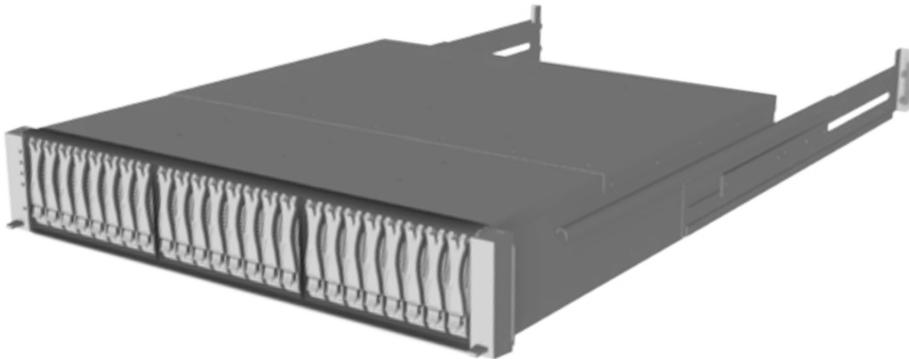




Installation and Setup Instructions for E-Series 2U Trays

- E26xx, E27xx, E54xx, E55xx, and E56xx controller-drive trays
- DE1600 and DE5600 expansion drive trays

(24 drive enclosure shown)



Safety Precautions



WARNING (W02) Risk of electrical shock – Before removing or installing a power supply, turn off the power switch, and unplug the power cord.



WARNING (W08) Risk of bodily injury – Two persons are required to safely lift the component.



>18 kg (39.7 lbs)



WARNING (W16) Risk of bodily injury – Each tray has more than one power cord. To remove all electrical current from the devices, make sure that all of the power cords are disconnected from the power source and that the two-pole 20-amp circuit breaker for the storage array has been disconnected.



WARNING (W18) Risk of bodily injury – Do not use equipment in the cabinet as a shelf or work space.



The following warning applies to Fibre Channel and iSCSI only.



WARNING (W03) Risk of exposure to laser radiation – Do not disassemble or remove any part of a Small Form-factor Pluggable (SFP) transceiver because you might be exposed to laser radiation.



For additional warnings, refer to the printed Safety Notices document.

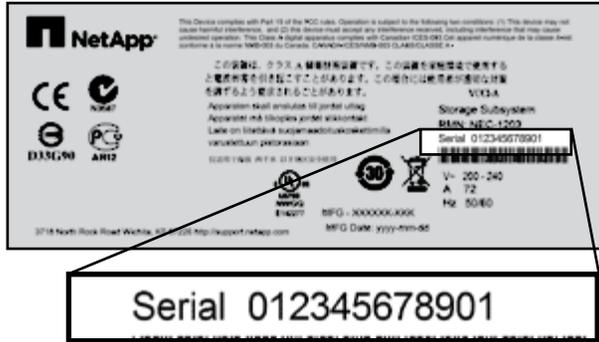
1



Register the Hardware

Create a user account or log in to your existing account

- 1 If you already have a registered account, you can log in to it and add your new E-Series hardware to your existing account.
- 2 If you are a new customer, go to mysupport.netapp.com and click Register Now located on the top right of the Support Site.



Register your new E-Series hardware

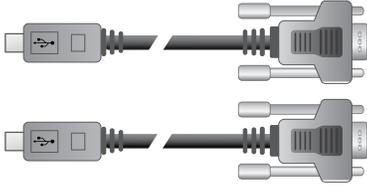
- 1 On the Netapp Support Site, select [My Support>Systems>Register Products](#). A product registration page opens.
- 2 Enter your product serial number found on the UL label on the top of the controller-drive tray and then click **Submit**.
- 3 On the product details form page, enter the requested details and then click **Submit** to complete your product registration.

2



Prepare for Installation

Find in the Box

 <p>2U Enclosure</p>	 <p>2 Controllers or 2 ESMs (included in the 2U enclosure)</p>
 <p>Mounting Rail Kit</p>	 <p>2U End Caps</p>
 <p>2 Diagnostic Cables</p>	 <p>2 Power Cords</p>
 <p>Mini-SAS to Mini-SAS Mini-SAS to Mini-SAS HD (E2700 only)</p> <p>Storage Cables</p>	



This may not be a comprehensive list of your order. Refer to the packing slip for detailed contents of your shipment.



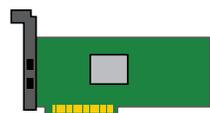
Additional Materials

3



Install the Hardware

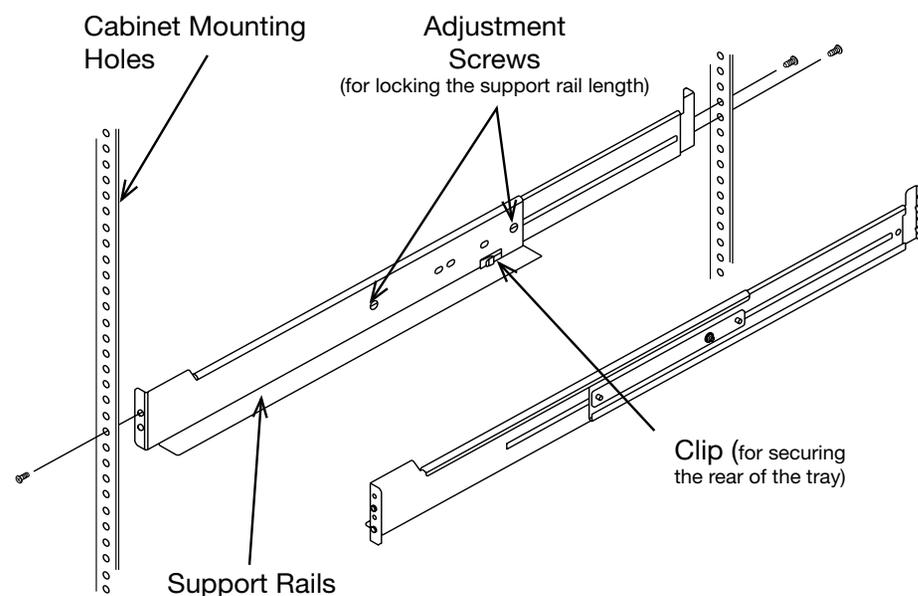
Additional Equipment You May Need (for management and setup)

 <p>Phillips No. 2 and Medium Flat-blade Screwdrivers</p>	 <p>ESD Wrist Strap</p>
 <p>Host Adapter (HA)</p>	 <p>Ethernet Switch or Network Hub</p>
 <p>Ethernet Cables</p>	 <p>Management Station or Personal Computer</p>

The following provides an overview of installing the mounting rails into the cabinet and installing the controller-drive tray or expansion drive tray into the cabinet. Refer to the appropriate Hardware Installation Guide for further details.

- The mounting rails are designed to fit into a standard 48.3-cm (19-in.) wide cabinet.
- There must be a minimum depth of 76 cm (30 in.) between the front adjustable rail and the rear adjustable rail.
- Each tray requires two standard mounting rack units (2U) of vertical space in the cabinet.

Mounting Rail Components



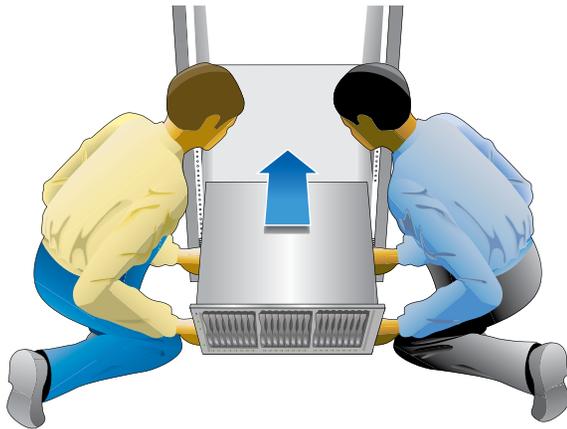
Refer to the NetApp Interoperability Matrix at mysupport.netapp.com/matrix for information about hardware compatibility for your configuration.



Install Trays & Connect Power Cables

When installing tray hardware, load the cabinet so as not to make it top-heavy. One approach is to place the controller-drive tray in the middle portion of the cabinet while allowing room for expansion drive trays to be placed above and below the controller-drive tray.

Each tray is installed in an empty 2U slot in the cabinet.



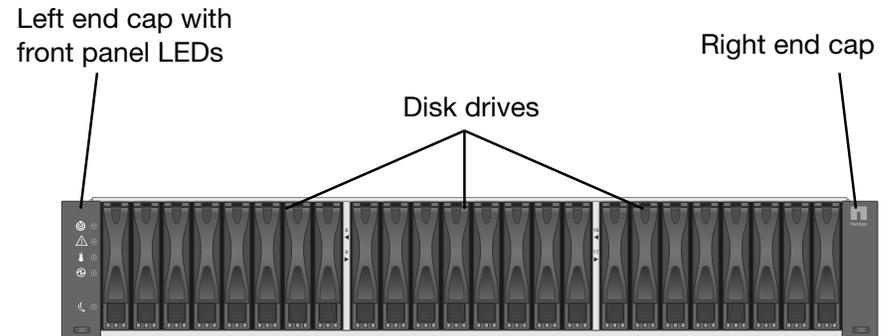
- 1 Using two people, lift and rest the tray on the bottom ledge of the left and right rails.
- 2 Carefully slide the tray into the cabinet until the front mounting flanges are flushed with the vertical face of the cabinet and the rear edges of the tray fit into the clips on the support rails.
- 3 Secure the front of the tray by inserting a screw through the center hole in each front mounting flange.
- 4 Secure the rear of the tray by inserting a screw through the hole in each rear mounting flange and into each support rail.
- 5 Verify that the controller power switches and cabinet circuit breakers are turned off. Then, connect each tray power supply to separate cabinet power sources.



Install the End Caps

Review Front Panel

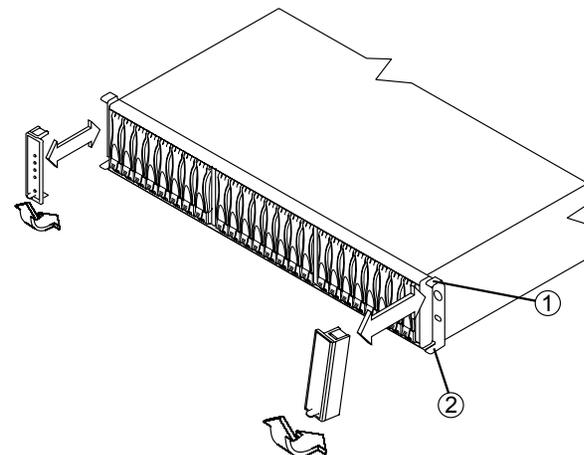
Controller-Drive Tray and Expansion Drive Tray Front Panel



Install the End Caps

Install the end caps that cover the mounting flanges on the front of the storage array tray.

- 1 Place the end cap over the tab so the tab can go into the slot.
- 2 Snap the bottom of the end cap into place.



4



Cable Storage



Cable Storage - cont'd

Connect the Controller-Drive Tray to the Expansion Drive Trays

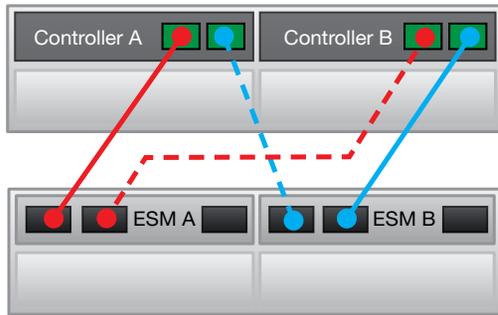
(If you do not have expansion drive trays you can skip this step.)

These figures show the logical representations of the recommended hardware cabling.

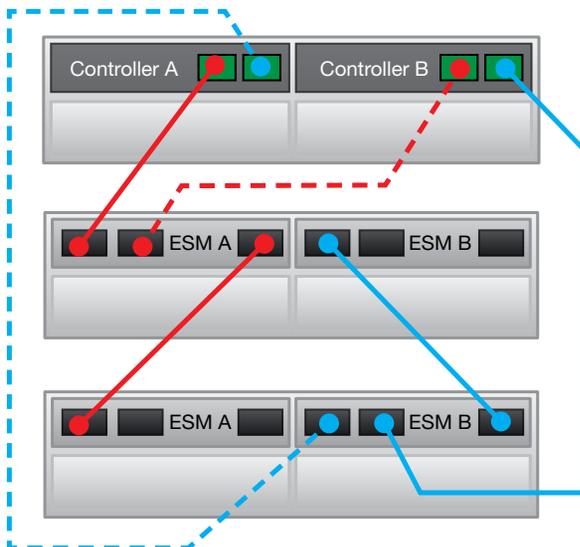


The E26xx and E54xx controller-drive trays do not have a redundant drive expansion port. The redundant drive expansion cables shown with dashed lines are required for E55xx and E56xx models.

One Expansion Drive Tray

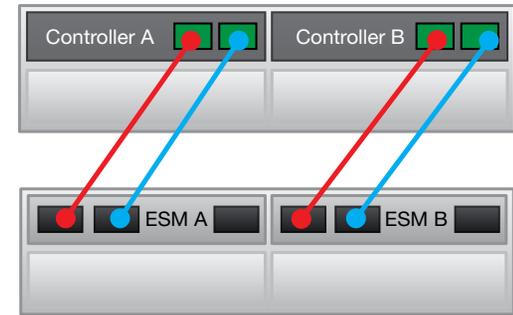


Two or more Expansion Drive Trays



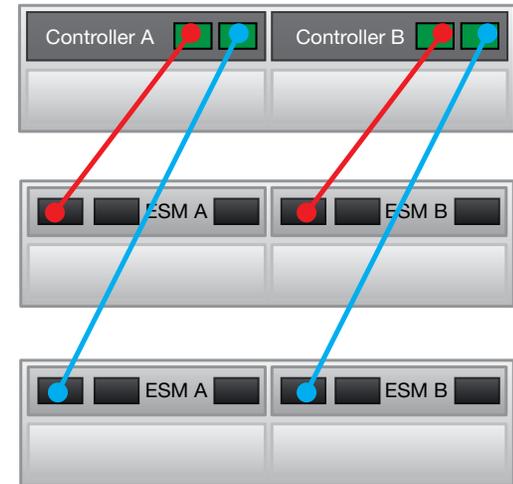
Recommended cabling for E27xx models only

One Expansion Drive Tray



Two Expansion Drive Trays

(Refer to the Hardware Cabling Guide for E27xx cabling configurations with more than two expansion drive trays.)



ESM Ports Expansion Ports



For other hardware configurations, refer to the Hardware Cabling Guide.



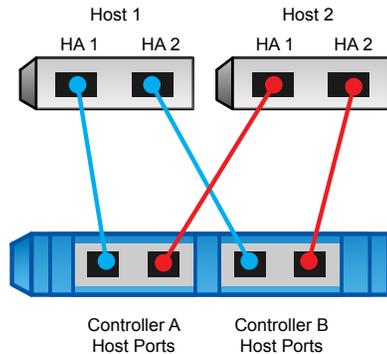
Connect to the Data Hosts



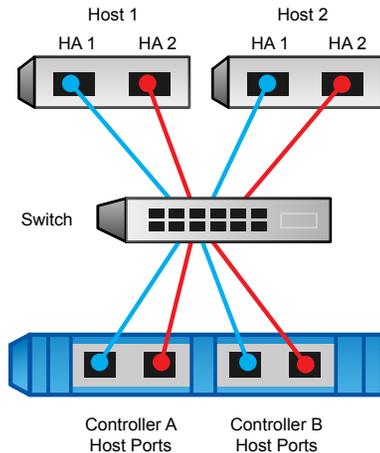
Make sure the host adapter is installed on the host before making any cabling connections.

You can connect data hosts to the storage array directly or through switches.

Direct Host Topology



Switch Host Topology



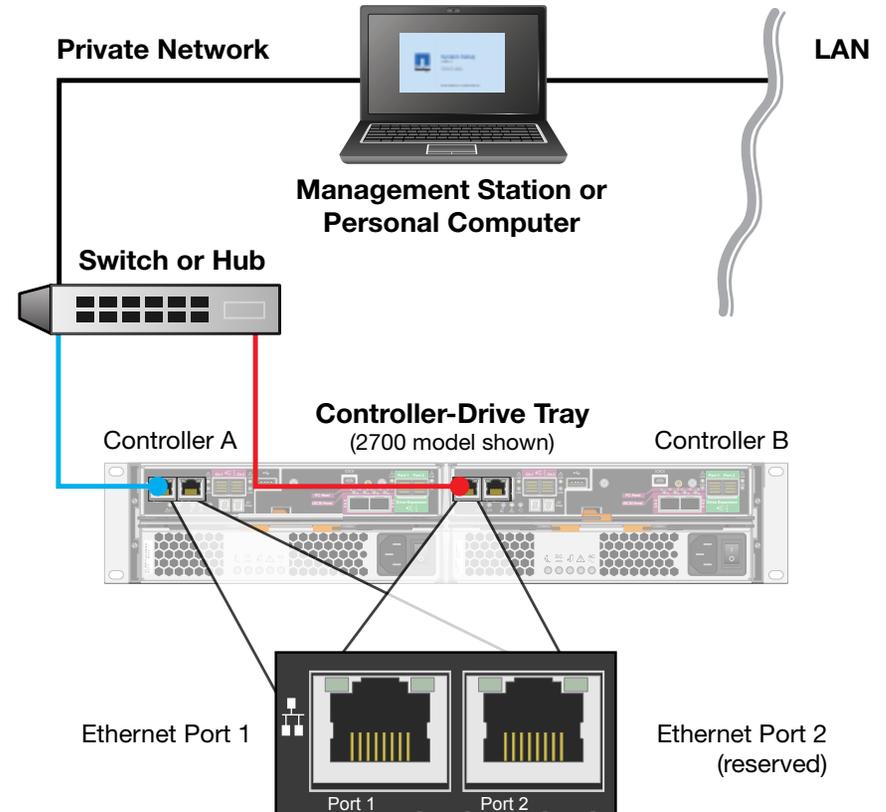
Refer to the Hardware Cabling Guide and the NetApp Interoperability Matrix at mysupport.netapp.com/matrix for information about host topologies supported for your hardware.



Connect to the Management Hosts

The management host directly manages storage arrays over an out-of-band network. This section describes how to setup an out-of-band connection between the ethernet port of a controller and the management host.

- 1 Connect Ethernet cables between port 1 of controller A and port 1 of controller B to an external Ethernet switch or hub.
- 2 Connect the management host to the Ethernet switch or hub.



Ethernet port 2 should be reserved for maintenance operations, if your hardware contains a second Ethernet Port.

5



Turn on the Power

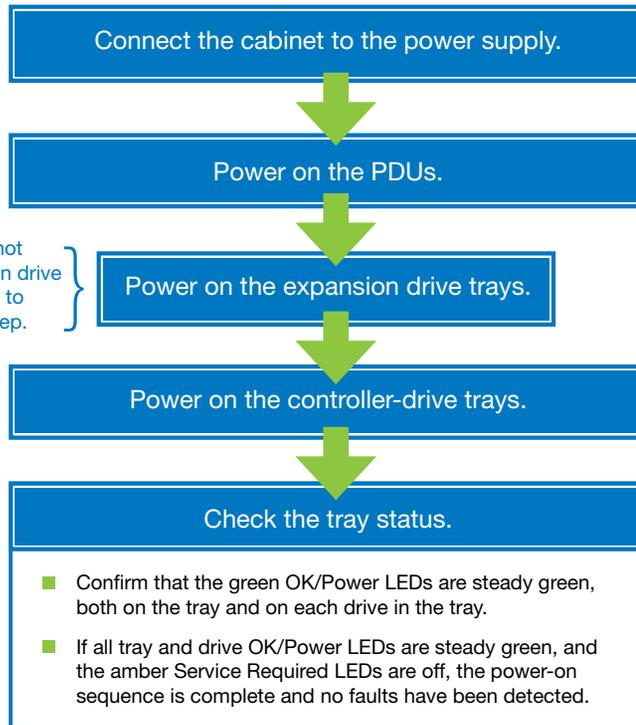
Make sure the Ethernet cable is connected to the management host. The default IP addresses will take three minutes to initialize from the time the network is attached. The default IP addresses are:

- Controller A, Port 1: 192.168.128.101
- Controller B, Port 1: 192.168.128.102



DHCP is attempted for the first three minutes of attaching the network cables. If a DHCP lease was not offered within this time, the controllers will use the default addresses.

Power-On Sequence



6

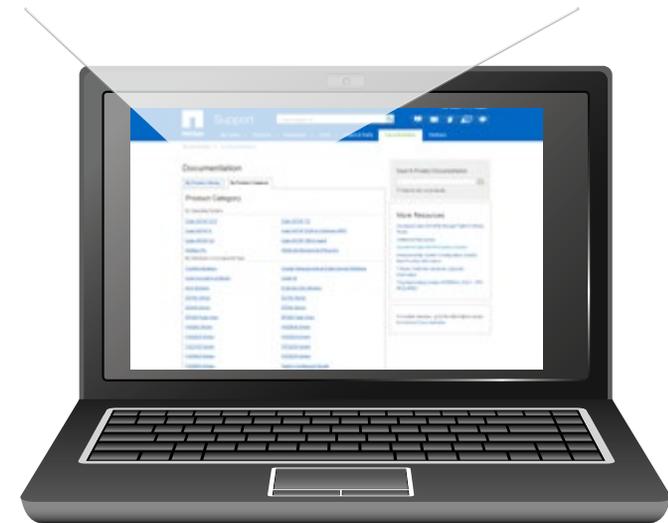


Next Steps

Download and Read the Express Guide to Install SANtricity Storage Manager

Use the Express Guide to install and configure the SANtricity Storage Manager software on your storage array.

- 1 Go to <https://mysupport.netapp.com/documentation/productsatoz/index.html?tab=category>



- 2 Scroll to the search category, By Software, and select **SANtricity Storage Manager**.
- 3 Find the latest release number and click the **All documents** link.
- 4 On the resulting page, find the Express Guide that is appropriate for the operating system and protocol you are using and click the associated PDF link.
- 5 Follow the instructions in the Express Guide to perform the final tasks on your storage array to make it operational.



Helpful Resources

Visit mysupport.netapp.com/eseries

Task	Documentation
Review safety information	Safety Notices
Review known issues and workarounds	Product Release Notes
Prepare the site	Site Preparation Guide
Install the cabinet	Model 3040 40U Cabinet Installation Guide
Install the hardware	Controller-Drive Tray and Related Drive Trays Hardware Installation Guide
Cable hardware	Hardware Cabling Guide
Install the management software	Express Guide for SANtricity Storage Manager (appropriate for your OS and protocol)
Use DHCP to assign IP addresses	Software Installation Reference

- **Documentation**
<https://mysupport.netapp.com/eseries>
- **Support**
<https://mysupport.netapp.com/>
- **Training**
<http://www.netapp.com/us/services-support/university/learning.aspx>



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