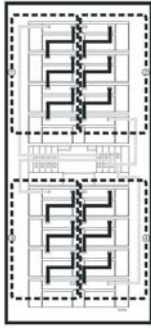## 3. Cable the Storage Area Network

Fibre channel cabling diagram

Complete the fibre channel (FC) cable connections between the host servers, the fibre channel host bus adapters (HBAs), the DS4000 storage server, and the DS4000 storage expansion enclosure(s). Use the appropriate cabling instructions for your storage server and storage expansion enclosure.

If you are connecting different storage expansion enclosure types with a DS4000 storage server, please review the Installation, User's, and Maintenance Guide for the storage expansion enclosures and the *IBM TotalStorage DS4000 Hard Drive and Storage Expansion Enclosures Installation and Migration Guide* for cabling requirements or best practices.

You can connect the DS4000 storage servers to your host servers, either directly or indirectly, through a SAN network of FC switches. For information on planning your configuration, see the appropriate DS4000 storage manager Installation and Support Guide for your operating system. This document includes examples and procedures to help you define and implement the SAN by supplying information on fabric topology, path redundancy, and in-band and out-of-band management configurations.

4. Install the software

Designate the host that is to serve as the management workstation. Only one installation of the storage manager client is needed to manage DS4000 storage servers in your enterprise.

Install the storage management software, HBA drivers, and failover device drivers (if applicable) using the IBM TotalStorage DS4000 Storage Manager installation CD, the readme file for your operating system, and the appropriate DS4000 Storage Manager Installation and Support Guide for your host operating system.
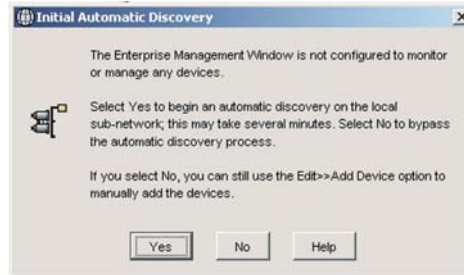
> **?** After the storage management software is installed, if you have a question about any of these tasks, use the DS4000 Storage Manager online help system.

5. Managing the DS4000 storage server

After installation is completed, launch the storage management software to discover the hosts and storage subsystem automatically. For assistance, use the online help provided with the client.

Initial Automatic Discovery dialogue box

Finally, perform the following basic setup tasks, as described in the Installation and Support Guide for your host operating system:

1. Capture a profile of the subsystem. Verify that the current controller, ESM and drive firmware match the latest versions on the DS4000 storage support Web site, and if required, download any updated firmware from the Web site. Review the readme files that are included in each firmware package for any special download requirements or sequence dependencies before downloading and installing that particular firmware.
2. Create a host group.
3. Create and map logical drives.
4. On the host server, either run the hot_add utility program or reboot the server to recognize the newly created and mapped logical drives.
5. Format logical drives to prepare for data storage.
6. Capture a profile of the subsystem and store it on the machine that serves as a management workstation (the one on which the client was installed). **Do not** store the profile on one of the logical unit numbers (LUNs) just created on the DS4000 subsystem. Update the profile every time a change is made to the storage subsystem.
7. Follow the instructions in the Installation and Support Guide to register on the "My Support" Web site for automatic update notifications via e-mail.

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IBM

IBM TotalStorage DS4000 Storage Server and Storage Expansion Enclosure

Quick Start Guide

GC26-7738-00

Before you begin

Before you begin the installation procedure, unpack the carton and verify that your shipment contains all the required components. **Be sure to read the Safety Guide first, and review the other documentation provided with your shipment, before attempting to install any components.**
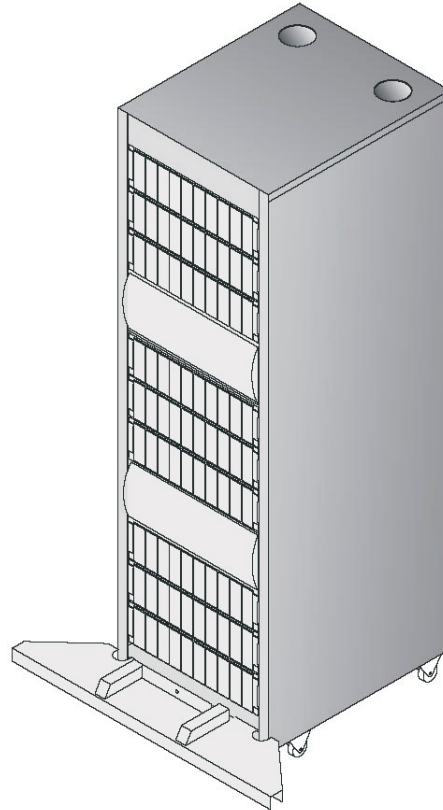
A printed copy of the Installation, User's, and Maintenance Guide for the packaged unit is included with your shipment. All other related DS4000 documentation can be found in the Docs directory on the installation CD that you received with your IBM TotalStorage DS4000 storage server or storage expansion enclosure. Links to the IBM DS4000 documentation can be also found on the Web at http://www.ibm.com/servers/storage/disk/ds4000/ or http://www.ibm.com/servers/storage/support/disk/.

For additional device driver and configuration information on host bus adapters, fabric switches, and other third-party equipment, refer to one of the following: the readme file; the appropriate DS4000 storage server Installation, User's, and Maintenance Guides; or, your third-party equipment documentation.

Check the readme file or release notes for your product for restrictions or procedure changes.

Cabinet and Rackmount Module Installation Overview
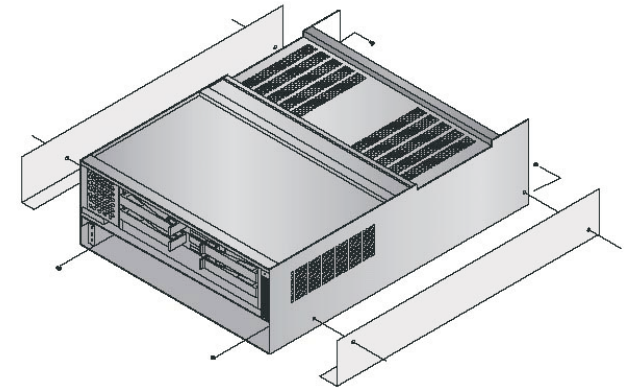
1. Prepare the site and install the cabinet

Rack cabinet

Prepare the site to meet all area, environmental, power, and site requirements as described in the appropriate DS4000 Installation, User's, and Maintenance Guide for your storage server or storage expansion enclosure. For example, when planning your site, be sure to allow for adequate cooling and airflow. To optimize protection against power loss, plan for at least two separate power supply circuits.
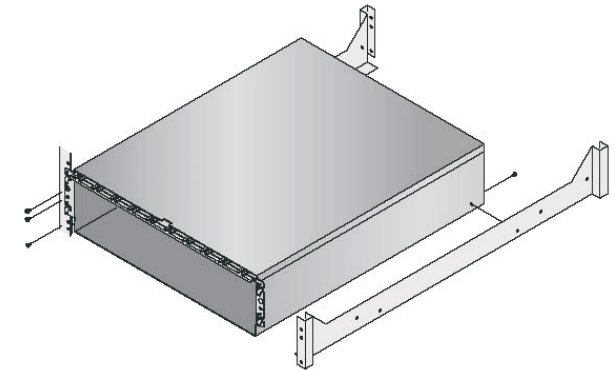
Set up the rack using the instructions provided in the appropriate DS4000 Installation, User's, and Maintenance Guide. (Note that, for some DS4000 storage servers, a separate rack mounting instructions document exists.) Be sure to follow all recommended safety and ESD precautions.

2. Install the rackmount modules

DS4000 storage server

Install the storage server using the appropriate Installation, User's, and Maintenance Guide for your DS4000 storage server.

DS4000 storage expansion enclosure

If you have a storage expansion enclosure, install it using the appropriate Installation, User's, and Maintenance Guide for your DS4000 storage expansion enclosure.

When making power connections, connect the dual power supply units into *two* separate circuits. Make sure that each circuit has adequate power to support the units. See the appropriate DS4000 Installation, User's, and Maintenance Guide for power-on and power-off sequence requirements.