

Server OS	Storage Array Configuration						
		Remote storage array	XenServer	Enabled	Special mode	Mode 0	Non-optimal path

For details about the XenServer versions, see the compatibility list:

<http://support-open.huawei.com/ready/pages/user/compatibility/support-matrix.jsf>



CAUTION

After the initiator mode is configured on a storage array, you must restart the host for the configuration to take effect.

3.3 Configuring the Host

3.3.1 Configuring Multipathing Software

Installing and Enabling the Multipathing Software

After editing the `/etc/multipath.conf` file, perform the following operations to enable DM-Multipath.

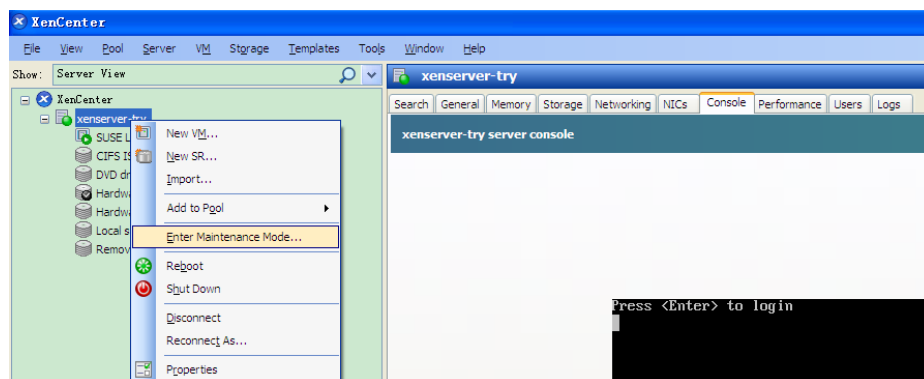
- Step 1** Right-click the server and choose **Enter Maintenance Mode** from the shortcut menu.



CAUTION

Other services will be suspended.

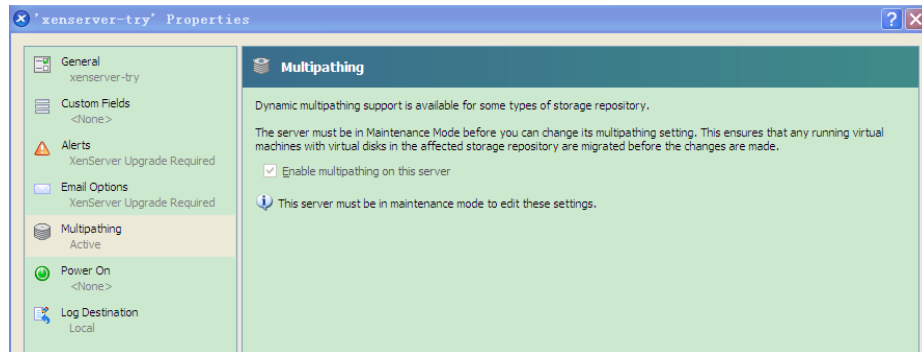
Figure 3-1 Entering the maintenance mode



Step 2 Enable multipathing on this server.

Right-click the server and choose **Properties** from the shortcut menu. In the dialog box that is displayed, select **Enable multipathing on this server**, as shown in the following figure.

Figure 3-2 Enabling multipathing on this server



Step 3 Right-click the server and exit the maintenance mode.

Step 4 Map LUNs to the host and create SRs on the host. The LUNs are taken over by the multipathing software.

----End

Configuring the Multipathing Software

Add the following contents to the `/etc/multipath.conf` configuration file of the multipathing software in XenServer.

Figure 3-3 Configuration file of the multipathing software in XenServer

```
device {
    vendor "HUAWEI"
    product "XSG1"
    path_grouping_policy group_by_prio
    prio alua
    path_checker tur
    path_selector "round-robin 0"
    failback immediate
    fast_io_fail_tmo 15
    dev_loss_tmo 30
}
```

3.3.2 Configuring HBAs

QLogic

For QLogic HBAs, modify the values of the following two parameters.

- **Port Down Retry Count**
The default value is 30 seconds. Set the value to 10.
- **Link Down Timeout (seconds)**

The default value is 30 seconds. Set the value to 10.



If the default values of the two parameters are different from the default ones in this document, do not modify the values. Contact related project personnel for confirmation.

The modification procedure is as follows.

Step 1 Download and install the QLogic HBA management tool.

Go to the following website to download the tool.

http://driverdownloads.qlogic.com/QLogicDriverDownloads_UI/DefaultNewSearch.aspx

Step 2 Open the management page.

For the latest QLogic management software (2.01.00 build 03), run the **qaucli** command.

Figure 3-4 Management window

```
[root@xenserver-wveguahg QConvergeConsoleCLI]# qaucli
Using config file: /opt/QLogic_Corporation/QConvergeConsoleCLI/qaucli.cfg
Installation directory: /opt/QLogic_Corporation/QConvergeConsoleCLI
Working dir: /opt/QLogic_Corporation/QConvergeConsoleCLI

QConvergeConsole

CLI - Version 1.1.2 (Build 27)

Main Menu

1: Adapter Information
2: Adapter Configuration
3: Adapter Updates
4: Adapter Diagnostics
5: Adapter Statistics
6: Refresh
7: Help
8: Exit

Please Enter Selection: █
```

Step 3 Configure HBA parameters.

Select **2: Adapter Configuration**. The following window is displayed.

Figure 3-5 HBA parameters

```
Fibre Channel Adapter Configuration

1: Adapter Alias
2: Adapter Port Alias
3: HBA Parameters
4: Persistent Names (udev)
5: Boot Devices Configuration
6: Virtual Ports (NPIV)
7: Target Link Speed (iidMA)
8: Export (Save) Configuration
9: Generate Reports

(p or 0: Previous Menu; m or 98: Main Menu; ex or 99: Quit)
Please Enter Selection: █
```

Select **3: HBA Parameters**. The HBA port status window is displayed.

Figure 3-6 HBA port status

```
QConvergeConsole
CLI - Version 1.1.2 (Build 27)
Fibre Channel Adapter Configuration
HBA Model QLE2562 SN: RFD1610K14417
1: Port 1: wwpn: 21-00-00-24-FF-75-20-4A Online
2: Port 2: wwpn: 21-00-00-24-FF-75-20-4B Online

(p or 0: Previous Menu; m or 98: Main Menu; ex or 99: Quit)
Please Enter Selection: █
```

Select a port and go to the HBA parameters menu.

Figure 3-7 HBA Parameters Menu

```
Version 1.1.2 (Build 27)
HBA Parameters Menu
=====
HBA       : 0 Port: 1
SN        : RFD1610K14417
HBA Model : QLE2562
HBA Desc. : QLE2562 PCI Express to 8Gb FC Dual Channel
FW Version: 8.01.02
wwpn      : 21-00-00-24-FF-75-20-4A
wwnn      : 20-00-00-24-FF-75-20-4A
Link      : Online
=====
1: Display HBA Parameters
2: Configure HBA Parameters
3: Restore Defaults

(p or 0: Previous Menu; m or 98: Main Menu; ex or 99: Quit)
Please Enter Selection: █
```

Select **2: Configure HBA Parameters**. The **Configure Parameters Menu** window is displayed.

Figure 3-8 Configure Parameters Menu

```
Version 1.1.2 (Build 27)

Configure Parameters Menu

=====
HBA       : 0 Port: 1
SN        : RFD1610K14417
HBA Model : QLE2562
HBA Desc. : QLE2562 PCI Express to 8Gb FC Dual Channel
FW Version: 8.01.02
WWPN      : 21-00-00-24-FF-75-20-4A
WWNN      : 20-00-00-24-FF-75-20-4A
Link      : Online
=====

1: Connection Options
2: Data Rate
3: Frame Size
4: Enable HBA Hard Loop ID
5: Hard Loop ID
6: Loop Reset Delay (seconds)
7: Enable BIOS
8: Enable Fibre Channel Tape Support
9: Operation Mode
10: Interrupt Delay Timer (100 microseconds)
11: Execution Throttle
12: Login Retry Count
13: Port Down Retry Count
14: Enable LIP Full Login
15: Link Down Timeout (seconds)
16: Enable Target Reset
17: LUNs per Target
18: Enable Receive Out Of Order Frame
19: Enable LR
20: Commit Changes
21: Abort Changes

(p or 0: Previous Menu; m or 98: Main Menu; ex or 99: Quit)
Please Enter Selection: █
```

Select **13** and **15**. Set the values of the parameters to 10. Then select **20: Commit Changes**.

After the configuration, check the HBA parameters.

Figure 3-9 HBA parameter configuration

```
-----
HBA Instance 0: QLE2562 Port 1 WWPN 21-00-00-24-FF-75-20-4A PortID 01-10-00
Link: Online
-----
Connection Options      : 2 - Loop Preferred, Otherwise Point-to-Point
Data Rate               : Auto
Frame Size              : 2048
Hard Loop ID            : 0
Loop Reset Delay (seconds) : 5
Enable Host HBA BIOS    : Disabled
Enable Hard Loop ID     : Disabled
Enable FC Tape Support  : Enabled
Operation Mode          : 0 - Interrupt for every I/O completion
Interrupt Delay Timer (100us) : 0
Execution Throttle      : 65535
Login Retry Count       : 8
Port Down Retry Count   : 10
Enable LIP Full Login   : Enabled
Link Down Timeout (seconds) : 10
Enable Target Reset     : Enabled
LUNs Per Target         : 128
Out Of Order Frame Assembly : Disabled
Enable LR               : Disabled

Press <Enter> to continue: █
```

Step 4 Complete the configuration of all ports.

Perform the operations in step 3 to configure other ports.

----End