

ThinkSystem AFA DG7000

Installation and Setup Instructions

Prepare for installation

1

Install hardware

2

Cable storage

3

Complete system setup and configuration

4

Prepare for installation | Stage 1



Pre-setup

1. Unpack all boxes and inventory contents.

Attention: Customers with specific power requirements must check Lenovo Press (<https://lenovopress.com>) for their configuration options.

2. Review the *ThinkSystem DG7000 Hardware Installation and Maintenance Guide*:
<https://thinksystem.lenovofiles.com/storage/help/topic/dg7000/overview.html>

Note: For MetroCluster configurations, use the MetroCluster installation content:

https://thinksystem.lenovofiles.com/storage/help/topic/ontap-metrocluster_install-ip/index.html



Contents
In the box

Cables in your shipment are order-dependent. Not all cables shown may be in your shipment.

100 GbE cable (QSFP28)
Storage, cluster network, GbE network, and Ethernet data (order-dependent)



RJ-45 cables
Wrench port (e0M/BMC) (order-dependent)



32 Gb FC (SFP+ Op)
FC optical network cable



Additional cables



Ethernet cables Power cables



Micro USB console cable

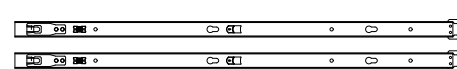
16 Gb FC or 25 GbE cables
Mezzanine cards (SFPs pre-installed):



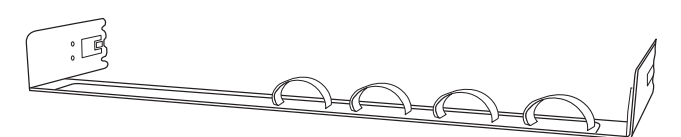
25 GbE cable (SFP28)
HA interconnect



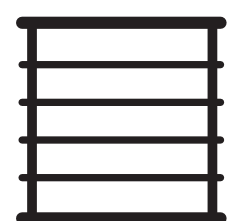
Slide rail kit



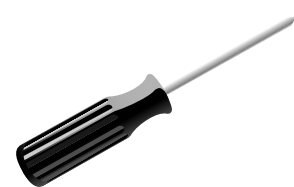
Cable management tray



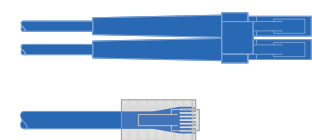
You provide



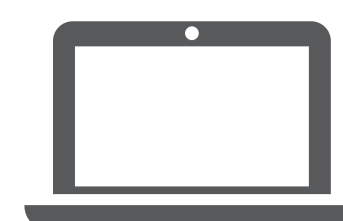
Rack space
4U for AFA DG7000 + 2U for each DM240N shelf



Screwdriver
Phillips #2

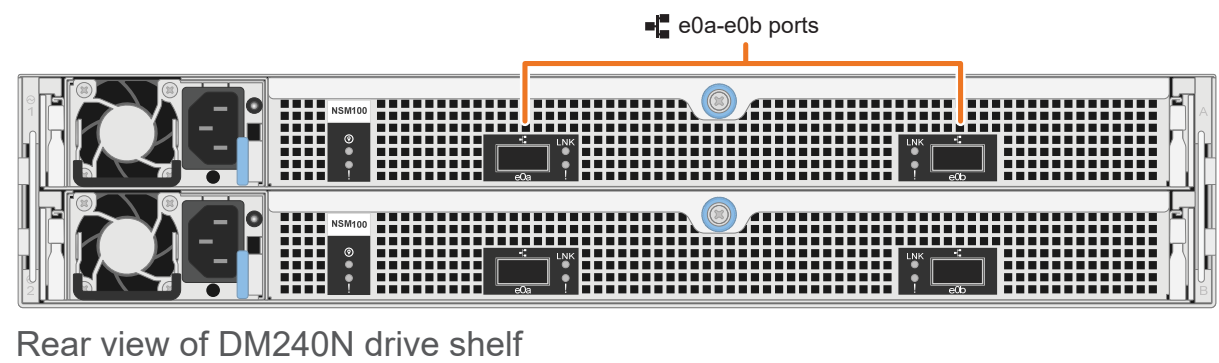
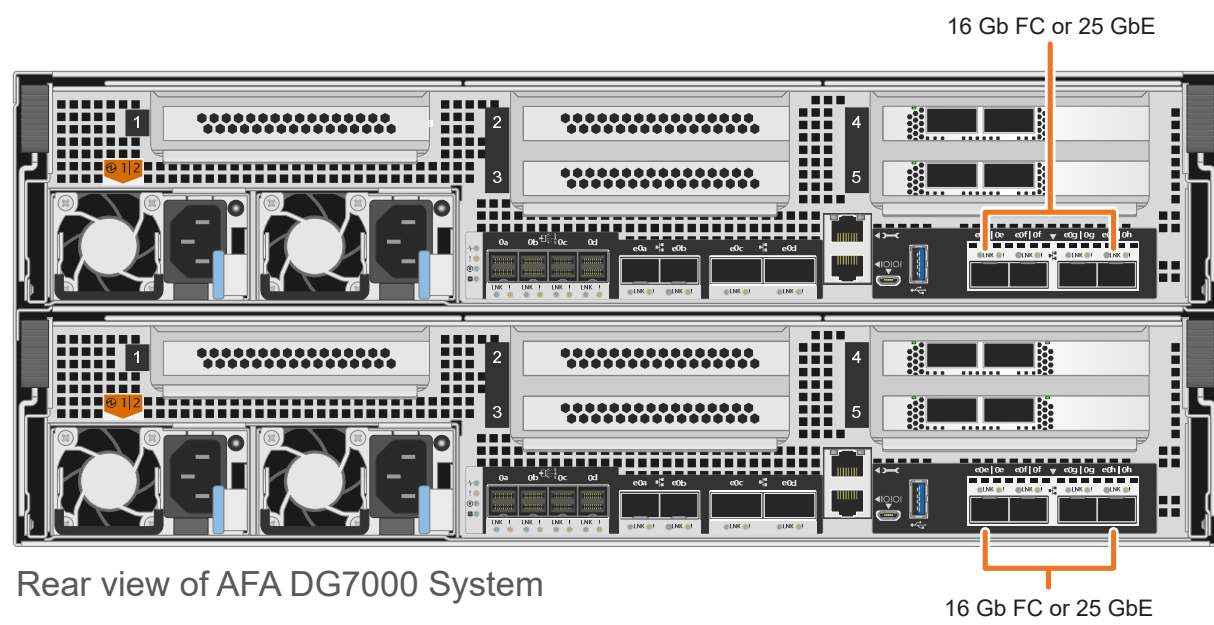


Additional network cables
For connecting your storage system to your network switch and laptop or console



Laptop or console
With a USB/serial connection and access to a Web browser to configure your storage system

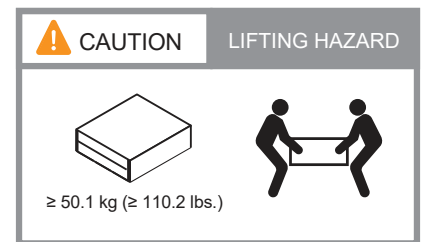
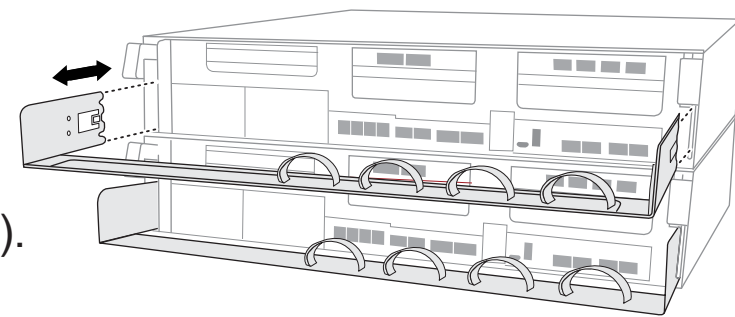
Install hardware | Stage 2



Note: If the port labels on the card are not visible, check the card installation orientation (the PCIe connector socket is on the left side of the card slot in the DG7000), and then look for the card, by part number, in the Lenovo Press (<https://lenovopress.com>) for a graphic of the bezel which will show the port labels. The card part number can be found using the `sysconfig -a` command or on the system packing list.

1 Install system in a rack or cabinet

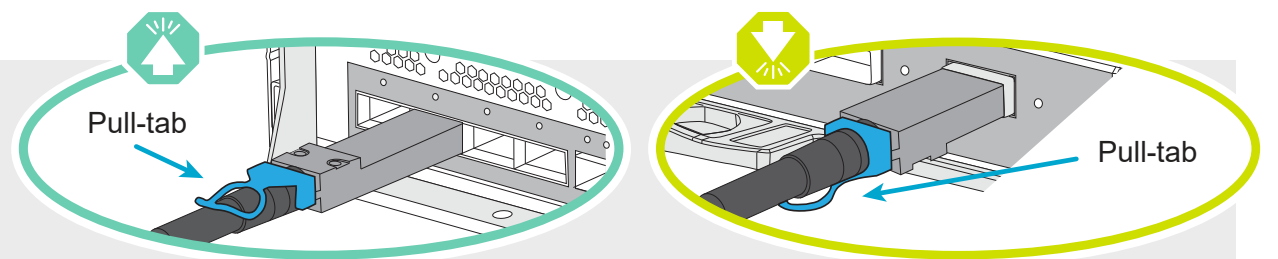
- Install the rail kit as needed, and then install and secure your system using the instructions included with the kit.
- Attach cable management devices to the back of each controller (as shown).
- Place the bezel on the front of the system.
- Install any drive shelves for your system.



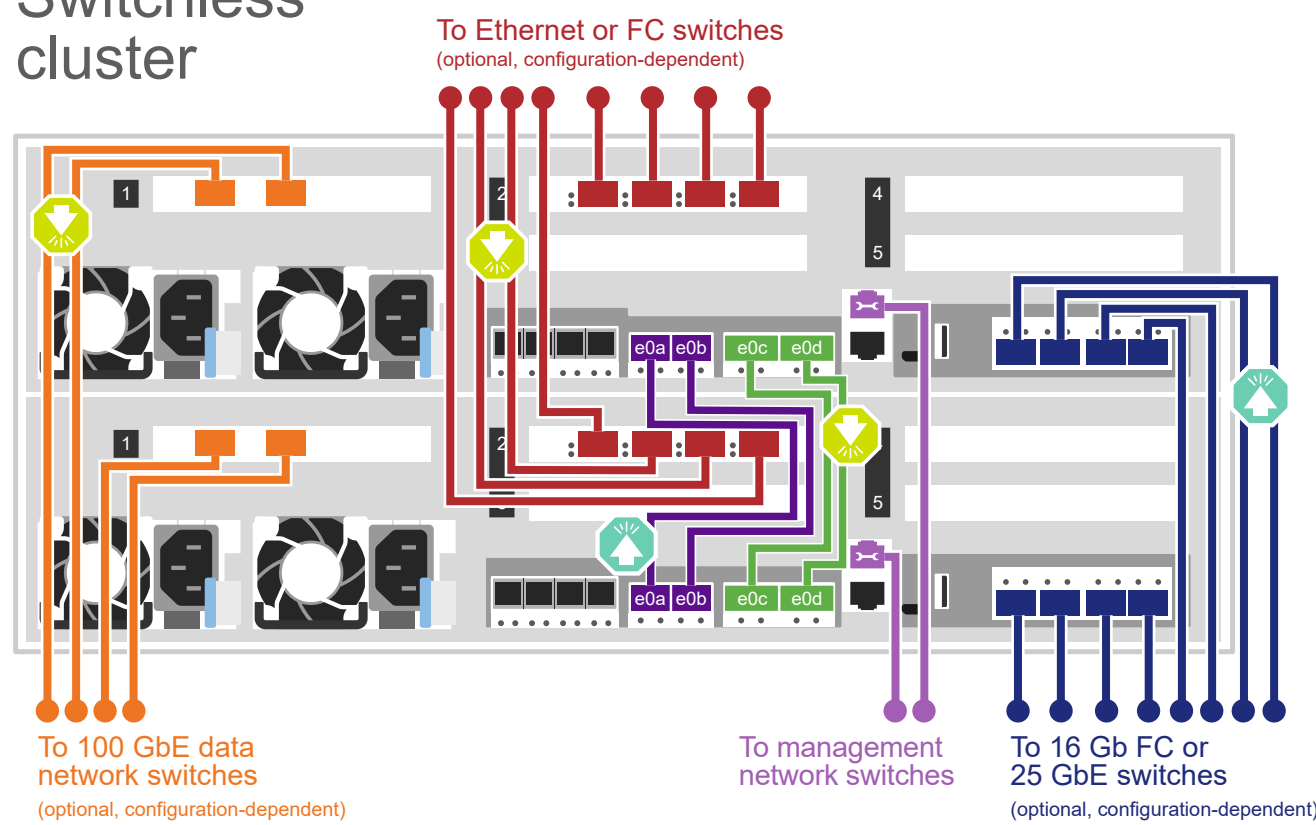
2 Cable the controller for a switchless or switched cluster

See your network administrator for help connecting to your switches.

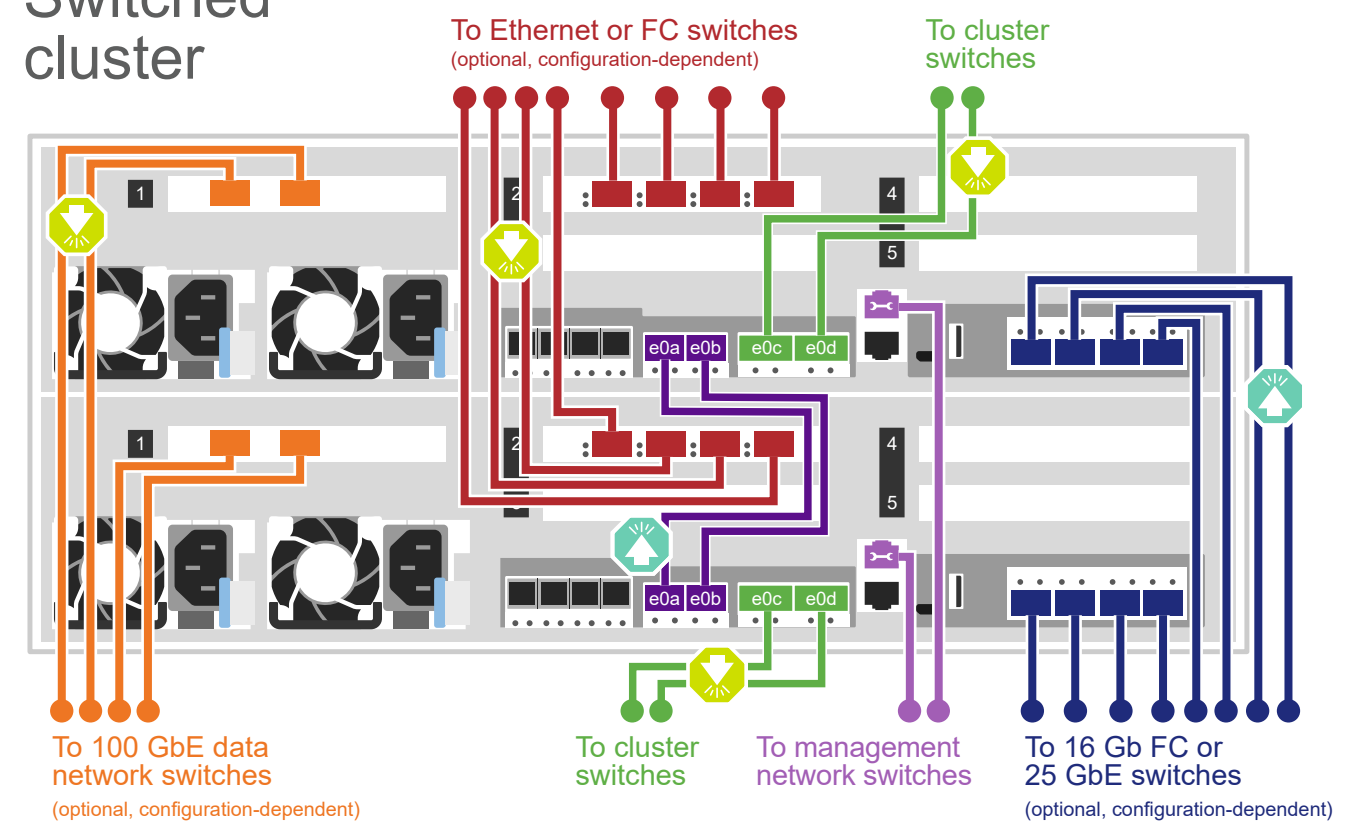
Attention: Be sure to check the illustration arrow for the proper cable connector pull-tab orientation.
Note: To unplug a cable, gently pull the tab to release the locking mechanism.



Switchless cluster



Switched cluster



Switchless cluster: Connect ports e0c to e0c and ports e0d to e0d.

Switched cluster: Controller 1: Connect port e0c to switch 1 and port e0d to switch 2. Controller 2: Connect port e0c to switch 1 and port e0d to switch 2.



Connect ports e0a to e0a and ports e0b to e0b. (HA interconnect only)



Connect ports to the 100 GbE data network switches. (optional, configuration dependent)



Connect ports to the FC data network switches. (optional, configuration dependent)



Connect the Wrench port (e0M/BMC) to the management switches



Connect the mezzanine ports (e0e | 0e through e0h | 0h) to either 25 GbE or 16 Gb FC switches; configuration dependent.

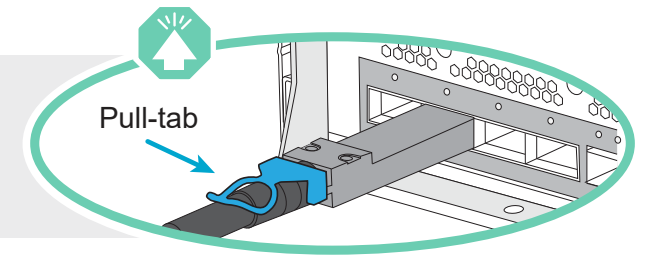
Strap the cables to the cable management arms. (not shown)

DO NOT plug the power cables into a power source yet. The system will boot as soon as the power cables are plugged into the power source and power supplies.



Cable storage | Stage 3

Attention: Be sure to check the illustration arrow for the proper cable connector pull-tab orientation.
Note: To unplug a cable, gently pull the tab to release the locking mechanism.

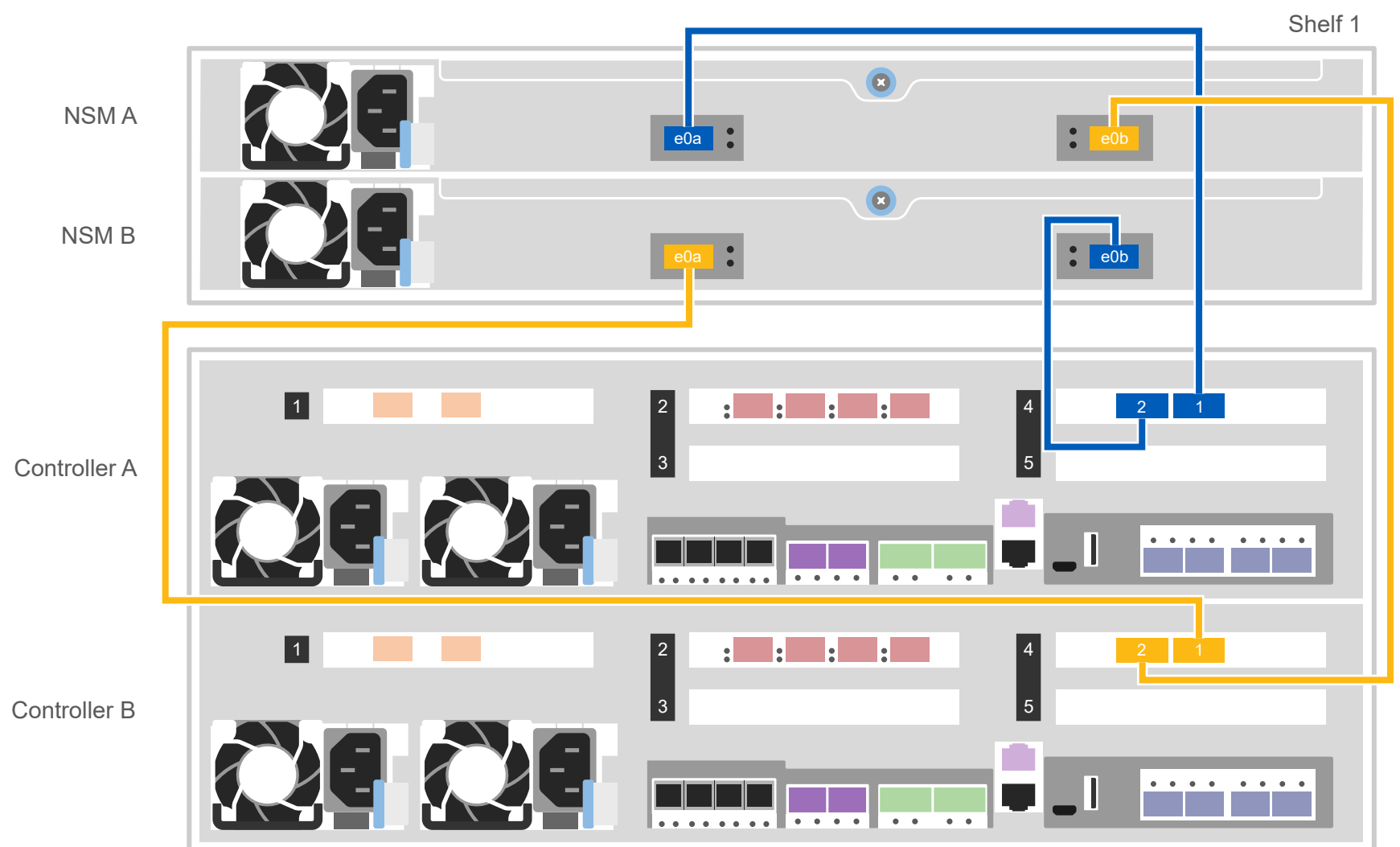


Cabling an AFA DG7000 system to one DM240N shelf



100 GbE QSFP28 copper cable

- Connect controller A slot 4 port 1 (e4a) to port e0a on NSM A on the shelf.
 Connect controller A slot 4 port 2 (e4b) to port e0b on NSM B on the shelf.
- Connect controller B slot 4 port 1 (e4a) to port e0a on NSM B on the shelf.
 Connect controller B slot 4 port 2 (e4b) to port e0b on NSM A on the shelf.

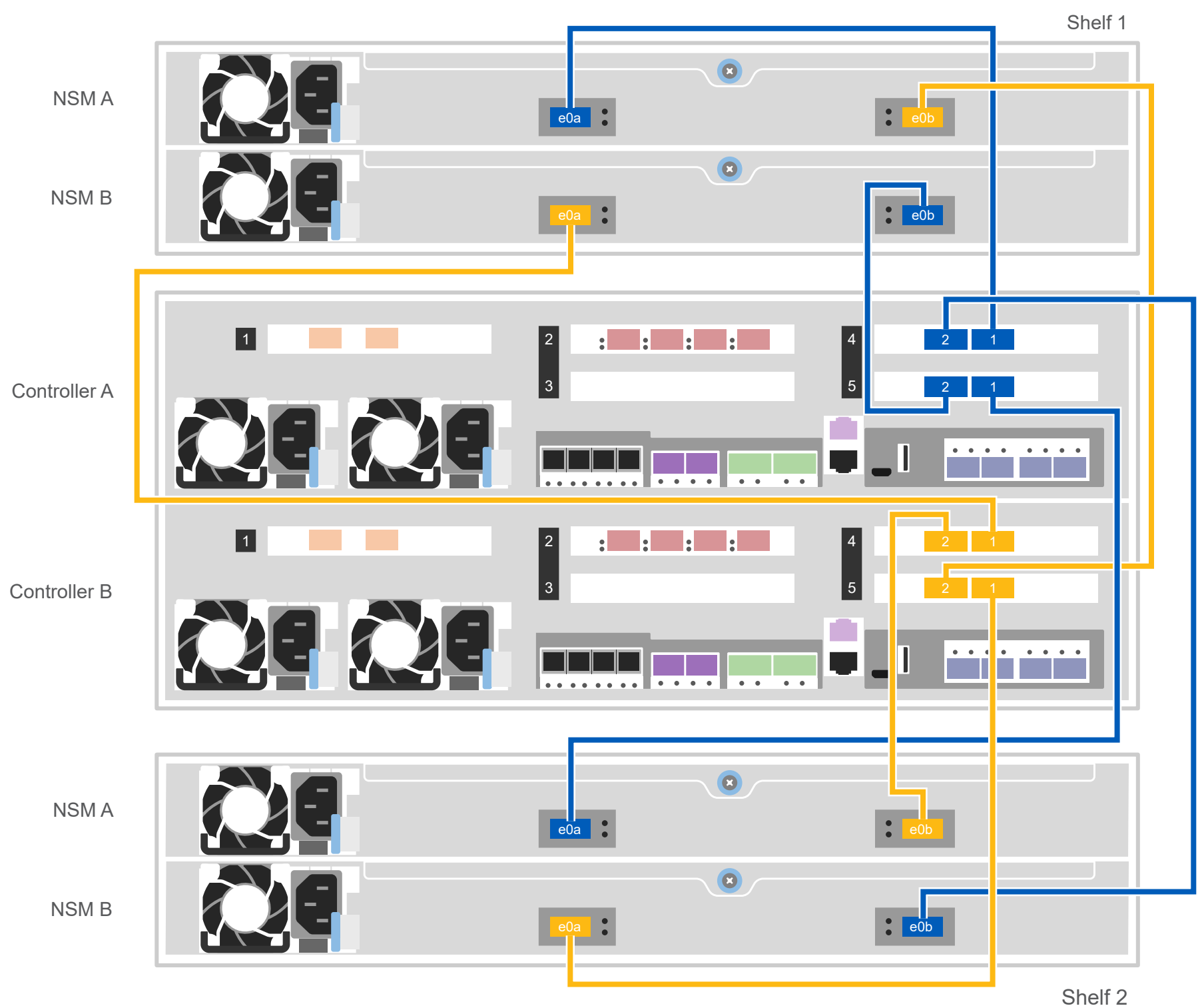
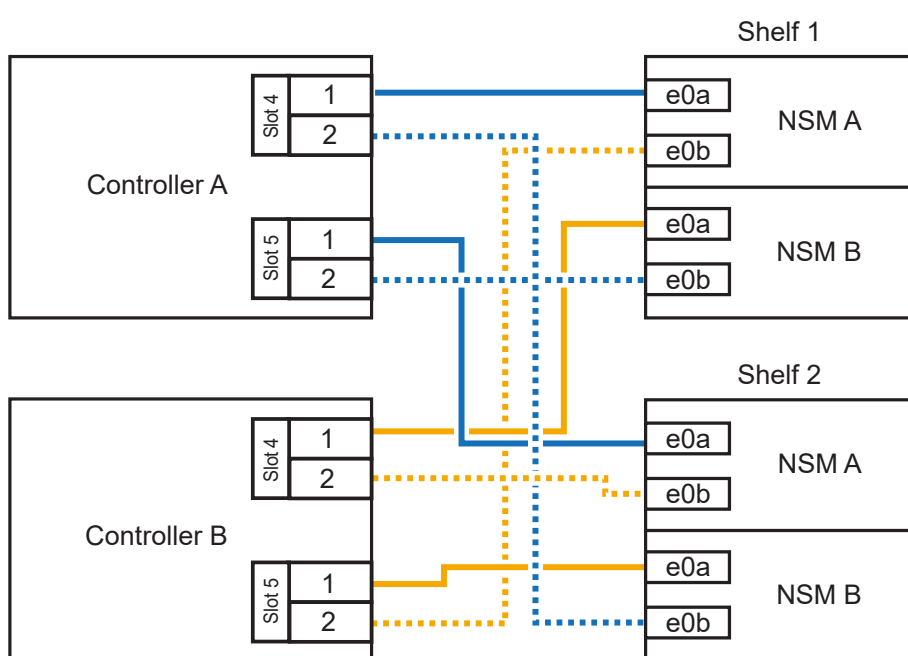


Cabling an AFA DG7000 system to two DM240N shelves



100 GbE QSFP28 copper cable

Use the table below to connect your controllers to the two DM240N shelves.



1 Power on the shelves and set shelf IDs:

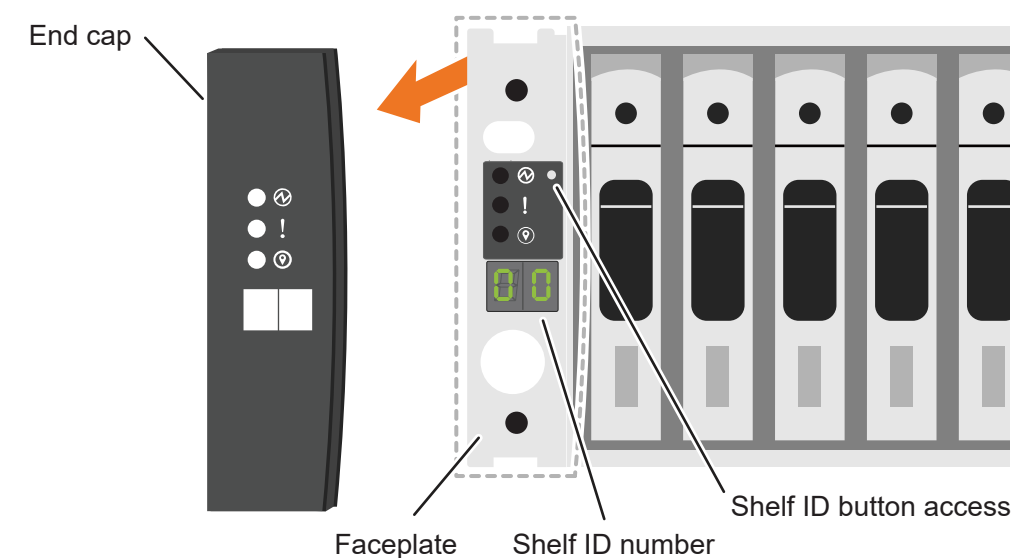
Note: For DM240N drive shelves, shelf IDs are pre-set to 00 and 01. If you want to change the shelf IDs, use the straightened end of a paperclip, or narrow tipped ball point pen to access the shelf ID button behind the faceplate.

1. Plug the power cords into the shelf power supplies, and then connect them to power sources on different circuits.

Note: DM240N shelves have no power switch and will begin to boot.

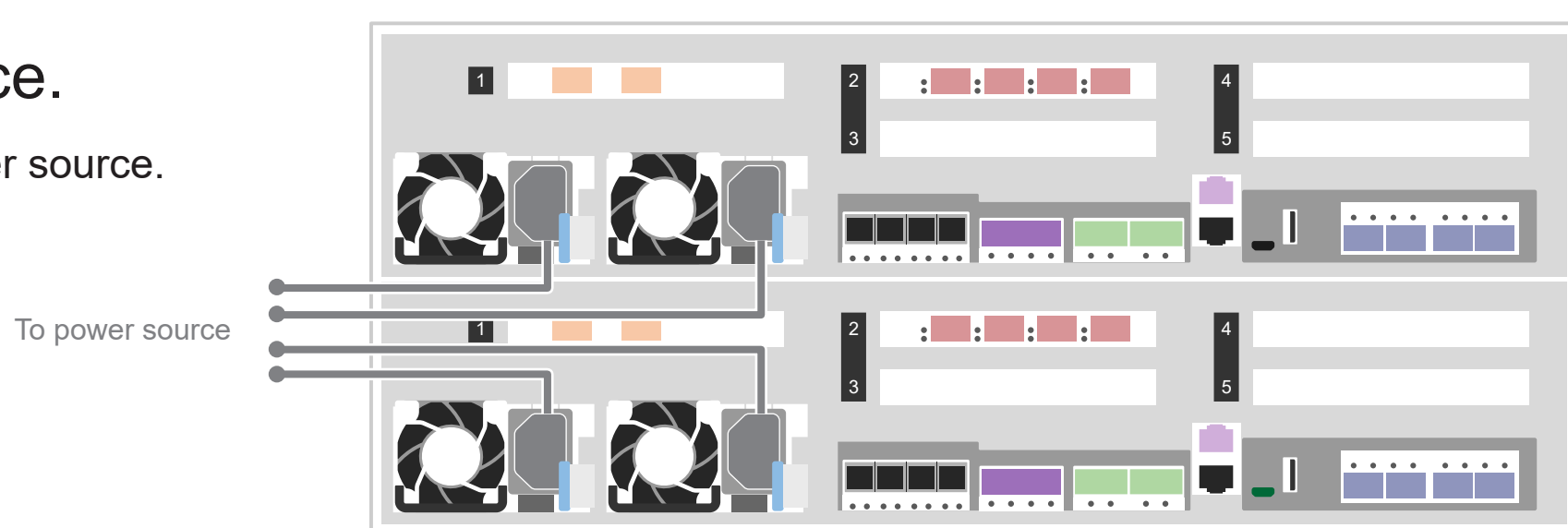
2. If you need to change the shelf IDs, see *Changing a DM240N drive shelf ID* for detailed instructions:

https://thinksystem.lenovofiles.com/storage/help/topic/dm240n-nvme-shelfid/M_762128BB-169D-4EFA-AA38-FEF4F2A31488_.pdf



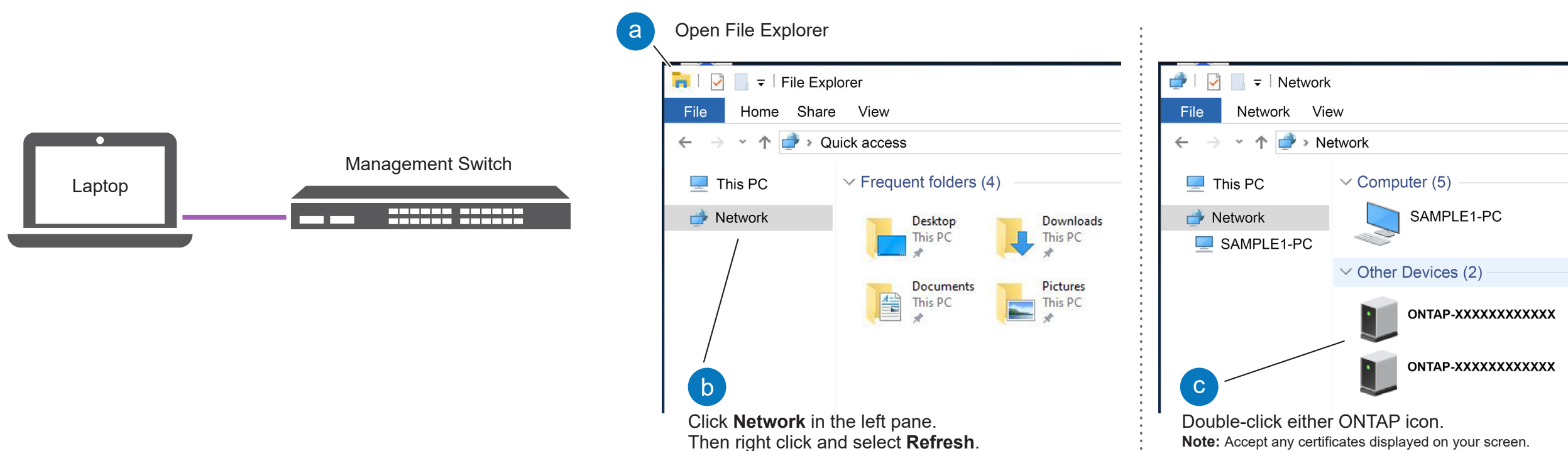
2 Connect the power cables to the controllers and to the power source.

The system powers on when plugged into the power source.



3 Complete initial cluster setup with network discovery:

Connect your laptop to the management switch and access the network computers and devices.



4 Use Storage Manager Guided Setup to configure your cluster.

5 Complete setup:

1. Go to Lenovo Service Connect (<https://commercial.lenovo.com>) and login with your corporate account.
2. After you have completed the initial configuration, go to the ONTAP Software documentation for information about configuring additional features in ONTAP:

https://thinksystem.lenovofiles.com/storage/help/topic/ontap_software/overview.html



HELPFUL LINKS

- ThinkSystem Storage Documentation
<https://thinksystem.lenovofiles.com/storage/help/index.jsp>
- Lenovo Data Center Support Web site (worldwide)
<https://datacentersupport.lenovo.com/>
- Lenovo Data Center Support Web site (China)
<https://support.lenovo.com.cn/EsWeb/>