

# AFF A900 Systems

## Installation and Setup Instructions



## Prepare for installation | Stage 1

Pre-setup

- Unpack all boxes and inventory contents.  
**Attention:** Customers with specific power requirements must check [Hardware Universe](#) for their configuration options.
- Watch the [Setup Videos](#).
- Review the [NetApp ONTAP Configuration Guide](#).

Contents  
In the box

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

**Note:** For more cable information and part numbers, see the [Hardware Universe](#).

**25 GbE data cable**  
Network cable

Part numbers:  
X66240A-05 (112-00639), 0.5m  
X66240A-2 (112-00598), 2m  
X66240A-5 (112-00600), 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

**100 GbE network cable**  
NVMe storage, Ethernet data, cluster network

Part numbers:  
X66211A-05 (112-00595), 0.5m  
X66211B-1 (112-00573), 1m  
X66211B-2 (112-00574), 2m  
X66211B-5 (112-00576), 5m

**Additional cables**

**Ethernet cables**    **Power cables**

**40 GbE network cable**  
Ethernet data, cluster network

Part numbers:  
X66100-1 (112-00542), 1m  
X66100-3 (112-00543), 3m  
X66100-5 (112-00544), 5m

**Optical network cable**  
Ethernet, FC optical connections

Part number  
X6553-R6 (112-00188), 2m  
X6554-R6 (112-00189), 15m

**Slide rail kit**

**Cable management arms**

You provide

**Rack space**  
8U per chassis

**Screwdriver**  
Phillips #2

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

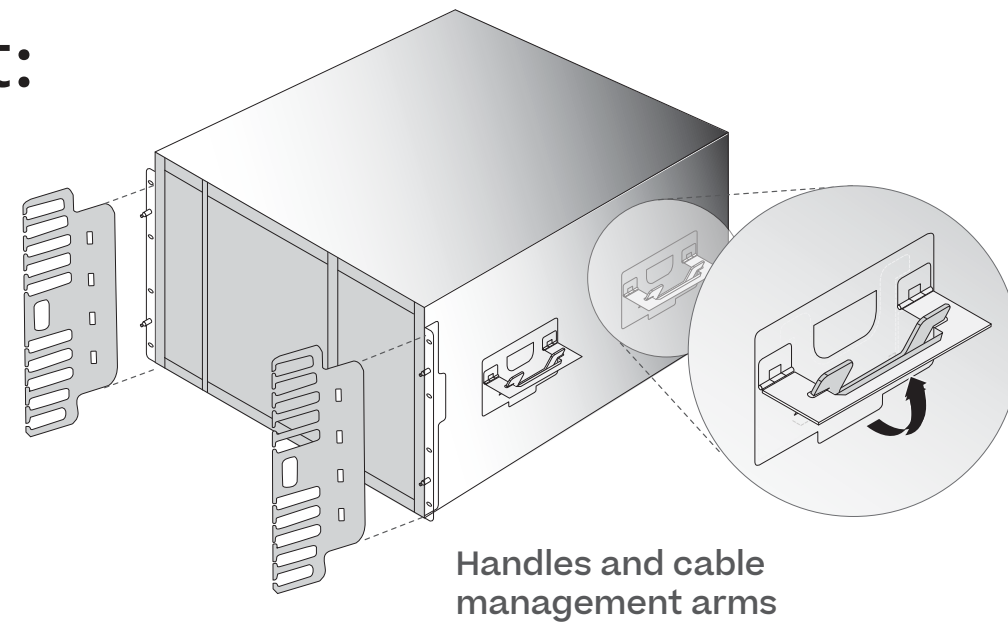
**Laptop or console**  
With a USB/serial connection and access to a Web browser to configure your storage system

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# Install hardware | Stage 2

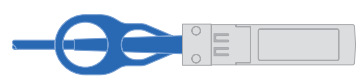
## 1 Install system in a rack or cabinet:

- Install rail kits, as needed, using the rail kit installation instructions.
- Install the empty chassis into the system cabinet or rack.
- Reinstall the system components into the chassis, matching the chassis slot ID with the slot ID sticker on the component.
- Attach cable management arms.
- Place the bezel on the front of the system.



## 2 Cable controller for a switchless or switched cluster:

See your network administrator for help connecting to your switches.



Cluster interconnect cable  
(PN X66100)

- 1 Switchless cluster:** Cable cluster interconnect **a** ports together in slot A4 and B4 (e4a) and again in slot A8 and B8 (e8a).

**Switched cluster:** Cable cluster interconnect **a** ports in slot A4 and B4 (e4a) and again in slot A8 and B8 (e8a) to the cluster network switch.



Ethernet cable

- 2** Connect the wrench ports to the management switches.



25 GbE network cable (PN X66240A)

- 3** Cable ports in slot A3 and B3 (e3a and e3c) and slot A9 and B9 (e9a and e9c) to the 25 GbE network switches.



40 GbE network cable (PN X66100)

Cable host-side **b** ports in slot A4 and B4 (e4b) and slot A8 and B8 (e8b) to the host switch.



32 Gb FC (SFP+ Op) (PN X66250)

- 4** Cable ports in slot A5 and B5 (5a, 5b, 5c, and 5d) and slot A7 and B7 (7a, 7b, 7c, and 7d) to the 32 Gb FC network switches.

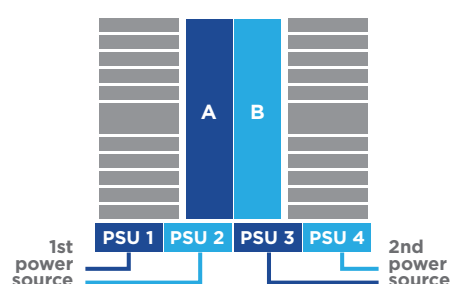
- 5** Strap the cables to the cable management arms (not shown).



Power cable

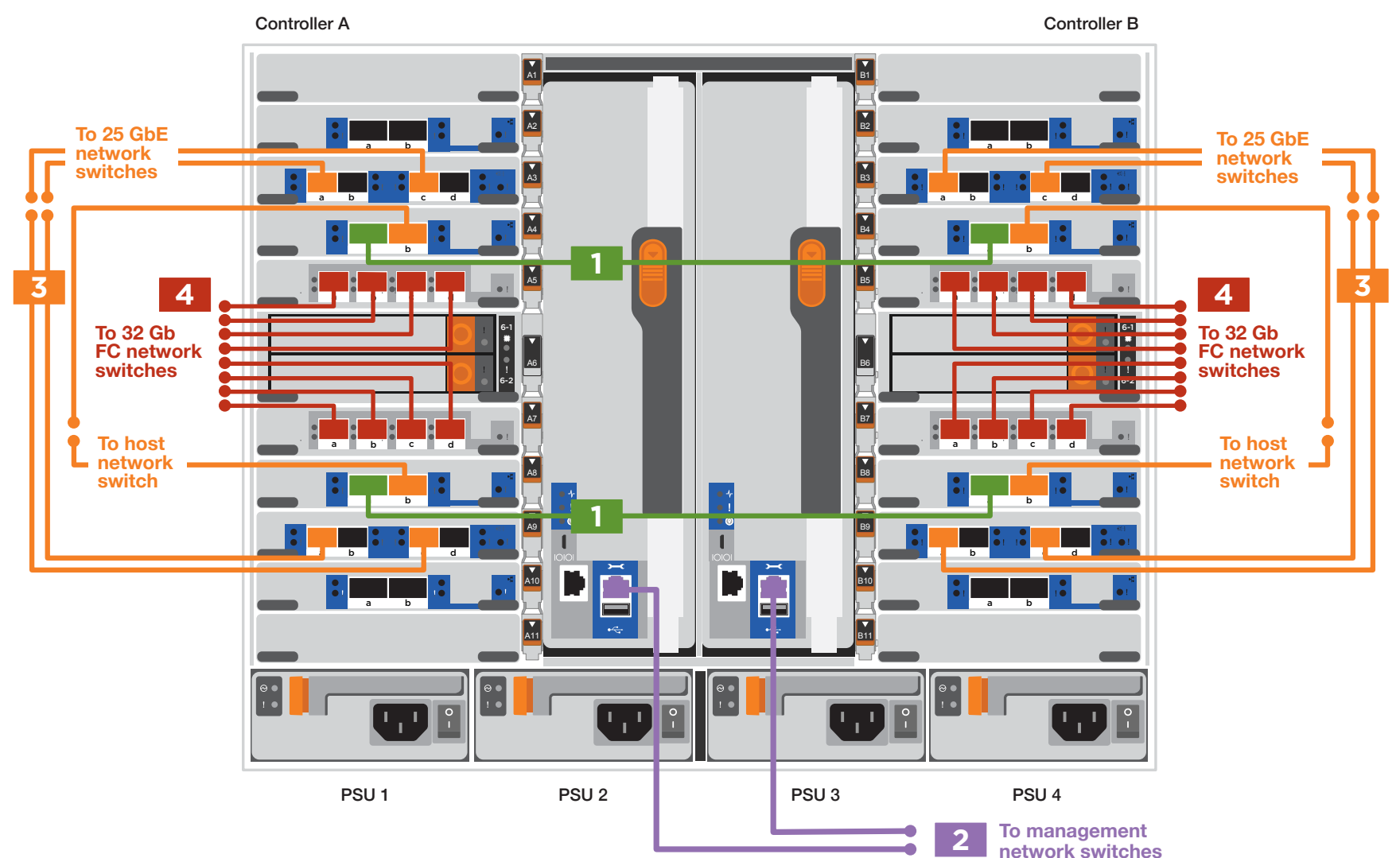
- 6** Connect the power cables to the PSUs and connect them to different power sources (not shown).

PSU 1 and PSU 3 provide power to all side A FRUs, PSU 2 and PSU 4 provide power to all side B FRUs.

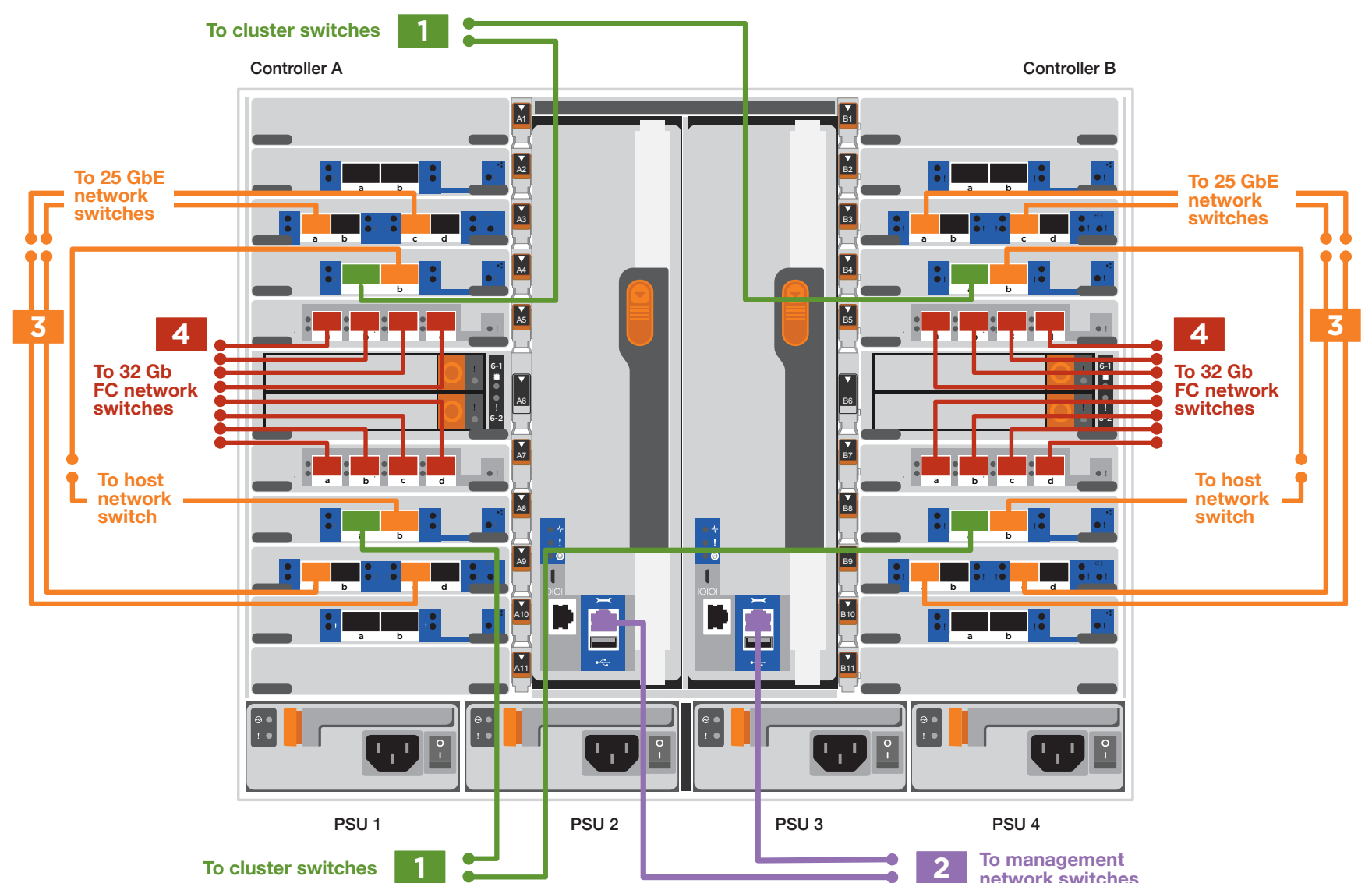


**DO NOT power on controllers at this point.**

### Switchless cluster



### Switched cluster



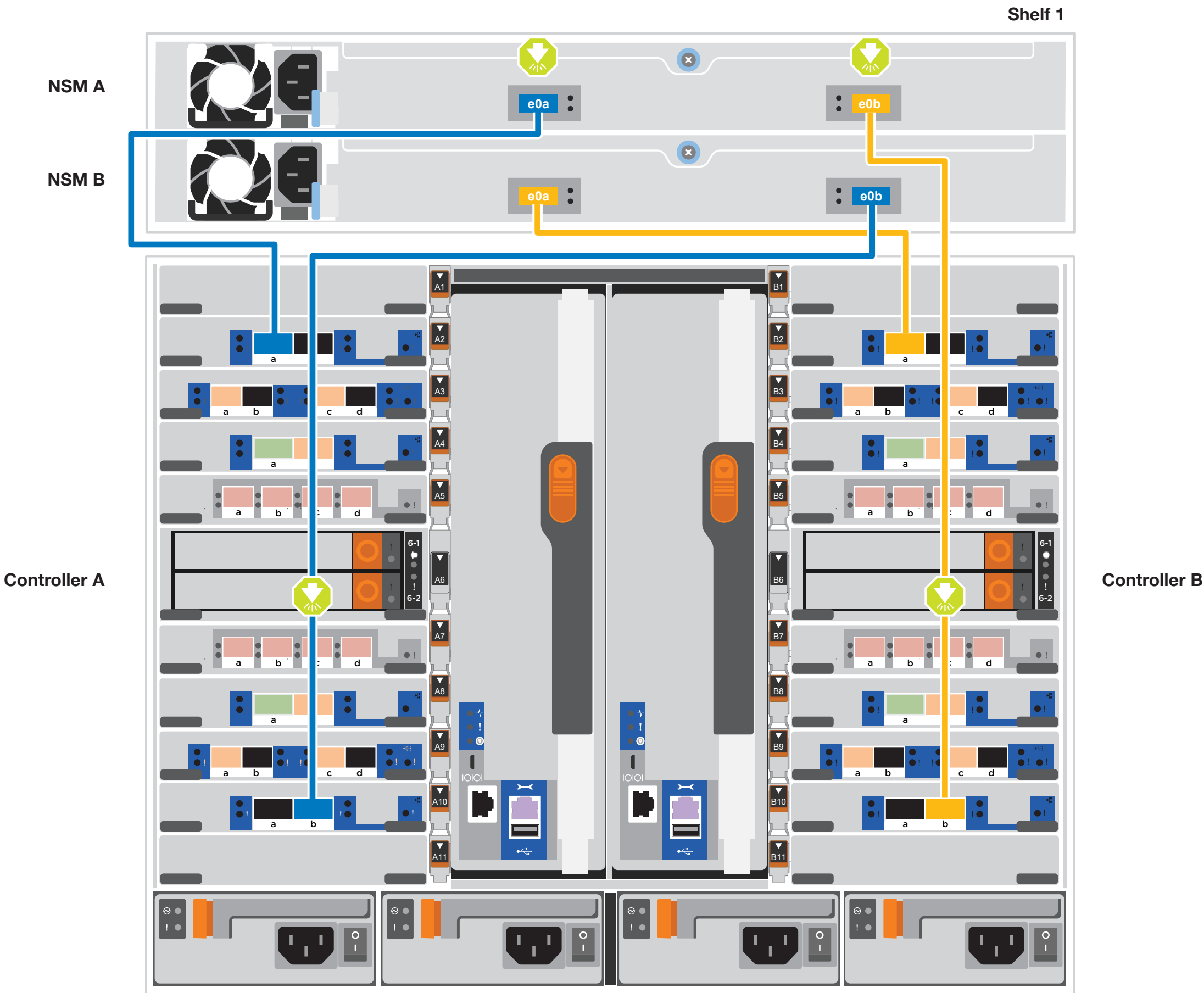
# Cable storage | Stage 3

## Cabling an AFF A900 with one NS224 disk shelf

 100 GbE QSFP28 copper cable (PN X66211B)

 Insert 100 GbE QSFP28 cable tab **DOWN** and gently push into place until it clicks.

- 1 Connect controller A port e2a to port e0a on NSM A on the shelf.  
Connect controller A port e10b to port e0b on NSM B on the shelf.
- 2 Connect controller B port e2a to port e0a on NSM B on the shelf.  
Connect controller B port e10b to port e0b on NSM A on the shelf.



# Cable storage | Stage 3 cont.

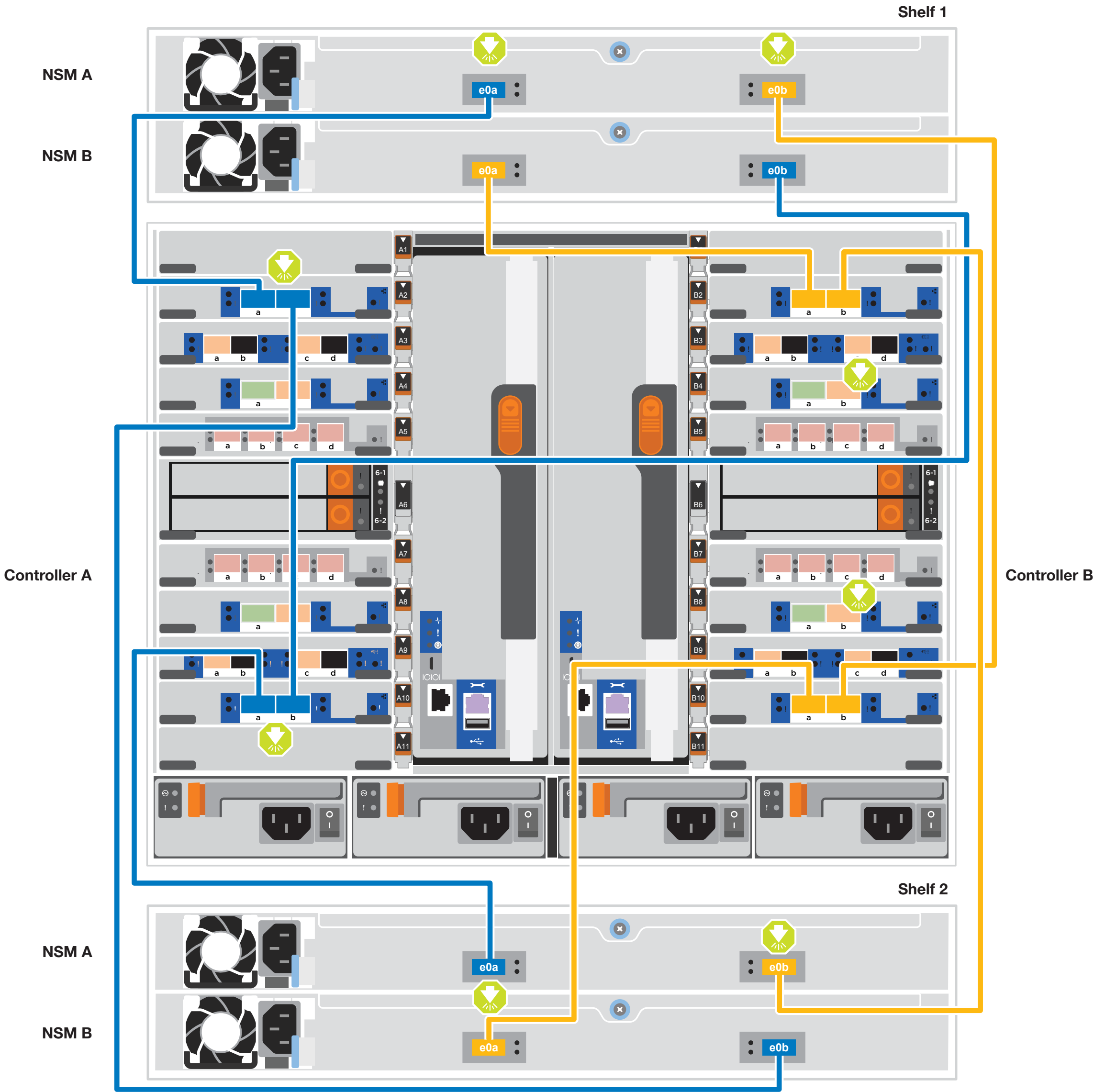
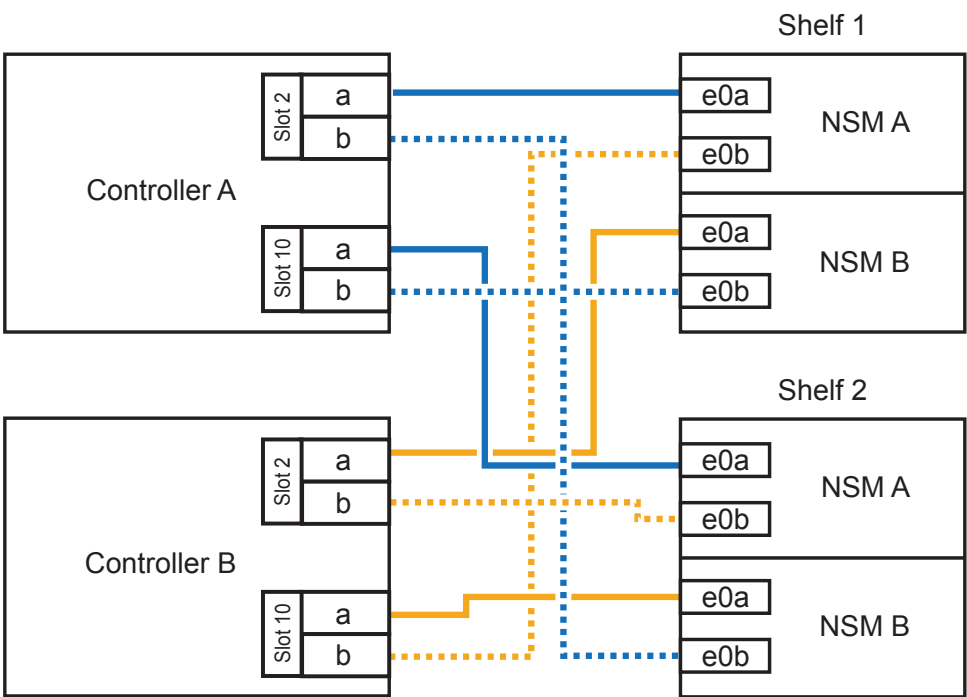
## Cabling an AFF A900 with two NS224 disk shelves

 100 GbE QSFP28 copper cable (PN X66211B)



Insert 100 GbE QSFP28 cable tab **DOWN** and gently push into place until it clicks.

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





# Complete system setup and configuration | Stage 4

## 1 Power on the shelves and set shelf IDs:

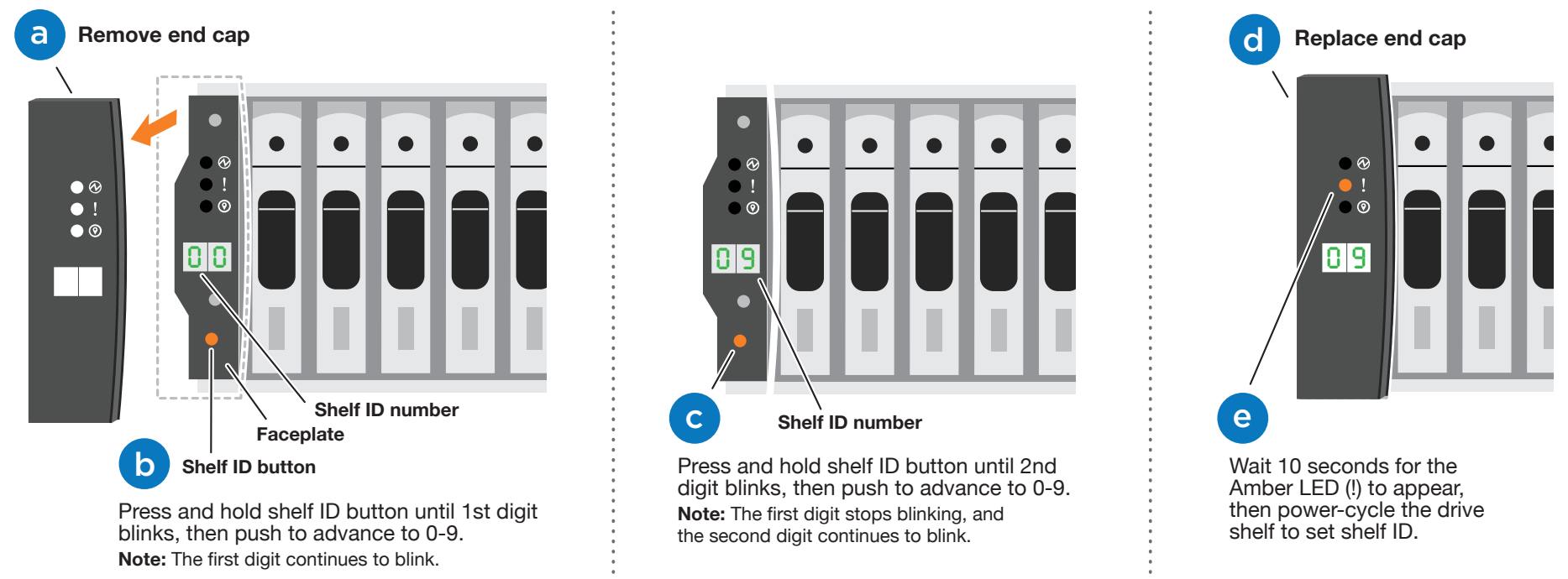
**Note:** For NS224 drive shelves, shelf IDs are pre-set to 00 and 01. If you want to change the shelf IDs, use the straightened end of a paperclip, or narrow tipped ball point pen to access the shelf ID button behind the faceplate.

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.

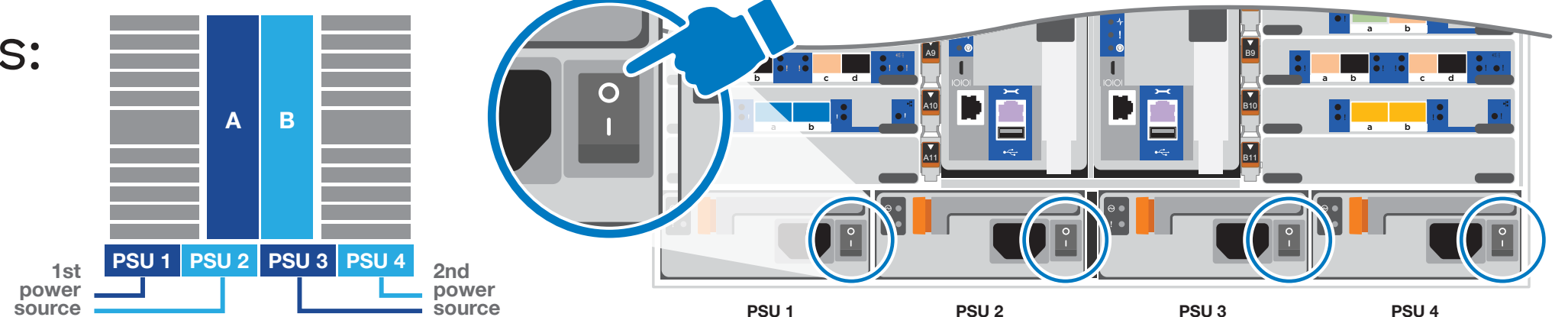
2. If you need to change the shelf IDs, continue with substeps a through e; otherwise, skip to “Power on the controllers” below.

Repeat these steps for any remaining drive shelves.



## 2 Turn on the power switches to all nodes:

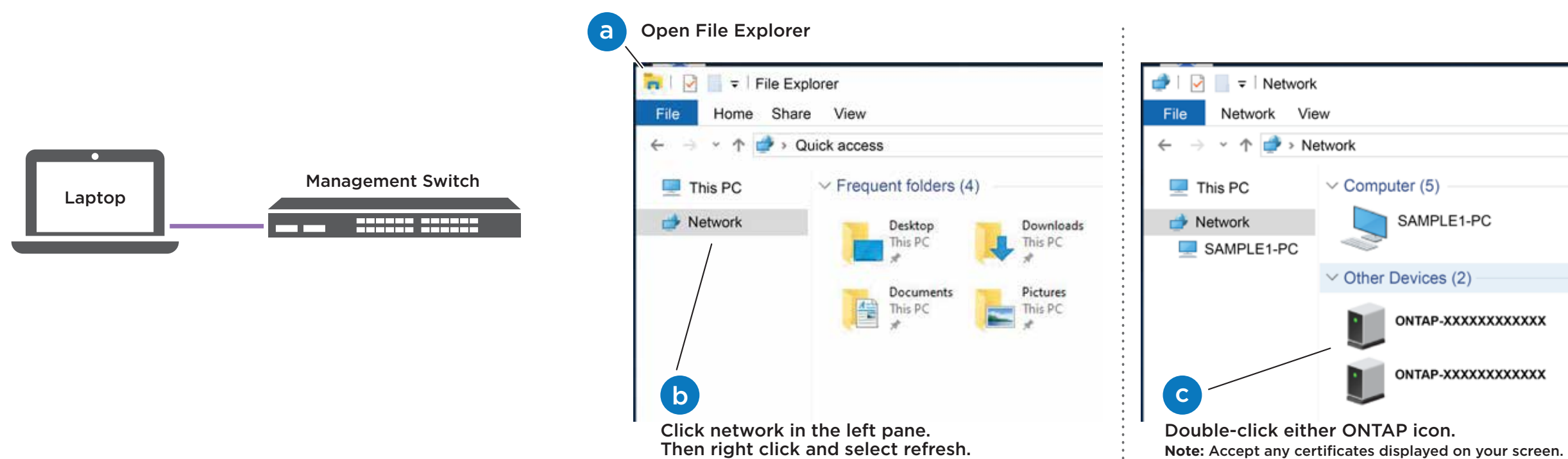
PSU 1 and PSU 3 provide power to all side A FRUs, PSU 2 and PSU 4 provide power to all side B FRUs.



## 3 Complete initial cluster setup with network discovery:

**Note:** If your laptop does not support network discovery, see the [Detailed guide](#).

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



## 4 Use System Manager Guided Setup to configure your cluster.

## 5 Completing setup:

1. Click...  
a) [mysupport.netapp.com](https://mysupport.netapp.com) b) [Create/log in to your account](#) c) [Register your system](#)
2. Download and install Active IQ Config Advisor. 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.