HPE Aruba Networking CX 6300 Switch Series

HPE Aruba Networking CX 6300M 48-port 1GbE and 4-port SFP56 Switch (JL663A)



What's new

- Family of stackable Layer 3 switches with BGP, EVPN, VXLAN, VRF, OSPF robust security, QoS, MACsec 256, PTP, AVB and LRM [1]
- The series includes three stackable Layer 2-only CX 6300L access switches with HPE Smart Rate Multi-Gigabit and MACsec 256 encryption.
- High performance ASIC with 880 to 1760 Gbps system switching capacity, 660 to 1310 MPPS of system throughput and up to 200 to 400 Gbps stacking bandwidth.
- Series includes options with full density HPE Smart Rate (1/2.5/5/10GbE) Multi-Gigabit, up to 90W PoE, and a switch

Overview

The HPE Aruba Networking CX 6300 Switch Series is a modern, flexible, and intelligent family of stackable switches ideal for access, aggregation, and data center top-of-rack (TOR). With its cloud-native design, fully programmable operating system, and the HPE Aruba Networking CX Network Analytics Engine, the CX 6300 extends industry-leading monitoring and troubleshooting to the access layer. Support for HPE Aruba Networking Switch Multi-Edit Software and the HPE Aruba Networking CX Mobile App verify that configurations are flawless and easy to deploy.

A powerful ASIC architecture delivers fast, non-blocking performance, ready for tomorrow's unpredictable demands. HPE Aruba Networking Virtual Stacking Framework (VSF) allows for stacking of up to 10 switches, providing scale and simplified management. This flexible series has built-in high speed uplinks and supports high density IEEE 802.3bt high power PoE with HPE Smart Rate multi-gigabit Ethernet for APs and IoT devices.

bundle with power-to-port airflow for data center 1G ToR and OOBM deployments.

- Built-in high speed 10/25/40/50/100 GbE uplinks with intelligent monitoring and visibility via the Network Analytics Engine.
- Manage via single point of control with HPE Aruba Networking Central across wired, wireless, and WAN. Dynamic Segmentation enables enhanced security and simple access for users and IoT.

Features

High Performance and Power

The HPE Aruba Networking CX 6300 Switch Series uses a fully distributed architecture with HPE Aruba Gen7 ASICs that deliver very low latency, increased packet buffering, and adaptive power consumption. All switching and routing are wire-speed to meet the demands of bandwidth-intensive applications.

HPE Aruba Networking Virtual Switching Framework (VSF) allows you to quickly grow your network using high performance front plane stacking. Four built-in uplinks support speeds of up to 10, 25, 50, and 100 GbE for a total of 200 to 400 Gbps of stacking throughput per switch.

Deploy wireless access points and IoT devices with CX 6300 models that offer high density HPE Smart Rate Multi-Gigabit Ethernet with Class 4 (30W), Class 6 (60W), and Class 8 (90W) PoE on each port (720W, 1440W, and 2880W max PoE budget options).

CX 6300L stackable, high-performance Layer 2-only switches with static routing available for customers needing scalability, high-capacity, and cost-effective connectivity in the access layer.

The S0E91A switch model supports QSFP28 uplink speeds of 40 GbE and 100 GbE for up to 400 Gbps of stacking throughput.

Automation and Analytics

The HPE Aruba Networking CX 6300 Switch Series delivers unparalleled visibility with built-in analytics for real-time monitoring and a Time Series Database that stores configuration and operational state data, making it available to quickly resolve network issues.

Streamline network configurations at scale and provide AI-powered problem resolution for critical infrastructure platform with new AI insights in HPE Aruba Networking Central.

The HPE Aruba Networking CX Network Analytics Engine (NAE) automatically interrogates and analyzes events that can impact network health. Advanced telemetry, automation help identify and troubleshoot network, system, application, and security issues through CLI, Python agents, and REST API.

HPE Aruba Networking Switch Multi-Edit Software introduces automation that allows for rapid network-wide changes, and ensures policy conformance post network updates. Intelligent capabilities include search, edit, validation (including conformance checking), deployment, and audit features.

The HPE Aruba Networking CX Mobile App simplifies connecting and stacking this switch series with easy one touch deployment. Import switch information into HPE Aruba Networking Switch Multi-Edit Software for simplified configuration management and to continual conformance validation.

Unified Management and Smarter Segmentation

The HPE Aruba Networking CX 6300 Switch Series is supported on HPE Aruba Networking Central for single point of control management that delivers enhanced network visibility and an expanded AI toolset, addressing the scale and demands of the most mission-critical environments.

HPE Aruba Networking Dynamic Segmentation that automatically applies and enforces user, device, and application-aware policies on HPE Aruba Networking wired and wireless infrastructures.

Automated device profiling, role-based access control, and Layer 7 firewall features deliver enhanced visibility and performance for a better end-user experience and streamlined IT operations. Application recognition and control available through HPE Aruba Networking CX Advanced Feature Pack [1].

Switch-to-switch tunnels enable scalable multi-tenancy support with VXLAN to VRF mapping, while allowing policy application via user roles [1].

Reduce manual IT operation tasks around initial deployment or on-going configuration changes to accommodate adds, moves, and changes with colorless ports using local user roles and local-MAC-Authentication (LMA).

HPE Aruba Networking Data Center Networking Solution [1]

Hewlett Packard Enterprise offers customers highly differentiated pre-engineered IT infrastructure solutions that span a wide variety HPE Compute, HPE Storage, HPE Networking that span virtualization, vSAN, HCI, HPC, MCS, Microsoft, SAP HANA, Vmware, Nutanix application and IaaS service offerings.

The 10/25 and 40/100G CX switches can be deployed as part of these solutions and is often designed into these integrated solutions along with HPE ProLiant DL/DX servers, HPE SimpliVity, Nimble, Synergy, Cray Shasta, Cray ClusterStor, Superdome Flex and HPE GreenLake.

These ready-to-deploy, integrated IT data center solutions help simplify and speed IT service delivery while reducing the time, risk, and expertise needed to deploy complex solutions.

Use these new tracking SKUs (R9FXXX) when CX switches are included in HPE integrated and mixed compute, storage and networking configuration and deployments.



Technical specifications	**HPE Aruba Networking CX 6300M 48-port 1GbE and 4-port SFP56 Switch**
Product Number	JL663A
Ports	48-port 10/100/1000 BaseT ports; 4x 1G/10G/25G/50G* SFP ports; 1x USB-C Console Port; 1x OOBM port; 1x USB Type A Host port Notes: *50G capability is for use with 50G DACs for both interconnect and VSF stacking. 50G transceivers and DACs are not supported on S0E91A and S0X44A switch models, which requires QSFP to SFP56 DAC cable for VSF stacking with other CX 6300F and CX 6300M switch models only. VSF stacking not supported on 1G ports.
Memory and processor	Quad Core Arm Cortex™ A72 @ 1.8GHz 8 GB DDR4, 32 GB eMMC 8 MB, 16 MB, or 32 MB Shared Packet Buffer Memory, depending on model and configuration
Latency	1Gbps: 2.28µSec, 10Gbps: 1.46µSec, 25Gbps: 1.90µSec, 50Gbps: 3.49µSec
Throughput	369 Mpps
Switching capacity	496 Gbps
Stacking capabilities	Up to 10 switches per stack NOTE: CX 6300L switches only stack with other CX 6300L switches
Management features	HPE Aruba Networking Central Network Management HPE Aruba Networking Management Software (AirWave) HPE Aruba Networking Switch Multi-Edit Software Command-line interface SNMP v2c/v3 RMON
Input voltage	JL085A PSU: 100V-240V
Power consumption	Idle: 56W 100% Traffic Rate: 75W
Product dimensions	4.4 x 44.2 x 38.5 cm
Weight	4.95 kg

[1] Features not supported on CX 6300L switches (S3L75A, S3L76A, S3L77A)



For additional technical information, available models and options, please reference the QuickSpecs

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.

Make the right purchase decision. Contact our presales specialists.

Contact us

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Parts and Materials: HPE will provide HPE-supported replacement parts and materials required to maintain the covered hardware.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

Image may differ from the actual product

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