

Creating Managed Disk Groups

Introduction

The SAN Volume Controller requires mdisks to be put into managed disk groups. The managed disk groups form pools of storage. Although there are no restrictions on which disks can be added to a managed disk group, there are two very important concepts to understand when creating a managed disk group. First, the managed disk group will use its pool of disks similar to a RAID array and depending on the configuration, stripe data across these disks. As a result, it is best for a managed disk group to use only disks that are from similar controllers and have the same format. Using disks from dissimilar controllers or with different formats can cause extra latency and poor performance. Second, since the managed disk group stores data on different disks in the group, if any disk in the group goes offline, all disks in the managed disk group will be offline. So if a controller is taken down, any managed disk groups containing disks from it will also be offline. That is another reason why it is best not to use disks from dissimilar controllers in a managed disk group.

In this lab, you learn how to create managed disk groups and rename a managed disk group.

Instructions

The first task is to create a managed disk group.

1. Click **'Work with Managed Disks'** from the menu on the left.
2. Click **'Managed Disk Groups'** from the Work with Managed Disks submenu.

Since you are going to create a managed disk group, there is no need to use the filter.

3. Click the **'Bypass Filter'** button.

Since you want to **Create an MDisk Group**, simply click the **Go** button.

4. Click the **'Go'** button.

Create the managed disk group by choosing a name and then adding three disks to the group.

5. In the MDisk Group Name field, type **'svctestGrp1'**.
6. Click the **'scroll down button'** on the MDisk Candidates list.
7. Click **'mdisk2'** from the MDisk Candidates list.
8. Click the **'Add'** button.
9. Click **'mdisk3'** from the MDisk Candidates list.
10. Click the **'Add'** button.

11. Click **'mdisk5'** from the MDisk Candidates list.
12. Click the **'Add'** button.
13. Click the **'OK'** button.

More Information Note on Extent Size: The Extent Size setting is the size of the blocks of data which can be striped on a disk. The extent size affects the performance of the disks. The smaller the extent size of the disks in the managed disk group, the better the performance. However, you need more disks to use a small extent size. You would use a bigger extent size when you have fewer disks. With 20 disks, 16MB is the right extent size. But if you only had 3 or 4 disks in the array, you would use the 512MB extent size to facilitate the striping process. As mentioned in the introduction to this lab, it is best for all disks in a managed disk group to have the same extent size. The default Extent Size setting is 16MB.

You can see the managed disk group **svctestGrp1** you just created with 3 MDisk in the group. The next step is to create a second managed disk group.

14. Click the **'Go'** button.

Following the same procedure, create the managed disk group by choosing a name and then adding three disks to the group.

15. In the MDisk Group Name field, type **'svc2testGrp2'**.
16. Click **'mdisk6'** from the MDisk Candidates list.
17. Click the **'Add'** button.
18. Click **'mdisk7'** from the MDisk Candidates list.
19. Click the **'Add'** button.
20. Click **'mdisk8'** from the MDisk Candidates list.
21. Click the **'Add'** button.
22. Click the **'OK'** button.

You can see the managed disk group **svc2testGrp2** you just created with 3 MDisk in the group in addition to the managed disk group **svctestGrp1**. You can also see that the names of the managed disk groups do not follow the same naming protocol. Since it is important to keep the names of the managed disk groups organized in a similar format, the next task is to rename the **svctestGrp1** managed disk group.

23. Click the radio button to the left of **'svctestGrp1'**.
24. From the drop down menu, select **'Rename an MDisk Group'**.
25. Click the **'Go'** button.
26. Change the name in the MDisk Name field to **'svc2testGrp1'**.
27. Click the **'OK'** button.

Notice that the managed disk group **svctestGrp1** has been renamed **svc2testGrp1**.

Congratulations! You have completed this lab.