QuickSpecs

Overview

Aruba CX 8400 Switch Series

The past several decades in networking have been defined by static, closed networking solutions designed for the client-server era. The Aruba CX 8400 campus core and aggregation switch is a game-changing solution offering a flexible and innovative approach to dealing with the new application, security and scalability demands of the mobile cloud and IoT era.

The CX 8400 provides carrier class high availability with industry-leading line rate 10GbE/25GbE/40GbE/100GbE connectivity in a compact 8 slot chassis. Together with fixed form factor solutions such as the Aruba 8320 Switch and the Aruba 8325 Switch, the CX 8400 rounds out Aruba's core, aggregation and data center switching portfolio with a solution that ensures higher performance and higher uptime for the most demanding enterprise networks.



Aruba CX 8400 Switch Series

Key Features

- High performance 19.2 terabits per second switching (1.2Tbps/slot) capacity
- Carrier-class high availability with Aruba Virtual Switching Extension (VSX), redundant management, power, and fabric
- AOS-CX enables automation and usability using built-in REST APIs and Python scripts
- Intelligent monitoring, visibility, and remediation with Aruba Network Analytics Engine
- Dynamic VXLAN with BGP-EVPN for deep segmentation in data center and campus networks
- One-touch deployment with the Aruba CX Mobile App
- Aruba NetEdit support for automated configuration and verification
- Advanced Layer 2/3 feature set includes BGP, EVPN, OSPF, VRF, and IPv6
- Compact 8U chassis with high density, line rate 10GbE/25GbE/40GbE/100GbE connectivity



AOS-CX - A Modern Software System

The Aruba CX 8400 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 analysis of past trends. 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 capabilities:

- Easy access to all network state information allows 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
- Supports Aruba 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.
- Continual state synchronization that provides superior fault tolerance, fault monitoring and high availability.
- All software processes communicate with the database rather than each other, ensuring near real-time state and resiliency and allowing individual software modules to be independently upgraded for higher availability.

Aruba Network Analytics Engine - advanced monitoring and diagnostics

For enhanced visibility and troubleshooting, Aruba's Network Analytics Engine (NAE) automatically interrogates and analyzes events that can impact a networks 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, CLI-based agents and REST APIs.

The Time Series Database (TSDB) stores configuration and operational state data, making it available to quickly resolve network issues. The data may also be used to analyze trends, identify anomalies and predict future capacity requirements.

Aruba Central - Unified Single Pane of Glass Management

Flexible cloud-based or on-premises management for unified network operations of wired, WLAN, SD-WAN, and public cloud infrastructure. Designed to simplify day zero through day two operations with streamlined workflows. Switch management capabilities include configuration, onboarding, monitoring, troubleshooting, and reporting.

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 post network updates. Intelligent capabilities include search, edit, validation (including conformance checking), deployment and audit features. Capabilities include:

- 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 with Aruba NAE integration

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

Aruba CX Mobile App – unparalleled deployment convenience

An easy to use mobile app simplifies connecting and managing Aruba 6300 switches for any size project. Switch information can also be imported into Aruba NetEdit for simplified configuration management and to continuously validate the conformance of configurations anywhere in the network.

Aruba Virtual Switching Extension (VSX)

The ability of AOS-CX to maintain synchronous state across dual control planes allows a simplified carrier-class high availability solution called Aruba Virtual Switching Extension (VSX). Designed using the best features of existing high availability technologies such as Multi-chassis Link Aggregation (MC LAG), 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

Performance

High-speed fully distributed architecture

Provides up to 19.2 Tbps switching capacity with up to 7.142 billion packets per second (BPPS) for throughput; all switching and routing is performed in the line modules; meets the demands of bandwidth-intensive applications today and in the future

• Scalable system design

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

Connectivity

• High-density port connectivity

Supports up to 8 line modules, including a 32-port 10 Gigabit Ethernet with MACsec in hardware (not software), an 8-port 40 Gigabit Ethernet, a 6-port 40/100 Gigabit Ethernet module and a 32 port 25GbE module.

Jumbo frames

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

Unsupported Transceiver Mode (UTM)

Allows possible use of 1G and 10G transceivers and DAC cables considered unsupported. 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, unknown multicast, or unicast storms with user-defined thresholds

Quality of Service (QoS)

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.

• Explicit Congestion Notification (ECN)

Mark packets rather than drop them, enabling the receiver to indicate the congestion to the sender, which in turn can reduce its transmission rate as if it detected a dropped packet.

Security

Access control list (ACL) Features

Supports powerful ACLs, including VLAN ACL, for both IPv4 and IPv6. Supports creation of object groups representing sets of devices like IP addresses. For instance, IT management devices could be grouped in this way. ACLs can also support protecting control plane services such as SSH, SNMP, NTP or web servers.

• 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

• Enrollment over Secure Transport (EST)

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

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. Additionally, 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

Aruba CX 8400 Switch Series

• TAA Compliance

The Aruba CX 8400, a TAA-compliant product, with the AOS-CX uses FIPS 140-2 validated cryptography for protection of sensitive information

• Korea Government Security Features

- Ensure configuration integrity
- Limit concurrent users for web access

Additional information

Green initiative support

Provides support for RoHS and WEEE regulations

Multicast

IGMP Snooping

Allows multiple VLANs to receive the same IPv4 multicast traffic, lessening network bandwidth demand by reducing multiple streams to each VLAN

Anycast RP

Two or more RPs configured with same /32 Host IP address on loopback interfaces. All the downstream routers will be configured to point to Anycast RP address for multicast routes. Device will automatically select the closest RP for each source and receiver. If equal costs routes exist, the process of registering the sources will be shared equally by all the RPs in the network.

MSDP Mesh Groups

MSDP used for Anycast RP is an intradomain feature that provides redundancy and load-sharing capabilities. When MSDP mesh groups are used, SA messages are not flooded to other mesh group peers. When MSDP peer in group receives SA message from another MSDP peer in the group, it assumes that this SA message was sent to all the other MSDP peers in the group. It also eliminates RPF checks on arriving SA messages. With MSDP mesh group configured, SA messages are always accepted from mesh group peer

• 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. 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) for IGMP

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. 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

Protocol Independent Multicast (PIM)

Defines modes of IPv4 multicasting to allow one-to-many and many-to-many transmission of information; supports PIM, Sparse Mode (SM), Source-Specific Multicast (SSM), and PIM Dense Mode (DM).

• Internet Group Management Protocol (IGMP)

Utilizes Any-Source Multicast (ASM) to manage IPv4 multicast networks; supports IGMPv1, v2, and v3

Supportability

Job scheduler framework

Analytics

AIOPS NAE Agent & Engine Improvements – Unicast Routing and Client Services

Layer 2 switching

VLAN

Supports up to 4,094 port-based or IEEE 802.1Q-based VLANs; and supports MAC-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 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). It supports STP TCN Trap, STP New Root.

Rapid Per-VLAN Spanning Tree+ (RPVST+)

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

Layer 3 services

Address Resolution Protocol (ARP)

Determines the MAC address of another IP host in the same subnet; 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

Support directed broadcast on configured network subnets.

Dynamic Host Configuration Protocol (DHCP)

Simplifies the management of large IP networks; DHCP Relay enables DHCP operation across subnets

• DHCP relay coexistence with server

Allows DHCP relay coexistence with DHCP server for both IPv4 and IPv6

Domain Name System (DNS)

Provides a distributed database that translates domain names and IP addresses, which simplifies network design; supports client and server. It supports mDNS Gateway.

Network Virtualization

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, including NSX environments, with centralized gateway and symmetric Integrated Routing and Bridging (IRB) based distributed gateways VXLAN tunnels

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. It supports VSX active forwarding for VXLAN underlay

Layer 3 routing

Policy Based Routing (PBR)

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

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 (BGP-4 and BGP-6

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

• 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

• Multiprotocol BGP (MP-BGP) with IPv6 Address Family

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

IPv6 Multicast Routing

Provides capability to enable routing of IPv6 multicast traffic. Supports multicast listener discovery (MLD), MLD Snooping, and PIM-SM IPv6 Routing.

6in4 tunnels

Supports the tunneling of IPv6 traffic in an IPv4 network.

OSPFv3 for IPv6

Delivers faster convergence; uses link-state routing interior gateway protocol (IGP), which supports ECMP, NSSA, and IPSEC authentication for increased security and graceful restart for faster failure recovery

• Loopback IP redistribution in OSPF

Allows redistribution of IPv4 and IPv6 addresses of loopback interface in OSFPv2/v3

Equal-Cost Multipath (ECMP)

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

• Generic routing encapsulation

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

Management

In addition to the Aruba CX Mobile App, Aruba NetEdit and Aruba Network Analytics Engine, the 8400 series offers the following:

• Built-in programmable and easy to use REST API interface

IPSLA

Monitor the network for degradation of various services, including monitoring voice. Monitoring is enabled via the NAE for history and for automated gathering of additional information when anomalies are detected.

• Management interface control

Enables or disables each of the following interfaces depending on security preferences: console port, or reset button

• 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; local and remote syslog capabilities allow logging of all access

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; this allows 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

Offers different mechanisms for configuration updates;; trivial FTP (TFTP) is a simpler method using User Datagram Protocol (UDP); Secure File Transfer Protocol (SFTP) runs over an SSH tunnel to provide additional security

Debug and sampler utility

Supports ping and traceroute for both 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 flash images

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

Customer First, Customer Last Support

When your network is important to your business, then your business needs the backing of Aruba Support Services. Partner with Aruba product experts to increase your team productivity, keep pace with technology advances, software releases, and obtain 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 benefit with option for 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.

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

Warranty, services, and support

Limited Lifetime Warranty

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

• Software Releases and Documentation

Refer to https://asp.arubanetworks.com/downloads.

Support and services information

Visit https://www.arubanetworks.com/support-services/arubacare/.

Resiliency and high availability

AOS-CX software resiliency with VSX)

Redundant and load-sharing fabrics, management, fan assemblies, and power supplies

Increases total performance and power availability while providing hitless, stateful failover

All hot-swappable modules

Allows replacement of modules without any impact on other modules

• Ethernet Ring Protection Switching (ERPS)

Supports rapid protection and recovery in a ring topology.

Separate data and control paths

Separates control from services and keeps service processing isolated; increases security and performance

• Data Center Bridging (DCB)

Supports lossless Ethernet networks with standard PFC, ETS, and DCBx

Passive design system

All active chassis components are field replaceable for increased reliability.

• Bidirectional forward detection (BFD)

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

• Virtual Router Redundancy Protocol (VRRP)

Allows groups of two routers to dynamically back each other up to create highly available routed environments

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 128 link aggregation groups (LAGs), each with eight links per LAG; and provides support for static or dynamic groups and a user-selectable hashing algorithm

Multiple internal power supplies

Provides high reliability, requiring only two power supplies to support a fully populated Aruba CX 8400 and adding two more gives the solution N+N power redundancy

Configuration Information

BTO Models

Standard Switch Enclosures

Rule # Description SKU

Aruba 8400 8-slot Chassis/3xFan Trays/18xFans/Cable Manager/X462 Bundle

JL375A

- Bundle includes: 8-slot chassis, 3x Fan Trays, 18x Fans, Cable Manager, X462 Rack Rail Kit
- 3 Fabric Module Slots
- 2 Management Module Slots
- 4 Power Supply Slots
- 8 Line Module Slots
- Includes 3 Fan Tray Bundles (JL371A) with 0 open FT Slots
- Includes 1 2-Post Rack Kit (JL374A)
- 8U Height

1, 2, 3, 5 Aruba 8400 1x Mgmt Mod 3x PS 2x 8400X Fabric Mod 1x 32p 10G Mod and 1x 8p 40G Mod Bundle

JL376A

- Bundle includes: 8-slot chassis, 3x Fan Trays, 18x Fans, Cable Manager, X462 Rack Rail Kit, 1x Management Module, 3x Power Supplies, 2x Fabric Modules, 1x 32p 10G Module, 1x 8p 40G Module
- Includes 2 Fabric Modules (JL367A) with 1 open FM slot
- Includes 1 Management Modules (JL368A) with 1 open MM slot
- Includes 3 Power Supplies (JL372A) with 1 open PS slot
- Includes 2 Line Modules (Qty 1 of JL363A and JL365A) with 6 open LM slots
- Includes 3 Fan Tray Bundles (JL371A) with 0 open FT Slots
- Includes 1 2-Post Rack Kit (JL374A)
- Min=0 \ Max= 32 SFP/SFP+ 1G/10G Transceivers
- Min=0 \ Max = 8 QSFP+ 40G Transceiver
- 8U Height

Aruba 8400 1x Mgmt Mod 3x PS 2x 8400X Fabric Mod 1x 32p 10G Mod and 1x 8p 40G Mod Bundle JL376A#B2B PDU

C19 PDU Jumper Cord (NA/MEX/TW/JP)

Aruba 8400 1x Mgmt Mod 3x PS 2x 8400X Fabric Mod 1x 32p 10G Mod and 1x 8p 40G Mod Bundle JL376A#B2C PDU

C19 PDU Jumper Cord (ROW)

Aruba 8400 1x Mgmt Mod 3x PS 2x 8400X Fabric Mod 1x 32p 10G Mod and 1x 8p 40G Mod Bundle JL376A#B2E US220v

HPE 2.5m C19 to NEMA 6-20P 250V 20Amp Non-locking Power Cord(JL351A)

Aruba 8400 1x Mgmt Mod 3x PS 2x 8400X Fabric Mod 1x 32p 10G Mod and 1x 8p 40G Mod Bundle JL376A#AC3

• No Localized Power Cord Selected

Configuration Rules

Rule # Description The following Transceivers install into this Module: (Use BTO only when adding to switch)

Aruba 1G SFP LC SX 500m OM2 MMF TransceiverJ4858DAruba 1G SFP LC LX 10km SMF TransceiverJ4859DAruba 1G SFP LC LH 70km SMF TransceiverJ4860D

Aruba 1G SFP RJ45 T 100m Cat5e Transceiver J8177D

Configuration Information

Rule#	Description	SKU		
2	The following Transceivers install into this Module: (Use BTO only when adding to switch)			
	Aruba 10GBASE-T SFP+ RJ45 30m Cat6A Transceiver	JL563B		
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D		
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E		
	Aruba 10G SFP+ LC LRM 220m OM2 MMF Transceiver	J9152D		
	Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D		
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D		
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D		
	Aruba 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285D		
3	The following Transceivers install into this Module: (Use BTO only when adding to switch)			
	Aruba 40G QSFP+ LC Bidirectional 150m MMF 2-strand Transceiver	JL308A		
	HPE X142 40G QSFP+ MPO SR4 Transceiver	JH231A		
	HPE X142 40G QSFP+ MPO eSR4 300M Transceiver	JH233A		
	HPE X142 40G QSFP+ LC LR4 SM Transceiver	JH232A		
	Aruba 40G QSFP+ LC ER4 40km SMF Transceiver	Q9G82A		
	HPE X242 40G QSFP+ to QSFP+ 1m Direct Attach Copper Cable	JH234A		
	HPE X242 40G QSFP+ to QSFP+ 3m Direct Attach Copper Cable	JH235A		
	HPE X242 40G QSFP+ to QSFP+ 5m Direct Attach Copper Cable	JH236A		
5	Localization required on orders without #B2B, #B2C, #B2E, or #AC3 options.			
Notes:	 Locking Power Cord (JL335A) L6-20P is available through the Watson Accessories tab 			
	- OCA Only Model Selection Form -			
	HPE Offering > Aruba > Switches - ArubaOS:8400 Switch Series			
Module	es			
Rule#	Description			
	Beschipmon	SKU		
	Redundant Management Module	SKU		
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1, 2, 6 1, 2, 5	Redundant Management Module For Switch JL375A System (std 0 // max 2) User Selection (min 0 // max 2) per enclosure For Switch JL376A System (std 1 // max 2) User Selection (min 0 // max 1) per enclosure Aruba 8400 Management Module Fabric Modules For Switch JL375A System (std 0 // max 3) User Selection (min 0 // max 3) per enclosure For Switch JL376A System (std 2 // max 3) User Selection (min 0 // max 1) per enclosure Aruba 8400X 7.2Tbps Fabric Module Line Module For Switch JL375A System (std 0 // max 8) User Selection (min 0 // max 8) per enclosure For Switch JL375A System (std 2 // max 8) User Selection (min 0 // max 6) per enclosure	JL368A JL367A		
	Redundant Management Module For Switch JL375A System (std 0 // max 2) User Selection (min 0 // max 2) per enclosure For Switch JL376A System (std 1 // max 2) User Selection (min 0 // max 1) per enclosure Aruba 8400 Management Module Fabric Modules For Switch JL375A System (std 0 // max 3) User Selection (min 0 // max 3) per enclosure For Switch JL376A System (std 2 // max 3) User Selection (min 0 // max 1) per enclosure Aruba 8400X 7.2Tbps Fabric Module Line Module For Switch JL375A System (std 0 // max 8) User Selection (min 0 // max 8) per enclosure For Switch JL375A System (std 2 // max 8) User Selection (min 0 // max 6) per enclosure Aruba 8400X 32-port 10GbE SFP/SFP+ with MACsec Advanced Module • min=0 \ max=32 SFP\SFP+ Transceivers Aruba 8400X-32Y 32p 1/10/25G SFP/SFP+/SFP28 Module • min=0 \ max=32 SFP/SFP+/SFP28 Transceivers	JL368A JL367A JL363A		
	Redundant Management Module For Switch JL375A System (std 0 // max 2) User Selection (min 0 // max 2) per enclosure For Switch JL376A System (std 1 // max 2) User Selection (min 0 // max 1) per enclosure Aruba 8400 Management Module Fabric Modules For Switch JL375A System (std 0 // max 3) User Selection (min 0 // max 3) per enclosure For Switch JL376A System (std 2 // max 3) User Selection (min 0 // max 1) per enclosure Aruba 8400X 7.2Tbps Fabric Module Line Module For Switch JL375A System (std 0 // max 8) User Selection (min 0 // max 8) per enclosure For Switch JL375A System (std 0 // max 8) User Selection (min 0 // max 6) per enclosure For Switch JL376A System (std 2 // max 8) User Selection (min 0 // max 6) per enclosure Aruba 8400X 32-port 10GbE SFP/SFP+ with MACsec Advanced Module • min=0 \ max=32 SFP\SFP+ Transceivers Aruba 8400X-32Y 32p 1/10/25G SFP/SFP+/SFP28 Module	JL368A JL367A JL363A		
1, 2, 5	Redundant Management Module For Switch JL375A System (std 0 // max 2) User Selection (min 0 // max 2) per enclosure For Switch JL376A System (std 1 // max 2) User Selection (min 0 // max 1) per enclosure Aruba 8400 Management Module Fabric Modules For Switch JL375A System (std 0 // max 3) User Selection (min 0 // max 3) per enclosure For Switch JL376A System (std 2 // max 3) User Selection (min 0 // max 1) per enclosure Aruba 8400X 7.2Tbps Fabric Module Line Module For Switch JL375A System (std 0 // max 8) User Selection (min 0 // max 8) per enclosure For Switch JL375A System (std 2 // max 8) User Selection (min 0 // max 6) per enclosure Aruba 8400X 32-port 10GbE SFP/SFP+ with MACsec Advanced Module • min=0 \ max=32 SFP\SFP+ Transceivers Aruba 8400X-32Y 32p 1/10/25G SFP/SFP+/SFP28 Module • min=0 \ max=32 SFP/SFP+/SFP28 Transceivers	JL368A JL367A JL363A JL687A		
1, 2, 5	Redundant Management Module For Switch JL375A System (std 0 // max 2) User Selection (min 0 // max 2) per enclosure For Switch JL376A System (std 1 // max 2) User Selection (min 0 // max 1) per enclosure Aruba 8400 Management Module Fabric Modules For Switch JL375A System (std 0 // max 3) User Selection (min 0 // max 3) per enclosure For Switch JL376A System (std 2 // max 3) User Selection (min 0 // max 1) per enclosure Aruba 8400X 7.2Tbps Fabric Module Line Module For Switch JL375A System (std 0 // max 8) User Selection (min 0 // max 8) per enclosure For Switch JL375A System (std 2 // max 8) User Selection (min 0 // max 6) per enclosure For Switch JL376A System (std 2 // max 8) User Selection (min 0 // max 6) per enclosure Aruba 8400X 32-port 10GbE SFP/SFP+ with MACsec Advanced Module • min=0 \ max=32 SFP\SFP+ Transceivers Aruba 8400X 8-port 40GbE QSFP+ Advanced Module	JL368A JL367A JL363A JL687A		

Configuration Information

Configuration Rules

Rule#	Description	SKU
1	The following Transceivers install into this Module: (Use BTO only when adding to switch)	
	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
	Aruba 1G SFP LC LH 70km SMF Transceiver	J4860D
	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
2	The following Transceivers install into this Module: (Use BTO only when adding to switch)	
	Aruba 10GBASE-T SFP+ RJ45 30m Cat6A Transceiver	JL563B
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
	Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
	Aruba 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285D
3	The following Transceivers install into this Module: (Use BTO only when adding to switch)	
	Aruba 40G QSFP+ LC ER4 40km SMF Transceiver	Q9G82A
	HPE X142 40G QSFP+ MPO SR4 Transceiver	JH231A
	HPE X142 40G QSFP+ LC LR4 SM Transceiver	JH232A
	HPE X142 40G QSFP+ MPO eSR4 300M Transceiver	JH233A
	Aruba 40G QSFP+ LC Bidirectional 150m MMF 2-strand Transceiver	JL308A
	HPE X242 40G QSFP+ to QSFP+ 1m Direct Attach Copper Cable	JH234A
	HPE X242 40G QSFP+ to QSFP+ 3m Direct Attach Copper Cable	JH235A
	HPE X242 40G QSFP+ to QSFP+ 5m Direct Attach Copper Cable	JH236A
4	The following Transceivers install into this Module: (Use BTO only when adding to switch)	
	Aruba 100G QSFP28 to QSFP28 3m Direct Attach Copper Cable	JL307A
	Aruba 100G QSFP28 MPO SR4 100m 12-fiber MPO OM3 MMF Transceiver	JL309A
	Aruba 100G QSFP28 LC LR4 10km SMF 2-strand Transceiver	JL310A
	Aruba 100G QSFP28 LC ER4L 40km SMF Transceiver	JL743A
	Aruba 100G QSFP28 to QSFP28 7m Active Optical Cable	ROZ27A
	Aruba 100G QSFP28 to QSFP28 15m Active Optical Cable	ROZ28A
	Aruba 100G QSFP28 to QSFP28 30m Active Optical Cable	ROZ29A
5	The following Transceivers install into this Module: (Use BTO only when adding to switch)	
	Aruba 25G SFP28 LC SR 100m MMF Transceiver	JL484A
	Aruba 25G SFP28 LC eSR 400m MMF Transceiver	JL485A
	Aruba 25G SFP28 LC LR 10km SMF Transceiver	JL486A
	Aruba 25G SFP28 to SFP28 3m Direct Attach Copper Cable	JL488A
	Aruba 25G SFP28 to SFP28 5m Direct Attach Copper Cable	JL489A
6	The following Transceivers install into this Module: (Use BTO only when adding to switch)	
	Aruba 10G SFP+ LC LRM 220m OM2 MMF Transceiver	J9152D
	Araba 100 511 · Ed EMM 22011 OF12 PHM Transcerver	371320

Configuration Information

Transce	ivers	
Remarks	Description	SKU
	SPF Transceivers	
	Aruba 1G SFP LC SX 500m OM2 MMF Transceiver	J4858D
	Aruba 1G SFP LC LX 10km SMF Transceiver	J4859D
	Aruba 1G SFP LC LH 70km SMF Transceiver	J4860D
	Aruba 1G SFP RJ45 T 100m Cat5e Transceiver	J8177D
	SPF+ Transceivers	
Notes:	A maximum qty of 12 XCVRs (JL563B) can be installed into ports 1-12 within the JL376A Switch or JL363A Module.	
	Aruba 10GBASE-T SFP+ RJ45 30m Cat6A Transceiver	JL563B
Notes:	 For JL363A, limit 12 per switch/module, only to be installed in ports 1-12. For JL687A, no limit (max 32). 	
	Clic Error Only:	
	 If JL375A (8400 Bundle) is being configured, Then min 0 / max 12 of JL563B (10GBT XCVR) per JL363A (32 port 10G Module). Up to 8 modules can be selected per JL375A Switch Bundle. 	
	- If JL376A (8400 Bundle) is being configured	
	 Then min 0 / max 12 of JL563B (10GBT XCVR) for included JL363A (32 port 10G Module). XCVRs not included. 	
	- Else min 0 / max 12 of JL563B (10GBT XCVR) per JL363A (32 port 10G Module). Up to 6	
	modules can be selected per JL376A Switch Bundle.	
	- Also display the following Notes:	
	 "The JL363A Line Module can accommodate up to qty 12 10GBT Transceivers (JL563B) due to heat restrictions." 	
	Aruba 10G SFP+ LC SR 300m OM3 MMF Transceiver	J9150D
	Aruba 10G SFP+ LC LR 10km SMF Transceiver	J9151E
	Aruba 10G SFP+ LC LRM 220m OM2 MMF Transceiver	J9152D
	Aruba 10G SFP+ LC ER 40km SMF Transceiver	J9153D
	Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable	J9281D
	Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	J9283D
	Aruba 10G SFP+ to SFP+ 7m Direct Attach Copper Cable	J9285D
	SFP28 Transceivers	
	Aruba 25G SFP28 LC SR 100m MMF Transceiver	JL484A
	Aruba 25G SFP28 LC eSR 400m MMF Transceiver	JL485A
	Aruba 25G SFP28 LC LR 10km SMF Transceiver	JL486A
	Aruba 25G SFP28 to SFP28 3m Direct Attach Copper Cable	JL488A
	Aruba 25G SFP28 to SFP28 5m Direct Attach Copper Cable QSFP+ Transceivers	JL489A
	Aruba 40G QSFP+ LC ER4 40km SMF Transceiver	
		Q9G82A
	HPE X142 40G QSFP+ MPO SR4 Transceiver HPE X142 40G QSFP+ LC LR4 SM Transceiver	JH231A
	HPE X142 40G QSFP+ LC LR4 SM Transceiver HPE X142 40G QSFP+ MPO eSR4 300M Transceiver	JH232A
	HPE X242 40G QSFP+ to QSFP+ 1m Direct Attach Copper Cable	JH233A
	THE MAZEZ FOO GOLD TO GOLD TO THE DIRECT AHACH COPPER CADILE	JH234A

HPE X242 40G QSFP+ to QSFP+ 3m Direct Attach Copper Cable

HPE X242 40G QSFP+ to QSFP+ 5m Direct Attach Copper Cable

JH235A

JH236A

Configuration Information

	Aruba 40G QSFP+ LC Bidirectional 150m MMF 2-strand Transceiver	JL308A
	QSFP28 Transceivers	JEJOOA
	Aruba 100G QSFP28 to QSFP28 3m Direct Attach Copper Cable	JL307A
	Aruba 100G QSFP28 MPO SR4 100m 12-fiber MPO OM3 MMF Transceiver	JL307A JL309A
	Aruba 100G QSFP28 LC LR4 10km SMF 2-strand Transceiver	JL309A JL310A
	Aruba 100G QSFP28 LC ER4L 40km SMF Transceiver	JL743A
	Aruba 100G QSFP28 to QSFP28 7m Active Optical Cable	ROZ27A
	Aruba 100G QSFP28 to QSFP28 15m Active Optical Cable	ROZ27A
	Aruba 100G QSFP28 to QSFP28 30m Active Optical Cable	ROZ29A
	Internal Power Supplies	11022771
Remarks	Description	SKU
Kemarko	For Switch JL375A System (std 0 // max 4) User Selection (min 0 // max 4) per enclosure For Switch JL376A System (std 3 // max 4) User Selection (min 0 // max 1) per enclosure	Sixo
	Aruba X382 54VDC 2700W AC Power Supply	JL372A
	• includes 1 x c19, 2750w	
Notes:	Localization (Wall Power Cord) required on orders without #B2B, #B2C, (PDU Power Cord) or #B2E. (See Localization Menu)	
	Aruba X382 54VDC 2700W AC Power Supply PDU NA, JP or TW	JL372A#B2B
	C19 PDU Jumper Cord (NA/MEX/TW/JP)	
	Aruba X382 54VDC 2700W AC Power Supply PDU ROW	JL372A#B2C
	C19 PDU Jumper Cord (ROW)	
	Aruba X382 54VDC 2700W AC Power Supply United States 220 volt	JL372A#B2E
	 HPE 2.5m C19 to NEMA 6-20P 250V 20Amp Non-locking Power Cord(JL351A) 	
	Aruba X382 54VDC 2700W AC Power Supply	JL372A#AC3
	No Localized Power Cord Selected	
Notes:	Drop down under power supply should offer the following options and results:	
	 Switch/Router to PDU Power Cord - #B2B in NA, Mexico, Taiwan, and Japan or #B2C ROW. (Watson Default B2B or B2C for Rack Level CTO) 	
	 Switch/Router/Power Supply to Wall Power Cord - Localized Option (Watson Default for BTO and 	
	Box Level CTO)	
	 High Volt Switch/Router/Power Supply to Wall Power Cord #B2E Option. (Offered only in North 	
	America, Mexico, Taiwan, and Japan)	
	No Localized Power Cord Selected - #AC3 Option No Localized Power Cord (II 775A) (20D is qualish to the Watson Associate to the power Cord (II 775A) (20D is qualish to the power Cord (II 775A) (2	
	Locking Power Cord (JL335A) L6-20P is available through the Watson Accessories tab	
Switch (Options	
	Fan Trays	
	For Switch JL375A System (std 3 // max 3) User Selection (min 0 // max 0) per enclosure	
	For Switch JL376A System (std 3 // max 3) User Selection (min 0 // max 0) per enclosure	
	Aruba 8400 1 Fan Tray and 6 Fans Bundle	JL371A
Notes:	3 Fan Tray Bundles are included with the JL375A and JL376A Switch Bundle	
	Rack Kits	
	For Switch JL375A System (std 1 // max 1) User Selection (min 0 // max 0) per enclosure For Switch JL376A System (std 1 // max 1) User Selection (min 0 // max 0) per enclosure	

Notes:

Aruba X462 2-post Rack Rail Kit

1 Rack Mount Kit is included with the JL375A and JL376A Switch Bundle

JL374A

Configuration Information

Softwar		
Remarks		SKU
	Central	
Notes:	For details and complete listing of Aruba Central licensing options, please see	
	https://www.arubanetworks.com/assets/ds/DS_ArubaCentral.pdf and Aruba Central DataSheet	
	https://www.arubanetworks.com/assets/ds/DS_ArubaCentral.pdf	
	Aruba Central 8xxx Switch Foundation 1 year Subscription E-STU	R3K03AAE
	Aruba Central 8xxx Switch Foundation 3 year Subscription E-STU	R3K04AAE
	Aruba Central 8xxx Switch Foundation 5 year Subscription E-STU	R3K05AAE
	Aruba Central 8xxx Switch Foundation 7 year Subscription E-STU	R3K06AAE
	Aruba Central 8xxx Switch Foundation 10 year Subscription E-STU	R3K07AAE
Notes:	Add the Central Cloud Skus to the Aruba Catalog as Standalone:	
	Aruba > Network Management > Central > Cloud Services	D/110044E
	Aruba Central On-Premises 8xxx Switch Foundation 1 year Subscription E-STU	R6U88AAE
	Aruba Central On-Premises 8xxx Switch Foundation 3 year Subscription E-STU	R6U89AAE
	Aruba Central On-Premises 8xxx Switch Foundation 5 year Subscription E-STU	R6U90AAE
	Aruba Central On-Premises 8xxx Switch Foundation 7 year Subscription E-STU	R6U91AAE R6U92AAE
	Aruba Central On-Premises 8xxx Switch Foundation 10 year Subscription E-STU	
	Aruba Central On-Premises 8xxx Switch Foundation 1 year Subscription COP only TAC E-STU	R8M20AAE
	Aruba Central On-Premises 8xxx Switch Foundation 3 year Subscription COP only TAC E-STU	R8M21AAE R8M22AAE
	Aruba Central On-Premises 8xxx Switch Foundation 5 year Subscription COP only TAC E-STU	
	Aruba Central On-Premises 8xxx Switch Foundation 7 year Subscription COP only TAC E-STU	R8M23AAE R8M24AAE
Notes:	Aruba Central On-Premises 8xxx Switch Foundation 10 year Subscription COP only TAC E-STU Add the Central On-Prem Skus to the Aruba Catalog as Standalone:	ROMZ4AAE
Notes:	Aruba > Network Management > Central > On-Prem Services	
	Composer	
	Aruba Fabric Composer Device Management Service Tier 4 Switch 1 year Subscription E-STU	R7G99AAE
	Aruba Fabric Composer Device Management Service Tier 4 Switch 3 year Subscription E-STU	R7H00AAE
	Aruba Fabric Composer Device Management Service Tier 4 Switch 5 year Subscription E-STU	R7H01AAE
	Aruba Fabric Composer Device Management Service Tier 4 Switch 7 year Subscription E-STU	R7H02AAE
	Aruba Fabric Composer Device Management Service Tier 4 Switch 10 year Subscription E-STU	R7H03AAE
Accesso	pries	
Remarks	Description	SKU
	Spares	
	For Switch JL375A System (std 0 // max 99) User Selection (min 0 // max 99) per enclosure	
	For Switch JL376A System (std 0 // max 99) User Selection (min 0 // max 99) per enclosure	
	Aruba 8400 8-slot Chassis/3xFan Trays/18xFans/Cable Manager/X462 Bundle	JL375A
	Aruba X382 54VDC 2700W AC Power Supply	JL372A
	Aruba 8400 1 Fan Tray and 6 Fans Bundle	JL371A
	Aruba 8400 Fan for X731 Fan Tray	JL370A
	Aruba X731 Fan Tray	JL369A
	Aruba X462 2-post Rack Rail Kit	JL374A
	Aruba X464 4-post Rack Rail Kit	JL373A
	Aruba X414 1U Universal 4-post Rack Mount Kit	J9583B



Aruba X2C2 RJ45 to DB9 Console Cable

JL448A

Technical Specifications

Series Specific	cations		
Line modules	Supports a maximum of 256 10GbE (SFP/SFP+) or 25G (SFP/SFP+/SFP28) ports, or 64 40GbE (QSFP+)		
and slots	ports, or 48 ports 40/100GbE (QSFP28) combination		
	Eight slots for line modules		
Module VoQ	1.5GB for JL363A and JL365A		
	3GB for JL366A		
	4GB for JL687A		
Additional	2 management module slots		
ports and slots			
D	4 power supply slots 4 power supply slots		
Power supplies	d Constitution of the Change of Los		
F	2 minimum power supply required for a fully loaded chassis (or with 8 line modules)		
Fan tray	Included with JL376A	4777 > 2779 4797 :	
Physical	Dimensions	17.4(w) x 26(d) x 13.8(h) in.	
characteristics	Weight	(44.1 x 66.0 x 35.1 cm) (8U height) -Empty configuration weight: 76 lbs (34 kg)	
	vveigiii	-Empty configuration weight. 76 lbs (34 kg) -JL376A weight: 164 lbs (74 kg)	
		-Full configuration weight: 241 lbs (109 kg)	
Mounting and	Mounts in an FIA standard 19-in	ch rack or other equipment cabinet (hardware included); horizontal	
enclosure	surface mounting only	enrack of other equipment cubiner (hardware included), honzonial	
Performance	Switching Capacity	19.2Tbps	
	IPv4 Host Table	756,000	
	IPv6 Host Table	524,000	
	IPv4 Unicast Routes	1,011,712 (BGP RIB is limited to 256,00)	
	IPv6 Unicast Routes	524,288	
	MAC Table Size	768,000	
	IGMP Groups	32,767	
	MLD Groups	32,767	
	IPv4 Multicast Routes	32,767	
	IPv6 Multicast Routes	32,767	
Environment	Operating	32°F to 104°F (-0°C to 40°C) with 5% to 95%, non-condensing	
	Non-operating	-40°F to 158 °F (-40°C to 70 °C) with 5% to 95%, non-condensing	
	Max operating altitude	Up to 10,000ft (3.048 Km)	
	Max non-operating altitude	Up to 30,000ft (9.144 Km)	
	Acoustics	Sound power (LWAd) 7.3 Bel	
		Sound pressure (LpAm) (Bystander) 55.6 dB	
Electrical	Frequency	47-63 Hz	
characteristics	AC voltage	90 – 140/180 – 264 VAC	
	DC voltage		
	Current	16 A	
	Power output	2750 W	
Safety	EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 +A2:2013; EN62368-1:2014; IEC 60950-1:2005		
	Ed.2; Am 1:2009+A2:2013; IEC62368-1, Ed. 2; IEC60825:2007 (Applies to products with lasers); UL60950-		
Fariania	1, CSA 22.2 No 60950-1; UL62368-1 Ed. 2		
Emissions	VCCI Class A; EN 55022 Class A; CISPR 22 Class A; IEC/EN 61000-3-2; IEC/EN 61000-3-3; ICES-003 Class		
	A; AS/NZS CISPR 22 Class A; FCC; (CFR 47, Part 15) Class A; GB9254; EN55032:2012 Class A; CISPR32:2012 Class A		
	CISPR32:2012 Class A		

Technical Specifications

Immunity	Generic	Directive 2014/35/EU
	EN	EN 55024:2010+ A1:2001 + A2:2003; ETSI EN 300 386
		V1.3.3
	ESD	EN 61000-4-2
	Radiated	EN 61000-4-3
	EFT/Burst	EN 61000-4-4
	Surge	EN 61000-4-5
	Conducted	EN 61000-4-6
	Power frequency magnetic	IEC 61000-4-8
	field	
	Voltage dips and interruptions	EN 61000-4-11
	Harmonics	EN 61000-3-2, IEC 61000-3-2
	Flicker	EN 61000-3-3, IEC 61000-3-3
Management	SNMP, RJ45 for Serial Console, USB-Type A for file management only, RJ45 Ethernet for OOBM	

Standards and protocols

Applies to all products in series

- IEEE 802.1AB-2009
- IEEE 802.1AE (JL363A only)
- 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 802.3ae 10 Gigabit Ethernet
- IEEE 802.3ad Link Aggregation Control Protocol (LACP)
- IEEE 802.3ba 40 Gigabit Ethernet Architecture
- IEEE 802.3x Flow Control
- IEEE 802.3z Gigabit Ethernet
- RFC 768 UDP
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 813 Window and Acknowledgement Strategy in TCP
- RFC 815 IP datagram reassembly algorithms
- RFC 826 ARP
- 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

Technical Specifications

- 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 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
- RFC 4940 IANA Considerations for OSPF
- 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

Summary of Changes

Date	Version History	Action	Description of Change
02-May-2022	Version 24	Changed	Configuration Information section was updated.
06-Dec-2021	Version 23	Changed	Standard Features sections was updated. SKUs were added in
			Configuration Information section.
07-Sep-2021	Version 22	Changed	Overview and Standard Features sections were updated.
07-Jun-2021	Version 21	Changed	Standard Features and Configuration Information sections were updated.
08-Mar-2021	Version 20	Changed	SKUs added in Configuration Information section and Technical
			Specifications section was updated.
07-Dec-2020	Version 19	Changed	Overview, Standard Features, and Configuration Information sections were
			updated.
08-Sep-2020	Version 18	Changed	Configuration Information section was updated.
10-Aug-2020	Version 17	Changed	Standard Features section was updated.
04-May-2020	Version 16	Changed	Configuration Information section was updated.
06-Apr-2020	Version 15	Changed	Standard Features, Configuration Information and Technical Specification
			sections were updated.
09-Dec-2019	Version 14	Changed	Technical Specification section was updated.
01-Nov-2019	Version 13	Changed	Overview, Standard Features, Configuration Information and Related
			Options sections were updated.
03-Jun-2019	Version 12	Changed	Overview, Key features, Features and benefits and Accessories sections
			were update.
04-Mar-2019	Version 11	Changed	SKU J9151D was replaced with J9151E. Obsolete SKUs were removed.
03-Dec-2018	Version 10	Changed	Features and benefits updated
02-Jul-2018	Version 9	Changed	Product overview, Key features, Features and benefits changed due to a
			Software feature update
04-Jun-2018	Version 8	Changed	Configuration section updated
07-May-2018	Version 7	Added	SKUs added: JL563A; Q9G82A
04-Dec-2017	Version 6	Changed	Updates made on the Configuration section
06-Nov-2017	Version 5	Changed	Updates made on Features and benefits
16-Oct-2017	Version 4	Changed	Updates on Product overview, Features and benefits, Technical
			Specifications.
25-Sep-2017	Version 3	Changed	Updates made on the Configuration section
11-Aug-2017	Version 2	Changed	Changes made on Features and benefits
07-Aug-2017	Version 1	New	New QuickSpecs

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