to the following publication for more details:

IBM FlashSystem 9100 Best Practices and Performance Guidelines

Figure 2 shows the Create Pool wizard.
Click Create to create the new data reduction pool. Figure 3 shows the storage pools view with the newly created data reduction pool.

Initiate the Assign Storage wizard. You either right-click the storage pool or click Actions and Add Storage. Figure 4.

Figure 5 shows the Assign Storage to pool window. Click Internal Custom and Assign in the Advanced section.
Select Drive Class, number of drives, and DRAID-6. Figure 6 on page 5.

Click Assign to create the new MDisk.

Pools window after adding array. Figure 7.
Creating volumes in data reduction pools

Figure 8 shows the Volumes view before adding volumes into data reduction pools.

Figure 9 on page 7 shows the Create Volume wizard. Select your Quantity, Capacity, and Name.

Under the menu Capacity Savings we select None and leave Deduplicated unchecked. If you are trying to take advantage of other capacity savings then refer to:

*IBM FlashSystem 9100 Best Practices and Performance Guidelines*
Creating hosts

To create a host, complete the following steps:

Open the host configuration window by clicking **Hosts** (Figure 11 on page 8).
To create a host, click **Add Host**.

Select **Fibre Channel**. The Fibre Channel host configuration window opens (Figure 12).

![Add Host](image)

**Figure 11**  host window

Enter a name for your host and click the **Host Port (WWPN)** menu to get a list of all discovered WWPNs (Figure 13).

![Add Host](image)

**Figure 12**  Fibre Channel host configuration

Enter a name for your host and click the **Host Port (WWPN)** menu to get a list of all discovered WWPNs (Figure 13).
Select one or more WWPNs for your host. IBM® Spectrum Virtualize should have the host port WWPNs available if the host is prepared as described in IBM Knowledge Center for host attachment. If they do not appear in the list, scan for new disks as required on the respective operating system and click the Rescan icon in the WWPN box. If they still do not appear, check the SAN zoning and repeat the scanning.

If you want to add more ports to your Host, click the Plus sign (+) to add all ports that belong to the specific host.
Click **Add** to create the host object.

Click **Close** to return to the host window. Repeat these steps for all of your Fibre Channel hosts. Figure 15 shows the **Hosts** window after creating a host.

**Mapping a volume to a host**

To make a volume available to a host or cluster of hosts, it has to be mapped.

To map a volume to a host or cluster complete the following steps:

In the **Volumes** view (Figure 16 on page 11) select the volume for which you want to create a mapping and then select **Actions** from the menu bar.
From the Actions menu, select the Map to Host or Host Cluster option as shown in Figure 17.

This action opens a Create Mapping window. In the example shown in Figure 18 on page 12, a single volume is mapped to a host and the system assigns the SCSI LUN IDs.
A summary window is displayed showing the volume to be mapped along with existing volumes already mapped to the host or host cluster, as shown in Figure 19. Click Map Volumes.
The confirmation window shows the result of the volume mapping task, as shown in Figure 20.

![Map volume to host cluster summary](image)

Figure 19  Map volume to host cluster summary

The confirmation window shows the result of the volume mapping task, as shown in Figure 20.

![Confirmation of volume to host mapping](image)

Figure 20  Confirmation of volume to host mapping

After the task completes, the wizard returns to the Volumes window. You can list volumes mapped to the given host by navigating to Hosts → Mappings as shown in Figure 21 on page 14.
The host is now able to access the mapped volume.

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