HPE Aruba Networking CX 6300 Switch Series

HPE Aruba Networking CX 6300F 48-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL665A)



What's new

- Stackable Layer 3 switches with BGP, EVPN, VXLAN, VRF, and OSPF with robust security and QoS. Now supporting MACsec 256, PTP, AVB and LRM.
- High performance 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 full density HPE Smart Rate (1/2.5/5GbE) multi-gigabit and up to 90W PoE, SFP+ model and switch bundle with power-to-port airflow for data center 1GbE ToR and OOBM deployments.
- Built-in high speed 10/25/40/50/100GbE uplinks (50GbE for DAC connectivity only)

Overview

The HPE Aruba Networking CX 6300 Switch Series is a modern, flexible, and intelligent family of AOS-CX stackable switches ideal for access, aggregation, and data center top-of-rack (TOR) deployments. With a cloud-centric design that combines a fully programmable OS with the HPE Aruba Networwing Analytics Engine, the CX 6300 extends industry-leading monitoring and troubleshooting capabilities to the access layer. Support of HPE Aruba Networking NetEdit and HPE CX Mobile App verify that configurations are flawless and easy to deploy.

A powerful HPE Aruba Gen7 ASIC architecture delivers fast, non-blocking performance, meaning your network is ready for tomorrow's unpredictable demands. HPE Virtual Stacking Framework (VSF) allows for stacking of up to 10 switches, providing scale and simplified management. This flexible series has built-in highspeed uplinks and supports high density IEEE 802.3bt high power PoE with HPE Smart Rate multi-gigabit Ethernet for high speed APs and IoT devices.

with intelligent monitoring and visibility via the Network Analytics Engine.

- Manage via single pane of glass with HPE Aruba Networking Central across wired, wireless, and WAN Dynamic Segmentation enables enhanced security and simple access for users and IoT.
- Three stackable, high-performance CX 6300L Layer 2-only; access switches with HPE Smart Rate Multi-Gigabit and MACsec encryption.

Features

Automation and Analytics

The HPE Aruba Networking CX 6300 Switch Series delivers unparalleled visibility with built-in analytics for real-time monitoring and troubleshooting to help fix problems faster. The HPE Analytics Engine (NAE) automatically interrogates and analyzes events that can impact network health.

Advanced telemetry and automation provide the ability to easily identify and troubleshoot network, system, application and security related issues easily, through the use of Python agents and REST APIs.

The Time Series Database (TSDB) stores configuration and operational state data, making it available to quickly resolve network issues.

HPE Aruba Networking NetEdit support provides automation that allows for rapid network-wide changes, and helps ensure policy conformance post network updates.

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 QSFP28 ports support speeds of 1/10/25/50GbE (50GbE for DAC connectivity only) for a total of up to 200 Gbps of stacking throughput per switch.

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

Deploy wireless access points and IoT devices with HPE Aruba Networking CX 6300 models that offer high density HPE Smart Rate multi-gigabit Ethernet with 90W PoE on every port for a total of 2880W of PoE.

HPE Aruba Networking CX 6300L stackable, high-performance Layer 2-only switches available for customers needing scalability, high-capacity, and cost-effective connectivity in the access layer

Smarter Segmentation

The HPE Aruba Networking CX 6300 Switch Series supports Aruba Dynamic Segmentation that automatically applies and enforces user, device, and application-aware policies on Aruba wired and wireless infrastructures.

Automated device profiling, role-based access control, and Layer 7 firewall features deliver enhanced visibility and performance for a better overall experience for both IT and end-users alike.

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

The HPE Aruba Networking Data Center Networking Solution

HPE Aruba Networking offer 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.

HPE Aruba Networking 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 HPE Aruba Networking CX switches are included in HPE integrated and mixed compute, storage and networking configuration and deployments.

Technical specifications	**HPE Aruba Networking CX 6300F 48-port 1GbE Class 4 PoE and 4-port SFP56 Switch**
Product Number	JL665A
Differentiator	Aruba 6300F 48-port 1GbE Class 4 PoE and 4-port SFP56 Switch Includes Non-Pluggable, Internal PSU behind sheetmetal Chassis Frame Includes Non-Pluggable, Internal Fans behind sheetmetal Chassis Frame Min=0 \ Max = 4 SFP/SFP+/SFP28/SFP56 1/10/25/50G Transceiver 1U - Height
Ports	48x ports 10/100/1000 BaseT PoE+ ports supporting up to 30W per port; 4x 1G/10G/25G/50G* SFP ports; Supports PoE Standards IEEE 802.3af, 802.3at; 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 GBytes DDR4 32 GBytes eMMC 8 MB Shared Packet Buffer Memory
Latency	1Gbps: 2.28µSec, 10Gbps: 1.46µSec, 25Gbps: 1.90µSec, 50Gbps: 3.49µSec
Throughput	369 Mpps
Switch fabric speed	This flexible series has built-in wirespeed 1/10/25/50GbE* and 40/100GbE uplinks and supports high density IEEE 802.3bt high power PoE depending on the model. Note: *1 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.
Switching capacity	496 Gbps
PoE capability	Max PoE Power: 740W
Stacking capabilities	Up to 10 switches per stack
Management features	HPE Aruba Networking AirWave HPE Aruba Networking Central Network Management HPE Aruba Networking NetEdit Command-line interface SNMP v2c/v3 RMON
Input voltage	Fixed PSU: 100V-120V/200V-240V

Power consumption	Idle: 63W 100% Traffic Rate: 86W
Product dimensions	4.4 x 44.2 x 32.7 cm
Weight	5.10 kg

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:

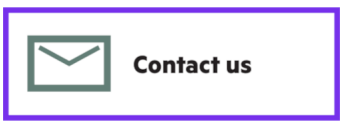
- Network optimization
- Intelligent Operations
- Customer Experience Management

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.





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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.

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