ClearPath MSP
ClearWatch

SOLUTION BRIEF

from ClearPath MSP

CLEARWATCH SOLUTION BRIEF · CISCO CATALYST SWITCHES

Catalyst switch monitoring, down to every changed line.

How ClearWatch adds Cisco Catalyst switches from one SSH login, backs up their configuration, and watches their stacks, power and cooling.

PUBLISHED NOVEMBER 2026 LENGTH 6 PAGES APPLIES TO CATALYST SWITCHES ON IOS AND IOS-XE

EXECUTIVE SUMMARY

Switch monitoring that knows what changed

Every user, phone and access point hangs off a switch, and a switch is easy to forget until it fails. A ping says it is on. It does not say that one power supply has died, that a stack is running as a chain with no redundancy, or that somebody edited the running configuration last night.

ClearWatch signs in to a Catalyst once over SSH from a ClearBridge inside the network, works out what it is, reads its read-only SNMP community and takes the first configuration backup. From then on it reads fans, power supplies, temperatures and the StackWise stack every 10 minutes, backs the configuration up on a schedule, draws the switch on the network map, and lists it on the Switches dashboard beside every other client's switches.

KEY TAKEAWAYS

- **Added from one SSH login:** identified, backed up, SNMP set up and monitors applied, with nothing changed on the switch.
- **Every configuration change, line by line,** running and startup, raised for attention and closed by itself after 72 hours.
- **Stacks watched member by member:** an open ring, a member not ready, a stack cabled the wrong way.
- **One dashboard for every client:** online, needs attention, backups and hardware on one page.

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WHO THIS IS FOR

MSPs and IT teams responsible for Cisco Catalyst switches, standalone or stacked, at one site or across many clients.

AT A GLANCE

CHECKS
9 built in
Backup, power and cooling, and the stack. On by default.

HARDWARE
Every 10 minutes
Fans, power supplies, temperatures and stack, over SNMP.

BACKUP
Nightly, or every 2 to 12 hours
A version kept only when the configuration changed.

NEIGHBORS
CDP and LLDP
With the forwarding and ARP tables, every night.

01 THE CHALLENGE

A switch that answers a ping can still be one fault from an outage

Most monitoring treats a switch as an address to ping and a few counters to graph. That answers whether it is on, not the questions asked after an outage: was the second power supply already dead, was the stack already broken, and what changed before it went wrong.

THE QUESTION	PING AND GENERIC SNMP	CLEARWATCH
Is a power supply or fan down?	The switch keeps answering on its other supply	Reads every fan, supply and temperature **every 10 minutes** and alerts on a failure
Is the stack still redundant?	An open ring still forwards traffic	Reads the **StackWise ring**, each member's role and state, and its cabling
What changed last night?	Not visible	Backs up running and startup and shows the change **line by line**
Is the backup still working?	A script fails quietly	Warns at **48 hours** without a successful backup, fails at 72

Why a configuration backup needs to be quiet

IOS rewrites parts of its own configuration as it runs: a timestamp on every dump, and the **ntp clock-period** line as the clock drifts. ClearWatch leaves those lines out of the comparison, so a change means a person changed something.

02 HOW CLEARWATCH CONNECTS

SSH once to set it up, SNMP to watch it

A ClearBridge (the ClearWatch agent on a machine at the site) signs in over SSH to identify the switch and back it up, and reads its health over SNMP. Nothing is installed on the switch or opened to the internet.

YOUR NETWORK
Cisco Catalyst
Answers SSH for setup and backups, and SNMP for its health, stack and neighbors.

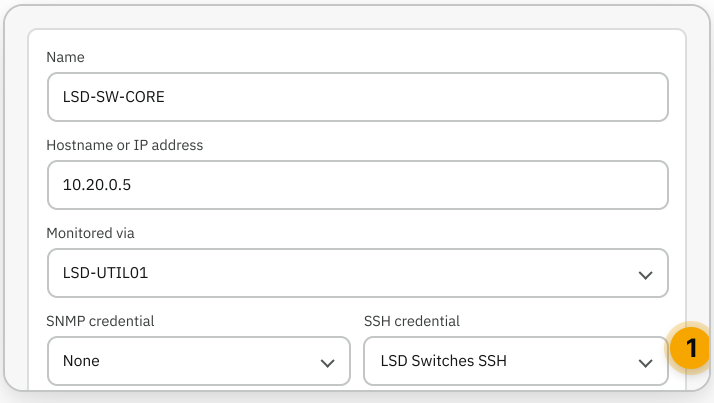
→

YOUR NETWORK
ClearBridge
Runs only the commands on its fixed list, and never writes to the switch.

→

CLEARWATCH
Backups, checks, alerts
Turns what the switch answers into its device page, checks, the map and the dashboard.

Under Switches, **Add switch** asks for a name, the switch's address, the ClearBridge it is **Monitored via**, and an SSH login (1). An SNMP credential is optional: ClearWatch reads the community off the switch.



A short, fixed list

To identify a Catalyst, the ClearBridge may send exactly three lines: **terminal length 0**, **show version** and **show running-config | include snmp-server**, then exit. Anything else is refused by the ClearBridge itself.

After setup, only the backup signs in. Health, the stack and the neighbors are SNMP reads.

02 HOW CLEARWATCH CONNECTS, CONTINUED

An address and an SSH login. ClearWatch does the rest.

There is no vendor to pick. ClearWatch reads the switch's SSH greeting, asks **show version**, and configures nothing from a guess.

A live panel ticks off seven steps as the switch answers, naming the model and IOS-XE release it found 1. The SNMP community is read off the switch and saved as a credential, but only a read-only one 2; a read-write community is never adopted. The configuration backup is set up and the first one taken 3, then the switch is scanned and the monitoring templates are applied.

What you provide

- ✓ The switch's address and an SSH login, stored sealed in the credential vault.
- ✓ A ClearBridge at the site that can reach it.
- ✓ An SNMP credential, if the switch uses SNMPv3 or you want to choose one.

What it never does

- ✗ Write to the switch, or save its configuration.
- ✗ Run a command outside its fixed list.
- ✗ Adopt a read-write SNMP community.

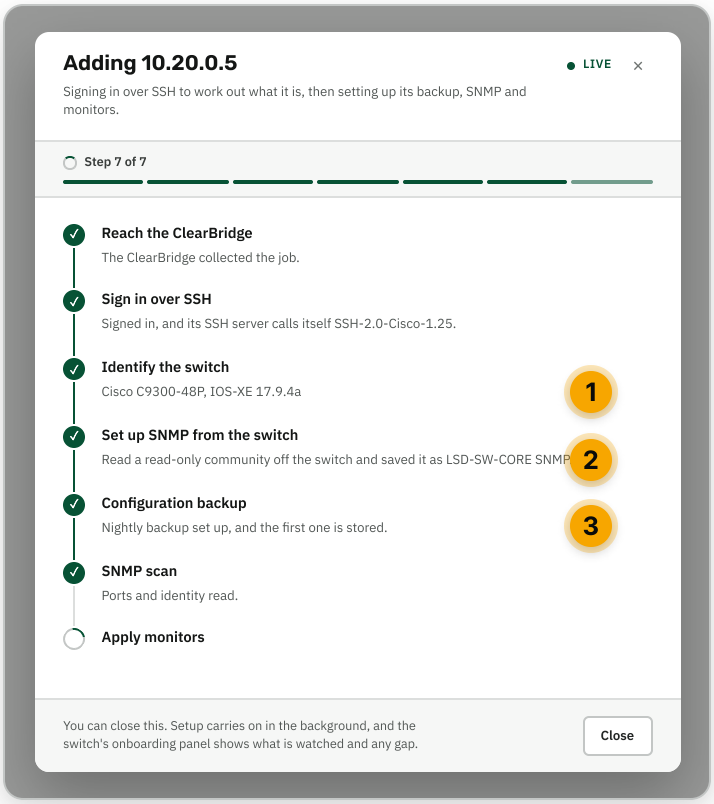


FIGURE 1 The live setup panel for a Catalyst, rebuilt from the ClearWatch console with demo data.

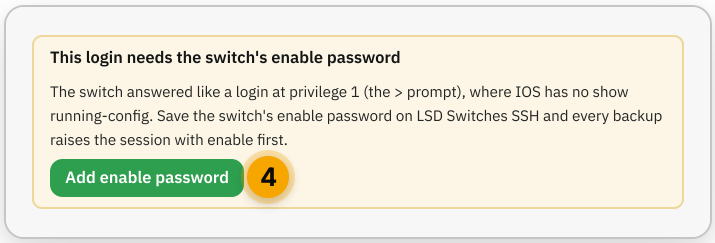


FIGURE 2 The Configuration tab when a login lands at the user prompt.

A login at the user prompt

Many Catalysts sign a login in at privilege 1, where **show running-config** is refused. ClearWatch recognizes that and asks for the enable password 4. It is saved once on the SSH login, so every switch using that login gets it, and it is typed only at the switch's own Password prompt, never shown again and never written to the audit log.

Requirements

- A Cisco Catalyst switch on IOS or IOS-XE, standalone or a StackWise stack.
- A ClearBridge at the site that reaches the switch over SSH and SNMP.
- An SSH login that can read the configuration, or one with the enable password.
- A read-only SNMP community on the switch, or an SNMPv3 user saved in ClearWatch.

03 CONFIGURATION BACKUP

Running and startup, kept only when they change

Each backup runs **show running-config** and **show startup-config** over SSH, so a change made but never saved shows as a difference between the two. A version is kept only when the configuration changed, so the list reads as a history of edits 1 .

Backups run nightly at a set hour in the site's own time zone, or every 2, 4, 6, 8 or 12 hours 2 . Check any two versions to compare them side by side or unified 3 , or copy and download one to restore it on the switch.

The first backup is never a change. A later change opens a **Needs attention** item that closes itself 72 hours on. The overdue check counts from the last backup that succeeded.

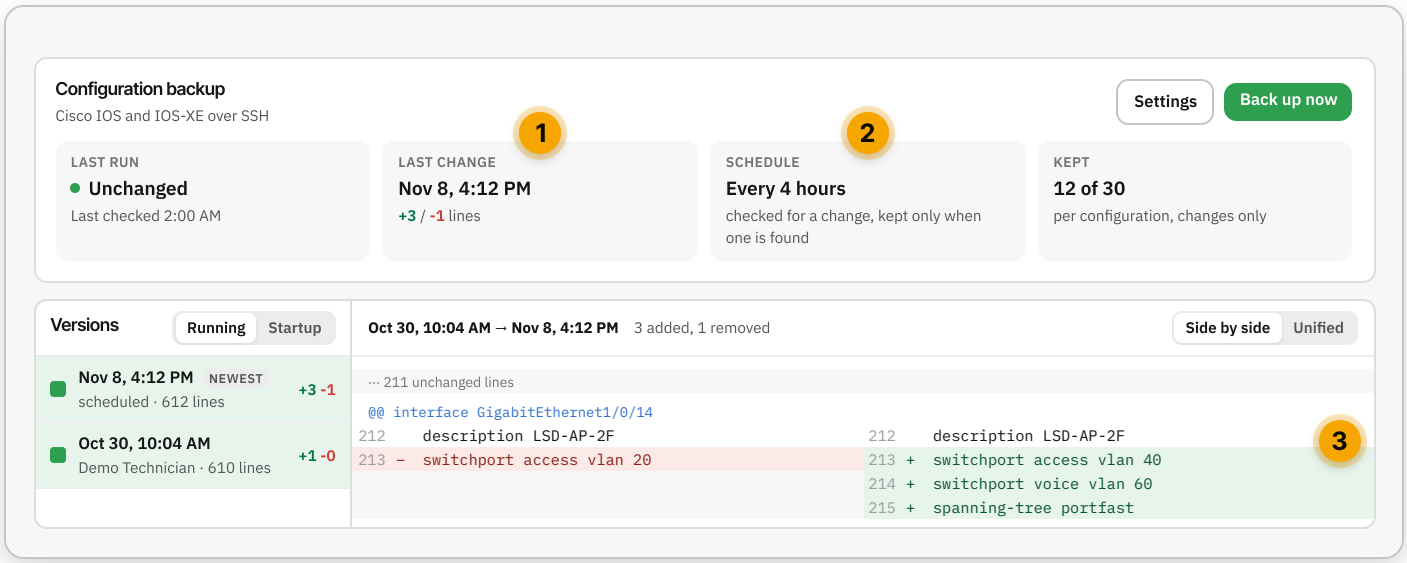


FIGURE 3 The Configuration tab: the last change, the schedule and two versions compared.

04 WHAT CLEARWATCH SHOWS

A StackWise stack, member by member

StackWise is read with the hardware every 10 minutes. Hardware lists each member with its role, model, serial, priority and state 4 . An open ring is said in plain words: which stack port is down, the chain the stack now runs as, and what one more failure would split 5 .

The Ports tab draws the back of every member with the stacking cables as the switch reports them, and flags a stack cabled port 1 to port 1 instead of Cisco's criss-cross. Software flags a member whose firmware differs from the active unit's.

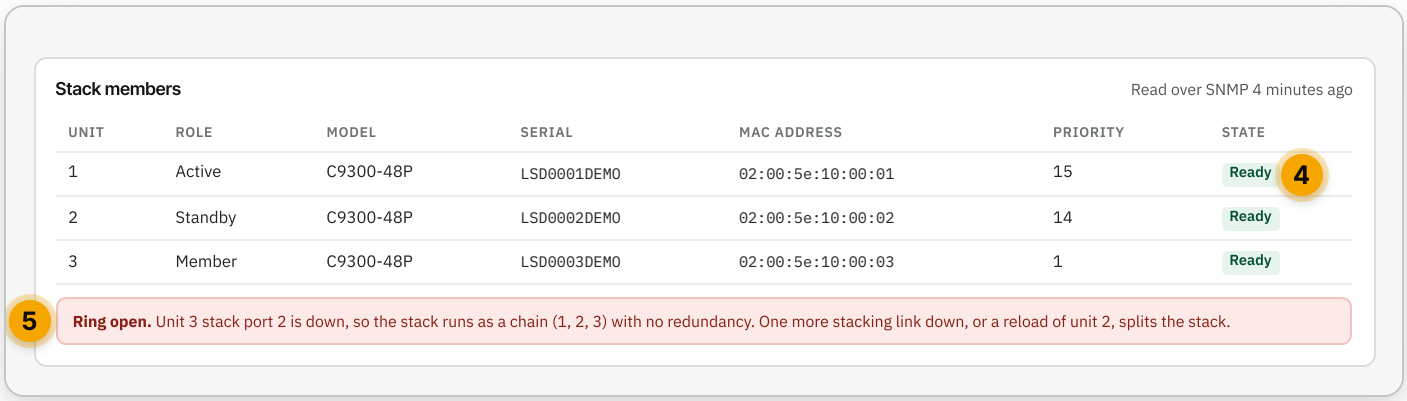


FIGURE 4 Hardware, Stack members, with the ring open on a three-member stack.

04 WHAT CLEARWATCH SHOWS, CONTINUED

Power, cooling and neighbors, then every switch on one page

Power and cooling

Fans, power supplies and temperatures are read from the switch's own tables every 10 minutes, per stack member 1 . Each part shows the switch's own word beside its state 2 , and a temperature shows the limit the switch sets for it.

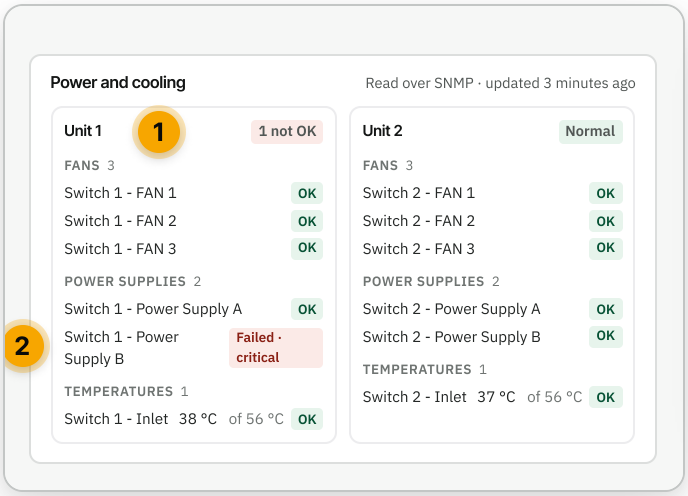


FIGURE 5 Hardware, Power and cooling on the first two members of a stack.

Neighbors and the network map

Each night ClearWatch reads the CDP and LLDP neighbors, the forwarding table (VLAN by VLAN, as IOS keeps it) and the ARP table. The map draws it as a Catalyst, cabled to what it found 3 ; its search finds a device by name, address or MAC 4 .

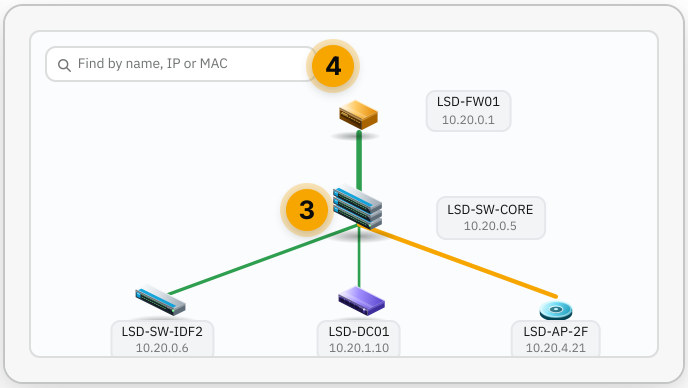


FIGURE 6 Part of a topology map. Thicker is busier; amber is 80% and over.

The Switches dashboard

Every switch across every client: how many are online, need attention and are backed up 5 , then a tile per switch with its last 24 hours, ports, CPU and memory, a mark per fan and power supply, the hottest temperature and its backup 6 . Backup state is shown only to people who operate ClearWatch, never to a client's viewers.

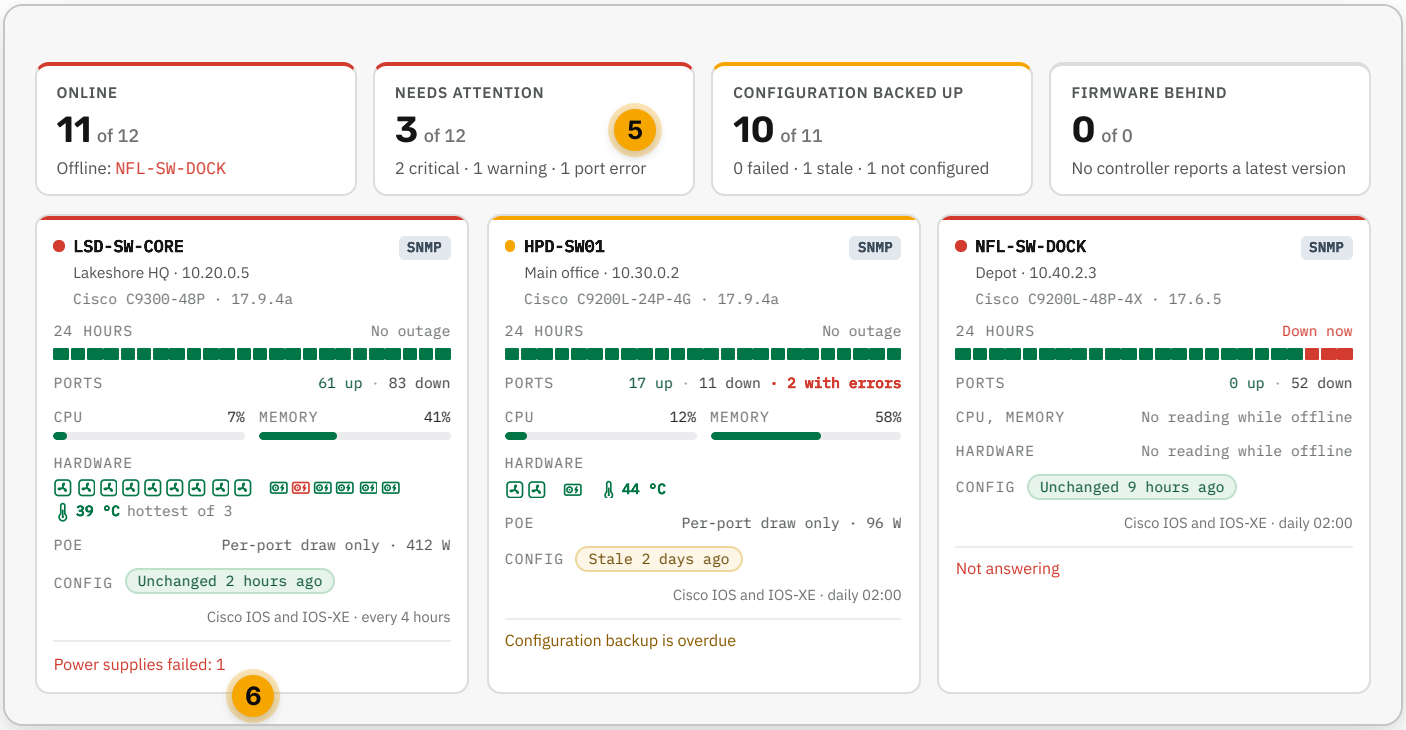


FIGURE 7 The Switches dashboard across three clients, cropped to its first three tiles.

05 CHECKS AND ALERTS

Nine checks for every Catalyst, on by default

Two built-in templates attach them to every switch with a backup and an SNMP path, and every level is a default you can change for everyone or for one switch. An **Alert** pages; a **Needs attention** item waits on the board for whoever is on the desk.

AREA	CHECK	DEFAULT LEVELS
Configuration backup	Configuration backup is overdue	Warning at 48 hours, failed at 72 hours, from the last successful backup
	Configuration changed	Needs attention, closed by itself 72 hours after the change
Power and cooling	Fans failed	Alert at 1
	Power supplies failed	Alert at 1
	Temperature sensors in alarm	Alert at 1, by the switch's own limits
	Hottest temperature (°C)	Shown at 70 °C, needs attention at 85 °C
StackWise stack	Stack members not ready	Alert at 1
	Stack ring open	Needs attention
	Stack cabling	Needs attention, on a stack of three or more

Adding a switch also gives it a ping check, so a switch that stops answering shows as down. The stack checks answer nothing on a switch that is not stacked.

06 GOOD TO KNOW

Access and secrets

- SSH logins, enable passwords and SNMP communities are sealed in the credential vault and handed only to the ClearBridge that needs them.
- A stored configuration keeps its secrets, so it can be restored. Only people allowed to manage monitoring can open or download one, and every download is served by ClearWatch, never a public link.
- Restoring is done on the switch: ClearWatch shows, compares, copies and downloads each version.

Limits

- Firmware is shown as the switch reports it; it is not compared against Cisco's latest release.
- Port-channel membership is not read, and port alerts are not added for you: an interface check is picked per port from the switch's MIBs.
- This brief covers Catalyst switches on IOS and IOS-XE. Cisco Meraki switches are added through the Meraki dashboard instead.

Bring your Catalyst switches into view.

Start a free trial, or ask us to add your first stack with you.

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