EF300 and EF600

E-Series Systems

NetApp
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EF300 and EF600

Install and set up EF300 and EF600 storage systems

Learn how to install and set up the EF300 or EF600 storage system.

You can choose one of the following formats to guide you through installing and setting up your new storage system.

- **PDF**

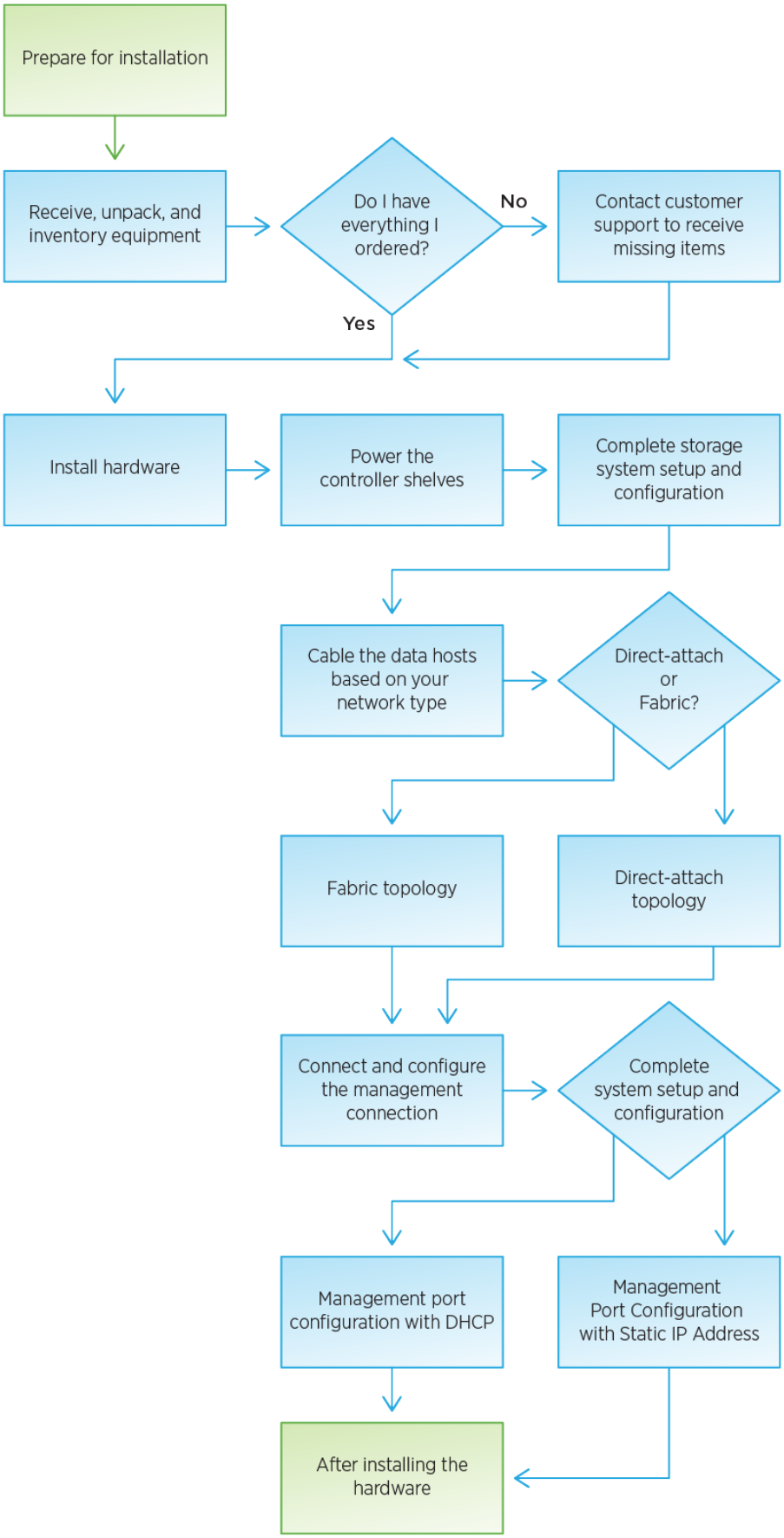
  This is a PDF poster of step-by-step instructions with live links to additional content.

- **Online instructions**

  These are the online setup instructions described on this site. Start with Prepare for installation to get started.

Install process

Before you install and set up your new storage system, familiarize yourself with the installation process:


Prepare for installation
Receive, unpack, and inventory equipment
Do I have everything I ordered?
No
Contact customer support to receive missing items
Yes
Install hardware
Power the controller shelves
Complete storage system setup and configuration
Cable the data hosts based on your network type
Direct-attach or Fabric?
Fabric topology
Direct-attach topology
Connect and configure the management connection
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After installing the hardware

Prepare for installation

Learn how to prepare for installation of your EF300 or EF600 series storage system.

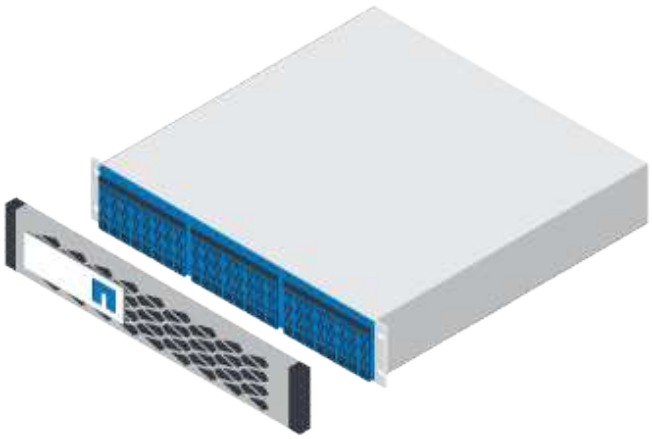
Before you begin

If you are cabling your EF300 for SAS expansion, review the following information:

- Add SAS expansion cards for SAS expansion card installation.
- Cabling overview for SAS expansion cabling.

Steps

1. Create an account and register your hardware at mysupport.netapp.com.
2. Ensure that the following items are in the box that you received.

	Shelf with drives installed (bezel and end caps packaged separately)
	Rack-mount hardware

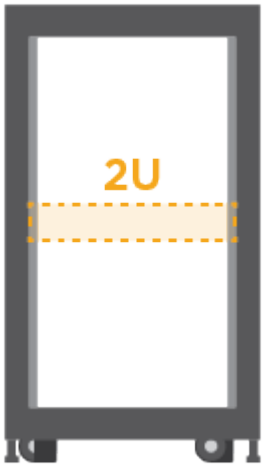
The following table identifies the types of cables you might receive. If you receive a cable not listed in the table, see Hardware Universe to locate the cable and identify its use.

Connector type	Cable type	Use
	RJ-45 Ethernet cables (if ordered)	Management connection

Connector type	Cable type	Use
	I/O cables (if ordered)	Cabling the data hosts
	Power cables (if ordered)	Powering up the storage system

3. Ensure that you provide the following items.

	Phillips #2 screwdriver
	Flashlight
	ESD strap

	2U rack space: A standard 19 in. (48.30 cm) rack to fit 2U shelves of the following dimensions. **Depth**: 19.0 in. (48.3 cm) **Width**: 17.6 in. (44.7 cm) **Height**: 3.34 in. (8.48 cm) **Shelf**: 24-drive **Max Weight**: 60.5 lb (27.4 kg) Using third-party cabinets might cause the power cables to restrict access to the controller.
	A supported browser for the management software: • Google Chrome (version 78 and later) • Microsoft Internet Explorer (version 11 and later) • Microsoft Edge (88 and later) • Mozilla Firefox (version 70 and later) • Safari (version 12 and later)

Install the hardware

You can install an EF300 or EF600 storage system in a two-post rack or a NetApp system cabinet.

Before you begin

Before you install an EF300 or EF600 storage system, make sure you do the following:

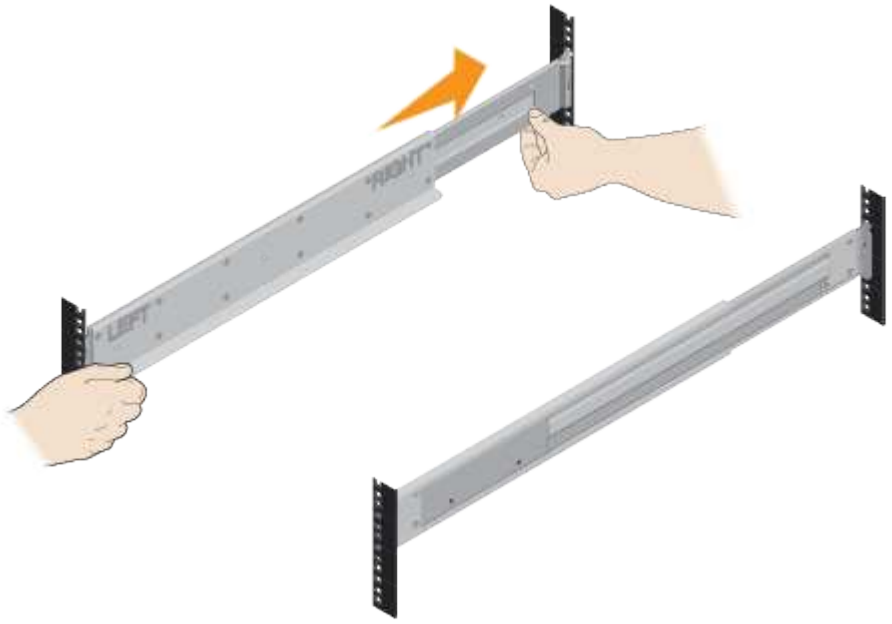
- Register your hardware at mysupport.netapp.com.
- Prepare a flat, static-free work area.
- Take anti-static precautions.

Steps

1. Unpack the hardware.
   a. Unpack the contents and inventory the contained hardware against the packing slip.
   b. Before proceeding, read through all the instructions.
2. Install the rails.

To prevent the equipment from toppling over, install the hardware from the bottom of the rack or cabinet up to the top.

If instructions were included with your rack-mounting hardware, refer to them to learn how to install the rails. For additional rack-mounting instructions, see Rack-mount hardware.

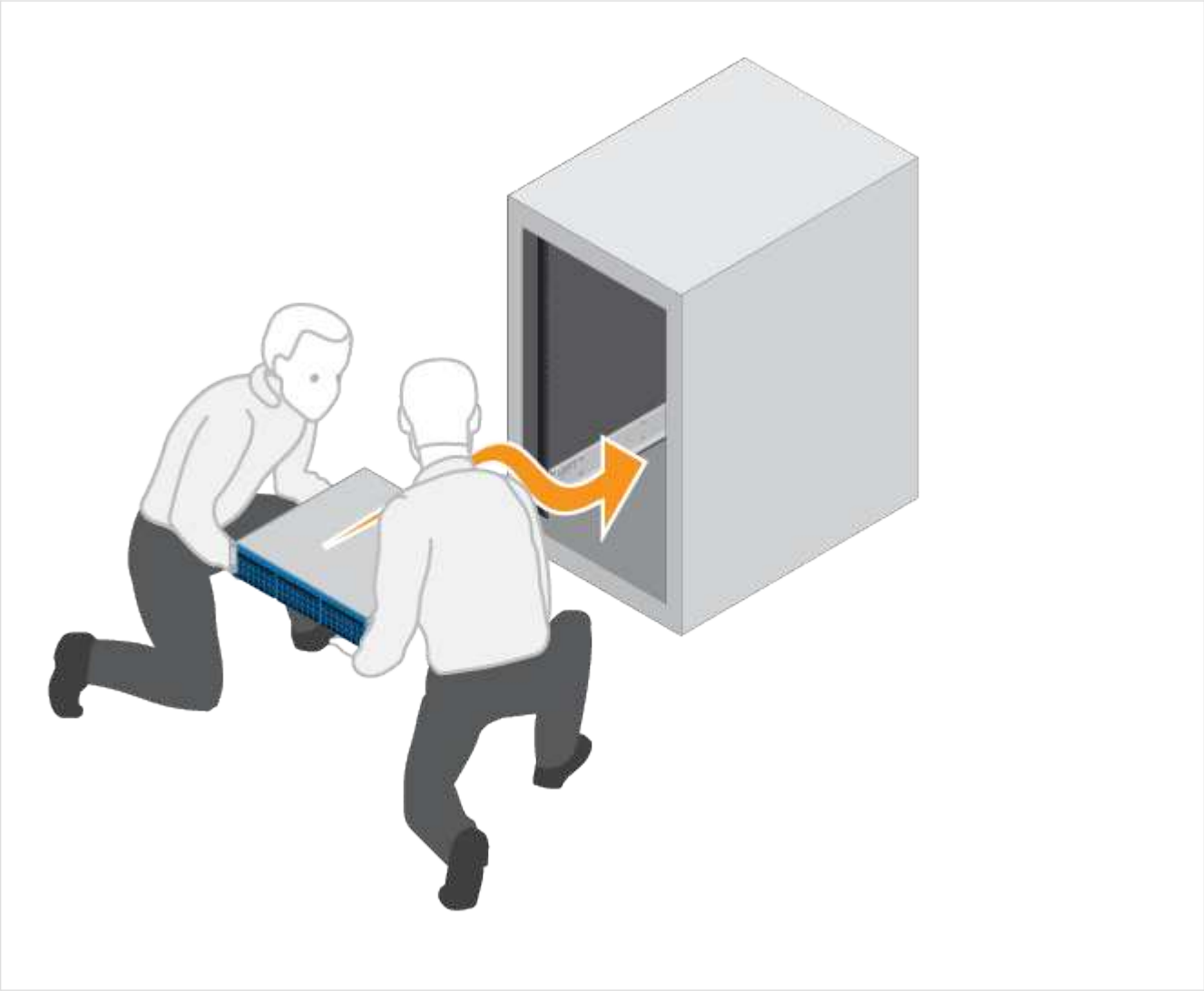


3. Install the shelf.

a. If you are installing multiple shelves, begin installing from the bottom to the top of the cabinet. Position the back of the shelf onto the rails.

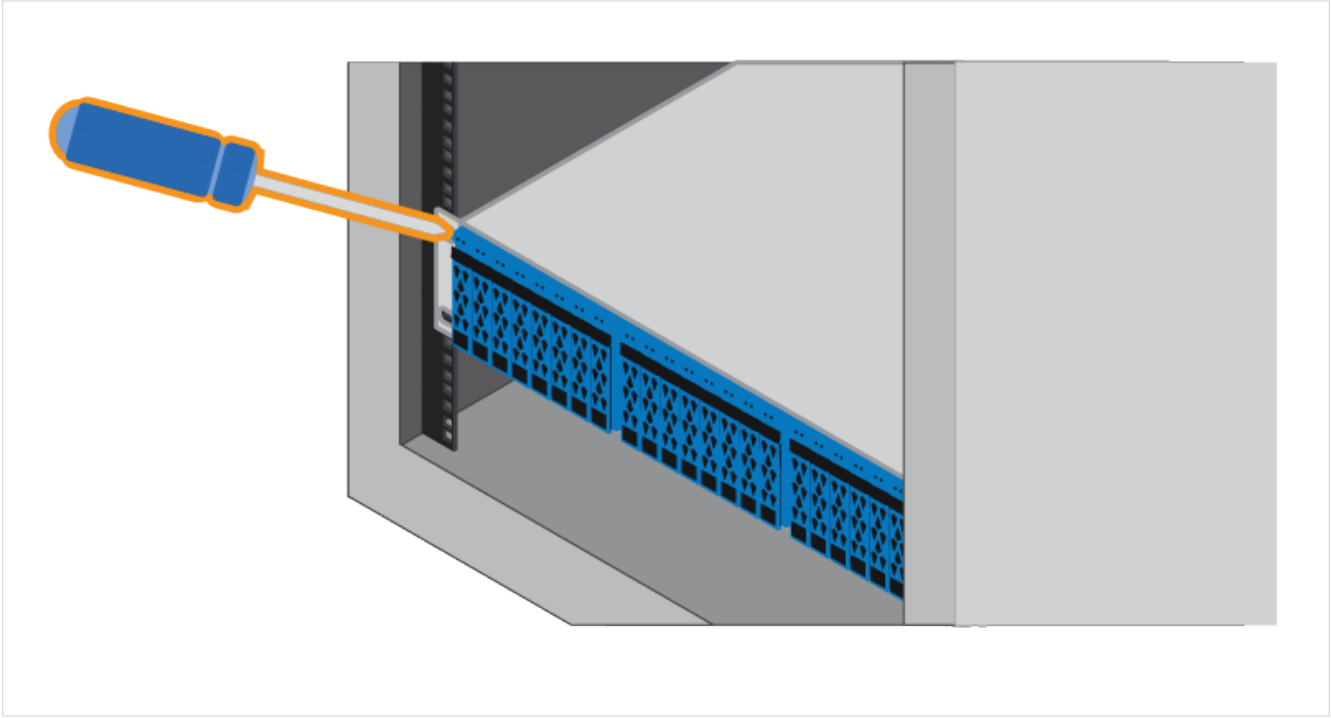
When installing the shelf, use a team-lift with two people.

b. Supporting the shelf from the bottom, slide it into the cabinet.



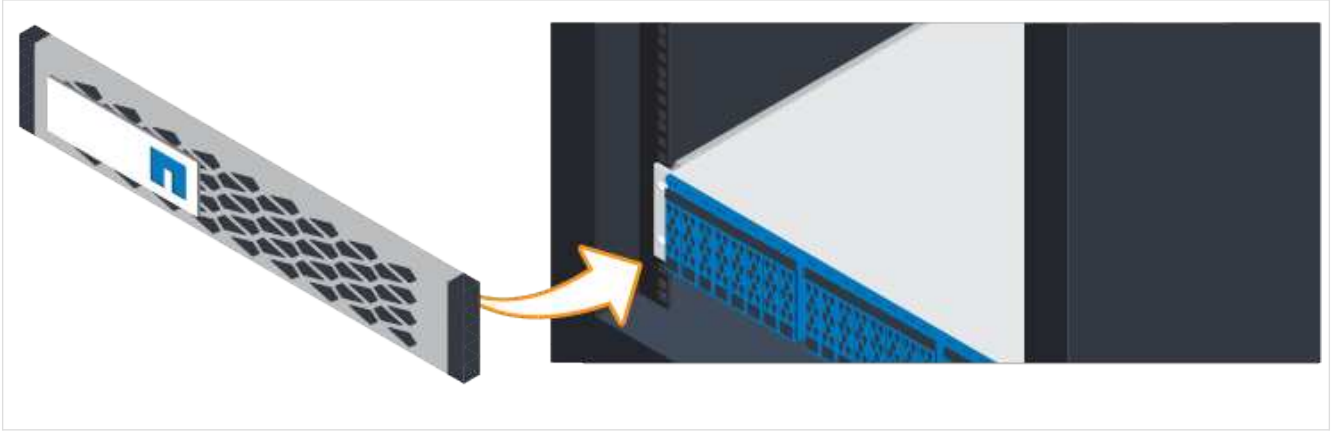
4. Secure the shelf.

For more information, see Rack-mount hardware.



5. Install the faceplate.

a. Align the faceplate with the shelf, and snap into place.



Power the controller shelves

Learn how to attach the power cables and power on the drive shelves.

Before you begin

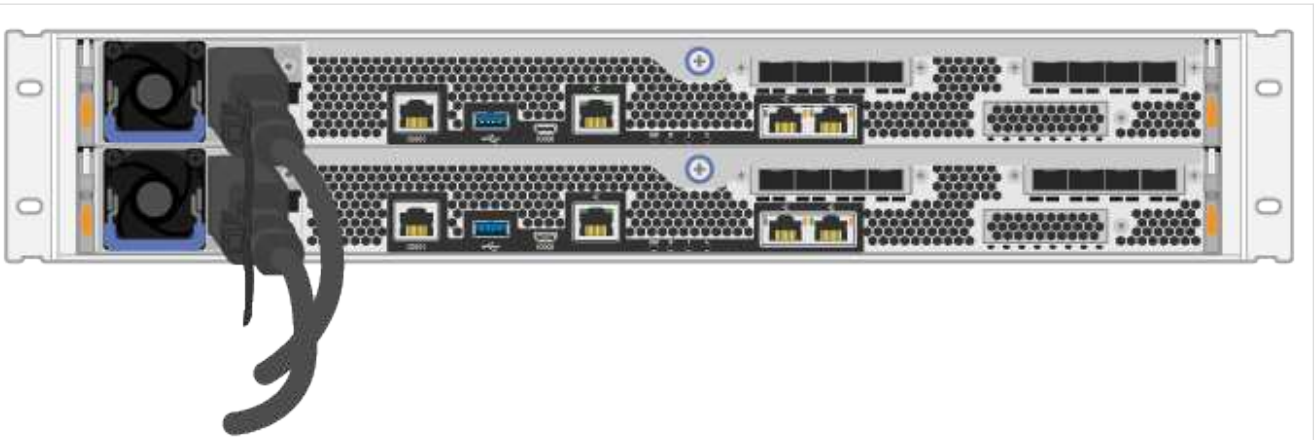
Before you power the controller shelves, make sure to do the following:

- Install your hardware.
- Take anti-static precautions.

Steps

1. Plug in the power cables, one to each controller (EF600 pictured below).

	**Power cables**



2. Connect the two power cables, one from each controller, to two separate power distribution units (PDUs) in the cabinet or rack.

> Accessing a EF300 or EF600 controller canister from the shelf can be blocked by third-party PDUs. Do not use power outlets directly behind the controller canister.

3. Allow the controller to boot for five minutes before completing the storage system set up and configuration.

Result

The controller boots automatically. The LEDs flash on and the fans start to indicate that the controller is powering on.

> Fans are very loud when they first power on.

Complete storage system setup and configuration

Learn how to connect the controller cables to your network, and then complete the setup and configuration.

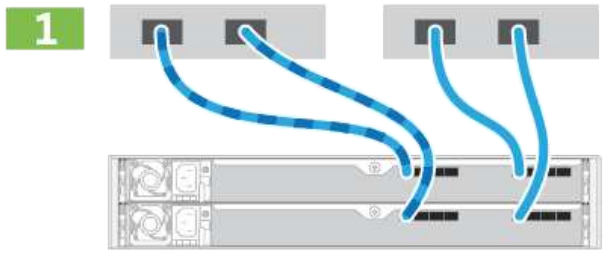
Step 1: Cable the data hosts

Cable the storage system according to your network topology.

Option 1: Direct-attach topology

The following example shows cabling to the data hosts using a direct-attach topology.

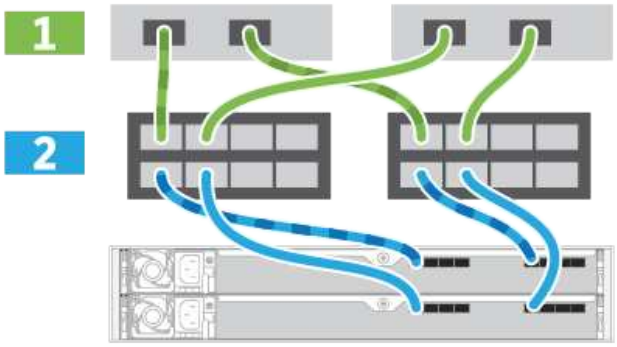
Table 1. Example A: Direct-attach topology

	1. Connect each host adapter directly to the host ports on the controllers.

Option 2: Fabric topology

The following example shows cabling to the data hosts using a fabric topology.

Table 2. Example B: Fabric topology

	1. Connect each host adapter directly to the switch. 2. Connect each switch directly to the host ports on the controllers.

Step 2: Connect and configure the management connection

You can configure the controller management ports using a DHCP server or a static IP address.

Option 1: DHCP server

Learn how to configure the management ports with a DHCP server.

Before you begin

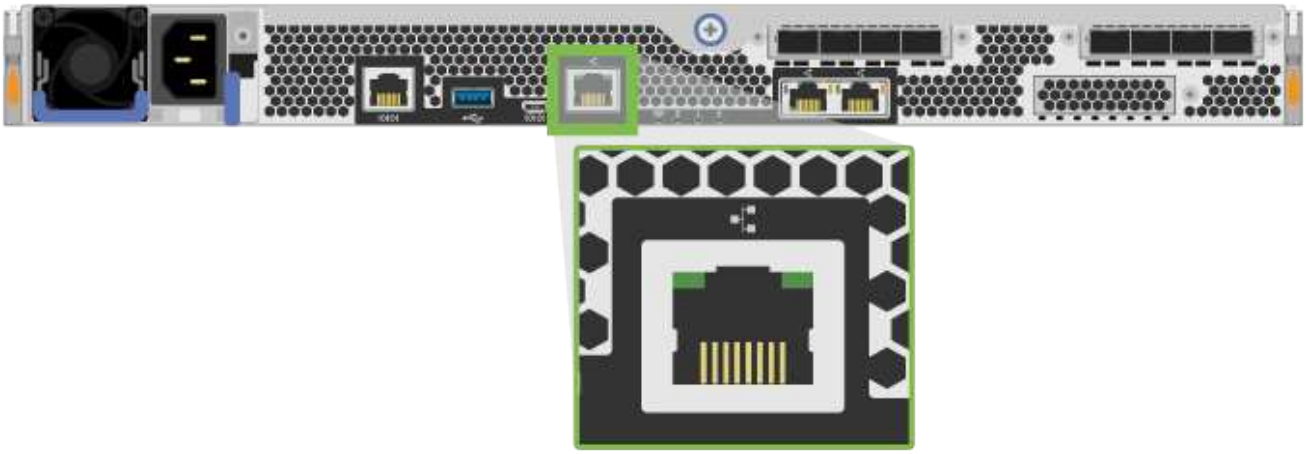
- Configure your DHCP server to associate an IP address, subnet mask, and gateway address as a permanent lease for each controller.
- Obtain the assigned IP addresses you will use to connect to the storage system from your network administrator.

Steps

1. Connect an Ethernet cable to each controller's management port, and connect the other end to your network.

	RJ-45 Ethernet cables (if ordered)

The following figure shows an example of the controller's management port location (EF600 shown):



2. Open a browser and connect to the storage system using one of the controller IP addresses provided to you by your network administrator.

Option 2: Static IP address

Learn how to configure the management ports manually by entering the IP address and the subnet mask.

Before you begin

- Obtain the controllers' IP address, subnet mask, gateway address, and DNS and NTP server information from your network administrator.
- Make sure that the laptop you are using is not receiving network configuration from a DHCP server.

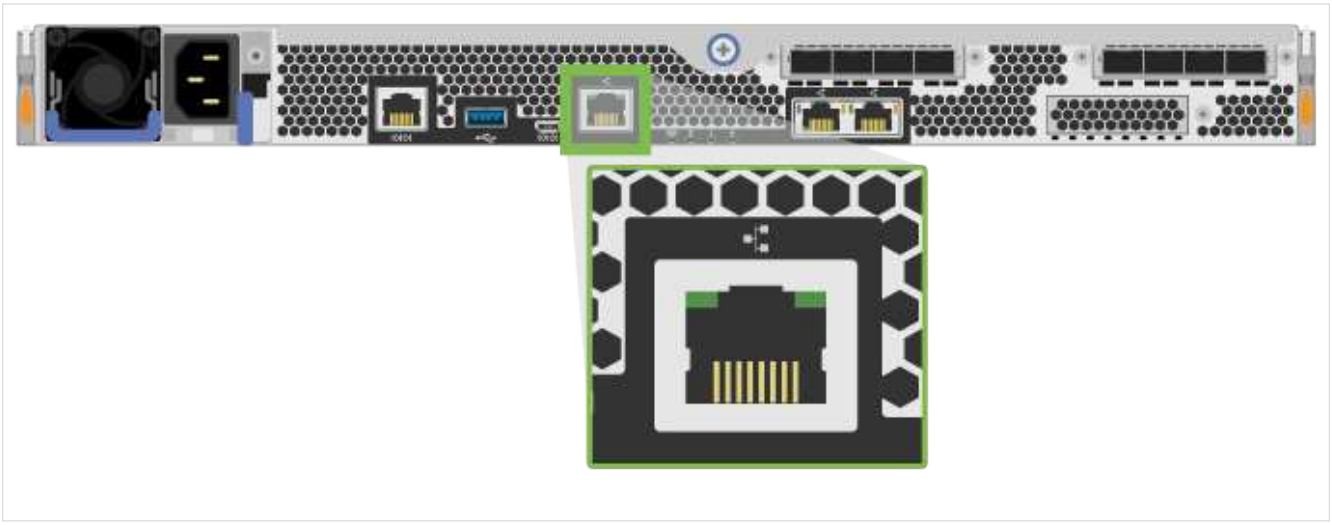
Steps

1. Using an Ethernet cable, connect controller A's management port to the Ethernet port on a laptop.

   Controller A is the upper controller canister, and controller B is the lower controller canister.

	RJ-45 Ethernet cables (if ordered)

The following figure shows an example of the controller's management port location (EF600 shown):



2. Open a browser and use the default IP address (169.254.128.101) to establish a connection to the controller. The controller sends back a self-signed certificate. The browser informs you that the connection is not secure.
3. Follow the browser's instructions to proceed and launch SANtricity System Manager.

   If you are unable to establish a connection, verify that you are not receiving network configuration from a DHCP server.

4. Set the storage system's password to login.
5. Use the network settings provided by your network administrator in the **Configure Network Settings** wizard to configure controller A's network settings, and then select **Finish**.

   Because you reset the IP address, System Manager loses connection to the controller.

6. Disconnect your laptop from the storage system, and connect the management port on controller A to your network.
7. Open a browser on a computer connected to your network, and enter controller A's newly configured IP address.

   If you lose the connection to controller A, you can connect an ethernet cable to controller B to reestablish connection to controller A through controller B (169.254.128.102).

8. Log in using the password you set previously.

   The Configure Network Settings wizard will appear.

9. Use the network settings provided by your network administrator in the **Configure Network Settings** wizard to configure controller B's network settings, and then select **Finish**.
10. Connect controller B to your network.
11. Validate controller B's network settings by entering controller B's configured IP address in a browser.

    If you lose the connection to controller B, you can use your previously validated connection to controller A to reestablish connection to controller B through controller A.

Step 3: Configure storage system

After you have installed the EF300 or EF600 hardware, use the SANtricity software to configure and manage your storage system.

Before You Begin

- Configure your management ports.
- Verify and record your password and IP addresses.

Steps

1. Connect your controller to a web browser.
2. Use SANtricity System Manager to manage your EF300 or EF600 series storage system. Refer to the online help included with System Manager.

	For accessing System Manager, use the same IP addresses that you used to configure your management ports.

If you are cabling your EF300 for SAS expansion, see Maintaining EF600 Hardware for SAS expansion card installation and the Cabling E-Series hardware for SAS expansion cabling.

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