

AFF A400 Systems

Installation and Setup Instructions

Prepare for installation | Stage 1

Pre-setup

1. Unpack all boxes and inventory contents. For more cable information and part numbers, see the [Hardware Universe](#).
2. If you are not already in the AFF and FAS System Documentation Center, go to [AFF and FAS System Documentation Center](#); click AFF A400 systems; click Installation and Setup:
 - Review the [NetApp ONTAP Configuration Guide](#).
 - Watch the videos listed under [Setup videos](#).



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, and Ethernet data (order-dependent)



Part numbers:
X66211A-05 (112-00595), 0.5m
X66211A-1 (112-00573), 1m
X66211A-2 (112-00574), 2m
X66211A-5 (112-00576), 5m

25 GbE cable (SFP28s)

HA interconnect, GbE network cable.



Part numbers:
X66240-2 (112-00598), 2m
X66240-5 (112-00639), 5m

RJ-45 cables

Wrench port (eOM/BMC) (order-dependent)



Part numbers:
X5585-R6 (112-00291), 3m
X6562-R6 (112-00196), 5m

32 Gb FC (SFP+ Op)

FC optical network cable



Part numbers:
X66250-2 (112-00342), 2m
X66250-5 (112-00344), 5m
X66250-15 (112-00346), 15m

Storage Cables

mini-SAS HD to mini-SAS HD cables



Part numbers:
X66030A (112-00435), .5m
X66031A (112-00436), 1m
X66032A (112-00437), 2m
X66033A (112-00438), 3m

16 Gb FC or 25GbE cables

Mezzanine cards (SFPs pre-installed):



Part number:
X66250-2-N-C (112-00342)

Additional cables



Ethernet cables

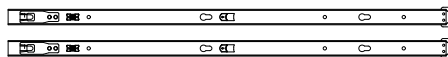


Power cables

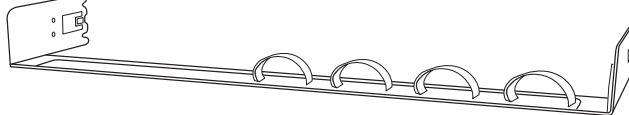


micro USB console cable

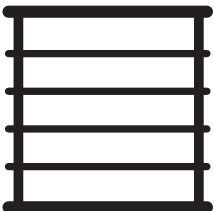
Slide rail kit



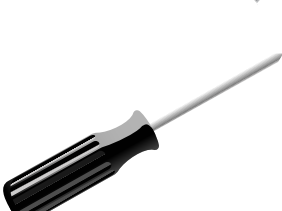
Cable management tray



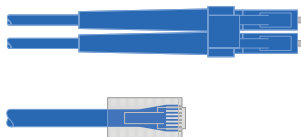
You provide



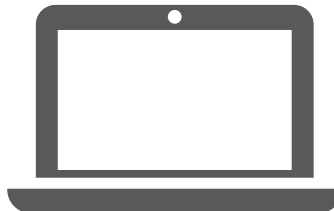
Rack space
4U for AFF A400
+2U for each NS224 shelf



Screwdriver
Phillips #2

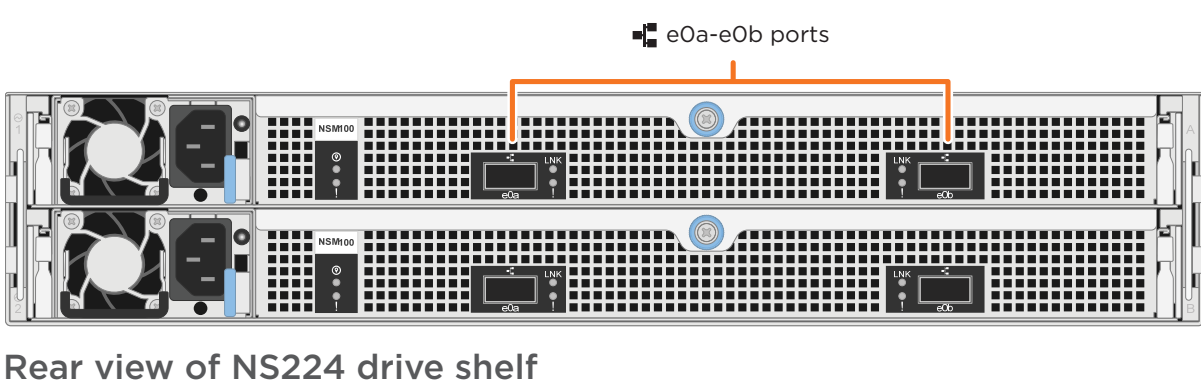
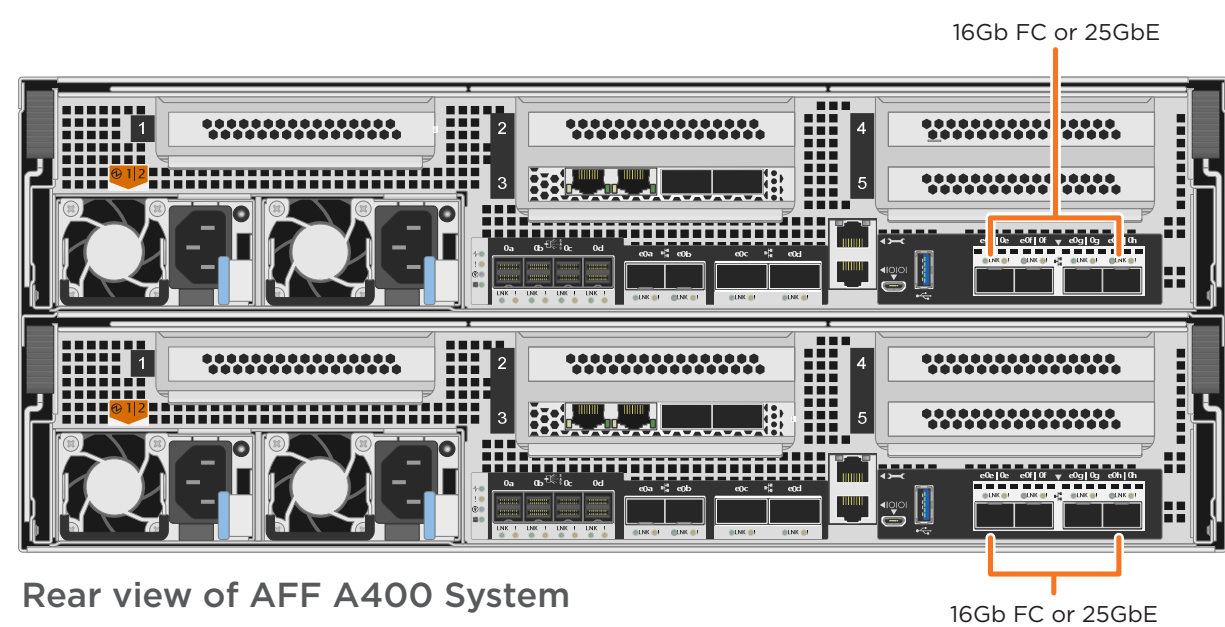


Additional network cables
For connecting your storage system to your network switch and laptop or console.



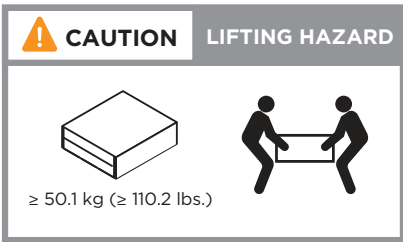
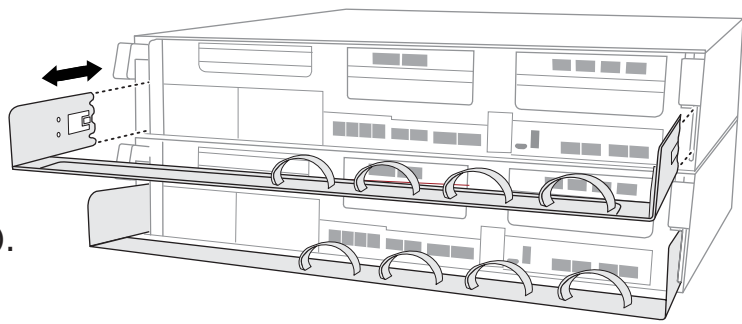
Laptop or console
With a USB/serial connection and access to a Web browser to configure your storage system

Install hardware | Stage 2



1 Install system in a rack or cabinet

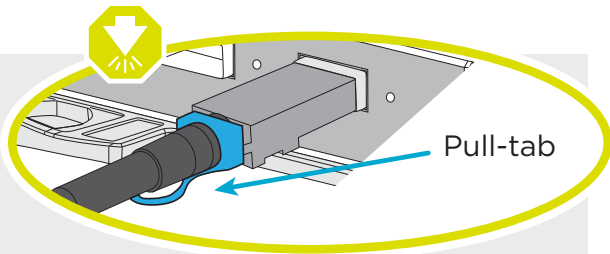
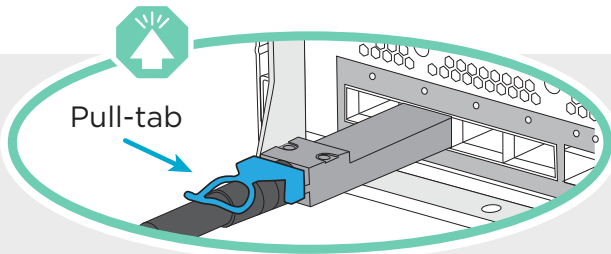
- Install the slide rail or telco tray kits, as needed, and then install and secure your system using the instructions included with the kit.
- Attach cable management devices to the back of each controller (as shown).
- Place the bezel on the front of the system.
- Install any drive shelves for your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



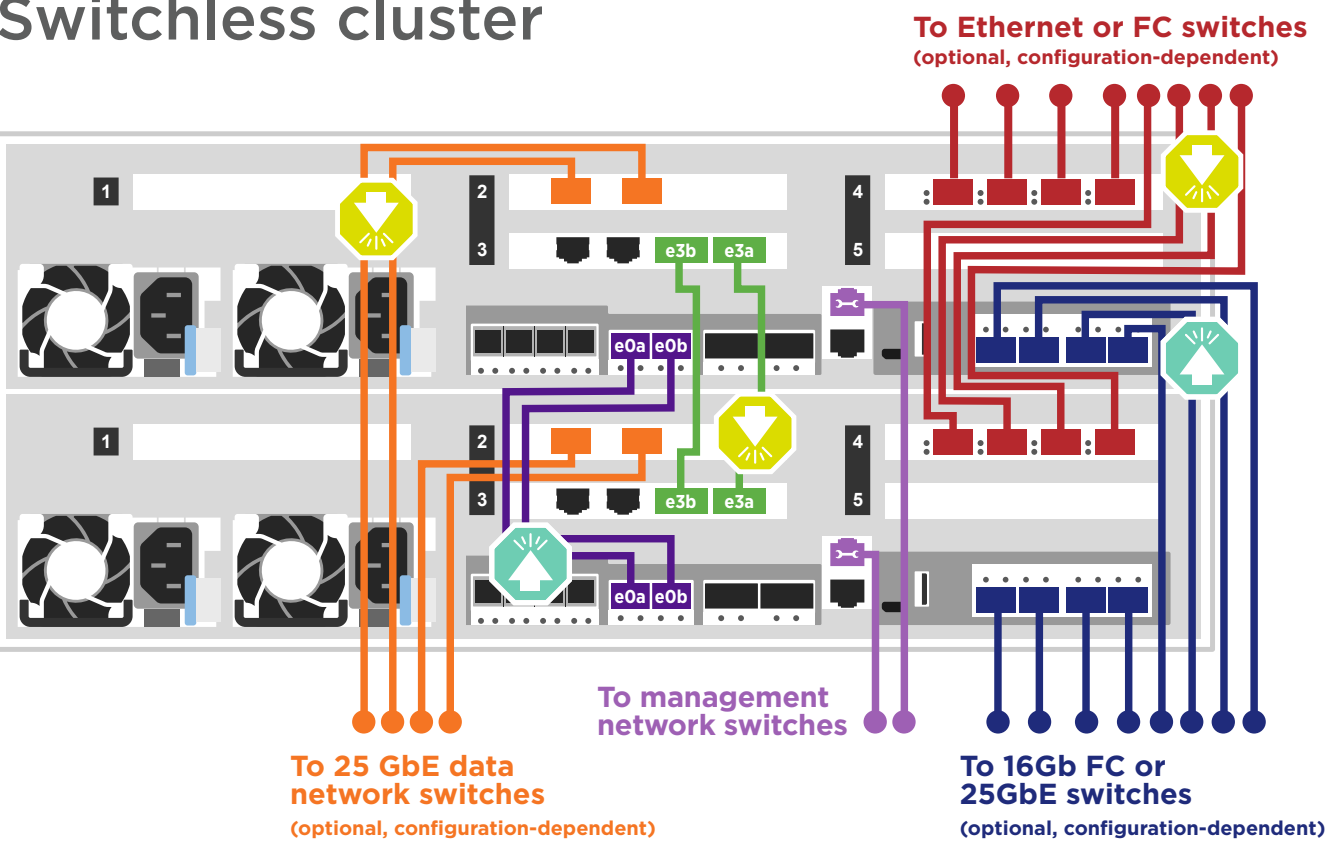
2 Cable the controller for a switchless or switched cluster

See your network administrator for help connecting to your switches.

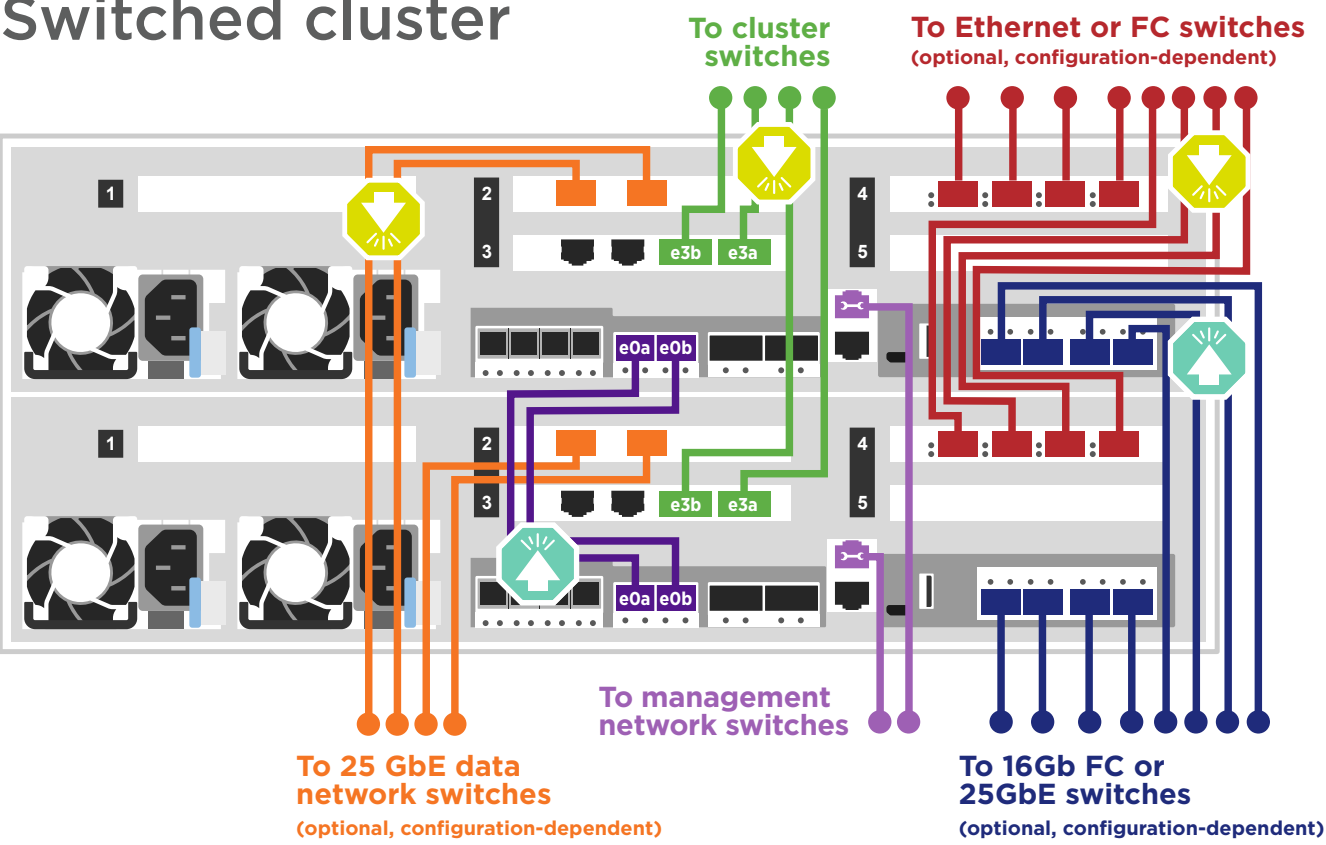
Attention: Be sure to check the illustration arrow for the proper cable connector pull-tab orientation.
Note: To unplug a cable, gently pull the tab to release the locking mechanism.



Switchless cluster



Switched cluster



- **Switchless cluster:** Connect ports e3a to e3a and ports e3b to e3b

Switched cluster: Controller 1: Connect port e3a to switch 1 and port e3b to switch 2. Controller 2: Connect port e3a to switch 1 and port e3b to switch 2.



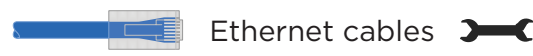
- Connect ports e0a to e0a and ports e0b to e0b. (HA interconnect only)



- Connect ports to the 25 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.

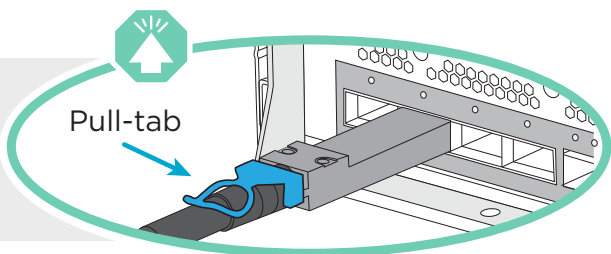
- Strap the cables to the cable management arms. (not shown)

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.

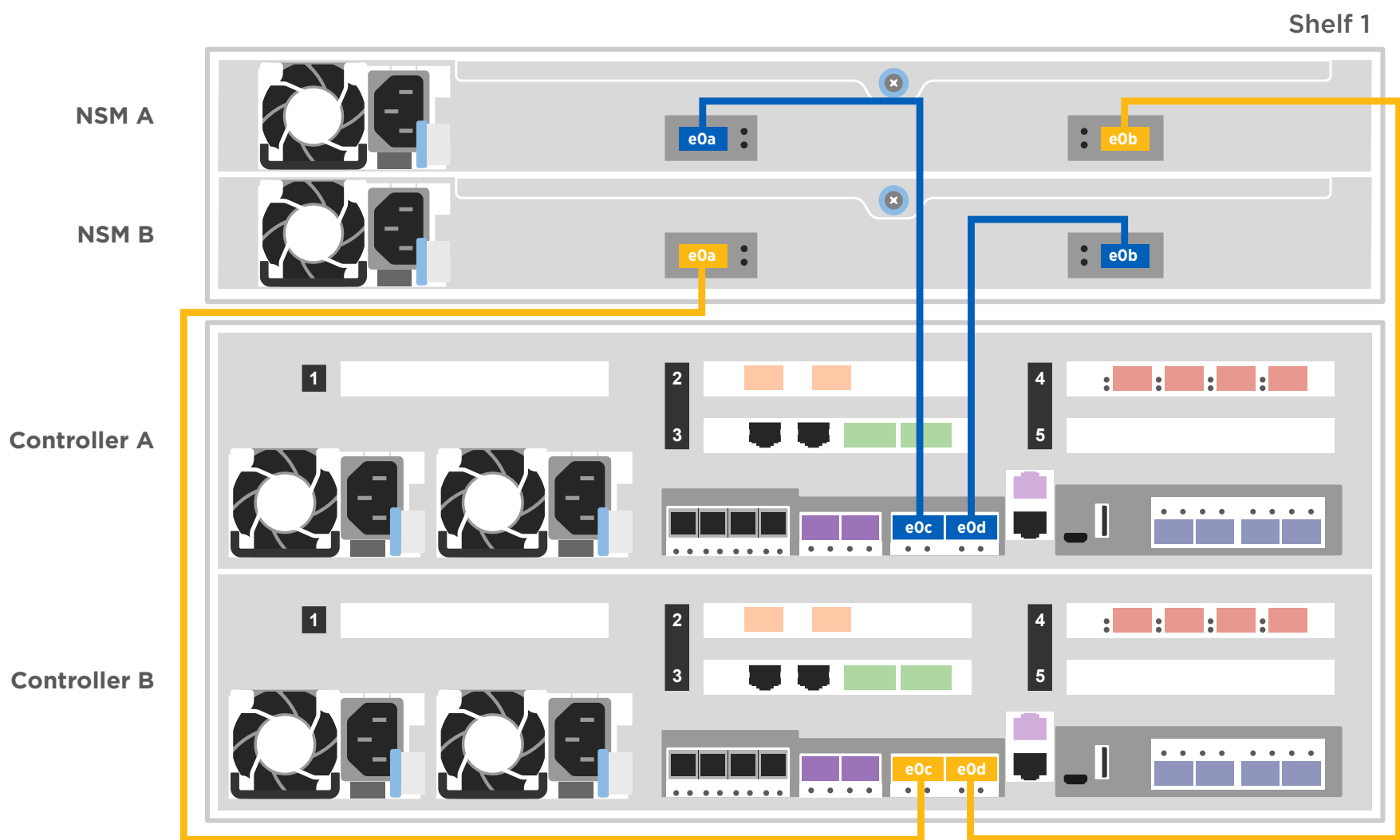


Cabling an AFF A400 system to one NS224 shelf



100 GbE QSFP28 copper cable

- Connect controller A port e0c to port e0a on NSM A on the shelf.
Connect controller A port e0d to port e0b on NSM B on the shelf.
- Connect controller B port e0c to port e0a on NSM B on the shelf.
Connect controller B port e0d to port e0b on NSM A on the shelf.

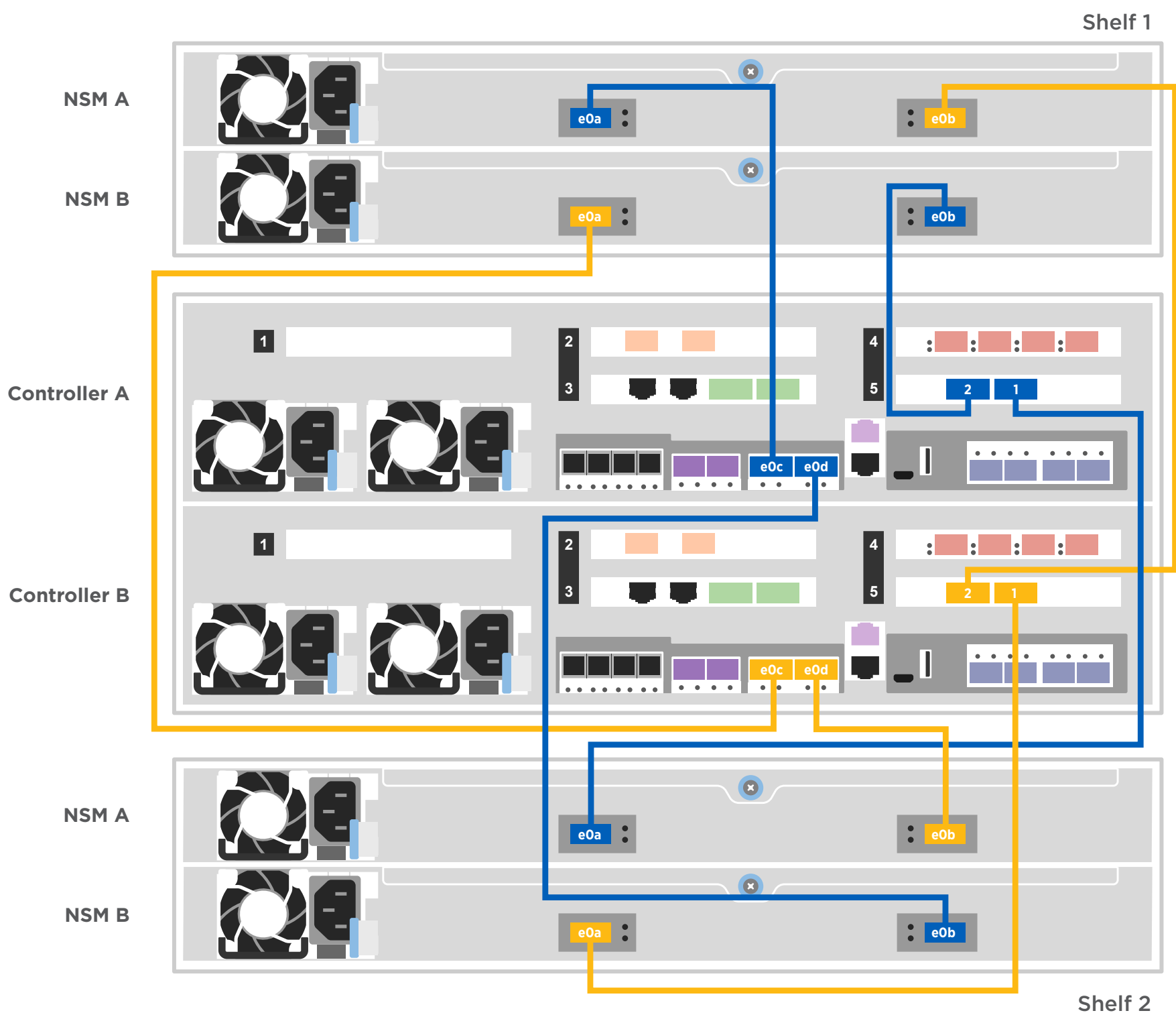
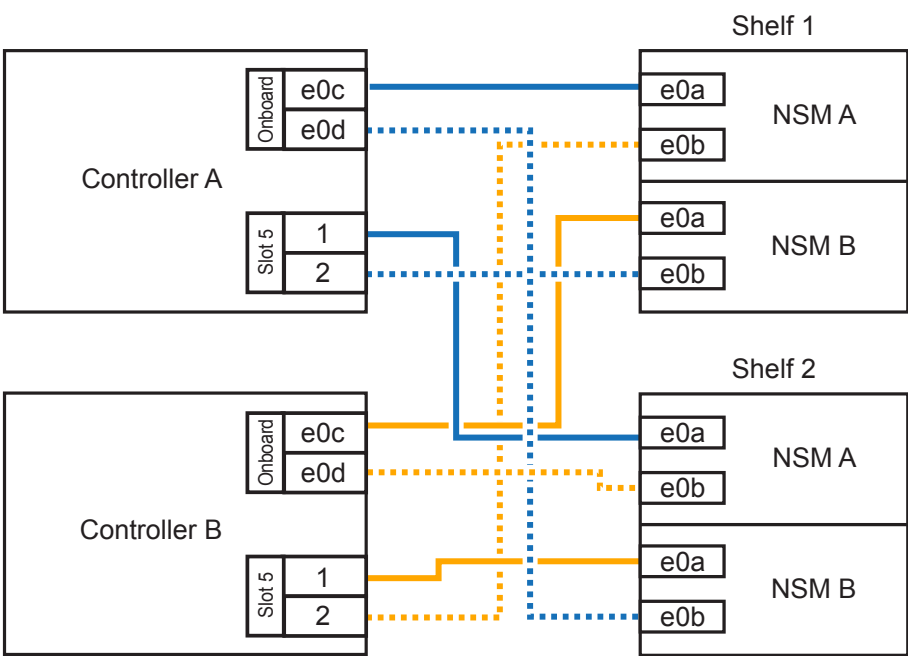


Cabling an AFF A400 system to two NS224 shelves



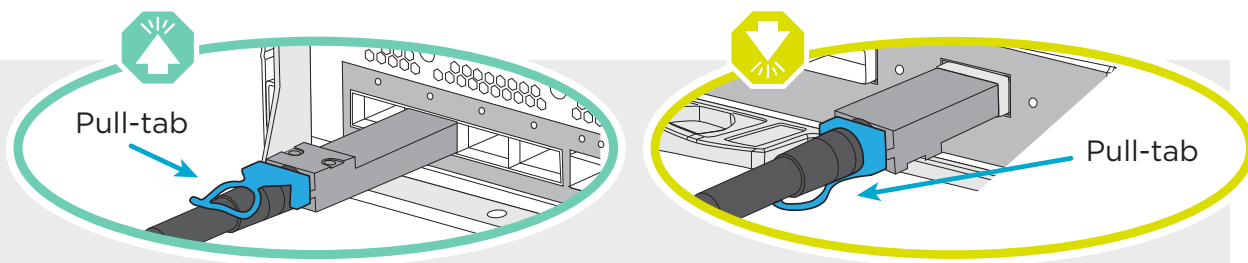
100 GbE QSFP28 copper cable

Use the table below to connect your controllers to the two NS224 shelves.



Cable storage | Stage 3 cont.

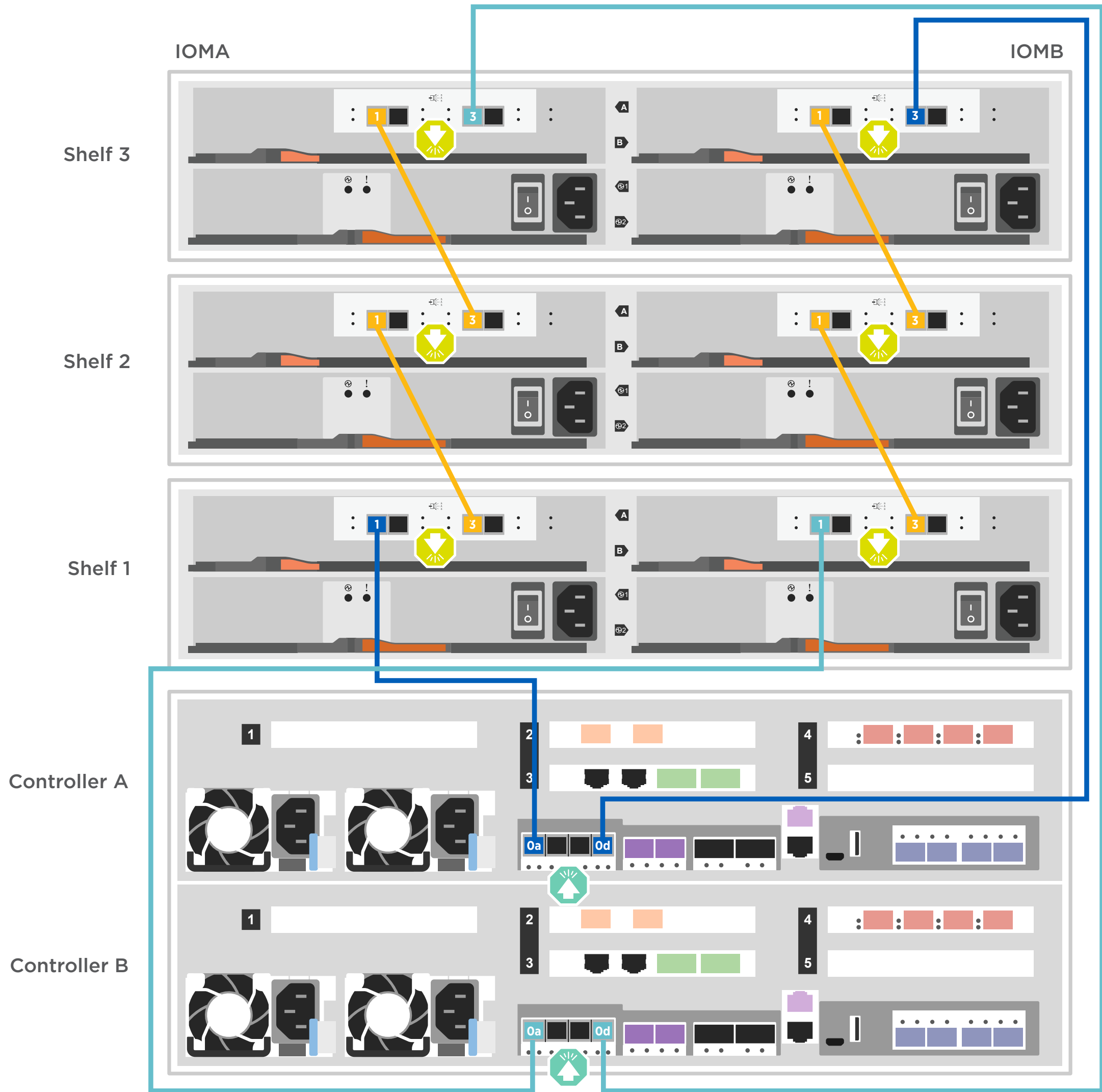
Attention: Be sure to check the illustration arrow for the proper cable connector pull-tab orientation.
Note: To unplug a cable, gently pull the tab to release the locking mechanism.



Cabling an AFF A400 system to three DS224C shelves



- Connect the shelf-to-shelf ports
- Connect Controller A to the drive shelves
- Connect Controller B to the drive shelves



Complete system setup and configuration | Stage 4

1 Power on the shelves and set shelf IDs:

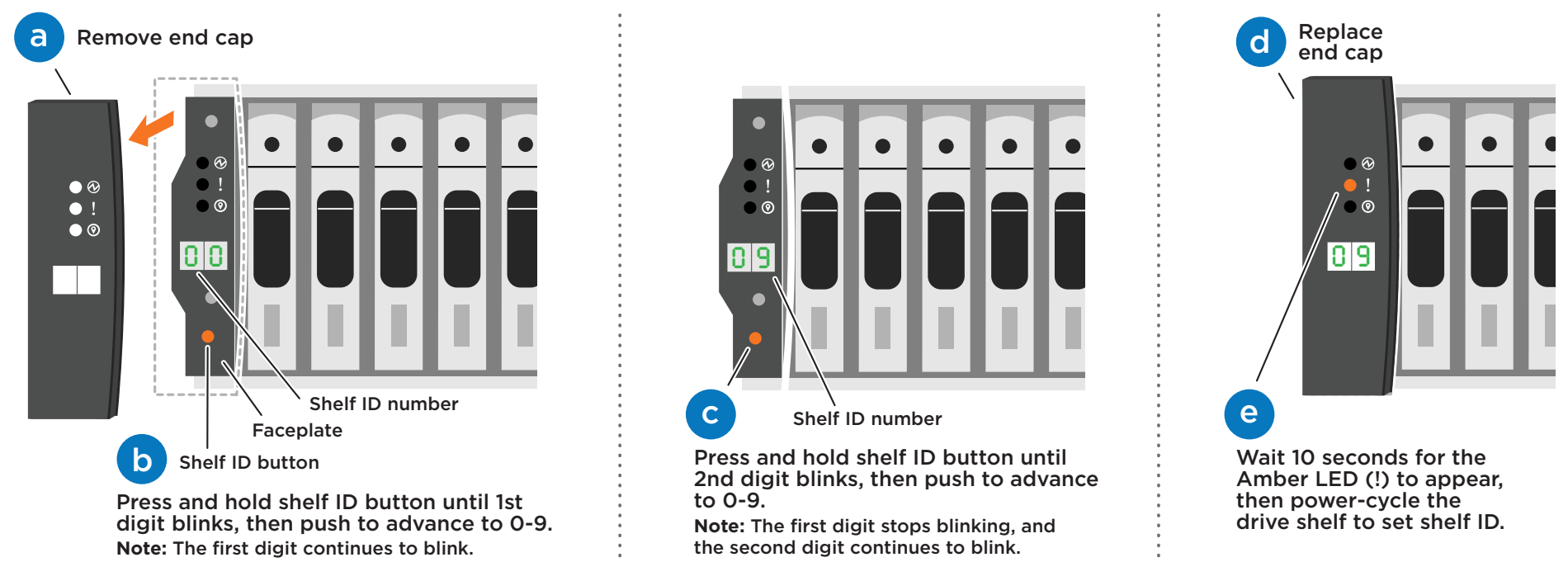
Note: For NS224 drive shelves, shelf IDs are pre-set to 00 and 01. If you want to change the shelf IDs, use the straightened end of a paperclip, or narrow tipped ball point pen to access the shelf ID button behind the faceplate.

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

Note: NS224 shelves have no power switch and will begin to boot. For all other shelf models, turn on the power switch to boot the shelves.

2. If you need to change the shelf IDs, continue with substeps a through e; otherwise, skip to “Power on the controllers” below.

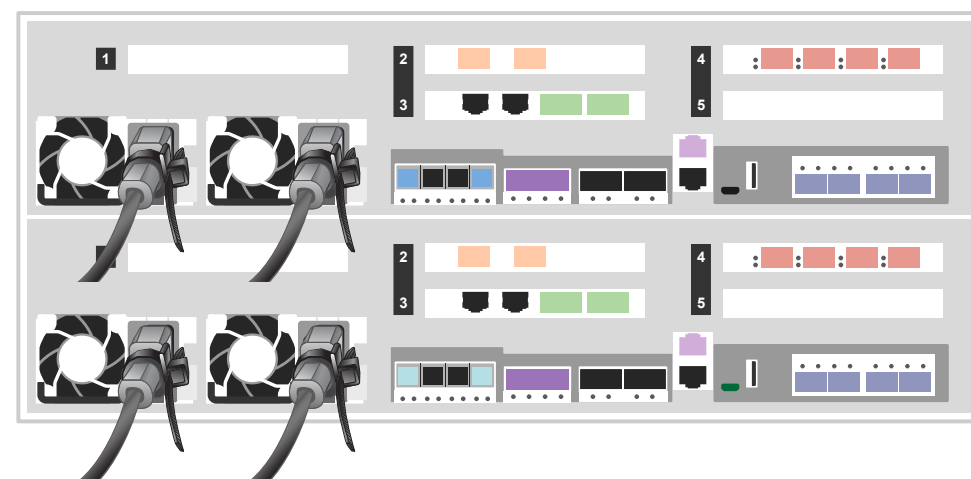
Repeat these steps for any remaining drive shelves.



2 Power on the controllers

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

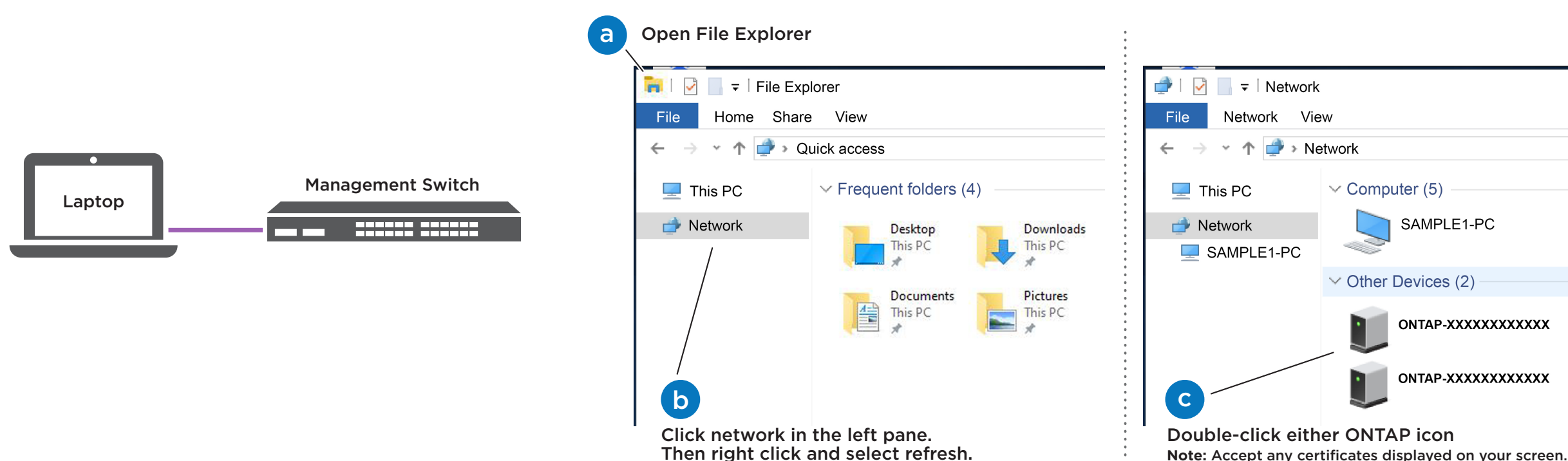
Note: The system begins to boot as soon as the power supplies are connected to the power sources. **Bootup may take up to 8 minutes.**



3 Complete initial cluster setup with network discovery:

Note: If your laptop does not support network discovery, see the Installation and setup guide.

Connect your laptop to the management switch and access the network computers and devices using substeps a through c.



4 Use System Manager Guided Setup to configure your cluster

5 Completing setup

1. Click...
 - a) mysupport.netapp.com
 - b) [Create/log in to your account](#)
 - c) [Download and install Active IQ Config Advisor](#)
 - d) [Register your system](#)
2. Verify the health of your system by running Config Advisor.
3. After you have completed the initial configuration, go to the [NetApp ONTAP Resources](#) page for information about configuring additional features in ONTAP.