



## CHAPTER 3

# Preparing PowerEdge and PowerVault Systems for Clustering

This chapter provides information on adding peripherals, placing Fibre Channel host bus adapters (HBAs), and configuring enclosure addresses.

## Adding Peripherals Required for Clustering



**WARNING:** Hardware installation should be performed only by trained service technicians. Before working inside the computer system, see the safety instructions in your PowerEdge System Information document to avoid a situation that could cause serious injury or death.

You may need to add peripheral devices and expansion cards to the system to meet the minimum cluster requirements listed in the *Dell PowerEdge Cluster FE100/FL100 and FE200/FL200 Platform Guide*. For example, each PowerEdge node must have two network interface controller (NIC) cards to meet the minimum configuration requirements. Each node also needs one or two HBAs to access the shared storage subsystem.



*NOTES:* If you are adding storage area networking (SAN) components, see the *Dell PowerEdge Cluster F-Series SAN Guide* for more information on supported configurations and components.

See the *Dell PowerEdge Cluster FE100/FL100 and FE200/FL200 Platform Guide* for peripheral component interconnect (PCI) slot guidelines.

If you are upgrading an existing PowerVault 65xF/660F storage system to meet the cluster requirements for the shared storage subsystem, you may need to install additional Fibre Channel disk drives in the shared storage system. The size and number of drives you add depend on the redundant array of independent disks (RAID) level you want to use and the number of Fibre Channel disk drives currently in your system.



*NOTE:* For information on installing Fibre Channel disk drives in your PowerVault storage system, see your PowerVault storage system's *Installation and Troubleshooting Guide*.

Additionally, you may need to add hard-disk drives and a Dell PowerEdge Expandable RAID Controller (PERC) to each node if you are setting up the system's internal drives in a hardware RAID configuration. However, this configuration is not a requirement for clustering. See the *Installation and Troubleshooting Guide* for your PowerEdge system for instructions on installing expansion cards or hard-disk drives in your node.

## **Placing Fibre Channel HBAs**

For dual HBA configurations, Dell recommends placing Fibre Channel HBAs on separate PCI buses. Placing the adapters on separate buses improves availability and performance.



*NOTE: See the Dell PowerEdge Cluster FE100/FL100 and FE200/FL200 Platform Guide for more information on your system's PCI bus configuration and supported HBAs.*

## **Configuring Enclosure Addresses**

When adding PowerVault 630F disk-array enclosures (DAE) to a PowerVault 650F or adding PowerVault 224F DAEs to a PowerVault 660F, assign a unique enclosure address (EA) to each DAE.



*NOTE: See the Dell PowerVault 630F and 250F Rackmount Storage Systems Installation and Service Guide and the Dell PowerVault 660F and 224F Rackmount Storage Systems Installation and Service Guide for more information on setting enclosure addresses.*