ClearPath MSP
ClearWatch

SOLUTION BRIEF

from ClearPath MSP®

CLEARWATCH SOLUTION BRIEF · JUNIPER EX SERIES SWITCHES

EX Series switch monitoring, down to every committed line.

How ClearWatch adds Juniper EX Series switches from one SSH login, backs up their Junos configuration, and watches their power and cooling.

PUBLISHED NOVEMBER 2026 LENGTH 6 PAGES APPLIES TO EX SERIES SWITCHES ON JUNOS OS

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 fan tray is running flat out, or that somebody committed a change last night.

ClearWatch signs in to an EX Series switch 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 and temperatures every 10 minutes, backs the Junos configuration up on a schedule in set format, 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 committed change, command by command,** raised for attention and closed by itself after 72 hours.
- **Power and cooling every 10 minutes:** a failed supply or fan alerts, a hot switch needs attention.
- **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 Juniper EX Series switches, at one site or across many clients.

AT A GLANCE

CHECKS
5 built in
Backup, and power and cooling. On by default.

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

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

NEIGHBORS
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 a fan tray already failing, and what was committed 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
What was committed last night?	Only on the switch, for whoever signs in to look	Backs up the configuration and shows the change **command by command**
Is the backup still working?	A script fails quietly	Warns at **48 hours** without a successful backup, fails at 72
What is plugged in where?	A spreadsheet, if anyone keeps it	LLDP neighbors, the forwarding and ARP tables, drawn on the **network map**

Why set format

ClearWatch captures the configuration with **show configuration | display set**: one command per line. A change then reads as exactly the commands added and removed, where the brace form moves whole blocks and a one-line change can look like forty.

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
Juniper EX Series
Answers SSH for setup and backups, and SNMP for its health and neighbors.

→

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

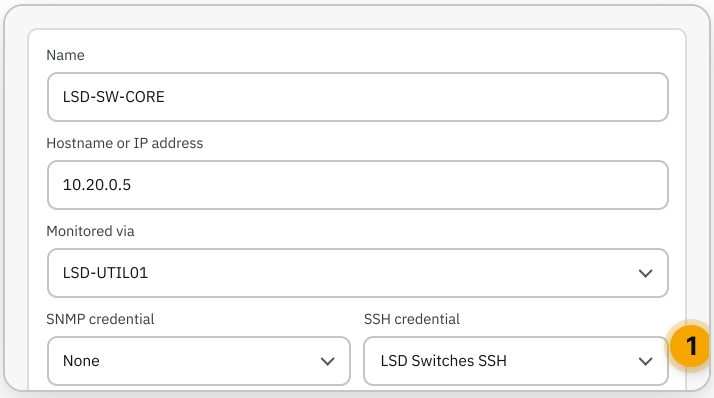
→

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 Juniper, the ClearBridge may send exactly four lines: **cli**, **set cli screen-length 0**, **show version** and **show configuration snmp | display set | no-more**, then exit. Anything else is refused by the ClearBridge itself.



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 Junos 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 community with read-write authorization 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 commit anything.
- ✗ Run a command outside its fixed list.
- ✗ Adopt a read-write SNMP community.

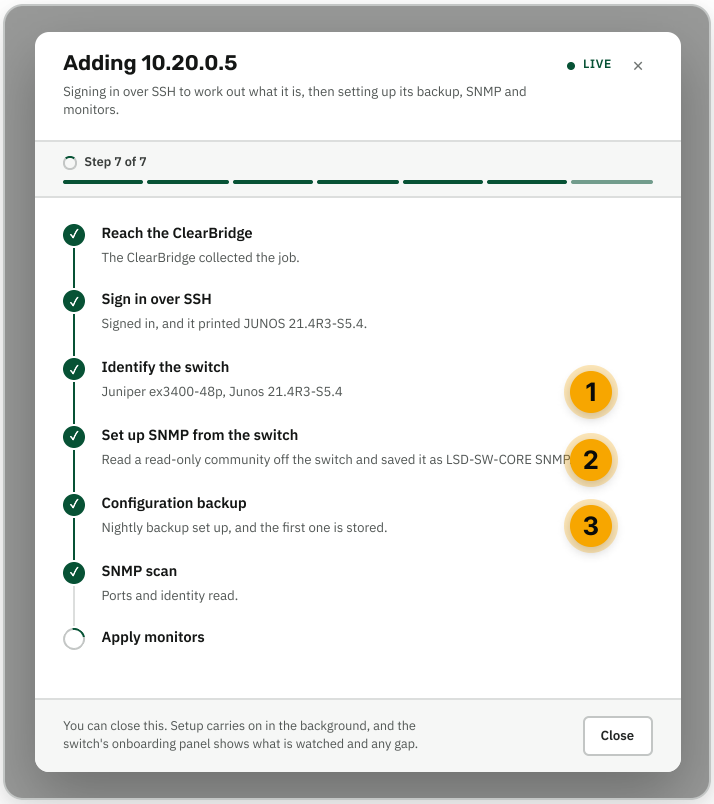


FIGURE 1 The live setup panel for an EX Series switch, rebuilt from the ClearWatch console with demo data.

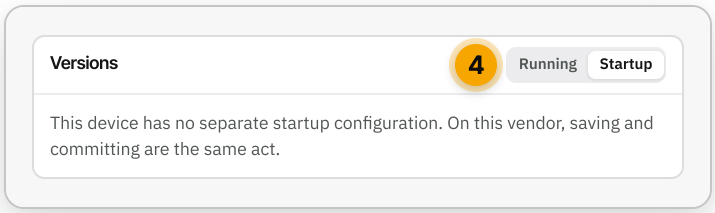


FIGURE 2 The Configuration tab's Startup view on a Juniper.

Root or a named login

A login as root opens in the switch's shell, not the Junos CLI, so ClearWatch sends **cli** first and either kind of login works. Junos has no separate startup configuration, because a commit is the save, and the tab says so rather than showing an empty list 4 .

Requirements

- A Juniper EX Series switch on Junos OS.
- A ClearBridge at the site that reaches the switch over SSH and SNMP.
- An SSH login that can read the configuration: root, or a user with the CLI as its shell.
- A read-only SNMP community on the switch, or an SNMPv3 user saved in ClearWatch.

03 CONFIGURATION BACKUP

The Junos configuration, kept only when it changes

Each backup runs **show configuration | display set | no-more** over SSH. The commit stamps Junos writes at the top are left out of the comparison, and a version is kept only when the configuration changed, so the list reads as a history of commits 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 load 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.

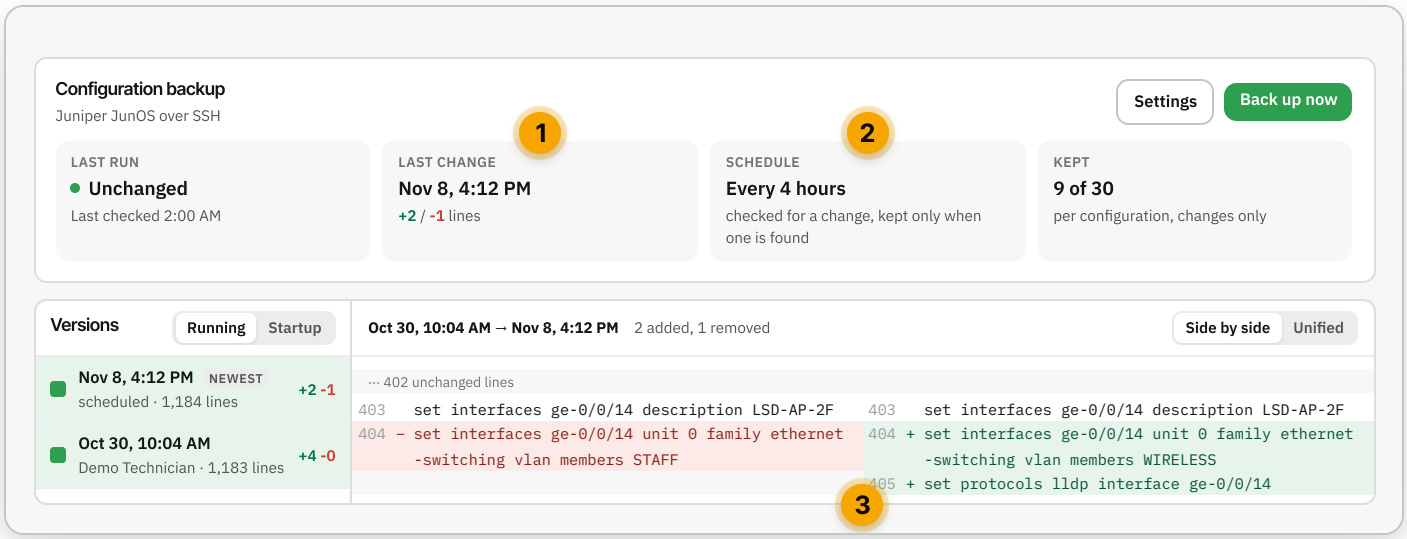


FIGURE 3 The Configuration tab: the last change, the schedule and two versions compared.

04 WHAT CLEARWATCH SHOWS

Power and cooling, in the switch's own words

Fans, power supplies and temperatures are read from the switch's own operating table every 10 minutes and shown on Hardware, Power and cooling. Each part shows the switch's own word beside its state, so a fan tray running at full speed is a warning, with Junos's word for it 4 .

Junos reports no limit for its temperatures, so ClearWatch judges them by its own levels: 70 °C shows on the board, 85 °C needs attention 5 . A stale reading is never drawn as healthy: a switch that stops answering shows when it last answered instead.

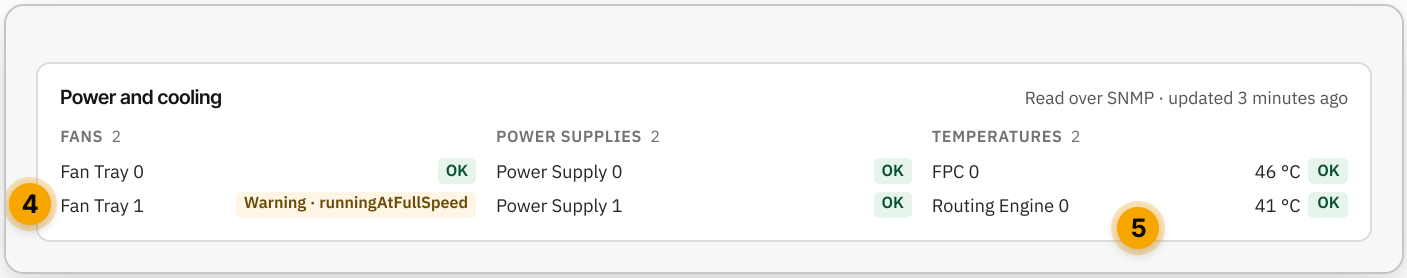


FIGURE 4 Hardware, Power and cooling on an EX Series switch.

04 WHAT CLEARWATCH SHOWS, CONTINUED

Neighbors on the map, then every switch on one page

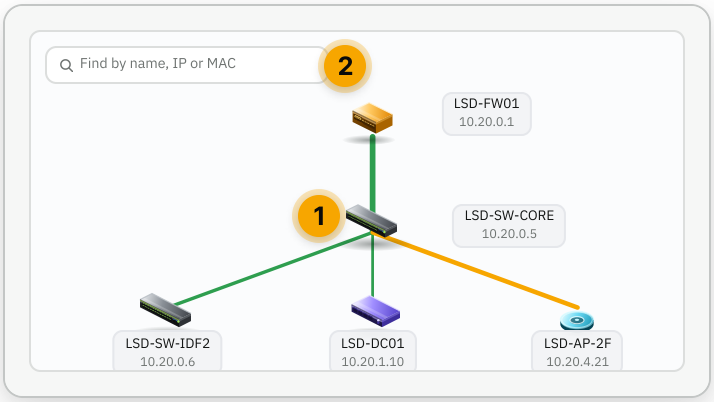


FIGURE 5 Part of a topology map. Thicker is busier; amber is 80% and over.

Neighbors and the network map

Each night ClearWatch reads the switch's LLDP neighbors, its forwarding table and its ARP table. The map draws it as a Juniper, cabled to what it found 1, and its search finds a device by name, address or MAC 2.

Addresses and VLANs

The forwarding table tells IPAM which switch port an address was last seen on, and the switch's ARP table is one of the sources IPAM records. The VLANs in the backed-up configuration are listed under Software, VLANs.

The Switches dashboard

Every switch across every client: how many are online, need attention and are backed up 3, 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 4. Backup state is shown only to people who operate ClearWatch, never to a client's viewers.

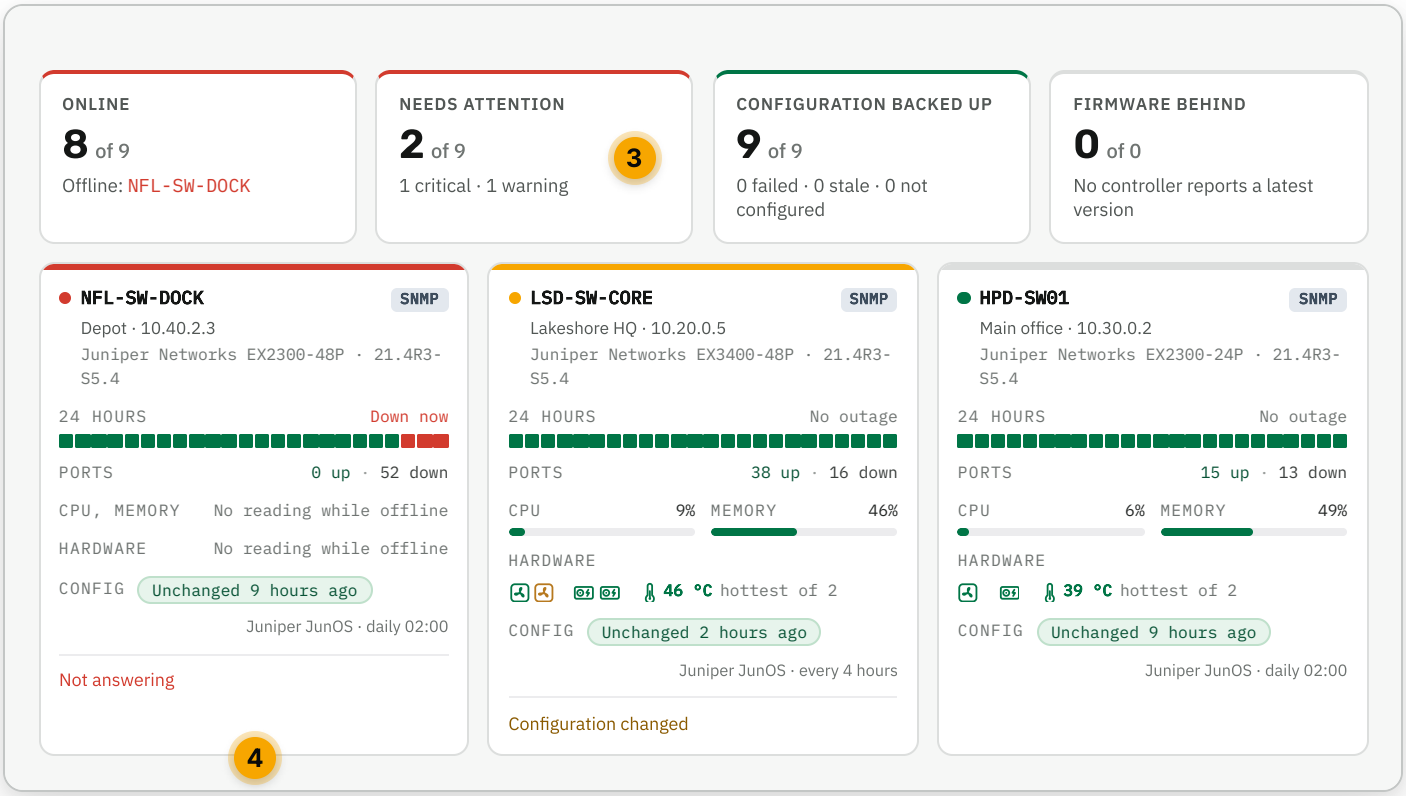


FIGURE 6 The Switches dashboard across three clients, cropped to its first three tiles.

05 CHECKS AND ALERTS

Five checks for every EX Series switch, 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
	Hottest temperature (°C)	Shown at 70 °C, needs attention at 85 °C

Adding a switch also gives it a ping check, so a switch that stops answering shows as down.

06 GOOD TO KNOW

Access and secrets

- SSH logins 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

- A Virtual Chassis is shown as one switch: its members are not listed one by one.
- Transceiver light levels are not read on a Juniper.
- Firmware is shown as the switch reports it; it is not compared against Juniper's latest release.
- Aggregated Ethernet membership is not read, and port alerts are not added for you: an interface check is picked per port from the switch's MIBs.

Bring your EX Series switches into view.

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

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