

 **NOTE**

If the operating system is HP-UX 11i v2 or HP-UX 11i v1, run the **ioscan -funC disk** command to view LUNs detected by the application server.

Step 2 Run **umount /test/** to unmount the file system of the LUN.

/test/ indicates the mount directory of the file system.

Step 3 Run **extendfs -F vxfs /dev/disk/disk399** to expand the file system of the LUN.

vxfs indicates the file system type.

Step 4 Run **mount /dev/disk/disk399 /test/** to mount the file system of the LUN.

Step 5 Run **bdf** to view the file system capacity after it is expanded.

```
bash-3.2# bdf
Filesystem          kbytes    used    avail  %used  Mounted on
/dev/vg00/lvol3     1048576   920416  127376    88%  /
/dev/vg00/lvol1     1835008   368824  1454800   20%  /stand
/dev/vg00/lvol18    8912896  2309816  6552824   26%  /var
/dev/vg00/lvol17    6553600  3012368  3513640   46%  /usr
/dev/vg00/lvol14     524288   23504   497008    5%  /tmp
/dev/vg00/lvol16    7864320  4358216  3479048   56%  /opt
/dev/vg00/lvol15     131072    64088   66464   49%  /home
/dev/disk/disk399   52428800  79504  49077472    0%  /test
```

The preceding command output displays that the capacity of the file system becomes 50 GB.

----End

7.2.3.8 Expanding a LUN on an Application Server in VMware ESX

After expanding a LUN on its storage system, perform the expansion configuration on the corresponding application server for it to identify and use the expanded storage space. This task uses an application server running VMware ESXi 5.1.0 as an example to describe how to expand a LUN on an application server. For application servers running other versions of VMware ESX operating systems, adjust the operations based on actual conditions.

Prerequisites

A LUN has been expanded on the storage system.

Context

In this example of the section, the capacity of the LUN to be expanded is 25 GB and it will be expanded to 50 GB. The ID of the LUN to be expanded is **14**.

Procedure

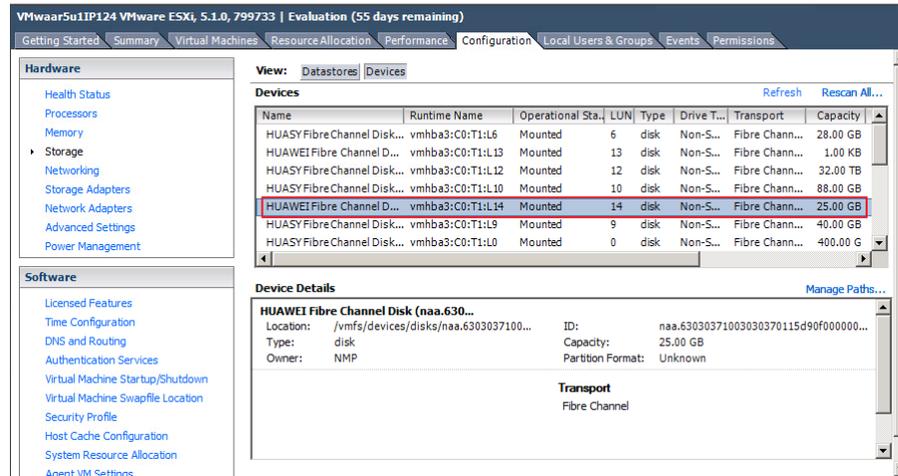
Step 1 In vSphere Client, click the **Configuration** tab.

Step 2 On the left navigation bar, click **Storage**.

Step 3 On the **Storage** page, click the **Devices** tab.

On the **Devices** page, view the device mapped from the LUN to be expanded on the application server, as shown in **Figure 7-5**.

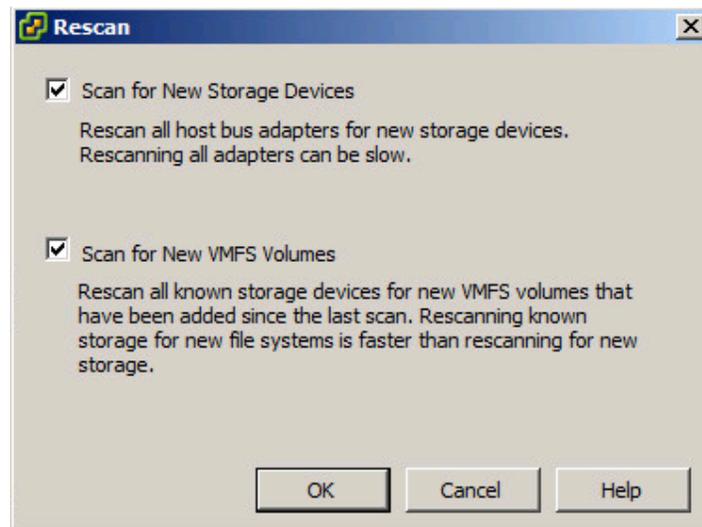
Figure 7-5 Device mapped from the LUN to be expanded on the application server



Step 4 On the **Devices** page, click **Rescan All**.

The **Rescan** dialog box is displayed, as shown in **Figure 7-6**.

Figure 7-6 Rescan dialog box



Step 5 Click **OK**.

It takes 2 to 4 minutes to scan for new storage devices and VMFS volumes. You can check the task status in the **Recent Tasks** area at the lower part of the main window.

- If the task status is **In Progress** as shown in **Figure 7-7**, the scanning is ongoing.

Figure 7-7 Scanning ongoing

Name	Target	Status	Details	Initiated by	vCenter Server	Requested Start Time	Start Time	Completed Time
Rescan VMFS		In Progress		Administrator	win232.zcyunhvs...	8/19/2013 6:47:46 PM	8/19/2013 6:47:...	
Rescan all HBAs		In Progress		Administrator	win232.zcyunhvs...	8/19/2013 6:46:58 PM	8/19/2013 6:46:...	

- If the task status is **Completed** as shown in [Figure 7-8](#), the scanning is completed.

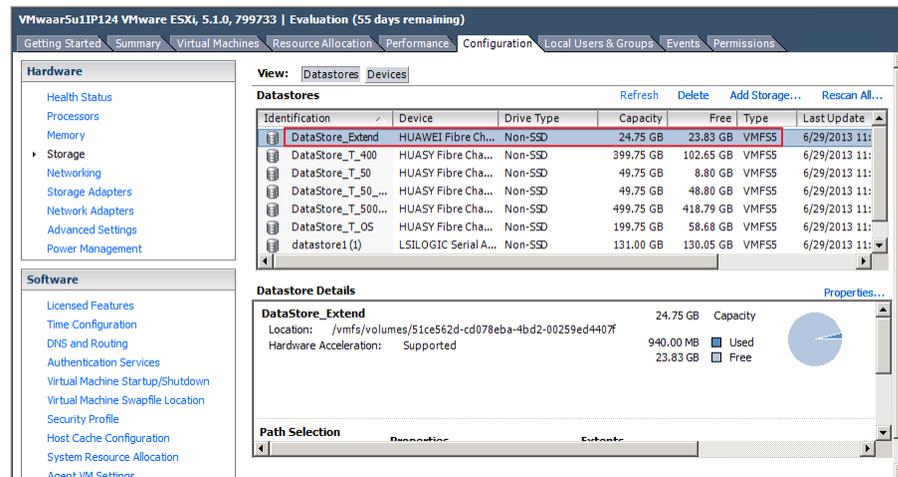
Figure 7-8 Scanning completed

Name	Target	Status	Details	Initiated by	vCenter Server	Requested Start Time	Start Time	Completed Time
Rescan VMFS		Completed		Administrator	win232.zcyunhvs...	8/19/2013 6:47:46 PM	8/19/2013 6:47:...	8/19/2013 6:47:58 PM
Rescan all HBAs		Completed		Administrator	win232.zcyunhvs...	8/19/2013 6:46:58 PM	8/19/2013 6:46:...	8/19/2013 6:47:46 PM

Step 6 On the **Storage** page, click the **Datstores** tab.

On the **Datstores** page, view the datastore mapped from the LUN to be expanded on the application server, as shown in [Figure 7-9](#).

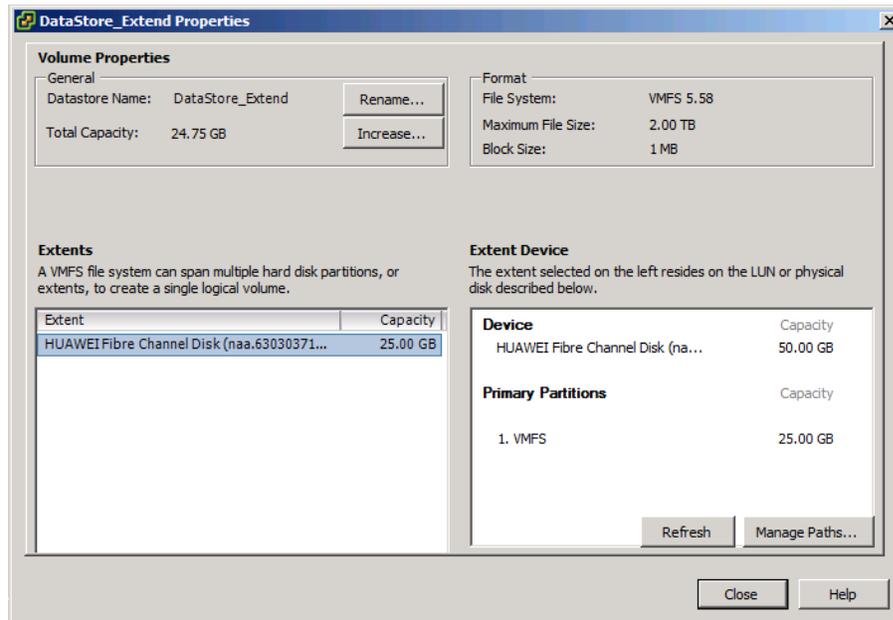
Figure 7-9 Device mapped from the LUN to be expanded on the application server



Step 7 Right-click the datastore corresponding to the LUN to be expanded, and choose **Properties** from the shortcut menu.

The **DataStore_Extend Properties** dialog box is displayed, as shown in [Figure 7-10](#).

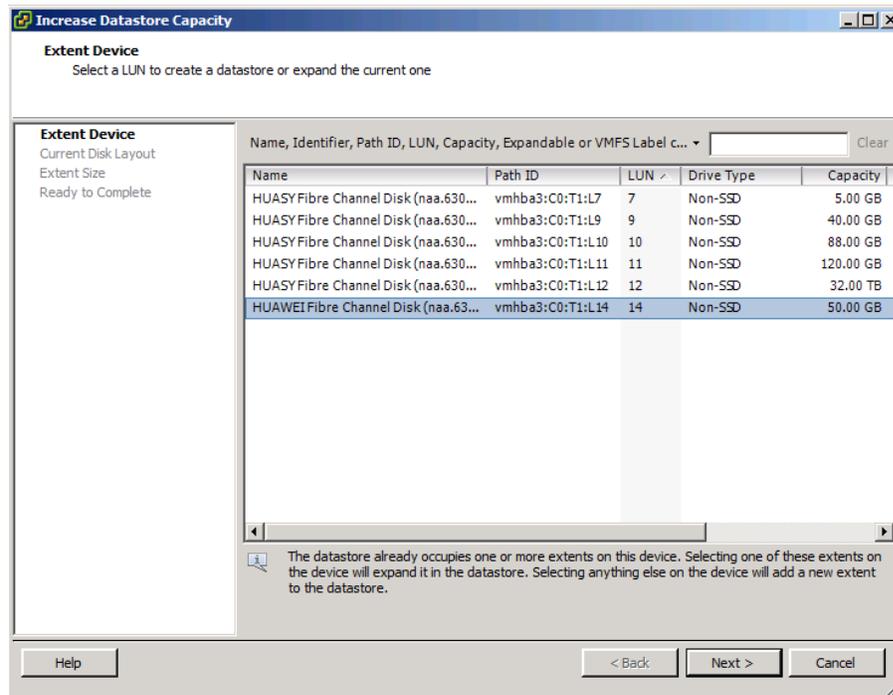
Figure 7-10 DataStore_Extend Properties dialog box



Step 8 In the **Volume Properties** area, click **Increase**.

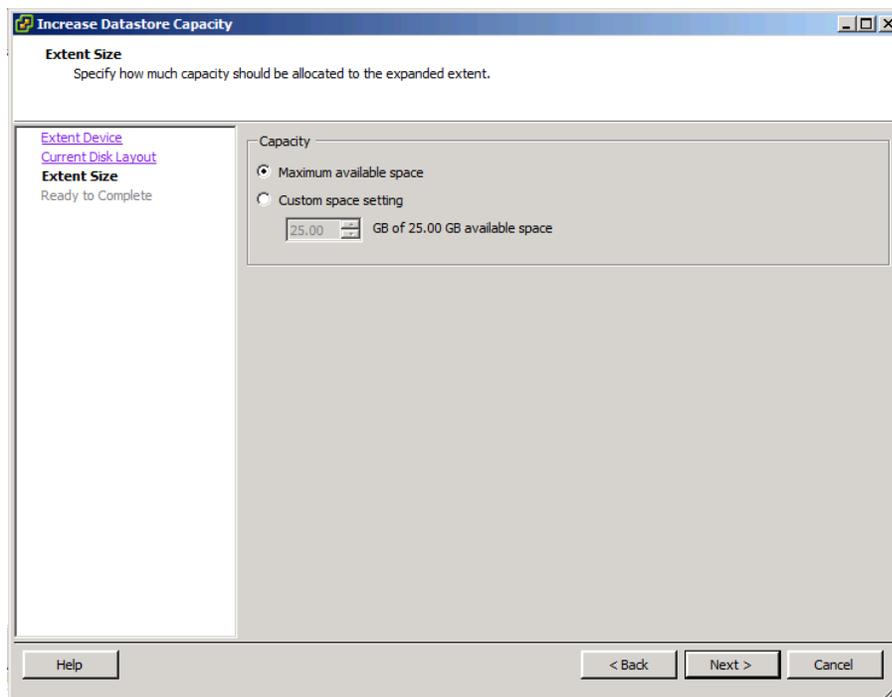
The **Increase Datastore Capacity** dialog box is displayed, as shown in [Figure 7-11](#).

Figure 7-11 Increase Datastore Capacity dialog box



- Step 9** Select the datastore corresponding to the LUN to be expanded and click **Next**.
- Step 10** View the current disk distribution and click **Next**.
- Step 11** Set the size of the expansion data area. The maximum storage space is recommended, as shown in [Figure 7-12](#). Click **Next**.

Figure 7-12 Setting the size of the expansion data area

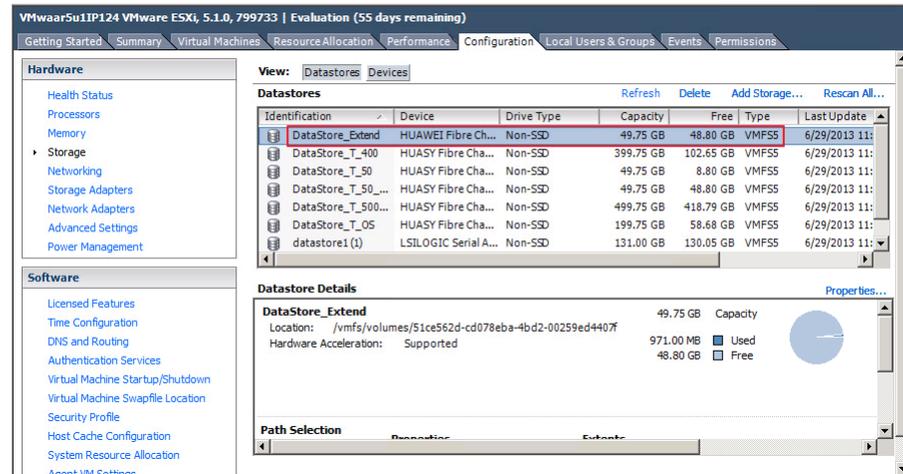


- Step 12** Click **Finish**.
The **DataStore_Extend Properties** dialog box is displayed.
- Step 13** Click **Close**.
----End

Result

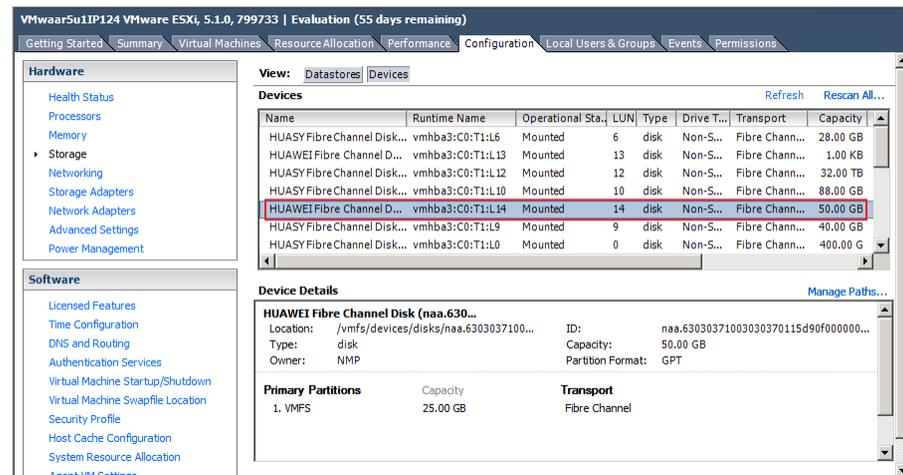
- On the **Datastores** tab of **Storage** page, view the expanded datastore, as shown in [Figure 7-13](#).

Figure 7-13 Datastore mapped from the expanded LUN on the application server



- On the **Devices** tab of **Storage** page, view the expanded device, as shown in **Figure 7-14**.

Figure 7-14 Device mapped from the expanded LUN on the application server



7.3 Allocating Storage Space to New File Services

Before establishing a storage space environment for new file services of application servers, you need to create and share a file system.

Figure 7-15 describes the procedure for allocating storage space to new file services.