

# AFF A900 Systems Installation and Setup Instructions



## Prepare and install | Stage 1



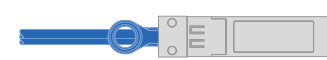
### Pre-setup

1. Unpack all boxes and inventory contents.  
**Attention:** Customers with specific power requirements must check [Hardware Universe](#) for their configuration options.
  2. Gather information about your storage system by completing the cluster setup worksheets:  
[Get started with ONTAP cluster set up.](#)
  3. Review the requirements and procedure steps for [Configure ONTAP on a new cluster with System Manager.](#)
- Note:** For MetroCluster configurations, use the [MetroCluster installation content.](#)



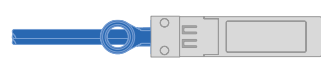
### Contents in the box

Cables shown are the most common. See [Hardware Universe](#) for more options.



#### 25 GbE data cable Network cable

Part numbers X66240A-05, 0.5m;  
X66240A-2, 2m; X66240A-5, 5m



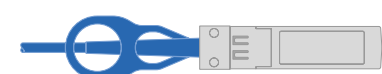
#### 32 Gb FC (SFP+ Op) FC optical network cable

Part numbers X66250-2, 2m;  
X66250-5, 5m; X66250-15, 15m



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

Part numbers X66211A-05, 0.5m;  
X66211B-1, 1m; X66211B-2, 2m;  
X66211B-5, 5m



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

Part numbers X66100-1, 1m;  
X66100-3, 3m; X66100-5, 5m



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

Part numbers X6553-R6, 2m;  
X6554-R6, 15m

#### Additional cables

##### Ethernet cables



##### Power cables



#### Cable management arms

#### Slide rail kit



### You provide

- ✓ **Rack space**  
8U for platform +2U  
for each NS224 shelf

- ✓ **Screwdriver**  
Phillips #2

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

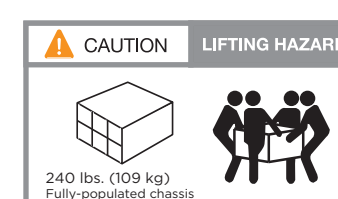
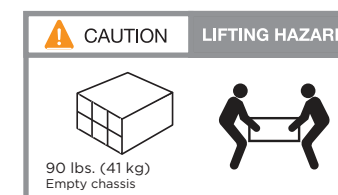
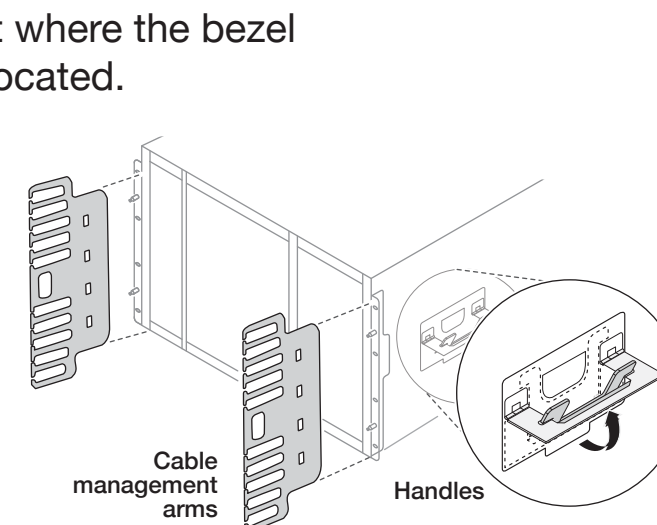
- ✓ **Laptop or console**  
With a USB/serial connection  
and access to a Web browser to  
configure your storage system



### Install storage system in a rack or cabinet

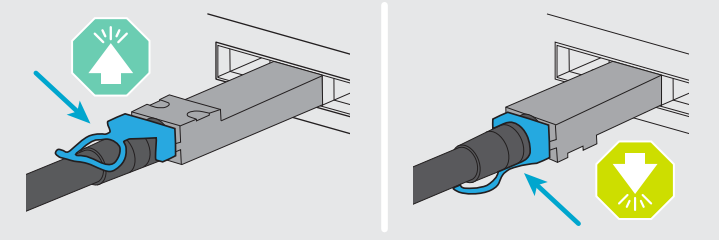
**Attention:** Airflow through the platform and shelves enters from the front where the bezel or end caps are installed and exhausts out the rear where the ports are located.

1. Install the rail kits for the platform and shelves, as needed, using the instructions included with the kits.
2. Install the platform chassis into the rack or cabinet.  
**Note:** Install the empty chassis and then install the components into the chassis.
3. Attach the cable management devices to the rear of the platform.
4. Install the bezel on the front of the platform.
5. Install any drive shelves into the rack or cabinet.



# Cable controllers | Stage 2

**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.



## 1 Cable the controllers for a switchless or switched cluster

See your network administrator for help connecting to your switches.



Cluster interconnect cables

### 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 Cable the wrench ports to the management switches.



25 GbE network cables

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 cables

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

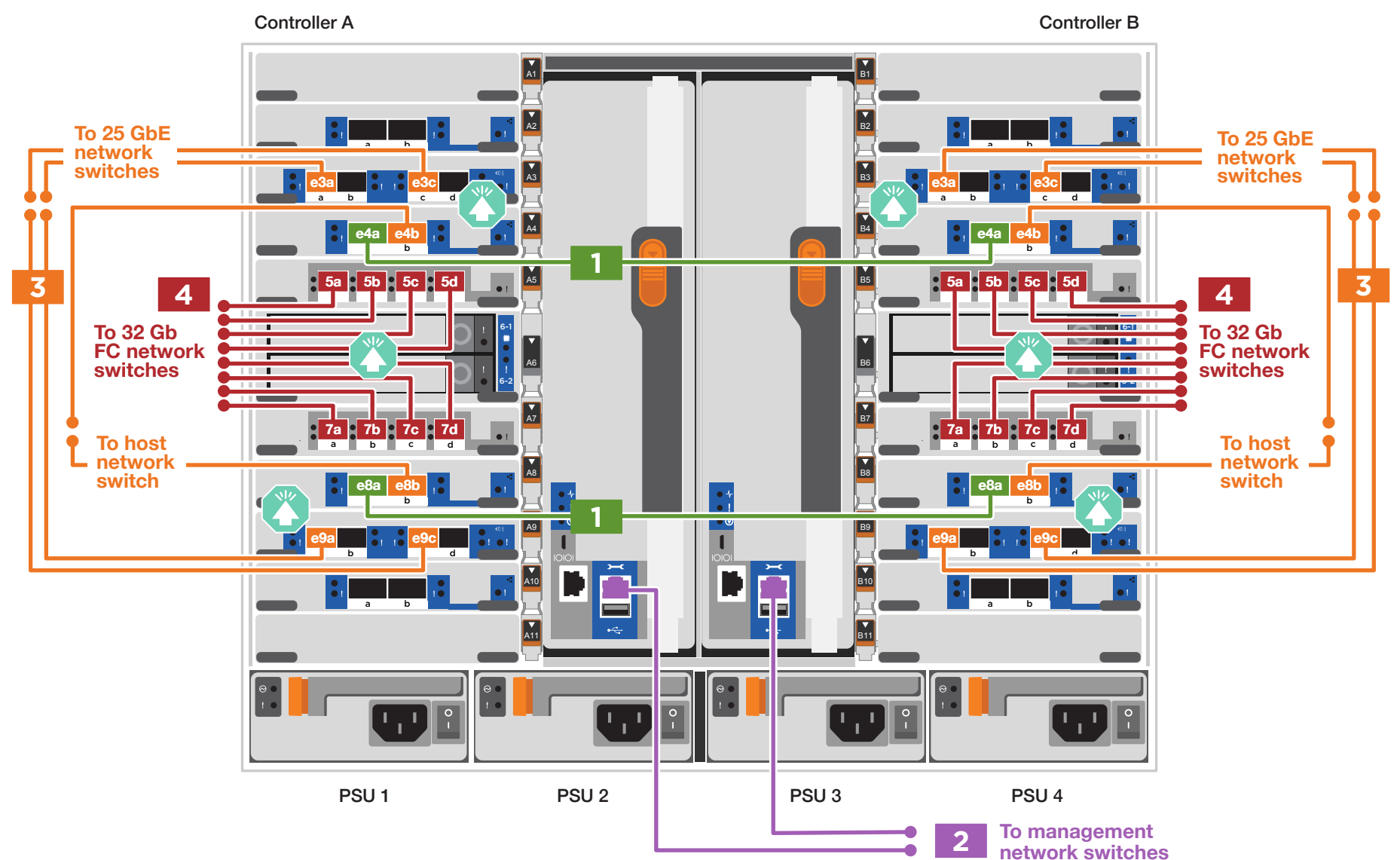


32 Gb FC (SFP+ Op) cables

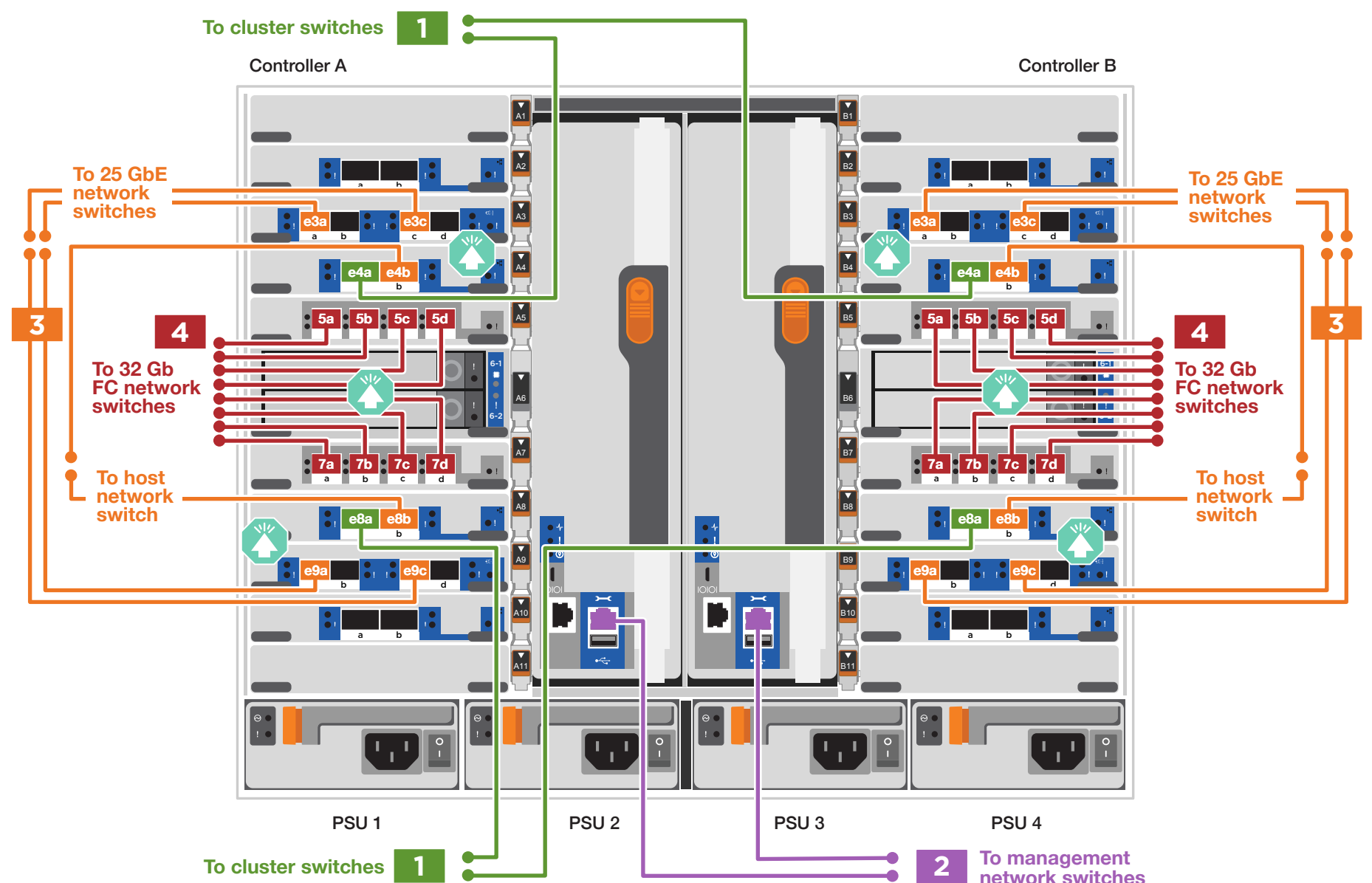
4 Cable ports in slot A5 and B5 (5a, 5b, 5c, and 5d) and slot A7 and B7 (7a, 7b, 7c, and 7d) to the 32 Gb FC network switches.

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

## Switchless cluster

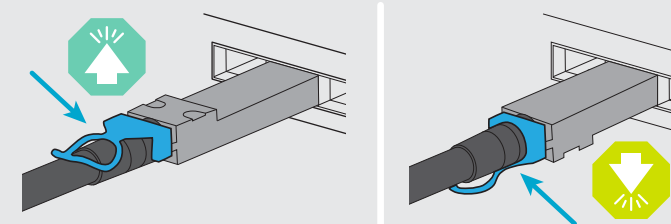


## Switched cluster



# Cable controllers | Stage 2

**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.



## 3 Cable storage

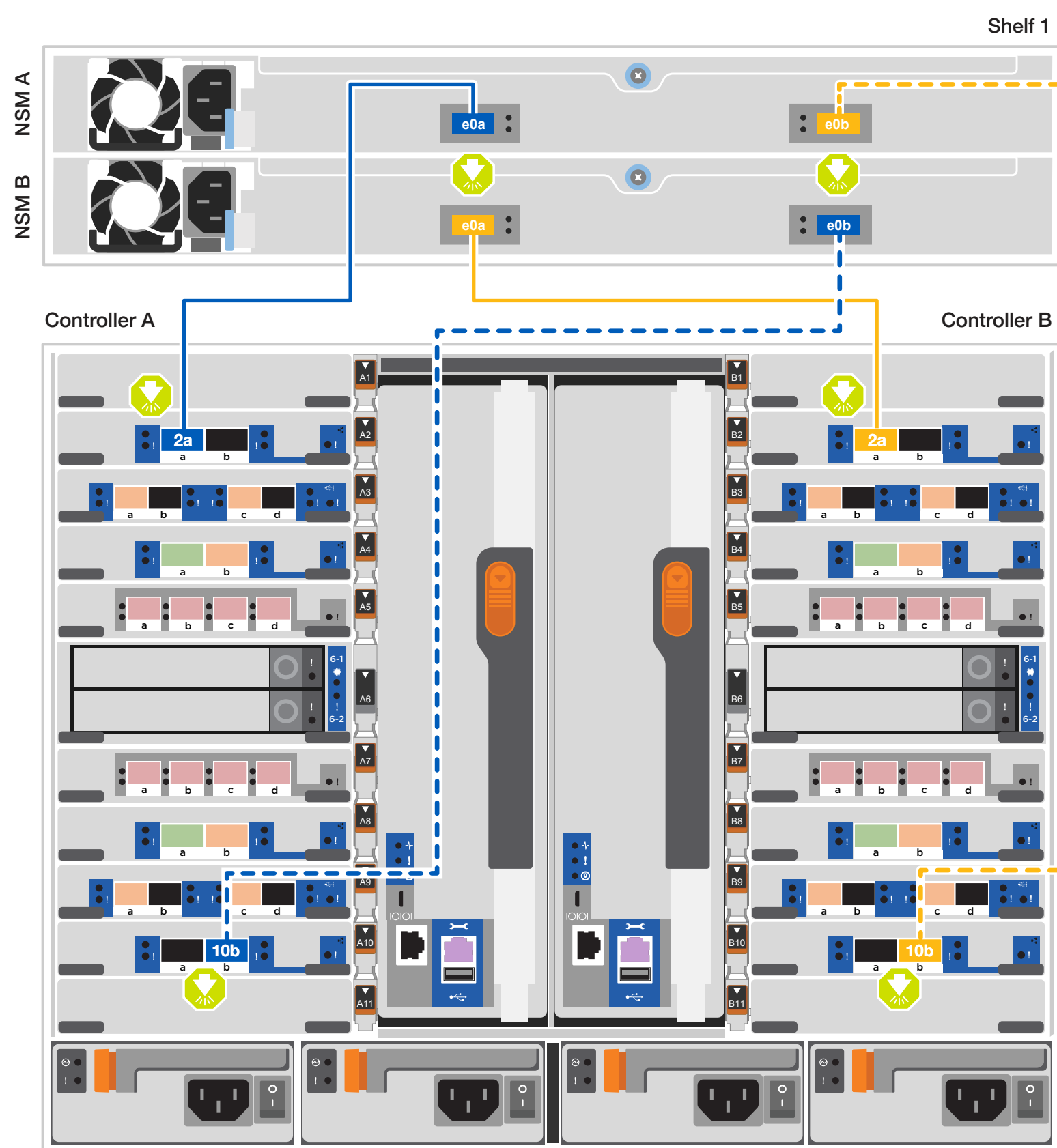
### Cable to one NS224 shelf



100 GbE QSFP28 copper cables

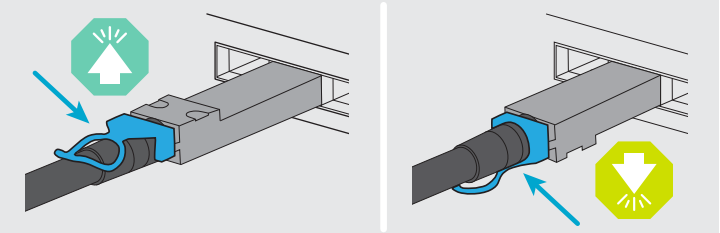
Use the table below to cable your controllers to the NS224 shelf.

		Shelf 1			
		NSM A		NSM B	
		e0a	e0b	e0a	e0b
Controller A	Slot 2	Port A	---	---	---
		Port B	---	---	---
	Slot 10	Port A	---	---	---
		Port B	---	---	---
Controller B	Slot 2	Port A	---	---	---
		Port B	---	---	---
	Slot 10	Port A	---	---	---
		Port B	---	---	---



# Cable controllers | Stage 2

**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.



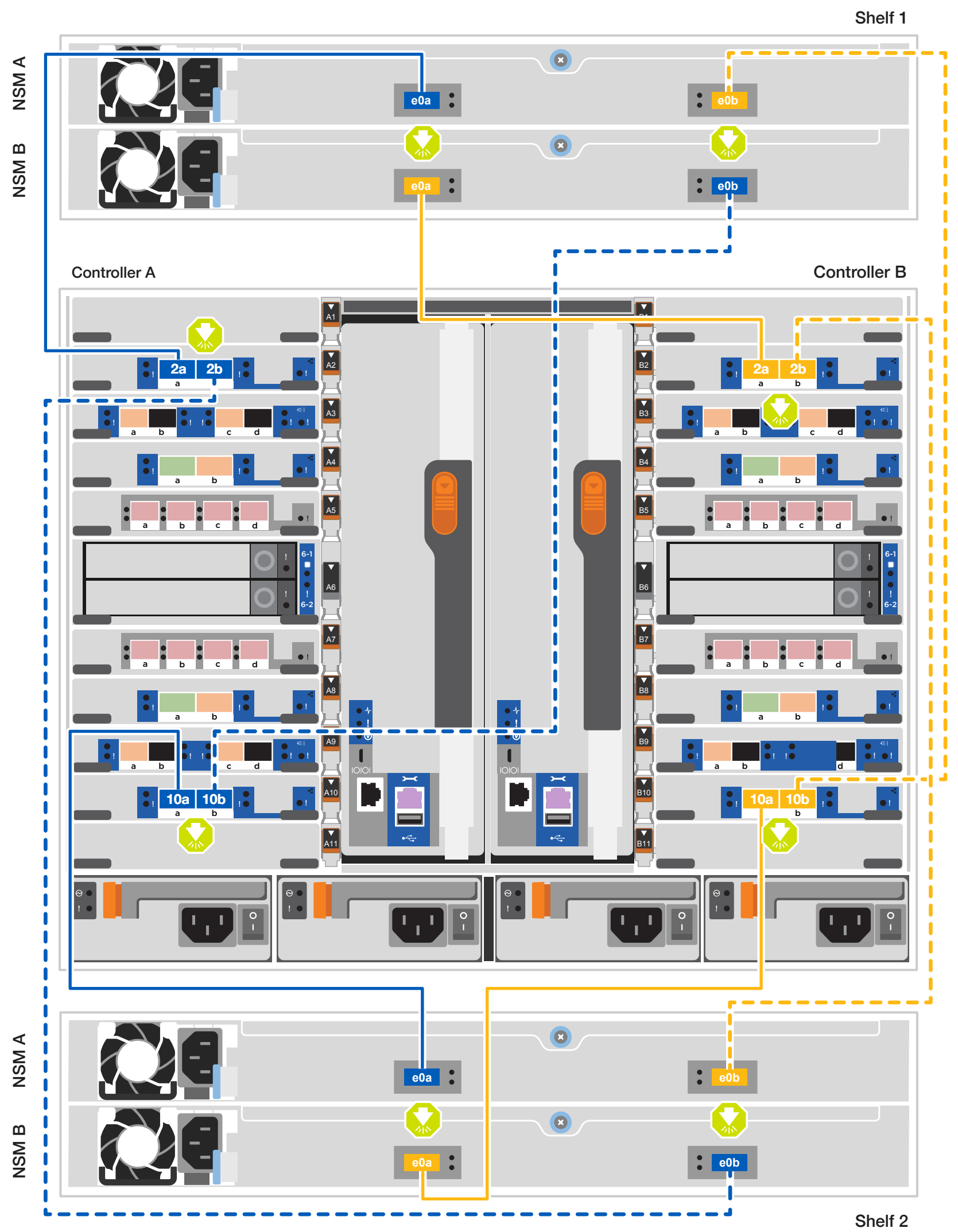
## 3 Cable storage, continued

### Cable to two NS224 drive shelves



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

			Shelf 1				Shelf 2			
			NSM A		NSM B		NSM A		NSM B	
			e0a	e0b	e0a	e0b	e0a	e0b	e0a	e0b
Controller A	Slot 2	Port A	Shelf 1		Shelf 2		Shelf 1		Shelf 2	
		Port B	Shelf 2		Shelf 1		Shelf 2		Shelf 1	
	Slot 10	Port A	Shelf 1		Shelf 2		Shelf 1		Shelf 2	
		Port B	Shelf 2		Shelf 1		Shelf 2		Shelf 1	
Controller B	Slot 2	Port A	Shelf 1		Shelf 2		Shelf 1		Shelf 2	
		Port B	Shelf 2		Shelf 1		Shelf 2		Shelf 1	
	Slot 10	Port A	Shelf 1		Shelf 2		Shelf 1		Shelf 2	
		Port B	Shelf 2		Shelf 1		Shelf 2		Shelf 1	



# Storage system bring-up | Stage 3

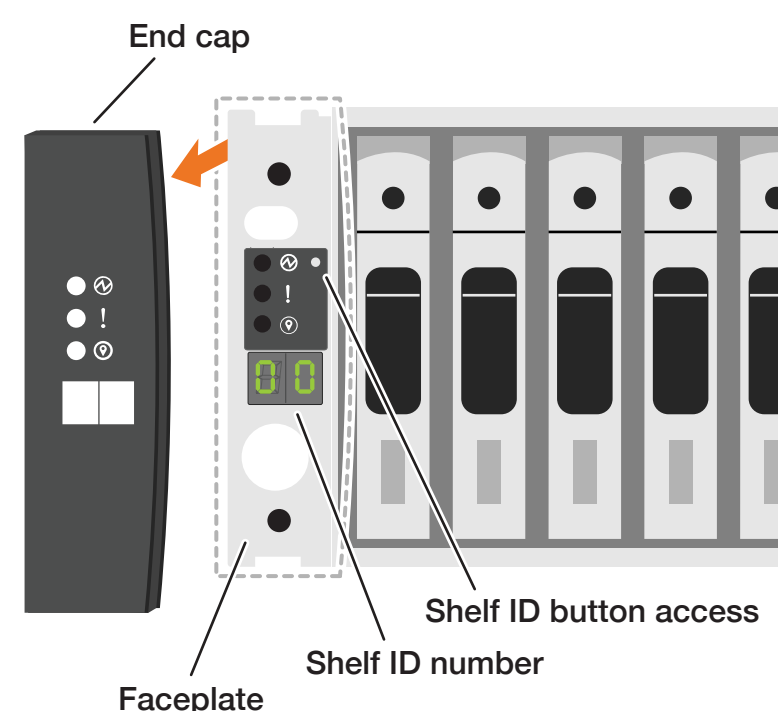
## 1 Power on the shelves and set shelf IDs

**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.

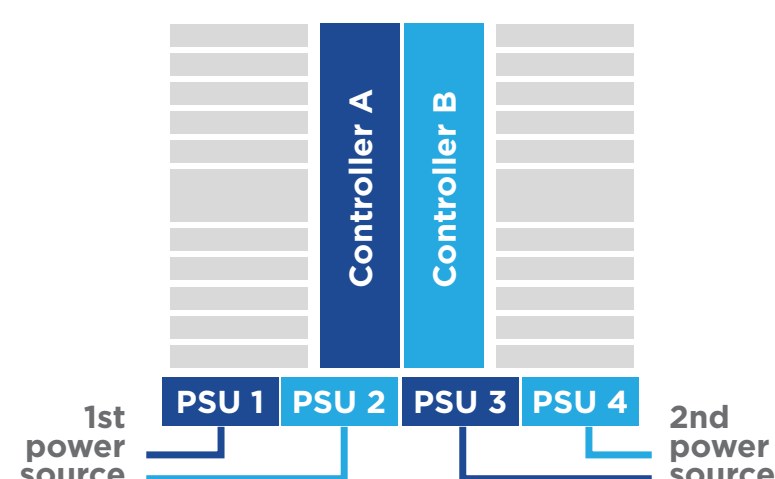
2. If you need to change the shelf ID's, see [Change a shelf ID - NS224 shelves](#) for detailed instructions.



## 2 Connect the power cords



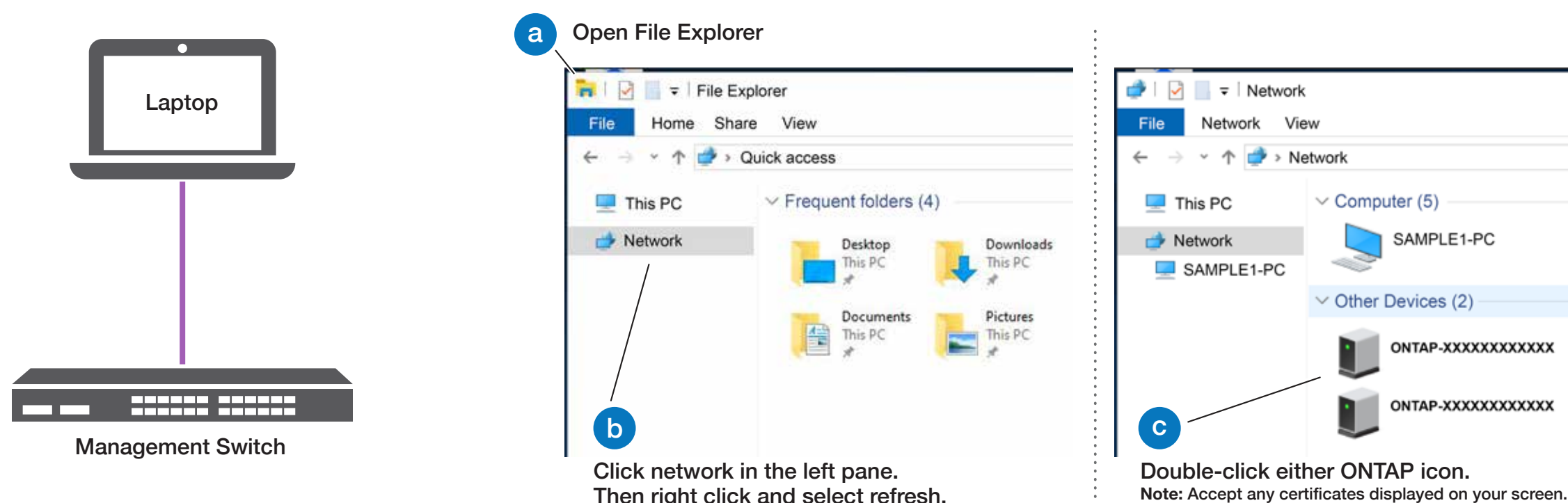
1. Connect the power cables to each controller's power supply, and then to power sources on different circuits. PSU 1 and PSU 3 provide power to all side A FRUs, PSU 2 and PSU 4 provide power to all side B FRUs.
2. Secure the power cables using the securing device on each power supply.
3. Turn on the power switches to all nodes.



## 3 Complete the initial cluster setup with network discovery

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

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



## 4 Configure your cluster using the [Configure ONTAP on a new cluster with System Manager](#) procedure

## 5 Complete the 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](#), and then run it to verify the health of your storage system.
3. After you have completed the initial configuration, go to the [NetApp ONTAP Resources](#) page for information about configuring additional features in ONTAP.