HPE Aruba Networking CX 8100 Switch Series

HPE Aruba Networking CX 8100 24x10G SFP+ 4x40/100G QSFP28 FB Airflow 3Fan 2AC PSU Switch Bdl (R9W86A)

What's new

- High-performance 1.76 Tbps of bi-directional switching and 1,309 Mpps of forwarding designed for aggregation in the campus or top-of-rack in data center environments.

- Four different base models, each sold in bundles that support two airflow modes (Front to Back, and Back to Front) with Advanced Layer 2/3 feature set that includes BGP, OSPF, VRF, and IPv6.

- High availability with industry-leading VSX redundancy and redundant power supplies and fans.

- HPE Aruba Networking CX Switch Operating System (AOS-CX) automation

Overview

The HPE Aruba Networking CX 8100 Switch Series serves the needs of modern campus core and aggregation as well as dynamic top-of-rack (ToR) data center environments, offering a flexible and innovative approach to addressing the application, security, and scalability demands of the mobile, cloud, and IoT.

The CX 8100 switches are based on HPE Aruba Networking CX Switch Operating System (AOS-CX) that automates and simplifies critical network tasks, offers programmability with REST APIs and Python scripts, delivers enhanced fault tolerance and zero-service disruption during planned or unplanned control-plane events. Real-time, network-wide visibility and analytics are available in every switch.

The series includes industry-leading line rate ports with 1/10 GbE (SFP/SFP+) and 40/100 GbE (QSFP+/QSFP28) connectivity in a compact 1U form factor. 4x10 Gbps and 4x25 Gbps break out from 40/100 G.

and programmability using built-in REST APIs and Python scripts

- Intelligent monitoring and visibility delivered by the HPE Aruba Networking Networks Analytics Engine (NAE)

These switches are great for customers needing 1 GbE/10 GbE with mix of fiber and copper ports.

Features

Modular Cloud-Native Architecture

HPE Aruba Networking CX 8100 Switch Series features HPE Aruba Networking CX Switch Operating System (AOS-CX) which simplify the complexities of managing data center networks with automation options to match your IT organization's operating model.

Proactively detect issues and speed troubleshooting with actionable insights provided by an analytics engine embedded in every switch. Always-on infrastructure designed for resiliency and upgrades with zero downtime.

REST APIs and Python scripting provide fine-grained microservices architecture enabling full integration with other workflow systems and services.

Continual state synchronization provides superior fault tolerance and high availability. Always-on infrastructure designed for resiliency and upgrades with zero downtime.

HPE Aruba Networking Network Analytics Engine (NAE)

HPE Aruba Networking CX 8100 Switch Series utilizes the HPE Aruba Networking Network Analytics Engine (NAE) for advanced telemetry and automation to provide industry-first monitoring and troubleshooting systems that greatly improves network operations.

Customers can use data from the Time Series Database (TSDB) to store configuration and operational state to write software modules to troubleshoot problems. This data may also be used to analyze trends, identify anomalies, and predict future capacity requirements.

High Availability and Resiliency

All software processes in the HPE Aruba Networking CX 8100 Switch Series run as microservices that communicate via the state database of the switch; there is no direct communication between microservices. Should a software process crash, the impact of that failure will be limited.

The ability of AOS-CX to maintain synchronous state across dual control planes allows a unique high availability solution called HPE Aruba Networking Virtual Switching Extension (VSX).

HPE Aruba Networking VSX provides a robust, yet simple solution for high availability with a unique design for control plane synchronization and an architecture that is redundant in both hardware and software by deploying two chassis with an inter-switch link, maintaining its independent control.

Software-Defined Automation

The HPE Aruba Networking CX 8100 Switch Series is supported by HPE Aruba Networking Fabric Composer, a software-defined orchestration solution that simplifies and accelerates leaf-spine network provisioning and day-to-day operations across rack-scale compute and storage infrastructure.

Orchestrate a discrete set of switches as a single networking fabric to simplify operations and troubleshooting. This infrastructure and application-aware solution also automates various configuration and lifecycle events.

Technical specifications

HPE Aruba Networking CX 8100 24x10G SFP+ 4x40/100G QSFP28 FB Airflow 3Fan 2AC PSU Switch Bdl

Product Number	R9W86A
Differentiator	24 ports of 1 GbE/10 GbE (SFP/SFP+) 4 ports of 40 GbE/100 GbE (QSFP+/QSFP28) Includes 2 Power Supplies with No open PS slots Includes 3 Fan Trays with No open FT Slots Includes 1 2-Post Rack Kit Min=0 \ Max= 24 SFP/SFP+ 1/10 G Transceivers QSA28 Adapter Min=0 \ Max=6 1U - Height
Ports	24 ports of 1 GbE/10 GbE (SFP/SFP+) 4 ports of 40 GbE/100 GbE (QSFP+/QSFP28)
Memory and processor	Quad Core ARM Cortex™ A72 @ 1.8 GHz
Switching capacity	1.28 Tbps
Management features	RJ-45 serial and USB-C console RJ-45 Ethernet port USB-Type A
Power supply name	Bundles include the 2 power supplies (2xJL600A in R9W86A, R9W88A, R9W90A & R9W92A)
Input voltage	100-127V 7.1A for 100-127 VAC 200-240V 3.4A for 200-240 VAC
Operating temperature	Up to 32°F to 113°F (0°C to 45°C) up to 5000 ft depending on the model
Power consumption	120W Idle Power / 375W Max Power
Heat dissipation	1275 BTU/hr

HPE Aruba Networking Services

HPE Aruba Networking services simplify and accelerate the network technology lifecycle, enabling your network to scale with better predictability and cost-effectiveness. Whether you operate your own network and need to improve your IT efficiencies, or you want to offload some of the burden, we have the services you need to reach your goals.

Learn more about what HPE Services - Aruba Networking has to offer at: https://www.hpe.com/edge/services

Support Services

Our support portfolio provides the essential support elements as well as proactive and preventive features to help you improve your team's productivity and get the most from your network. Our support customers benefit from faster issue resolution, simplified operations and efficiencies, and reduced network issues.

Professional Services

With deep intellectual capital and purpose-built tools, our team delivers a range of standard and custom professional services designed to accelerate your value from HPE Aruba Networking technology.

Project based services include:
- Planning, audit, and assessment
- Architecture review and design
- Deployment, migration, and knowledge transfer

Annual subscription services include:
- Network optimization
- Intelligent Operations
- Customer Experience Management

Our Education Services allow your team to come up to speed quickly.

HPE GreenLake for Networking

Our NaaS solution, is part of the HPE GreenLake services family, and simplifies network operations, accelerates equipment handling, and increases the value of your HPE Aruba Networking solution. If you need expert guidance and automation-based operations for your team, please explore our NaaS approach through HPE GreenLake for Networking.

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