

Overview

Aruba CX 10000 Switch Series

Designed with the next generation of large-scale data centers in mind, the Aruba CX 10000 Switch Series delivers a flexible and innovative approach to address the security compliance, performance, agility, and scalability demands of the highly distributed, hybrid, multi-cloud application era.

In conjunction with Pensando, Aruba has defined a new market category of data center switches. The CX 10000 combines the best-of-breed network operating system, Aruba AOS-CX, for data center, campus, and edge in addition to the fully programmable Pensando DPU. This allows the CX 10000 to deliver stateful software-defined services inline, at scale, with wire-rate performance and orders of magnitude scale and performance improvements over traditional L2/3 switches at a fraction of their TCO.

The Aruba CX 10000 allows operators to extend industry standard leaf-spine networking with distributed stateful segmentation, east-west firewalling, NAT¹, encryption¹, and telemetry services—all delivered inline, all the time, on every access port, closer to where critical enterprise applications run. The CX 10000 distributed services architecture is agnostic of network deployment architecture. This allows the flexibility to enable stateful services delivery, when deployed as access, leaf Top of Rack (ToR), or End of Row (EoR) in a datacenter, and potentially in the aggregation layer in campus or edge data center designs.

The CX 10000 offers 3.6Tbps of line-rate switching capacity with interface configurations supporting 1/10/25GbE (SFP/ SFP+/SFP28) and 40/100GbE (QSFP+/QSFP28) connectivity, in a compact 1U form factor. Consequently, these switches offer a fantastic investment for customers migrating from older 1GbE/10GbE to faster 25GbE, or from 10GbE/40GbE to 100GbE ports.

Notes: ¹Supported in future software release.



Aruba CX 10000 Switch Series

Standard Features

AOS-CX - a modern software system

The Aruba CX 10000 Switch Series is based on AOS-CX, a modern, database-driven operating system that automates and simplifies many critical and complex network tasks.

A built-in time series database enables customers and developers to utilize software scripts for historical troubleshooting, as well as past trends analysis. This helps predict and avoid future problems due to scale, security, and performance bottlenecks.

Our AOS-CX software also includes Aruba Network Analytics Engine (NAE) and support for Aruba NetEdit. Because AOS-CX is built on a modular Linux architecture with a stateful database, our operating system provides the following unique features:

- Easy access to all network state information for unique visibility and analytics
 - REST APIs and Python scripting for fine-grained programmability of network tasks
 - A micro-services architecture that enables full integration with other workflow systems and services
 - Continual state synchronization that provides superior fault tolerance and high availability
 - Near real-time state and resiliency and the ability to independently upgrade individual software modules for higher availability
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Pensando Stateful Software Services

Embedded natively in the Aruba CX 10000 Switch Series, the AOS-CX operating system is an industry unique, inline stateful software service, enabled through Pensando's programmable DPU, delivered at scale with wire-rate performance. The services include stateful firewalling and secure segmentation, DDoS protection, and deep flow-based session-level telemetry, enabled natively in the fabric switching infrastructure without requiring host-based agents or dedicated appliances.

Stateful software benefits include:

- Improves security posture, limiting appliance sprawl
 - Extends Zero Trust segmentation deeper into the data center for any type of host
 - Delivers isolation and multi-tenancy for virtualized, bare-metal, or containerized workloads
 - Optimizes network traffic flows, bandwidth, and performance, which reduces operational complexity associated with service stitching
 - Overcomes centralized networking service layer chokepoints, which reduces downtime
 - Simplifies operations via unified network and security automation and management with Aruba Fabric Composer
 - Addresses deployments where security agents can't be deployed into servers
 - Accelerates infrastructure service provisioning
 - Lowers capex/opex expenditure on security and services
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Managing the Aruba CX 10000

Aruba Fabric Composer

Aruba Fabric Composer is an intelligent, API-driven, software-defined orchestration solution that simplifies and accelerates leaf-spine fabric provisioning and day-to-day operations across rack-scale compute and storage infrastructure. What makes Aruba Fabric Composer different from other solutions is that the software can orchestrate a discrete set of switches as a single entity, which significantly simplifies operations and troubleshooting. This solution is fully infrastructure and application aware, providing automation of various configuration and lifecycle events.

Aruba Fabric Composer also provides unified network and security management for the Aruba CX 10000 platform. This

Standard Features

provides automated switch and network configurations, while also unifying security policy and distributed firewalls across the entire switching fabric. This unified network and security policy management significantly simplifies operations and troubleshooting. This solution is implemented to augment switch-by-switch configuration, so operators can access any device directly and make local changes, which means you get the best environment for both traditional network operators in addition to DevOps and SecOps automation.

Unified Security Policy Configuration

- **Ease of Deployment** - Beyond traditional Zero Touch deployment approaches, which require significant up-front work, AFC user-friendly, guided wizards provide turnkey workflows that walk customers through the fabric deployment process, radically simplifying operations. AFC is agnostic of topology and can equally support standards based VXLAN EVPN fabric as well as traditional VSX deployments seamlessly. Any complexity of deploying the fabric is hidden, ensuring that network operators don't need to understand the specific protocols and commands in AOS-CX in order to deploy best practice architectures.
- **Service Orchestration** - The operational benefits of AFC also extend to services because now, with the CX10000, you can orchestrate provisioning and securing tenants on the fabric in a simplified wizard driven workflow. This is enabled through an integration with Pensando Policy and Services Manager. The solution allows SecOps and NetOps teams to accelerate application rollouts, while ensuring strict compliance and secure segmentation requirements are met. From rapid and error-free fabric deployment to automation and security, we are truly delivering a cloud-like experience to our customers with AFC and Pensando across virtualized, bare-metal, and containerized deployments.
- **Easy Integration** - The event driven automation engine within AFC (StackStorm) supports Integration Packs that are easily installed and offer integrations with VMware Cloud Foundation, vCenter, vSAN, Nutanix, HPE SimpliVity, and HPE iLo Amplifier. Integrations allow customers to enjoy the benefits of automated fabric provisioning, event-based workflow automations, end-to-end network and host visibility, and automatic storage traffic optimization.
- **Pervasive Visibility** - Network and virtualization admins have complete, end-to-end network visibility of connectivity of hosts, virtual machines, VLANs, services, and workloads to simplify troubleshooting of connectivity and performance problems. Automatically detect and dynamically solve network issues before your business is impacted. Integration with Pensando provides not just visibility into the network and compute, but also extends to services allowing customers to utilize flow logging, to understand communication patterns in the data center, and to more accurately segment and firewall application tiers, workloads, and services.

Aruba Network Analytics Engine

For enhanced visibility and troubleshooting, Aruba's Network Analytics Engine (NAE) automatically interrogates and analyzes events that can impact network health. Advanced telemetry and automation allow you to easily identify and troubleshoot network, system, application, and security issues using python agents and REST APIs.

The Time Series Database (TSDB) stores configuration and operational data to help quickly resolve network issues. You can also use the data to analyze trends, identify anomalies, and predict future capacity requirements.

Aruba NetEdit-Automated switch configuration and management

The entire Aruba CX portfolio empowers IT teams to orchestrate multiple switch configuration changes for smooth end-to-end service rollouts. Aruba NetEdit introduces automation that allows for rapid network-wide changes and ensures policy conformance after network updates. Intelligent capabilities include search, edit, validation (including conformance checking), deployment, and audit features. Capabilities include:

Standard Features

- Centralized configuration with validation for consistency and compliance
- Time savings via simultaneous viewing and editing of multiple configurations
- Customized validation tests for corporate compliance and network design
- Automated large scale configuration deployment without programming network health and topology visibility via Aruba NAE integration

Notes: A separate software license is required to use Aruba NetEdit.

Aruba Virtual Switching Extension

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

VSX is delivered through redundancy gained by deploying two chassis with an inter-switch link, with each chassis maintaining its independent control.

Designed using the best features of existing HA technologies such as Multi-chassis Link Aggregation (MC-LAG) and Virtual Switching Framework (VSF), Aruba VSX enables a distributed architecture that is highly available during upgrades or control plane events.

Features include:

- Continuous configuration synchronization via AOS-CX
- Flexible active-active network designs at Layers 2 and 3
- Operational simplicity and usability for easy configuration
- High availability by design during upgrades including support for VSX Live Upgrade with LACP traffic draining.

Product Capabilities

Performance

High-speed fully distributed architecture

- Provides 3.6Tbps for bidirectional switching and 2,000 Mpps for forwarding. All switching and routing are wire-speed to meet the demands of bandwidth-intensive applications today and in the future
- 800G of stateful services performance through dual Pensando DPU's

Scalable system design

- Provides investment protection to support future technologies and higher-speed connectivity

Connectivity

High density port options

Compact, high port density 1U switch with airflow direction flexibility include model with 48 ports of 1GbE/10GbE/25GbE (SFP/SFP+/SFP28) [1GBASE-T and 10GBASE-T transceiver support] + 6 ports of 40GbE/100GbE (QSFP+/QSFP28) [optional 4x10 and 4x25 breakout]

Jumbo frames

- Allows high-performance backups and disaster-recovery systems; provides a maximum frame size of 9K bytes

Standard Features

Unsupported Transceiver Mode (UTM)

- Allows ability to insert and enable unsupported 1G and 10G transceiver and cable
- No warranty nor support for the transceiver/cable when used

Loopback

- Supports internal loopback testing for maintenance purposes and increased availability. Loopback detection protects against incorrect cabling or network configurations and can be enabled on a per-port or per-VLAN basis for added flexibility.

Packet storm protection

- Protects against unknown broadcast, multicast, or unicast storms with user-defined thresholds

Quality of Service (QoS)

Strict priority (SP) queuing and Deficit Weighted Round Robin (DWRR)

- Enables congestion avoidance

Data Center Bridging (DCB)

- Supports lossless Ethernet networking standard Priority Flow Control (PFC), Enhanced Transmission Service (ETS), and DCB Exchange Protocol (DCBX) to eliminate packet loss due to queue overflow

Resiliency and high availability

Redundant and load-sharing fans and power supplies

- N+1 fans and power supplies provide redundancy

Hot swappable power supply and fan modules

- Allows replacement of accessory modules without operationally impacting other modules or switch operations

Separate data and control paths

- Separates control from services to keep service processing isolated and increases security and performance

Aruba Virtual Switching Extension (VSX)

- VSX enables a distributed and redundant architecture by deploying two switches with each switch, maintaining independent control yet staying synchronized during upgrades or failover. Also supports upgrades during live operation.

Virtual Router Redundancy Protocol (VRRP)

- VRRP allows a group of switches to dynamically back up each other to create highly available routed environments

Bidirectional Forward Detection (BFD)

- Enables sub-second failure detection for rapid routing protocol re-balancing

Ethernet Ring Protection Switching (ERPS)

Standard Features

- Supports rapid protection and recovery in a ring topology.

Unidirectional Link Detection (UDLD)

- Monitors link connectivity and shuts down ports at both ends if unidirectional traffic is detected, preventing loops in STP-based networks

IEEE 802.3ad LACP

- Supports up to 54 LAGs, with up to 16 members per LAG (32 for a VSX pair), with a user-selectable L1-4 hashing algorithm

Management

In addition to the Aruba CX Mobile App, Aruba NetEdit and Aruba Network Analytics Engine, the CX 10000 series offers the following capabilities

REST API

- Built-in programmable and easy to use

Management Interface Control

- Enables or disables the console port or reset button, depending on security preferences

Industry-Standard CLI With A Hierarchical Structure

- Reduces training time and expenses, and increases productivity in multivendor installations

Management Security

- Restricts access to critical configuration commands
- Offers multiple privilege levels with password protection
- Provides SNMP access with ACLs
- Local and remote Syslog capabilities allow access logging

IPSLA

- Monitors network for degradation of various services, including voice
- Enables monitoring via the NAE for history and for immediate automated gathering of additional information when anomalies are detected

SNMP v2c/v3

- Provides SNMP read and trap support of industry standard Management Information Base (MIB) and private extensions

sFlow® (RFC 3176)

- Provides scalable ASIC-based wire speed network monitoring and accounting with no impact on network performance, allowing network operators to gather a variety of sophisticated network statistics and information for capacity planning and real-time network monitoring purposes

Remote Monitoring (RMON)

- Uses standard SNMP to monitor essential network functions and supports events, alarms, history, and statistics groups as well as a private alarm extension group

TFTP and SFTP Support

Standard Features

- Offers different mechanisms for configuration updates.
- Trivial FTP (TFTP) allows bidirectional transfers over a TCP/ IP network
- Secure File Transfer Protocol (SFTP) runs over an SSH tunnel to provide additional security

Debug and sampler utility

- Supports ping and trace route for IPv4 and IPv6

Network Time Protocol (NTP)

- Synchronizes timekeeping among distributed time servers and clients.
- Keeps timekeeping consistent among all clock-dependent devices within the network
- Can serve as the NTP server in a customer network

IEEE 802.1AB Link Layer Discovery Protocol (LLDP)

- Advertises and receives management information from adjacent devices on a network, facilitating easy mapping by network management applications

Dual images

- Provides independent primary and secondary operating system files for backup while upgrading

Multiple configuration files

- Stores files easily to the flash image

Layer 2 Switching

VLAN

- Supports up to 4,040 port-based or IEEE 802.1Q-based VLANs

VLAN Translation

- Remaps VLANs during transit across a core network

Bridge Protocol Data Unit (BPDU) tunneling

- Transmits STP BPDUs transparently, allowing correct tree calculations across service providers, WANs, or MANs

Port mirroring

- Duplicates port traffic (ingress and egress) to a local or remote monitoring port
- Supports 4 mirroring groups, with an unlimited number of ports per group

STP

- Supports standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)

Rapid Per-VLAN spanning tree plus (RPVST+)

- Allows each VLAN to build a separate spanning tree to improve link bandwidth usage in network environments with multiple VLANs

Internet Group Management Protocol (IGMP)

Standard Features

- Controls and manages the flooding of multicast packets in a Layer 2 network

Static VXLAN

- Allows operators to manually connect two or more VXLAN tunnel endpoints (VTEP)

Dynamic VXLAN with BGP-EVPN

- Deep segmentation for spine-leaf data center networks or Layer 3 campus designs with centralized gateway and symmetric Integrated Routing and Bridging (IRB) based distributed gateways VXLAN tunnels

IPv4 Multicast in VXLAN/EVPN Overlay

- Enables PIM-SM/IGMP snooping in the VXLAN Overlay

IPv6 VXLAN/EVPN Overlay Support

- Enables IPv6 traffic over the VXLAN overlay

VXLAN distributed anycast gateway

- Addressing mechanism that enables the use of the same gateway IP addresses across all the leaf switches part of a VXLAN network

VXLAN ARP/ND suppression

- Allows minimization of ARP and ND traffic flooding within individual VXLAN segments, thus optimizing the VXLAN network

Layer 3 Services

Address Resolution Protocol (ARP)

- Determines the MAC address of another IP host in the same subnet and supports static ARPs
- Gratuitous ARP allows detection of duplicate IP addresses
- Proxy ARP allows normal ARP operation between subnets or when subnets are separated by a Layer 2 network

IP Directed Broadcast

- Supports directed broadcast on configured network subnets

Dynamic Host Configuration Protocol (DHCP)

- DHCP services are offered within a client network to simplify network management
- DHCP Relay enables DHCP operation across subnets

DHCP Server

- Supports DHCP services (for IPv4 and IPv6) in customer networks

Domain Name System (DNS)

- Provides a distributed database that translates domain names and IP addresses, which simplifies network design.
- Supports client and server

Generic Routing Encapsulation (GRE)

- Enables tunneling traffic from site to site over a Layer 3 path

Layer 3 Routing

Standard Features

Static IPv4 routing

- Provides simple, manually configured IPv4 routing

Open shortest path first (OSPF)

- Delivers faster convergence
- Uses link-state routing Interior Gateway Protocol (IGP), which supports ECMP, NSSA, and MD5 authentication for increased security and graceful restart for faster failure recovery

Border Gateway Protocol 4 (BGP-4)

- Delivers an implementation of the Exterior Gateway Protocol (EGP) utilizing path vectors
- Uses TCP for enhanced reliability for the route discovery process
- Reduces bandwidth consumption by advertising only incremental updates
- Supports extensive policies for increased flexibility
- Scales to very large networks

Routing Information Protocol version 2 (RIPv2)

- Easy to configure routing protocol for small networks relying on User Datagram Protocol (UDP)

Routing Information Protocol Next Generation (RIPng)

- Extension of RIPv2 for support of IPv6 networking

Multiprotocol BGP (MP-BGP) with IPv6 Address Family

- Enables sharing of IPv6 routes using BGP and connections to BGP peers using IPv6

Policy Based Routing (PBR)

- Enables using a classifier to select traffic that can be forwarded based on policy set by the network administrator

6in4 tunnels

- Supports the tunneling of IPv6 traffic in an IPv4 network

IP performance optimization

- Provides a set of tools to improve the performance of IPv4 networks
- Includes directed broadcasts, customization of TCP parameters, support of ICMP error packets, and extensive display capabilities

Static IPv6 routing

- Provides simple, manually configured IPv6 routing

Dual IP stack

- Maintains separate stacks for IPv4 and IPv6 to ease the transition from an IPv4-only network to an IPv6-only network design

OSPFv3

- Provides OSPF support for IPv6

Equal-Cost Multipath (ECMP)

Standard Features

- Enables multiple equal-cost links in a routing environment to increase link redundancy and scale bandwidth

Generic Routing Encapsulation (GRE)

- Enables tunneling traffic from site to site over a Layer 3 path

Security

TAA Compliance

- The Aruba CX 10000 with AOS-CX, a TAA compliant product, uses FIPS 140-2 validated cryptography for protection of sensitive information

Access control list (ACL) Features

- Supports powerful ACLs for both IPv4 and IPv6.
- Supports creating object groups representing sets of devices
- Protects control plane services such as SSH, SNMP, NTP or web servers

Enrollment over Secure Transport (EST)

- Enables secure certificate enrollment, allowing for easier enterprise management of PKI.

Remote Authentication Dial-In User Service (RADIUS)

- Eases security access administration by using a password authentication server

Terminal Access Controller Access-Control System (TACACS+)

- Delivers an authentication tool using TCP with encryption of the full authentication request, providing additional security

RadSec

- Enables RADIUS authentication and accounting data to be passed safely and reliably across insecure networks such as the internet

Management access security

- AOS-CX provides for both on-box as well as off- box authentication for administrative access.
- RADIUS or TACACS+ can be used to provide encrypted user authentication
- TACACS+ can also provide user authorization services

Secure shell (SSHv2)

- Uses external servers to securely log in to a remote device.
- With authentication and encryption, it protects against IP spoofing and plain-text password interception
- Increases the security of Secure FTP (SFTP) transfers

Multicast

Internet Group Management Protocol (IGMP)

- Enables establishing multicast group memberships in IPv4 networks
- Supports IGMPv1, v2, and v3

Multicast Listener Discovery (MLD)

Standard Features

- Enables discovery of IPv6 multicast listeners
- Supports MLDv1 and v2

Multicast Service Delivery Protocol (MSDP) for Anycast RP

- MSDP used for Anycast RP is an intradomain feature that provides redundancy and load-sharing capabilities.

MSDP Mesh Groups

- Avoids SA messages flooding to other mesh group peers.

PIM-Dense Mode

- Floods multicast traffic to every corner of the network (push-model). Method is for delivering data to receivers without receivers requesting the data, which can be efficient in certain deployments in which there are active receivers on every subnet in the network.
- Branches without downstream receivers are pruned from the forwarding trees.

FastLeave (FL) and Forced-FastLeave (FFL)

- FL and FFL for IGMP/MLD speed up the process of blocking unnecessary Multicast traffic to a switch port that is connected to end nodes for IGMP. They help to eliminate the CPU overhead of having to generate an IGMP/MLD group-specific query message.

Support for Microsoft **Network Load Balancer** (NLB) for server applications.

Microsoft Network Load Balancer (NLB)

- Supports server applications

Protocol Independent Multicast (PIM)

- Protocol Independent Multicast for IPv4 and IPv6 supports one-to-many and many-to-many media casting use cases such as IPTV over IPv4 and IPv6 networks
- Supports PIM Sparse Mode (PIM-SM, IPv4 and IPv6)

Additional information

- Green initiative support
- Provides support for RoHS (EN 50581:2012) regulations

Customer first, customer last support

When your network is important to your business, your business needs the backing of Aruba Support Services. Partner with Aruba product experts to increase team productivity and keep pace with technology advances, software releases, and break-fix support.

Foundation Care for Aruba support services include priority access to Aruba Technical Assistance Center (TAC) engineers 24x7x365, flexible hardware and onsite support options, and total coverage for Aruba products. Aruba switches with assigned Aruba Central subscriptions have the added benefit of additional hardware support only.

Aruba Pro Care adds fast access to senior Aruba TAC engineers, who are assigned as a single point of contact for case management, reducing the time spent addressing and resolving issues.

Standard Features

For complete details on Foundation Care and Aruba Pro Care, please visit:
<https://www.arubanetworks.com/supportservices/>

Warranty, services and support Limited 1 Year Warranty

See <https://www.arubanetworks.com/support-services/product-warranties/> for warranty and support information included with your product purchase.

For **Software Releases** and Documentation, refer to <https://asp.arubanetworks.com/downloads>

For **Support and Services** information, visit <https://www.arubanetworks.com/support-services/arubacare/>

Configuration Information

BTO Models

Rule #	Description	SK
1, 2, 3, 4, 5, 6	Aruba CX 10000-48Y6C Distributed Services Front-to-Back 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> Includes 2 FB(Port to Power) Power Supplies (R8R51A) with no additional open PS slots Includes 6 FB(Port to Power) Fan Tray Bundles (R8R53A) with no additional open FT Slots Must select a Rack Kit Min=0 \ Max= 48 SFP/SFP+/SFP28 1/10/25G Transceivers Min=0 \ Max = 6 QSFP+/QSFP28 40/100G Transceivers 1U - Height 	R8P13
	Aruba CX 10000-48Y6C Distributed Services Front-to-Back 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> C13 PDU Jumper Cord (NA/MEX/TW/JP) (J9943A C15 equivalent) 	R8P13
	Aruba CX 10000-48Y6C Distributed Services Front-to-Back 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> C13 PDU Jumper Cord (ROW) (J9944A C15 equivalent) 	R8P13
	Aruba CX 10000-48Y6C Distributed Services Front-to-Back 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A) 	R8P13
	Aruba CX 10000-48Y6C Distributed Services Front-to-Back 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-20P) 	R8P13
1, 2, 3, 4, 5, 6	Aruba CX 10000-48Y6C Distributed Services Back-to-Front 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> Includes 2 BF(Power to Port) Power Supplies (R8R52A) with no additional open PS slots Includes 6 BF(Power to Port) Fan Tray Bundles (R8R54A) with no additional open FT Slots Must select a Rack Kit Min=0 \ Max= 48 SFP/SFP+/SFP28 1/10/25G Transceivers Min=0 \ Max = 6 QSFP+/QSFP28 40/100G Transceivers 1U - Height 	R8P14
	Aruba CX 10000-48Y6C Distributed Services Back-to-Front 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> C13 PDU Jumper Cord (NA/MEX/TW/JP) (J9943A C15 equivalent) 	R8P14
	Aruba CX 10000-48Y6C Distributed Services Back-to-Front 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> C13 PDU Jumper Cord (ROW) (J9944A C15 equivalent) 	R8P14
	Aruba CX 10000-48Y6C Distributed Services Back-to-Front 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A) 	R8P14
	Aruba CX 10000-48Y6C Distributed Services Back-to-Front 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-20P) 	R8P14
Configuration Rules		
Rule #	Description	
1	The following Transceivers install into this Switch: (Use BTO only when adding to switch)	
	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858
	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859
	Aruba 1G SFP LC LH 70km SMF Transceiver	J4860
	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177

Configuration Information

	Aruba 1G SFP LC SX 500m MMF TAA Transceiver	JL745
	Aruba 1G SFP LC LX 10km SMF TAA Transceiver	JL746
	Aruba 1G SFP RJ45 T 100m Cat5e TAA Transceiver	JL747
2	The following Transceivers install into this Switch: (Use BTO only when adding to switch)	
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151
	Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153
	Aruba 10G SFP+ LC SR 300m MMF TAA Transceiver	JL748
	Aruba 10G SFP+ LC LR 10km SMF TAA Transceiver	JL749
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283
	HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 3m Direct Attach Copper Cable	487655-B2
	HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 5m Direct Attach Copper Cable	537963-B2
3	The following Transceivers install into this Switch: (Use BTO only when adding to switch)	
	Aruba 25G SFP28 LC SR 100m MMF Transceiver	JL484
	Aruba 25G SFP28 LC eSR 400m MMF Transceiver	JL485
	Aruba 25G SFP28 LC LR 10km SMF Transceiver	JL486
	Aruba 25G SFP28 to SFP28 0.65m Direct Attach Cable	JL487
	Aruba 25G SFP28 to SFP28 3m Direct Attach Copper Cable	JL488
	Aruba 25G SFP28 to SFP28 5m Direct Attach Copper Cable	JL489
	Aruba 25G SFP28 to SFP28 3m Active Optical Cable	R0M44
	Aruba 25G SFP28 to SFP28 7m Active Optical Cable	R0M45
	Aruba 25G SFP28 to SFP28 15m Active Optical Cable	R0Z21
	HPE 25Gb SFP28 to SFP28 3m Direct Attach Copper Cable	844477-B2
	HPE 25Gb SFP28 to SFP28 5m Direct Attach Copper Cable	844480-B2
4	The following Transceivers install into this Switch: (Use BTO only when adding to switch)	
	Aruba 40G QSFP+ LC ER4 40km SMF Transceiver	Q9G82
	HPE X142 40G QSFP+ MPO SR4 Transceiver	JH231/
	HPE X142 40G QSFP+ LC LR4 SM Transceiver	JH232/
	HPE X142 40G QSFP+ MPO eSR4 300M Transceiver	JH233/
	Aruba 40G QSFP+ LC Bidirectional 150m MMF 2-strand Transceiver	JL308/
	HPE X242 40G QSFP+ to QSFP+ 1m Direct Attach Copper Cable	JH234/
	HPE X242 40G QSFP+ to QSFP+ 3m Direct Attach Copper Cable	JH235/
	HPE X242 40G QSFP+ to QSFP+ 5m Direct Attach Copper Cable	JH236/
	Aruba 40G QSFP+ to QSFP+ 7m Active Optical Cable	R0Z22/
	Aruba 40G QSFP+ to QSFP+ 15m Active Optical Cable	R0Z23/
	Aruba 40G QSFP+ to QSFP+ 30m Active Optical Cable	R0Z24/
	HPE BladeSystem c-Class 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable	721064 B2
5	The following Transceivers install into this Switch: (Use BTO only when adding to switch)	
	Aruba 100G QSFP28 MPO SR4 100m 12-fiber MPO OM3 MMF Transceiver	JL309
	Aruba 100G QSFP28 LC LR4 10km SMF 2-strand Transceiver	JL310
	Aruba 100G QSFP28 LC CWDM4 2km SMF Transceiver	R0Z30
	Aruba 100G QSFP28 to QSFP28 3m Direct Attach Copper Cable	JL307
	Aruba 100G QSFP28 to QSFP28 1m Direct Attach Copper Cable	R0Z25
	Aruba 100G QSFP28 to QSFP28 5m Direct Attach Copper Cable	R0Z26
	HPE 100Gb QSFP28 to 4x25Gb SFP28 3m Direct Attach Copper Cable	845416-B2
	Aruba 100G QSFP28 to QSFP28 2m Active Optical Cable	JL856
	Aruba 100G QSFP28 to QSFP28 7m Active Optical Cable	R0Z27
	Aruba 100G QSFP28 to QSFP28 15m Active Optical Cable	R0Z28
	Aruba 100G QSFP28 to QSFP28 30m Active Optical Cable	R0Z29
6	Localization required on orders without B2B, B2C, B2E or AC3 options.	
Notes:	– Drop down under power supply should offer the following options and results:	

Configuration Information

- o [Switch/Router/Power Supply to PDU Power Cord - B2B in North America, Mexico, Taiwan, and Japan or B2C ROW. \(OCA Default B2B or B2C for Rack Level CTO\)](#)
- o [Switch/Router/Power Supply to Wall Power Cord - Localized Option \(OCA Default for BTO and Box Level CTO\)](#)
- o [High Volt Switch/Router/Power Supply to Wall Power Cord - B2E Option. \(Offered only in North America, Mexico, Taiwan, and Japan\)](#)
- o [No Power Cord - AC3 Option](#)

– [Locking Power Cord \(J9955A\) L6-20P is available through the OCA Accessories tab](#)

– [OCA Only Model Selection Form - HPE Offering > Aruba > Switches > ArubaOS > AOS-CX: Aruba 10000 Switch Series](#)

Rack Level Integration CTO Models

Rule #	Description	SK
1, 2, 3, 4, 5, 6, 7	Aruba CX 10000-48Y6C Distributed Services Front-to-Back 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> • Includes 2 FB(Port to Power) Power Supplies (R8R51A) with no additional open PS slots • Includes 6 FB(Port to Power) Fan Tray Bundles (R8R53A) with no additional open FT Slots • Must select 4 Post Rack Kit (R8R56A) • Min=0 \ Max= 48 SFP/SFP+/SFP28 1/10/25G Transceivers • Min=0 \ Max = 6 QSFP+/QSFP28 40/100G Transceivers • 1U - Height 	R8P13
	Aruba CX 10000-48Y6C Distributed Services Front-to-Back 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> • C13 PDU Jumper Cord (NA/MEX/TW/JP) (J9943A C15 equivalent) 	R8P13
	Aruba CX 10000-48Y6C Distributed Services Front-to-Back 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> • C13 PDU Jumper Cord (ROW) (J9944A C15 equivalent) 	R8P13
	Aruba CX 10000-48Y6C Distributed Services Front-to-Back 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> • HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A) 	R8P13
	Aruba CX 10000-48Y6C Distributed Services Front-to-Back 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> • No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-20P) 	R8P13
1, 2, 3, 4, 5, 6, 7	Aruba CX 10000-48Y6C Distributed Services Back-to-Front 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> • Includes 2 BF(Power to Port) Power Supplies (R8R52A) with no additional open PS slots • Includes 6 BF(Power to Port) Fan Tray Bundles (R8R54A) with no additional open FT Slots • Must select 4 Post Rack Kit (R8R56A) • Min=0 \ Max= 48 SFP/SFP+/SFP28 1/10/25G Transceivers • Min=0 \ Max = 6 QSFP+/QSFP28 40/100G Transceivers • 1U - Height 	R8P14
	Aruba CX 10000-48Y6C Distributed Services Back-to-Front 6 Fans 2 Power Supplies Bundle <ul style="list-style-type: none"> • C13 PDU Jumper Cord (NA/MEX/TW/JP) (J9943A C15 equivalent) 	R8P14
	Aruba CX 10000-48Y6C Distributed Services Back-to-Front 6 Fans 2 Power Supplies Bundle	R8P14

Configuration Information

- C13 PDU Jumper Cord (ROW) (J9944A C15 equivalent)
Aruba CX 10000-48Y6C Distributed Services Back-to-Front 6 Fans 2 Power Supplies Bundle R8P14
- HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A)
Aruba CX 10000-48Y6C Distributed Services Back-to-Front 6 Fans 2 Power Supplies Bundle R8P14
- No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-20P)

Configuration Rules

Rule #	Description	
1	The following Transceivers install into this Switch: (Use 0D1 or B01 quoted to switch if switch is CTO) - if applicable:	
	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858
	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859
	Aruba 1G SFP LC LH 70km SMF Transceiver	J4860
	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177
	Aruba 1G SFP LC SX 500m MMF TAA Transceiver	JL745
	Aruba 1G SFP LC LX 10km SMF TAA Transceiver	JL746
	Aruba 1G SFP RJ45 T 100m Cat5e TAA Transceiver	JL747
2	The following Transceivers install into this Switch: (Use 0D1 quoted to switch if switch is CTO) - if applicable:	
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151
	Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153
	Aruba 10G SFP+ LC SR 300m MMF TAA Transceiver	JL748
	Aruba 10G SFP+ LC LR 10km SMF TAA Transceiver	JL749
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283
	HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 3m Direct Attach Copper Cable	487655-B2
	HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 5m Direct Attach Copper Cable	537963-B2
3	The following Transceivers install into this Switch: (Use 0D1 or B01 quoted to switch if switch is CTO) - if applicable:	
	Aruba 25G SFP28 LC SR 100m MMF Transceiver	JL484
	Aruba 25G SFP28 LC eSR 400m MMF Transceiver	JL485
	Aruba 25G SFP28 LC LR 10km SMF Transceiver	JL486
	Aruba 25G SFP28 to SFP28 0.65m Direct Attach Cable	JL487
	Aruba 25G SFP28 to SFP28 3m Direct Attach Copper Cable	JL488
	Aruba 25G SFP28 to SFP28 5m Direct Attach Copper Cable	JL489
	Aruba 25G SFP28 to SFP28 3m Active Optical Cable	R0M44
	Aruba 25G SFP28 to SFP28 7m Active Optical Cable	R0M45
	Aruba 25G SFP28 to SFP28 15m Active Optical Cable	R0Z21
	HPE 25Gb SFP28 to SFP28 3m Direct Attach Copper Cable	844477-B2
	HPE 25Gb SFP28 to SFP28 5m Direct Attach Copper Cable	844480-B2
4	The following Transceivers install into this Switch: (Use 0D1 or B01 quoted to switch if switch is CTO) - if applicable:	
	Aruba 40G QSFP+ LC ER4 40km SMF Transceiver	Q9G82
	HPE X142 40G QSFP+ MPO SR4 Transceiver	JH231
	HPE X142 40G QSFP+ LC LR4 SM Transceiver	JH232
	HPE X142 40G QSFP+ MPO eSR4 300M Transceiver	JH233
	Aruba 40G QSFP+ LC Bidirectional 150m MMF 2-strand Transceiver	JL308
	HPE X242 40G QSFP+ to QSFP+ 1m Direct Attach Copper Cable	JH234
	HPE X242 40G QSFP+ to QSFP+ 3m Direct Attach Copper Cable	JH235
	HPE X242 40G QSFP+ to QSFP+ 5m Direct Attach Copper Cable	JH236
	Aruba 40G QSFP+ to QSFP+ 7m Active Optical Cable	R0Z22
	Aruba 40G QSFP+ to QSFP+ 15m Active Optical Cable	R0Z23
	Aruba 40G QSFP+ to QSFP+ 30m Active Optical Cable	R0Z24
	HPE BladeSystem c-Class 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable	721064-B2

Configuration Information

5 The following Transceivers install into this Switch: (Use 0D1 or B01 quoted to switch if switch is CTO) - if applicable:

Aruba 100G QSFP28 MPO SR4 100m 12-fiber MPO OM3 MMF Transceiver	JL309
Aruba 100G QSFP28 LC LR4 10km SMF 2-strand Transceiver	JL310
Aruba 100G QSFP28 LC CWDM4 2km SMF Transceiver	R0Z30
Aruba 100G QSFP28 to QSFP28 3m Direct Attach Copper Cable	JL307
Aruba 100G QSFP28 to QSFP28 1m Direct Attach Copper Cable	R0Z25
Aruba 100G QSFP28 to QSFP28 5m Direct Attach Copper Cable	R0Z26
HPE 100Gb QSFP28 to 4x25Gb SFP28 3m Direct Attach Copper Cable	845416-B2
Aruba 100G QSFP28 to QSFP28 2m Active Optical Cable	JL856
Aruba 100G QSFP28 to QSFP28 7m Active Optical Cable	R0Z27
Aruba 100G QSFP28 to QSFP28 15m Active Optical Cable	R0Z28
Aruba 100G QSFP28 to QSFP28 30m Active Optical Cable	R0Z29

6 Localization required on orders without B2B, B2C, B2E or AC3 options.

7 If the CTO Switch Chassis needs to be racked, Then the CTO Base Model needs to integrate (with 0D1) to the HPE Network Rack.

Notes: – Drop down under power supply should offer the following options and results:

- o Switch/Router/Power Supply to PDU Power Cord - B2B in North America, Mexico, Taiwan, and Japan or B2C ROW. (OCA Default B2B or B2C for Rack Level CTO)
- o Switch/Router/Power Supply to Wall Power Cord - Localized Option (OCA Default for BTO and Box Level CTO)
- o High Volt Switch/Router/Power Supply to Wall Power Cord - B2E Option. (Offered only in North America, Mexico, Taiwan, and Japan)
- o No Power Cord - AC3 Option

– Locking Power Cord (J9955A) L6-20P is available through the OCA Accessories tab

Transceivers

SFP Transceivers

Rule #	Description	SK
1	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858
	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859
	Aruba 1G SFP LC LH 70km SMF Transceiver	J4860
	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177
	Aruba 1G SFP LC SX 500m MMF TAA Transceiver	JL745
	Aruba 1G SFP LC LX 10km SMF TAA Transceiver	JL746
	Aruba 1G SFP RJ45 T 100m Cat5e TAA Transceiver	JL747

Configuration Rules

Rule #	Description
1	– min 0 // max 48 of XCVRs (J8177D) can be installed into the following Switches: R8P13A, R8P14A – J8177D Max of 48 in either the R8P13A/R8P14A and can be installed into ports 1-48 excluding 3rd row of ports.

SFP+ Transceivers

Rule #	Description	SK
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151
	Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153
	Aruba 10G SFP+ LC SR 300m MMF TAA Transceiver	JL748
	Aruba 10G SFP+ LC LR 10km SMF TAA Transceiver	JL749
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283
	HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 3m Direct Attach Copper Cable	487655-B2

Configuration Information

	HPE BladeSystem c-Class 10GbE SFP+ to SFP+ 5m Direct Attach Copper Cable	537963-B2
Rule #	SFP28 Transceivers	Description
	Aruba 25G SFP28 LC SR 100m MMF Transceiver	JL484
	Aruba 25G SFP28 LC eSR 400m MMF Transceiver	JL485
	Aruba 25G SFP28 LC LR 10km SMF Transceiver	JL486
	Aruba 25G SFP28 to SFP28 0.65m Direct Attach Cable	JL487
	Aruba 25G SFP28 to SFP28 3m Direct Attach Copper Cable	JL488
	Aruba 25G SFP28 to SFP28 5m Direct Attach Copper Cable	JL489
	Aruba 25G SFP28 to SFP28 3m Active Optical Cable	R0M44
	Aruba 25G SFP28 to SFP28 7m Active Optical Cable	R0M45
	Aruba 25G SFP28 to SFP28 15m Active Optical Cable	R0Z21
	HPE 25Gb SFP28 to SFP28 3m Direct Attach Copper Cable	844477-B2
	HPE 25Gb SFP28 to SFP28 5m Direct Attach Copper Cable	844480-B2
Notes:	– The 48 x SFP28 Ports function in port groups of 4 ports. Each port group must operate at the same speed (ie. Group 1 = qty4 of 1G and 10G, or 25G transceivers).	
	o Group 1 = ports 1-4	
	o Group 2 = ports 5-9	
	o Group 3 = ports 10-13	
	o Group 4 = ports 14-17	
	o Group 5 = ports 18-21	
	o Group 6 = ports 22-25	
	o Group 7 = ports 26-29	
	o Group 8 = ports 30-33	
	o Group 9 = ports 33-36	
	o Group 10 = ports 37-40	
	o Group 11 = ports 41-44	
	o Group 12 = ports 45-48	
Rule #	QSFP+ Transceivers	Description
	Aruba 40G QSFP+ LC ER4 40km SMF Transceiver	Q9G82
	HPE X142 40G QSFP+ MPO SR4 Transceiver	JH231
	HPE X142 40G QSFP+ LC LR4 SM Transceiver	JH232
	HPE X142 40G QSFP+ MPO eSR4 300M Transceiver	JH233
	Aruba 40G QSFP+ LC Bidirectional 150m MMF 2-strand Transceiver	JL308
	HPE X242 40G QSFP+ to QSFP+ 1m Direct Attach Copper Cable	JH234
	HPE X242 40G QSFP+ to QSFP+ 3m Direct Attach Copper Cable	JH235
	HPE X242 40G QSFP+ to QSFP+ 5m Direct Attach Copper Cable	JH236
	Aruba 40G QSFP+ to QSFP+ 7m Active Optical Cable	R0Z22
	Aruba 40G QSFP+ to QSFP+ 15m Active Optical Cable	R0Z23
	Aruba 40G QSFP+ to QSFP+ 30m Active Optical Cable	R0Z24
	HPE BladeSystem c-Class 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable	721064-B2
Rule #	QSFP28 Transceivers	Description
	Aruba 100G QSFP28 MPO SR4 100m 12-fiber MPO OM3 MMF Transceiver	JL309
	Aruba 100G QSFP28 LC LR4 10km SMF 2-strand Transceiver	JL310

Configuration Information

Aruba 100G QSFP28 LC CWDM4 2km SMF Transceiver	R0Z30
Aruba 100G QSFP28 to QSFP28 3m Direct Attach Copper Cable	JL307
Aruba 100G QSFP28 to QSFP28 1m Direct Attach Copper Cable	R0Z25
Aruba 100G QSFP28 to QSFP28 5m Direct Attach Copper Cable	R0Z26
HPE 100Gb QSFP28 to 4x25Gb SFP28 3m Direct Attach Copper Cable	845416-B2
Aruba 100G QSFP28 to QSFP28 2m Active Optical Cable	JL856
Aruba 100G QSFP28 to QSFP28 7m Active Optical Cable	R0Z27
Aruba 100G QSFP28 to QSFP28 15m Active Optical Cable	R0Z28
Aruba 100G QSFP28 to QSFP28 30m Active Optical Cable	R0Z29

Switch Options

Rule #	Rack Mount Kits Description	SK
1	Aruba CX 10000 1U 2 post Rack Mount Kit	R8R55
	Aruba CX 10000 1U 4 post Rack Mount Kit	R8R56
Rule #	Configuration Rules Description	
1	If the switch will be factory racked into an HPE Universal Rack, then (Min 1) of the 4 Post Rack Mount kit is required.	

Accessories

Rule #	Spare Items Description	SK
1	Aruba CX 10K No PSU No Fan Empty Chassis <ul style="list-style-type: none"> OCA Display Notes: This is a Spare Chassis only Must be used with 2 Power Units (R8R51A or R8R52A) Must be used with 6 Fan Tray (R8R53A or R8R54A) 2 Post Rack Kit included, must use 4 Post Rack Mount Kit(R8R56A) with HPE Racks 1U - Height 	R8S96
1	Aruba CX 10000-48Y6C Port to Power(FB) AC Power Supply Unit <ul style="list-style-type: none"> includes 1 x c13, 550w 	R8R51
	Aruba CX 10000-48Y6C Port to Power(FB) AC Power Supply Unit PDU <ul style="list-style-type: none"> C13 PDU Jumper Cord (NA/MEX/TW/JP) (JL697A) 	R8R51A#B
	Aruba CX 10000-48Y6C Port to Power(FB) AC Power Supply Unit PDU <ul style="list-style-type: none"> C13 PDU Jumper Cord (ROW) (JL697A) 	R8R51A#B
	Aruba CX 10000-48Y6C Port to Power(FB) AC Power Supply Unit 220v <ul style="list-style-type: none"> HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A) 	R8R51A#B
1	Aruba CX 10000-48Y6C Port to Power(FB) AC Power Supply Unit No Loc <ul style="list-style-type: none"> No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-20P) 	R8R51A#A
1	Aruba CX 10000-48Y6C Power to Port(BF) AC Power Supply Unit <ul style="list-style-type: none"> includes 1 x c13, 550w 	R8R52
	Aruba CX 10000-48Y6C Power to Port(BF) AC Power Supply Unit PDU <ul style="list-style-type: none"> C13 PDU Jumper Cord (NA/MEX/TW/JP) (JL697A) 	R8R52A#B
	Aruba CX 10000-48Y6C Power to Port(BF) AC Power Supply Unit PDU <ul style="list-style-type: none"> C13 PDU Jumper Cord (ROW) (JL697A) 	R8R52A#B
	Aruba CX 10000-48Y6C Power to Port(BF) AC Power Supply Unit 220v <ul style="list-style-type: none"> HPE 2.3m C13 to NEMA 6-15P Pwr Cord(J9936A) 	R8R52A#B

Configuration Information

Aruba CX 10000-48Y6C Power to Port(BF) AC Power Supply Unit No Loc	R8R52A#A
<ul style="list-style-type: none"> No Localized Power Cord Selected. Use J9955A to obtain a Locking Plug Power Cord (L6-20P) 	
Aruba CX 10000-48Y6C Port to Power(FB) Fan	R8R53
Aruba CX 10000-48Y6C Power to Port(BF) Fan	R8R54
Aruba CX 10000 1U 2 post Rack Mount Kit	R8R55
Aruba CX 10000 1U 4 post Rack Mount Kit	R8R56
Aruba X2C2 RJ45 to DB9 Console Cable	JL448

Configuration Rules

Rule #	Description	
1	Localization required on orders without B2B, B2C, B2E or AC3 options.	
Notes:	<ul style="list-style-type: none"> Drop down under power supply should offer the following options and results: <ul style="list-style-type: none"> Switch/Router/Power Supply to PDU Power Cord - #B2B in North America, Mexico, Taiwan, and Japan or #B2C ROW. (OCA Default B2B or B2C for Rack Level CTO) Switch/Router/Power Supply to Wall Power Cord - Localized Option (OCA Default for BTO) High Volt Switch/Router/Power Supply to Wall Power Cord - #B2E Option. (Offered only in North America, Mexico, Taiwan, and Japan) No Power Cord - #AC3 Option Locking Power Cord (J9955A) L6-20P is available in the Accessories tab 2 Power Supply is included with the Switch Bundle 	

Software

Service Licenses for CX 10000 Switches

Rule #	Description	SK
1, 2	Aruba Stateful Firewall/Zero Trust Segmentation/Telemetry/DDoS protection for Aruba CX 10000 E-LTU <ul style="list-style-type: none"> Basic Services (Default) 	R9H25AA
	Configuration Rules	
	Description	
1	Clic UNB: Fire UNB and display following note when user doesn't have at least 1 of the above licenses configured to the switch. "When configuring a 10K Switch, user must select at least qty 1 of Basic Services License(R8H25AAE) per switch enclosure"	
2	Promotional Offer for Base Services features expire 7/31/2022	

Technical Specifications

Aruba CX 10000-48Y6C Distributed Services Front-to-Back 6 Fans 2 Power Supplies Bundle (R8P13A)		
Description	1 x R8P13A base 10000-48Y6C switch 6 x R8R53A Front-to-Back Fan 2 x R8R51A Front-to-Back Power Supply Supports 48 ports of 1G/10G/25GbE (SFP/SFP+/SFP28) and 6 ports of 40G/100GbE (QSFP+/QSFP28) (optional 1GBASE-T and 10GBASE-T transceivers, 4x10G and 4x25G breakout cables)	
Power supplies	Field-replaceable, hot-swappable, and up to 2 power supplies.	
Fans	Field-replaceable, hot-swappable, and up to 6 fans.	
Physical characteristics	Dimensions	(H) 4.44 cm x (W) 43.82 cm x (D) 51.1 cm (1.75" x 17.25" x 20.12")
	Weight	9.75 kg (21.45 lb)
Additional specifications	CPU	2.9GHz
	Memory, Drive and Flash	32GB RAM, 64GB SSD
	Packet Buffer	32MB
Performance²	Switching capacity	3.6Tbps (directional)
	IPv4 Host Table	120,000
	IPv6 Host Table	52,000
	IPv4 Unicast Routes	131,072
	IPv6 Unicast Routes	32,732
	MAC address table size	98,304
	IGMP Groups	4,094
	MLD Groups	4,094
	IPv4 Multicast Routes	4,094
	IPv6 Multicast Routes	4,094
Notes: ² Some of these scaling numbers assume shared tables.		
Environment	Operating temperature	0°C to 40°C (32°F to 104°F) up to 3.0 km (10,000 ft.)
	Operating relative humidity	10% to 85% at 40°C (104°F) non-condensing
	Non-operating temperature	-40°C to 70°C (-40°F to 158°F) up to 3.0 km (15,000 ft.)
	Non-operating/storage relative humidity	5% to 95% @ 65°C (149°F)
	Max operating altitude	Up to 10,000ft (3.048 km)
	Max non-operating altitude	Up to 15,000ft (4.6km)
	Primary airflow	Front-to-Back Port to PSU or Back-to-Front PSU to Port
Electrical characteristics	Frequency	50-60 Hz
	AC voltage	100-240 volts
	Current	6A (low voltage) - 3A (high voltage)
	Power consumption	Max: 750W
Safety	EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 60950-1:2005 Ed.2; Am 1:2009+A2:2013 UL 60950-1, CSA 22.2 No 60950-1 EN 60825-1:2007/IEC 60825-1:2007 Class 1	

Technical Specifications

EMC	EN 55032:2012, Class A EN 55024:2010 EN 61000-3-2:2014, Class A EN 61000-3-3:2013 FCC CFR 47 Part 15:2010, Class A VCCI Class A CNS 13438
Lasers	EN60825-1:2014/IEC 60825-1: 2014 Class 1 Class 1 Laser Products/Laser Klasse 1
Management	CLI REST API SNMP Aruba Fabric Composer NetEdit Aruba Central RJ-45 serial USB micro USB console RJ-45 Ethernet port
Mounting and enclosure	Mounts in an EIA standard 19-inch rack or other equipment cabinet; horizontal surface mounting only; order 2-post or 4-post mounting kit separately

Aruba CX 10000-48Y6C Distributed Services Back-to-Front 6 Fans 2 Power Supplies Bundle (R8P14A)

I/O ports and slots	1 x R8P13A base 10000-48Y6C switch 6 x R8R54A Front-to-Back Fan 2 x R8R52A Front-to-Back Power Supply Supports 48 ports of 1G/10G/25GbE (SFP/SFP+/SFP28) and ports of 40G/100GbE (QSFP+/QSFP28) (optional 1GBASE-T and 10GBASE-T transceivers, 4x10G and 4x25G breakout cables)	
Power supplies	Field-replaceable, hot-swappable, and up to 2 power supplies.	
Fans	Field-replaceable, hot-swappable, and up to 6 fans.	
Additional specifications	Dimensions	(H) 4.44 cm x (W) 43.82 cm x (D) 51.1 cm (1.75" x 17.25" x 20.12")
	Weight	9.75 kg (21.45 lb)
Memory and processor	CPU	2.2GHz
	Memory, drive and Flash	16GB RAM, 64GB SSD, 8GB Flash Packet buffer: 32MB
	CPU	32MB
Performance	Switching capacity	3.6Tbps (directional)
	IPv4 Host Table	120,000
	IPv6 Host Table	52,000
	IPv4 Unicast Routes	131,072
	IPv6 Unicast Routes	32,732
	MAC Table size	98,304
	IGMP Groups	4,094
	MLD Groups	4,094
	IPv4 Multicast Routes	4,094
	IPv6 Multicast Routes	4,094
	Notes: ² Some of these scaling numbers assume shared tables.	
Environment	Operating temperature	0°C to 40°C (32°F to 104°F) up to 3.0 km (10,000 ft.)

Technical Specifications

	Operating relative humidity	10% to 85% at 40°C (104°F) non-condensing
	Non-operating temperature	-40°C to 70°C (-40°F to 158°F) up to 3.0 km (15,000 ft.)
	Non-operating/storage relative humidity	5% to 95% @ 65°C (149°F)
	Max operating altitude	Up to 10,000ft (3.048 km)
	Max non-operating altitude	Up to 15,000ft (4.6km)
	Primary airflow	Front-to-Back Port to PSU or Back-to-Front PSU to Port

Electrical characteristics	Frequency	50-60 Hz
	AC voltage	100-240 volts
	Current	6A (low voltage) - 3A (high voltage)
	Power consumption	Max: 750W
Safety	EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 IEC 60950-1:2005 Ed.2; Am 1:2009+A2:2013 UL 60950-1, CSA 22.2 No 60950-1 EN 60825-1:2007/IEC 60825-1:2007 Class 1	
EMC	EN 55032:2012, Class A EN 55024:2010 EN 61000-3-2:2014, Class A EN 61000-3-3:2013 FCC CFR 47 Part 15:2010, Class A VCCI Class A CNS 13438	
Lasers	EN60825-1:2014/IEC 60825-1: 2014 Class 1 Class 1 Laser Products/Laser Klasse 1	
Management	CLI REST API SNMP Aruba Fabric Composer NetEdit Aruba Central RJ-45 serial USB micro USB console RJ-45 Ethernet port	
Mounting and enclosure	Mounts in an EIA standard 19-inch rack or other equipment cabinet; horizontal surface mounting only; order 2-post or 4-post mounting kit separately	

Standards and protocols

The following standards and protocols are supported.

- IEEE 802.1AB-2009
- IEEE 802.1ak-2007
- IEEE 802.1t-2001
- IEEE 802.1AX-2008 Link Aggregation
- IEEE 802.1p Traffic Class Expediting and Dynamic
- Multicast Filtering
- IEEE 802.1Q VLANs
- IEEE 802.1s Multiple Spanning Trees
- IEEE 802.1w Rapid Reconfiguration of Spanning Tree
- IEEE 802.3ad Link Aggregation Control Protocol (LACP)
- IEEE 802.3x Flow Control
- IEEE 802.3z Gigabit Ethernet

Technical Specifications

- IEEE 802.3ae 10 Gigabit Ethernet
- IEEE 802.3by 25 Gigabit Ethernet
- IEEE 802.3ba 40 and 100 Gigabit Ethernet Architecture
- RFC 768 UDP
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- RFC 768 User Datagram Protocol
- RFC 813 Window and Acknowledgement Strategy in TCP
- RFC 815 IP datagram reassembly algorithms
- RFC 879 TCP maximum segment size and related topics
- RFC 896 Congestion control in IP/TCP internetworks
- RFC 917 Internet subnets
- RFC 919 Broadcasting Internet Datagrams
- RFC 922 Broadcasting Internet Datagrams in the Presence of Subnets (IP_BROAD)
- RFC 925 Multi-LAN address resolution
- RFC 1215 Convention for defining traps for use with the SNMP
- RFC 1256 ICMP Router Discovery Messages
- RFC 1393 Traceroute Using an IP Option
- RFC 1591 Domain Name System Structure and Delegation
- RFC 1657 Definitions of Managed Objects for BGP-4 using SMIv2
- RFC 1772 Application of the Border Gateway Protocol in the Internet
- RFC 1981 Path MTU Discovery for IP version 6
- RFC 1997 BGP Communities Attribute
- RFC 1998 An Application of the BGP Community Attribute in Multi-home Routing
- RFC 2385 Protection of BGP Sessions via the TCP MD5 Signature Option
- RFC 2401 Security Architecture for the Internet Protocol
- RFC 2402 IP Authentication Header
- RFC 2406 IP Encapsulating Security Payload (ESP)
- RFC 2460 Internet Protocol, Version 6 (IPv6) Specification
- RFC 2545 Use of BGP-4 Multiprotocol Extensions for IPv6 Inter-Domain Routing
- RFC 2710 Multicast Listener Discovery (MLD) for IPv6
- RFC 2787 Definitions of Managed Objects for the Virtual Router Redundancy Protocol
- RFC 2918 Route Refresh Capability for BGP-4
- RFC 2934 Protocol Independent Multicast MIB for IPv4
- RFC 3137 OSPF Stub Router Advertisement
- RFC 3176 InMon Corporation's sFlow: A Method for Monitoring Traffic in Switched and Routed Networks
- RFC 3484: Default Address Selection for Internet Protocol version 6 (IPv6)
- RFC 3509 Alternative Implementations of OSPF Area Border Routers
- RFC 3623 Graceful OSPF Restart
- RFC 3810 Multicast Listener Discovery Version 2 (MLDv2) for IPv6
- RFC 4213 Basic Transition Mechanisms for IPv6 Hosts and Routers
- RFC 4251 The Secure Shell (SSH) Protocol
- RFC 4271 A Border Gateway Protocol 4 (BGP-4)
- RFC 4273 Definitions of Managed Objects for BGP-4
- RFC 4291 IP Version 6 Addressing Architecture
- RFC 4292 IP Forwarding Table MIB
- RFC 4293 Management Information Base for the Internet Protocol (IP)
- RFC 4360 BGP Extended Communities Attribute
- RFC 4486 Subcodes for BGP Cease Notification Message
- RFC 4552 Authentication/Confidentiality for OSPFv3
- RFC 4724 Graceful Restart Mechanism for BGP
- RFC 4760 Multiprotocol Extensions for BGP-4

Technical Specifications

- RFC 4940 IANA Considerations for OSPF
 - RFC 5095: Deprecation of Type 0 Routing Headers in IPv6
 - RFC 5187 OSPFv3 Graceful Restart
 - RFC 5701 IPv6 Address Specific BGP Extended Community Attribute
 - RFC 6987 OSPF Stub Router Advertisement
 - RFC 7047 The Open vSwitch Database Management Protocol
 - RFC 7059 A Comparison of IPv6-over-IPv4 Tunnel Mechanisms
 - RFC 7313 Enhanced Route Refresh Capability for BGP-4
 - RFC 8201 Path MTU Discovery for IP version 6
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Summary of Changes

Date	Version History	Action	Description of Change
07-Feb-2022	Version 3	Changed	Configuration Information section was updated.
10-Jan-2022	Version 2	Changed	Configuration Information section was updated, SKUs were added.
06-Dec-2021	Version 1	New	New QuickSpecs

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