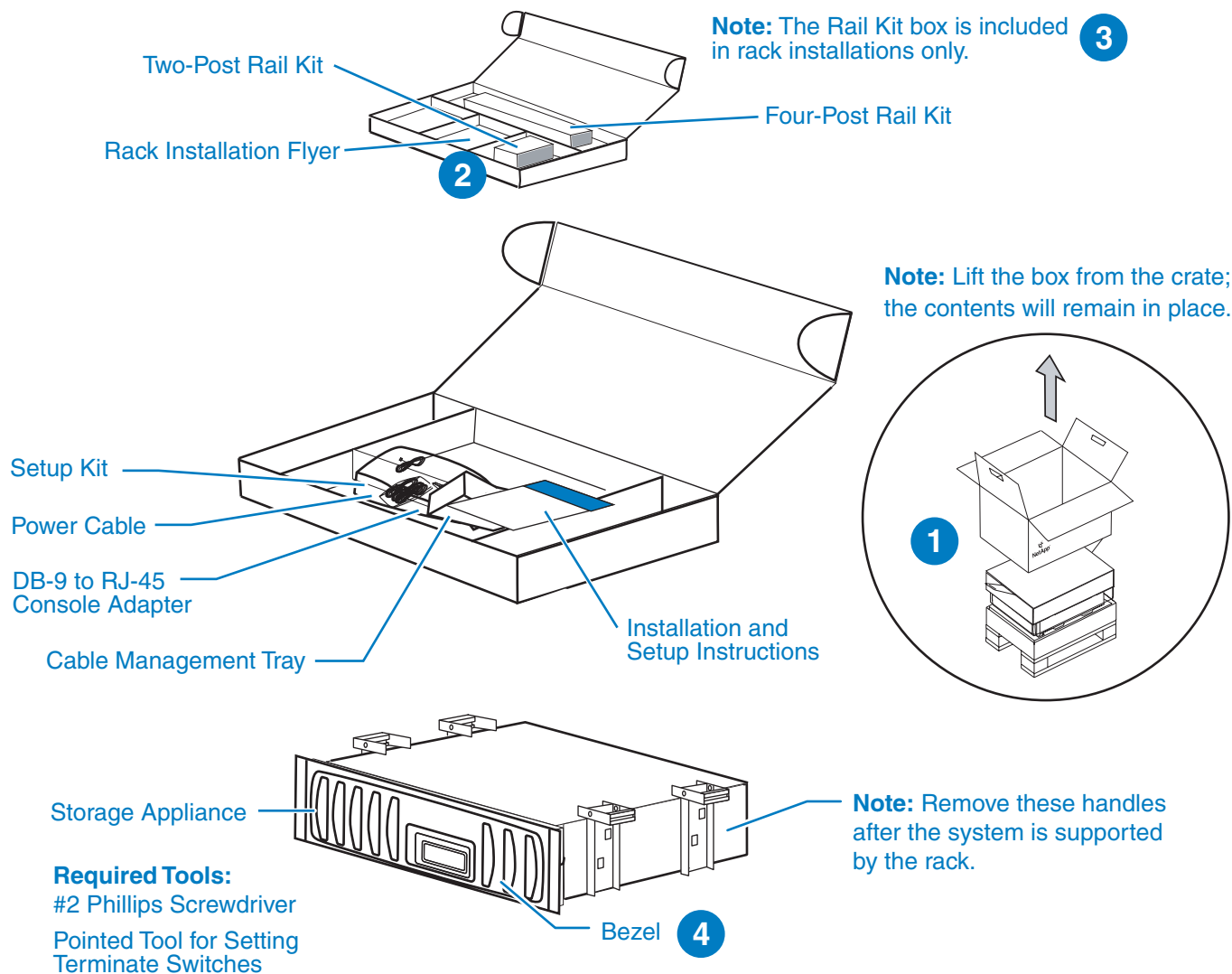
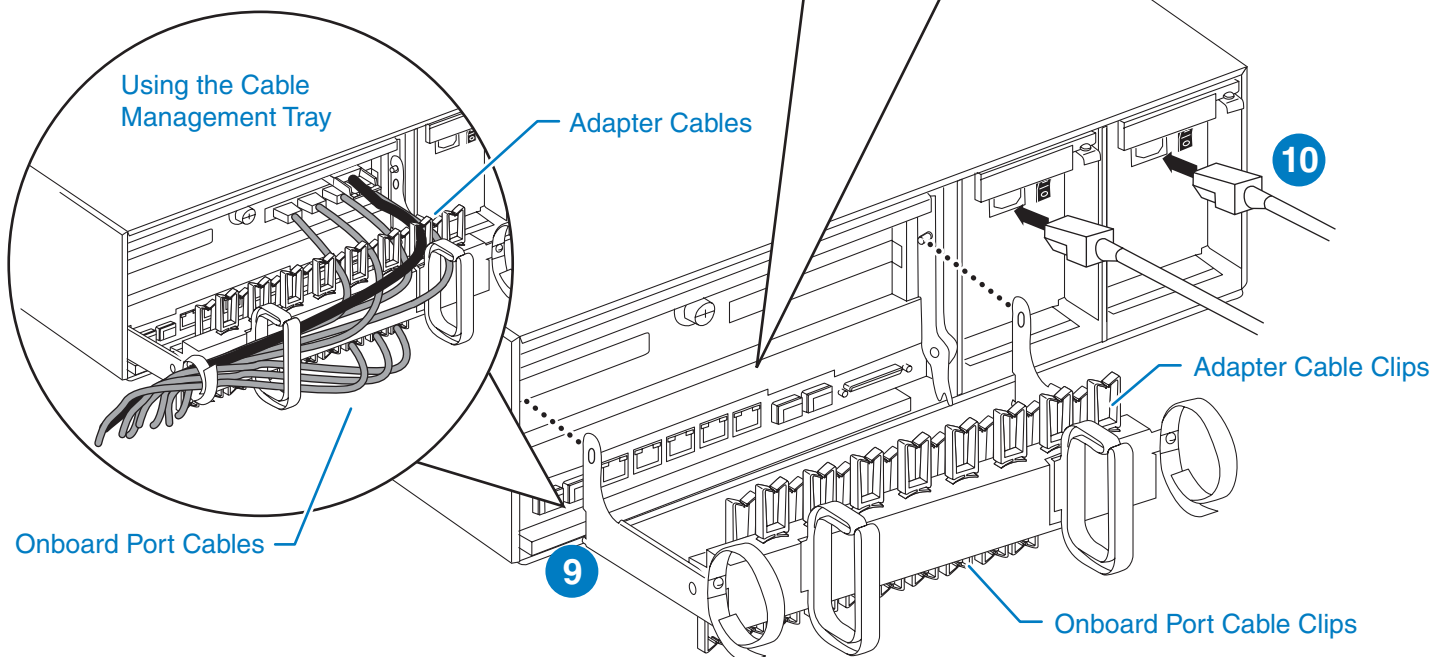
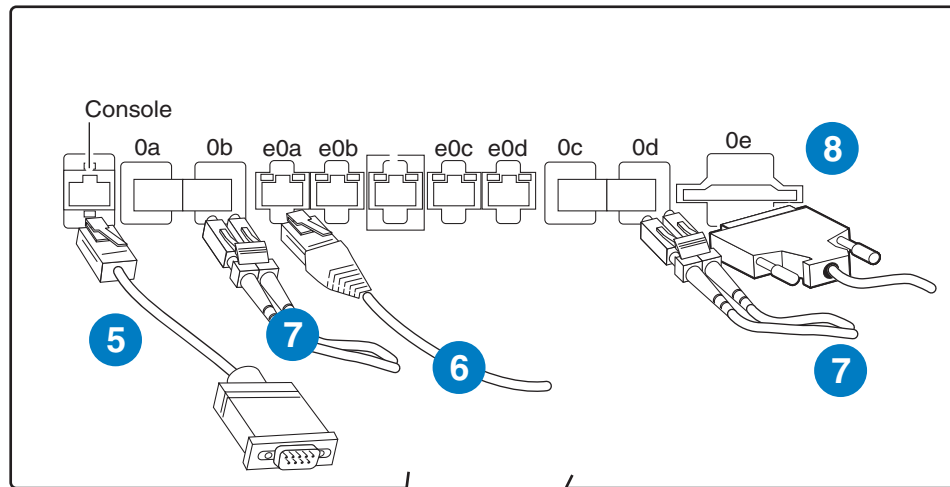


Complete NetApp documentation is available from the NOW™ site at <http://now.netapp.com>. You can view the manuals online, print them locally, or order them.

## Contents Shipped



1. Inspect the contents of your shipment and carefully unpack it, using the preceding illustration as reference.
2. Use the Rack Installation Flyer in the rail kit box to install the appropriate rail kit on the rack.
3. Install the appropriate rack mount for the disk shelves, if applicable. Make sure that you leave enough room for the storage appliance.
4. Remove the bezel, install the storage appliance, and secure it to the rack, and then reinstall the bezel. Install the disk shelves as needed, using the later illustrations as reference.
5. Connect a console cable to the console port on the system. Make sure that you use the DB-9 to RJ-45 adapter kit that is included with your system. Connect the console cable to the adapter.



6. Connect your system to the network by plugging the network cable into the green networking port, labeled e0a.
7. Cable the orange Fibre Channel ports 0b and 0d, and depending on the number of shelves, HBA ports a (PCI slot 4 right side) and b (PCI slot 2, also right side), according to your configuration. Use the applicable figure on the following panel for reference. See the list of all port assignments on the next page. (You cable port 0a to your Fibre Channel network in “Booting your system for the first time,” later in these instructions.)
8. Attach a tape drive to the SCSI port, 0e, or to an LVD or Fibre Channel HBA installed in slot 3, as appropriate. See the table on the next page for a list of all port assignments.
9. Install your cable management tray by pinching the arms of the tray and fitting the holes in the arms through the motherboard tray pins. Then, push the cables into the cable holders, thread the adapter cables through the top rows of the cable holders, and thread the onboard port cables through the lower cable holders.

**Note:** You do not need to ground your system.

10. Connect the power cords, making sure that the power supplies are connected to separate AC power sources. This ensures redundant power sources. If your appliance uses DC power, connect the cable to the power supplies, as

described in the DC Power Supply flyer accompanying the system.

**Caution:** Do not turn on power to your system.

11. Go to “Booting your system for the first time.”

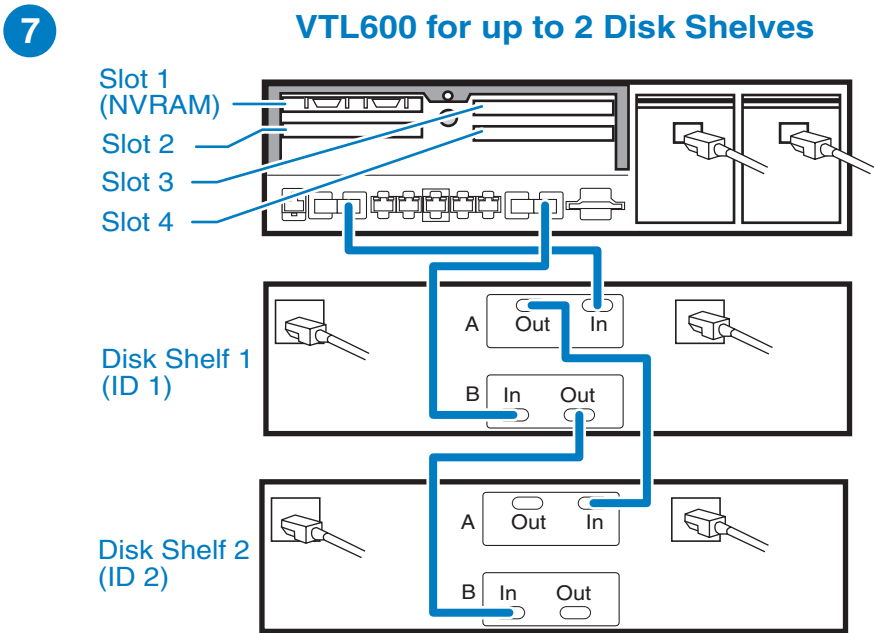
Ports and Connections

| Port          | Target/<br>Initiator | Connect to                        | Connect before booting your<br>system the first time |
|---------------|----------------------|-----------------------------------|------------------------------------------------------|
| 0a            | T                    | host system (1st host connection) |                                                      |
| 0b            | I                    | disk shelf (1st disk loop)        |                                                      |
| 0c            | T                    | host system (2nd host connection) |                                                      |
| 0d            | I                    | disk shelf (2nd disk loop)        |                                                      |
| PCI4a (right) | I                    | disk shelf (3rd disk loop)        | 1st HBA here                                         |
| PCI4b (left)  | T                    | host system (3rd host connection) |                                                      |
| PCI2a (left)  | I                    | tape device (1st tape device)     | 2nd HBA here                                         |
| PCI2b (right) | I                    | disk shelf (4th disk loop)        |                                                      |
| PCI3a (right) | I                    | tape device (2nd tape device)     | 3rd HBA here                                         |
| PCI3b (left)  | I                    | tape device (3rd tape device)     |                                                      |

Connect after booting your system the first time

The first and second shelves of a VTL600 system attach to ports 0b and 0d. HBAs in slots 2 and 4 are needed for additional shelves. A VTL1200 system is cabled as two independent VTL600 systems.

Note: Always install an HBA in PCI4 (slot 4) before installing one in PCI3 (slot3).



## VTL600 (3 to 12 Shelves)

For Shelves 10 and 12 Continue A Out to A In and B Out to B In to the Next Shelf

Disk Shelf 8  
(ID 4)

Disk Shelf 6  
(ID 3)

Disk Shelf 4  
(ID 2)

Disk Shelf 3  
(ID 1)

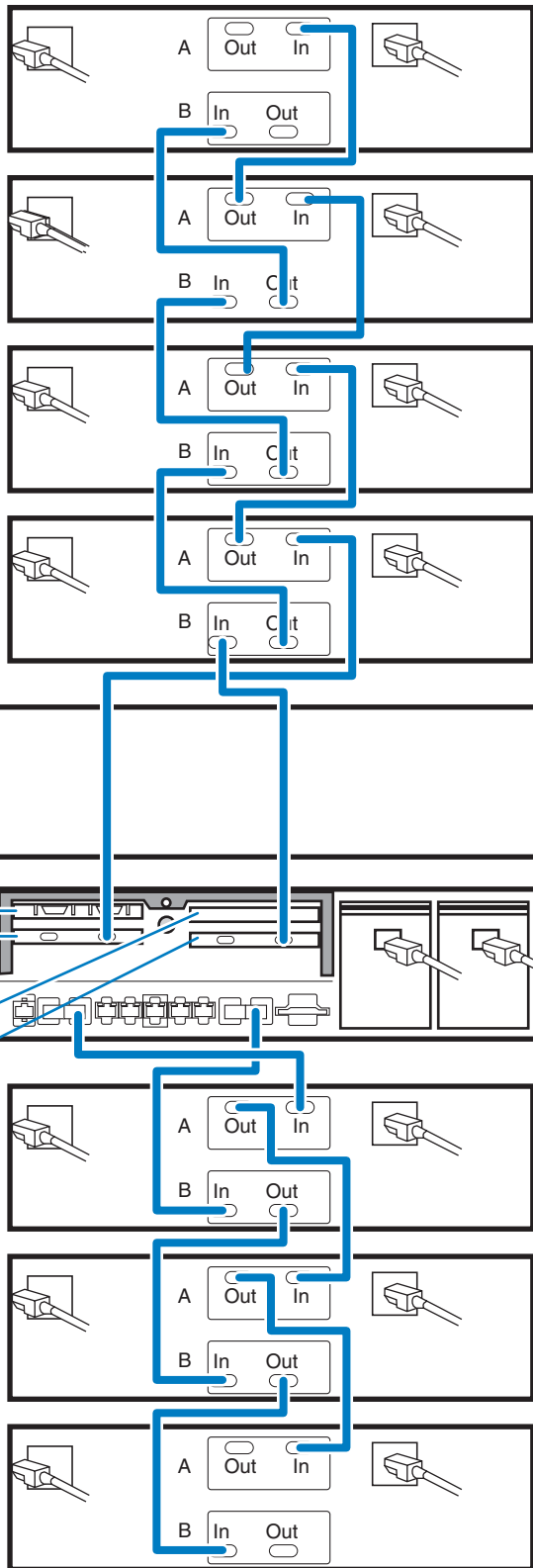
Blank  
Panel for  
Future  
Expansion

Slot 1  
(NVRAM)  
Slot 2  
(HBA)  
Slot 3  
Slot 4  
(HBA)

Disk Shelf 1  
(ID 1)

Disk Shelf 2  
(ID 2)

Disk Shelf 5  
(ID 3)



For Shelves 7, 9, and 11 Continue A Out to A In and B Out to B In to the Next Shelf

## VTL1200 (1 to 12 Shelves)

For Shelves 8 and 12 Continue A Out to A In and B Out to B In to the Next Shelf

Disk Shelf 6  
(ID 1)

Disk Shelf 10  
(ID 3)

Disk Shelf 4  
(ID 2)

Disk Shelf 2  
(ID 1)

Slot 1  
(NVRAM)  
Slot 2  
(HBA)  
Slot 3  
Slot 4  
(HBA)

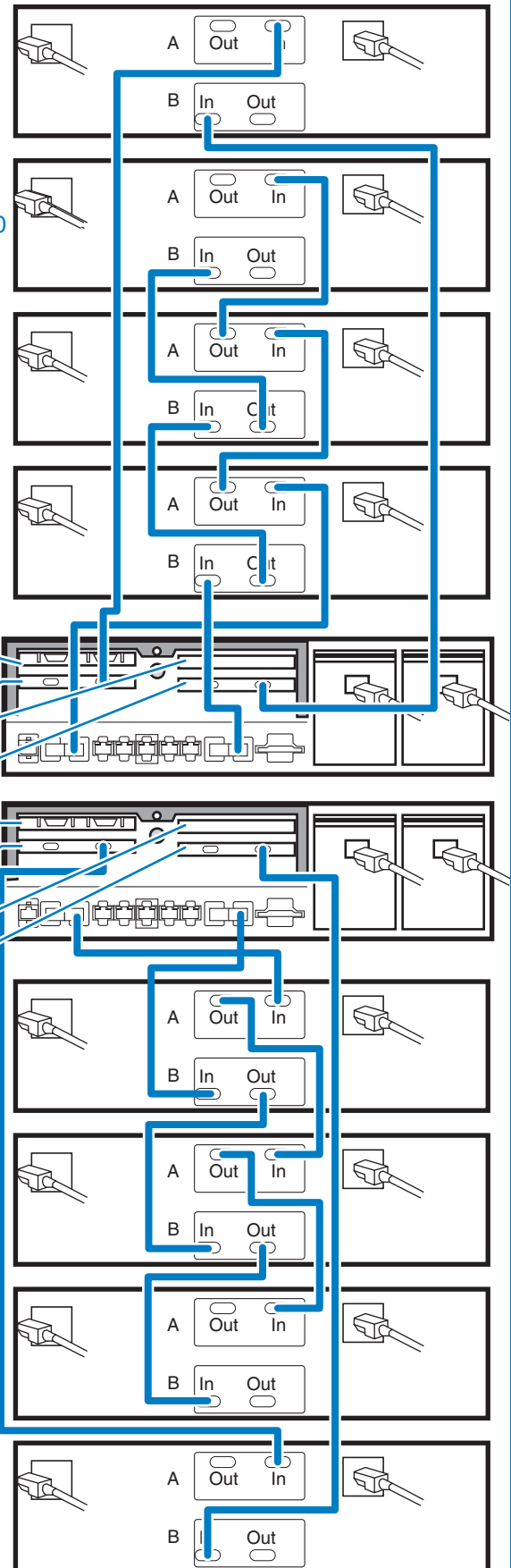
Slot 1  
(NVRAM)  
Slot 2  
(HBA)  
Slot 3  
Slot 4  
(HBA)

Disk Shelf 1  
(ID 1)

Disk Shelf 3  
(ID 2)

Disk Shelf 9  
(ID 3)

Disk Shelf 5  
(ID 1)



For Shelves 7 and 11 Continue A Out to A In and B Out to B In to the Next Shelf

## VTL1200 (13 to 24 Shelves)

For Shelves 19 and 23 Continue A Out to A In and B Out to B In to the Next Shelf

Disk Shelf 15  
(ID 4)

Disk Shelf 11  
(ID 3)

Disk Shelf 7  
(ID 2)

Disk Shelf 5  
(ID 1)

Blank  
Panel

Slot 1  
(NVRAM)

Slot 2  
(HBA)

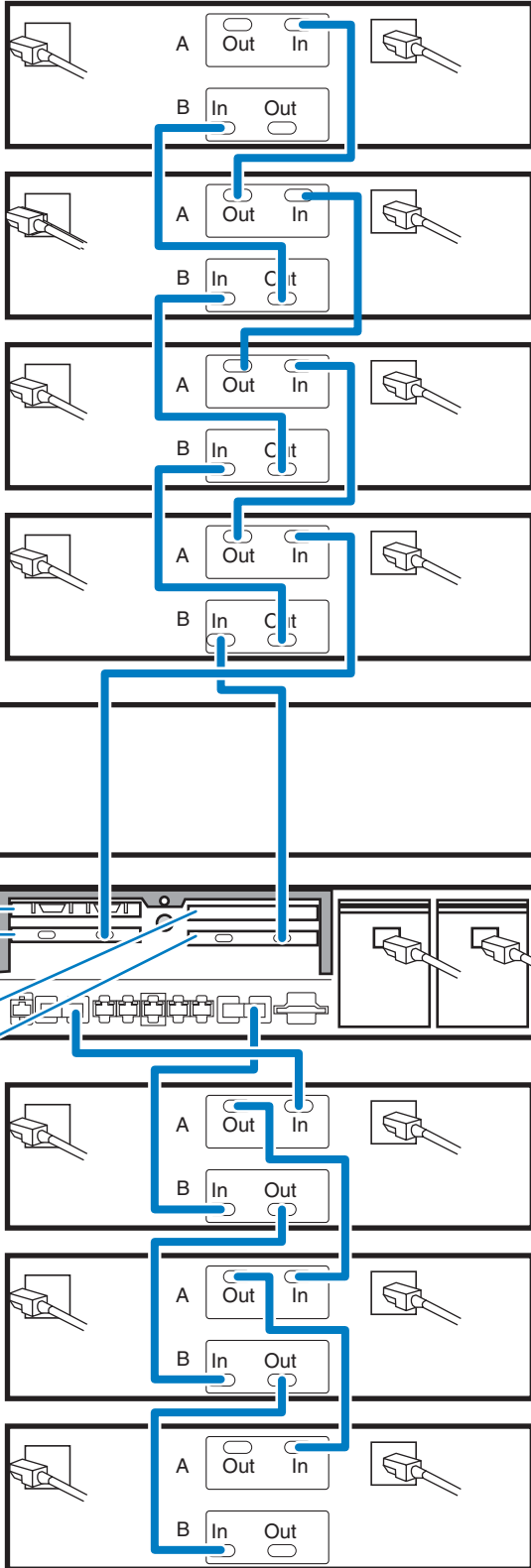
Slot 3

Slot 4  
(HBA)

Disk Shelf 1  
(ID 1)

Disk Shelf 3  
(ID 2)

Disk Shelf 9  
(ID 3)



For Shelves 13, 17, and 21 continue A Out to A In and B Out to B In to the Next Shelf

For Shelves 20 and 24 Continue A Out to A In and B Out to B In to the Next Shelf

Disk Shelf 16  
(ID 4)

Disk Shelf 12  
(ID 3)

Disk Shelf 8  
(ID 2)

Disk Shelf 6  
(ID 1)

Blank  
Panel

Slot 1  
(NVRAM)

Slot 2  
(HBA)

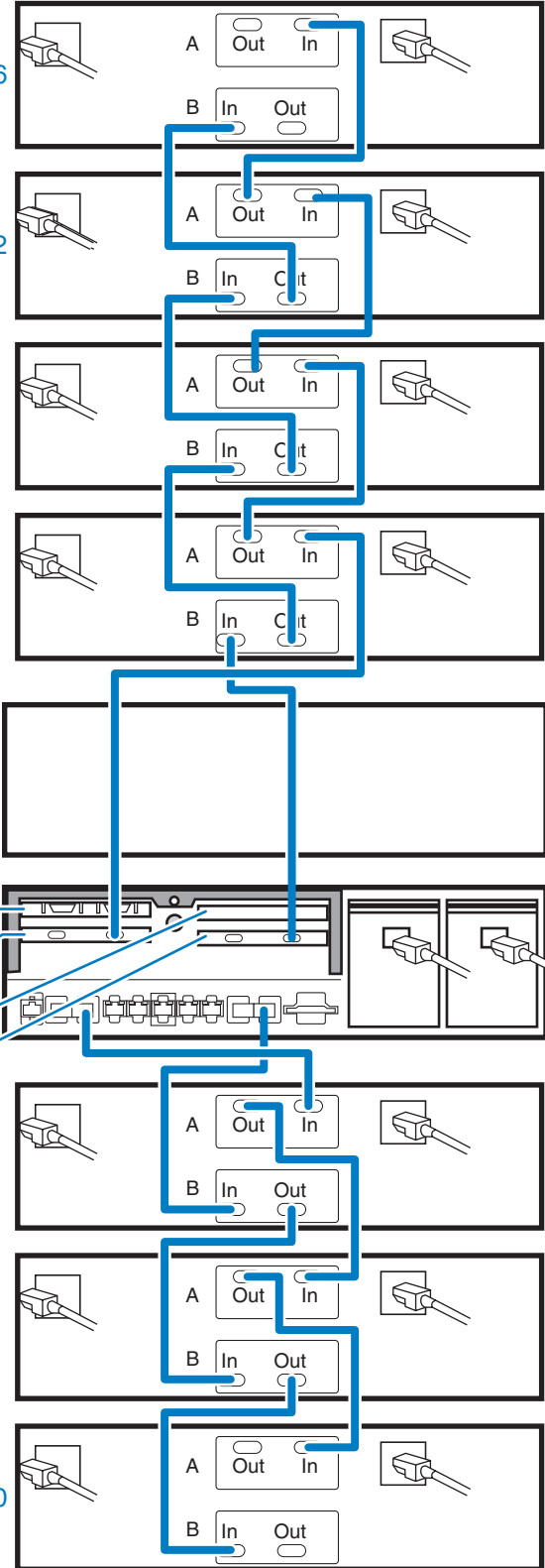
Slot 3

Slot 4  
(HBA)

Disk Shelf 2  
(ID 1)

Disk Shelf 4  
(ID 2)

Disk Shelf 10  
(ID 3)



For Shelves 14, 18, and 22 continue A Out to A In and B Out to B In to the Next Shelf

# Booting Your System For The First Time

To boot your system for the first time, complete the following steps:

1. Check that your system is properly set up. Make sure that the disk shelf IDs are properly set.
2. Turn on the power to the disk shelves within 5 minutes of each other.
3. Turn on the power to the appliance.

**Note:** It takes the LEDs on the system power supplies a few seconds to illuminate.

**Result:** The system begins to boot. Booting takes up to 10 minutes.

4. Verify that all network LEDs are properly lit.
5. Go to the system console and set the IP address, subnet mask, and gateway address by entering the following command: `set net ipaddr mask gateway`
6. Verify that the network parameters are set correctly by entering the following command: `show net`.  
Note: this is the last command from the serial console; the remaining steps are performed across the network.
7. Verify that the appliance can be seen on the network by entering the following command from the command line of another system on the network: `ping ipaddr`.
8. From a web browser on the network, enter the following URL: `http://ipaddr`.

**ipaddr** is the IP address of the VTL.

**Result:** The browser displays the VTL login screen.

9. Log in to the VTL using the defaults: User: `admin`, Password: `NetApp`. (Both user name and password are case sensitive.)

**Result:** The VTL graphical user interface (GUI) displays the Administrator Overview screen in the browser window.

10. Select the blinking [Actions Required](#) icon near the top of the screen.

**Result:** You see the list of needed actions.

Click [Resolve](#).

**Result:** The GUI displays the [Date Setup](#) screen.

11. Set the time and date from the [Date Setup](#) screen. Either select the [Use NTP Server](#) button and then enter the IP address of the NTP server, or select the [Use Browser Host](#) button. Click [Apply](#).
12. Set the appliance ID:
  - a. Select [Miscellaneous](#) from the menu on the left side of the screen.
  - b. Select the [Network Setup](#) tab.
  - c. Enter a name for the appliance in the [Appliance ID](#): field.
  - d. Click [Apply](#).
13. Configure e-mail (required for AutoSupport):
  - a. Select [Miscellaneous](#) from the menu on the left side of the screen.
  - b. Select the [E-MAIL Configuration](#) tab.
  - c. Enter addresses in the [E-Mail Server Address](#) and [Adm in E-Mail Address \(from\)](#): fields. (The email address does not need to be a valid user account.)
  - d. Optionally enter addresses in the [Action Notification E-Mail Recipients Lists](#) fields, and click the [Enable Action Notification](#) check box.
  - e. Click [Apply](#).
14. Configure AutoSupport:
  - a. Select [Support Tools](#) from the menu on the left side of the screen.
  - b. Select the [NetApp AutoSupport](#) tab.
  - c. Select [EMail](#) as the [Select Notification Mechanism](#).
  - d. If you want AutoSupport e-mail to go to an address other than the NetApp AutoSupport address, enter the desired address in the “to” field. (This does not need to be a valid user account.) Otherwise, leave the default.
  - e. Optionally enter a cc address.
  - f. Click [Apply](#).
15. Click the [Click Here](#) link to verify that AutoSupport is correctly configured, and if you configured a cc address, to verify that the cc address received the e-mail. You can also use the AutoSupport search tool to see if the NetApp Global Support Center received the e-mail.

16. Click **Raid Groups** under Configuration Tasks on the left side of the screen. Click the **Create Raid Group** tab, and click **Automatically Create Raid Groups**.
17. Define a virtual library:
  - a. Select **Virtual Libraries** from the **Configuration Tasks** list on the left of the screen.
  - b. Click the **Create Virtual Library** tab.
  - c. Enter a name for the library (**Library Nickname**).
  - d. Select a library type from the pull-down list of predefined library types. You can use any of the predefined library types for this test. You can go back later and redefine the library for your specific environment. Use the pull-down list to set the virtual tape drive type, and text boxes to set slot count, and drive count.
  - e. Leave the port assignment unchanged.
  - f. Enter a starting tape label.
  - g. Click **Apply**.
18. Connect the backup host to port Fibre Channel 0a (and optionally to 0c and PCI4b).
19. Trigger a host OS rescan and/or configure zones as needed to make the VTL visible to the backup host and any required storage systems. For example, if the VTL is connected to a system running Data ONTAP®, you can use the Data ONTAP console command **sysconfig -t** to see if the VTL is visible to the Data ONTAP storage system; each VTL virtual tape drive shows as a physical tape drive to the backup host.
20. Test the overall configuration by labeling a tape and performing a backup and then a restore.
21. Continue with post-setup configuration as needed, using the manuals listed in the following table.
22. Register your system. Use the Register My Products link from the NOW site Service & Support home page at <https://now.netapp.com/eservice/SupportHome.jsp>.

## Where To Go For More Information

| For information about...                                                                              | Go to <a href="http://now.netapp.com">http://now.netapp.com</a> for...              |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| New features, enhancements, known issues, and late-breaking news for your version of the VTL software | The <i>Release Notes</i> for your version of VTL                                    |
| Setting up and verifying software configuration                                                       | <i>System Administration Guide</i>                                                  |
| Managing all aspects of your system                                                                   | <i>System Administration Guide</i>                                                  |
| Troubleshooting the system                                                                            | <i>System Administration Guide</i>                                                  |
| Testing field-replaceable units and diagnosing and correcting system hardware problems                | <i>AT Hardware Guide</i><br><i>DiskShelf14 and DiskShelf14mk2 FC Hardware Guide</i> |

## Troubleshooting Tips

If your appliance does not boot when you power it on, follow these troubleshooting tips in the given order:

1. Check all cables and connections, making sure that they are secure.
2. Ensure that power is supplied and is reaching your appliance. Check the LEDs above the power cords. They should be green.
3. Check the power supplies on your appliance and disk shelves. If the LEDs on a power supply are not illuminated, remove the power supply and reinstall it, making sure that it connects with the backplane.
4. Check the disk shelf IDs. For every loop, the disk IDs must be unique, start with 1, and be placed in consecutive order.
5. Turn off your appliance and disk shelves, and then turn on the disk shelves. Check the quick reference card that came with the disk shelf for information about LED responses.
6. If your appliance does not boot successfully, it might not have the boot image downloaded on the CompactFlash® card. Call NetApp technical support at +1(888)4-NETAPP, or outside the USA, +800 44 NETAPP.

