

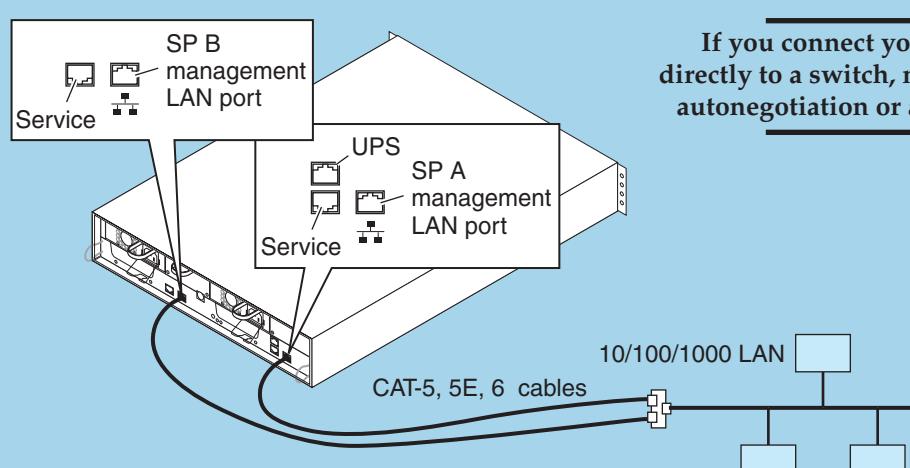
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Connect management ports to a network

- Connect the LAN port for each SP (one in an SSR212PPi, two in an SSR212PP2i) to the network on which you will manage the storage system with the Navisphere® Express software. For dual-SP systems, both connections must be on the same subnet.

Be sure to connect your management network to the management LAN port(s) on the storage system.

You cannot manage the storage system from the iSCSI front-end data ports.



If you connect your storage-system management port(s) directly to a switch, make sure to use switch ports that support autonegotiation or are configured for half-duplex operation.

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Connect the storage system to servers To connect directly to a server:

Connect each FE port (iSCSI) to an iSCSI HBA or network interface card (NIC) in the server.

The data port and the server port to which it connects must be on the same subnet.

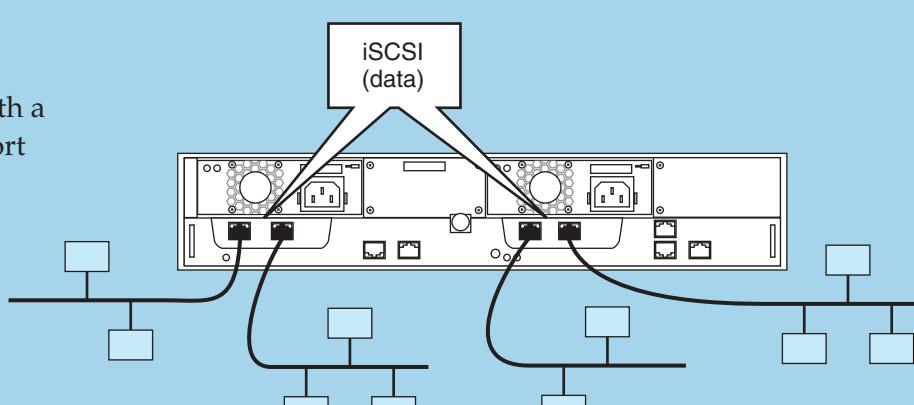
CAT 6 LAN cables are recommended.

For highest availability of an SSR212PP2i with a multiple-HBA/NIC server, connect an FE port on SP A to one HBA/NIC and an FE port on SP B to another HBA/NIC.

OR

 To connect to a switch:

Connect the SSR212PPi/SSR212PP2i front-end (data) ports to a switch or router.



The illustration shows an Intel® Storage System SSR212PP2i with four iSCSI data ports; the Intel® Storage System SSR212PPi has only two iSCSI ports (0 and 1) on storage processor A.

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Configure host iSCSI initiators

For each iSCSI front-end data port (target) to which the NIC or HBA has access:

 If your server is using a *network interface card* (NIC) for iSCSI traffic, start the Navisphere® Server Utility.

- From the Server Utility's Welcome page, select **Configure iSCSI Connections on this server**. Select **Configure iSCSI Connections** again, and follow the Server Utility's online help for **Logging on to an iSCSI target**.
- Repeat for each additional connection to your storage system.

OR

 If your server is using a *supported host bus adapter* (iSCSI HBA) for iSCSI traffic, start the applicable software.

- Add a target portal by selecting **Target Settings** then the + symbol and follow the online instructions. Use the IP address of the iSCSI data port from section **(B)** on the *Administration Worksheet*.
- Log in to each port to which you can connect (depending on your configuration, you might be able to see ports to which you cannot connect) by performing a **discovery**, and then
 - Enable timestamps.
 - Set the execution throttle to 256.
 - Uncheck **immediate data**.
- Repeat for each additional connection to your storage system.

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Initialize the storage system

After the storage system is powered up for the first time, use the Navisphere® Storage System Initialization Utility on the Resource CD to initialize it.

- Insert the CD into a workstation connected to the same network subnet as the *management LAN port(s)* on the storage system.
- Follow the online instructions to install the Navisphere® Storage System Initialization Utility on the management station.
- Start the Navisphere® Storage System Initialization Utility.

Proceed through the license and welcome screens to initiate discovery. After the discovery, the utility displays the serial number for each storage system it finds on the network subnet. (The display lists new, uninitialized systems in the *left pane*.) Select the serial number you recorded in section **(D)** on the *Administration Worksheet* (from Step 3) for your storage system.

- Use the Navisphere® Storage System Initialization Utility to set network parameters for each storage-system management port identified in section **(A)** of the *Administration Worksheet*. Initialize each iSCSI data port in your storage system and define a user account for the storage system.

The storage system will reboot automatically after initialization, a process that may take several minutes to complete. Make certain the SP boot/fault light on each SP has stopped blinking and is off before running the Navisphere® Server Utility.

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Verify data port connectivity

The storage system reboots automatically after initialization, a process that may take several minutes to complete. Make certain the SP boot/fault light on each SP has stopped blinking and is off before continuing.

- Start Navisphere® Express:
 - Open an Internet browser, such as Windows Internet Explorer® or Netscape®.
 - In the browser navigation window, enter the management port IP address of either SP in the storage system (from Step 8 and section **(A)** on the *Administration Worksheet*).
 - When Navisphere® Express opens, log in with the username and password you specified with the Initialization Utility (Step 8).

The first time you log in to your storage system, **Attention Required** messages indicate that you have not configured a hot spare, an email home service account, or system security. Ignore those messages for now; you can address each of them later in the setup procedure.

If the **Attention Required** page indicates a hardware error, refer to the Intel support website to resolve the problem before you continue.

- In the Navisphere® Express navigation pane, under **Manage**, click **iSCSI**.
- Verify connectivity.
 - Select a data port to test.
 - Click **Test**.
 - Enter the *host* iSCSI port's IP address (from section **(C)** in your *Administration Worksheet*).
 - Ping the NIC or HBA port on that subnet; Request Timed Out indicates a faulty configuration; refer to the Intel support website to resolve the problem before you continue.
 - Repeat these verification steps for each iSCSI data port.

Do not configure CHAP security at this time; you can implement CHAP later, in Step 13.

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Configure storage Start Navisphere® Express.

- Open an Internet browser, such as Microsoft Internet Explorer® or Netscape®.
- In the browser navigation window, enter the management IP address of either SP in the storage system (from Step 8 and section **(A)** on the *Administration Worksheet*).
- When Navisphere® Express opens, log in with the username and password you specified with the Initialization Utility (Step 8).

 Follow the online help to configure storage on the storage system as follows:

- Create disk pools and virtual disks.
- Assign virtual disks to a server.
- Create a hot spare.
- Configure the Event Notification page (**System > Settings > Event Notification**) to send you email notification when the storage system encounters a problem.

 Prepare the server's operating system to recognize the new storage system.

- Reboot your server.
- Follow your operating system's instructions to prepare the virtual disks to receive data by formatting and then adding drive letters to the disks.

(For more details, refer to the Navisphere® Express online help and the installation instructions on the Resource CD or the Intel support website.)

If you decide to use CHAP security (Step 13), you should set up and enable CHAP before you begin processing data.

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What next? Register the storage system to receive alerts and software downloads. Set up CHAP security (optional).

Setting up and enabling an encrypted authentication mechanism called CHAP (Challenge Handshake Authentication Protocol) can protect iSCSI systems on a shared local area network from unauthorized users. When CHAP is enabled, the storage system allows iSCSI initiators with the proper identification to log in, but denies access to unidentified initiators.

If your data ports connect directly to a server, or if every server on the LAN to which they are connected requires equal access to the storage system, you do not need to set up CHAP security.

Refer to the Navisphere® Express online help by selecting **Managing your storage environment > Managing iSCSI storage systems > Setting CHAP security**.

- Use Navisphere® Express to set up initiator CHAP security, mutual CHAP security, or both.
- Use Navisphere® Express to enable Initiator Authentication on the storage system.
- Use the Navisphere® Server Utility to set up CHAP security on a server that uses an iSCSI NIC.
- Use applicable software to set up CHAP security on a server that uses a supported HBA.