

Common Switch Commands

Quick-reference CLI commands for common managed switches used in physical security deployments. Covers ARP tables, port management, and PoE settings for Cisco, HP/Aruba, and other common platforms.

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ARP Table Commands

Overview

ARP tables map IP addresses to MAC addresses on a switch. Use these commands when troubleshooting connectivity or identifying what device is on a specific IP.

Cisco IOS / Catalyst

```
# Show full ARP table
show arp

# Show ARP for specific IP
show arp 192.168.1.100

# Show ARP entries for a specific interface/VLAN
show arp vlan 10

# Clear ARP cache
clear arp-cache
```

Cisco Meraki

Meraki switches do not have a traditional CLI. Use the Dashboard:

1. Go to **Switch > Switches** and select the switch
 2. Click **Live Tools**
 3. Select **ARP Table** to view current entries
 4. Alternatively, use **Clients** tab to see IP-to-MAC mapping
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HP / Aruba ProCurve

```
# Show full ARP table
show arp
```

```
# Show ARP for specific IP
show arp 192.168.1.100
```

```
# Clear ARP table
clear arp
```

Netgear Managed (GS / M series)

```
# Show ARP table
show arp-table all
```

```
# Show ARP for specific IP
show arp-table 192.168.1.100
```

Tips

- If a camera or controller is not showing in ARP, check that it is powered and the port link is up
- Use MAC address to cross-reference with switch MAC-address table: `show mac address-table` (Cisco) or `show mac-address` (HP)
- ARP entries expire — if device went offline recently, the entry may still show temporarily

Port Up / Down Commands

Overview

Use these commands to administratively shut down or bring up a switch port. Useful when you need to power-cycle a PoE device, isolate a port, or troubleshoot a link.

Cisco IOS / Catalyst

```
# Enter interface configuration
switch# configure terminal
switch(config)# interface GigabitEthernet1/0/5

# Shut down the port (disable)
switch(config-if)# shutdown

# Bring the port back up
switch(config-if)# no shutdown

# Verify port status
switch(config-if)# end
switch# show interface GigabitEthernet1/0/5 status
```

Shorthand: Interface names can be abbreviated — `gi1/0/5` instead of `GigabitEthernet1/0/5`, or `fa0/5` for FastEthernet.

Cisco Meraki

Meraki switches are managed via Dashboard only:

1. Go to **Switch > Switches**, select the switch
 2. Click the **Ports** tab
 3. Click the port number to open its settings
 4. Toggle **Port Enabled** off/on
 5. Click **Update**
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HP / Aruba ProCurve

```
# Enter interface configuration
switch# configure
switch(config)# interface 5

# Disable the port
switch(eth-5)# disable

# Enable the port
switch(eth-5)# enable

# Verify status
switch(eth-5)# exit
switch# show interface 5
```

Tips

- Shutting down a PoE port and bringing it back up is often the fastest way to reboot a camera or access reader without physically unplugging
- Always confirm the correct port before shutting down — verify with `show mac address-table interface gil/0/5` (Cisco) to see what device is connected
- On Cisco: use `show interface status` to see all port states at a glance

PoE Settings & Troubleshooting

Overview

Power over Ethernet (PoE) powers cameras, readers, and access control devices over the data cable. Most physical security installs rely heavily on PoE. These commands let you check power draw, set power budgets, and reset PoE on a port.

Cisco IOS / Catalyst

```
# Show PoE status for all ports
show power inline

# Show PoE status for a specific port
show power inline GigabitEthernet1/0/5

# Enable PoE on a port (default is auto)
interface GigabitEthernet1/0/5
power inline auto

# Disable PoE on a port
interface GigabitEthernet1/0/5
power inline never

# Set a PoE power limit on a port (watts)
interface GigabitEthernet1/0/5
power inline auto max 15400

# Reset PoE (power-cycle the device) - shut/no shut
interface GigabitEthernet1/0/5
shutdown
no shutdown
```

PoE Standards:

- PoE (802.3af) — up to 15.4W per port (cameras, readers)
 - PoE+ (802.3at) — up to 30W per port (PTZ cameras, heated domes)
 - PoE++ (802.3bt) — up to 60W or 100W (high-power devices)
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Cisco Meraki

Via Dashboard:

- 1. Go to **Switch > Switches**, select the switch
- 2. Click the **Ports** tab
- 3. Select the port and click edit
- 4. Toggle **PoE** on/off, or set a power limit

To reset PoE on a port: **Disable PoE > Save > Re-enable PoE > Save**

HP / Aruba ProCurve

```
# Show PoE status all ports
show power-over-ethernet

# Show PoE for specific port
show power-over-ethernet 5

# Enable PoE on a port
interface 5
power-over-ethernet

# Disable PoE on a port
interface 5
no power-over-ethernet

# Set PoE power limit (milliwatts)
interface 5
power-over-ethernet value 15400
```

Troubleshooting

Symptom	Likely Cause	Fix
Port shows "searching" or "fault"	Device not PoE compatible, or cable fault	Check cable, verify device accepts PoE
Device powers on then off	Exceeded port power budget	Check draw with <code>show power inline</code> , upgrade to PoE+
Switch PoE budget exhausted	Too many high-draw devices	Review total draw, add PoE injector or second switch
Camera or reader offline but port is up	PoE disabled, or device needs reboot	Shut/no shut the port to power-cycle