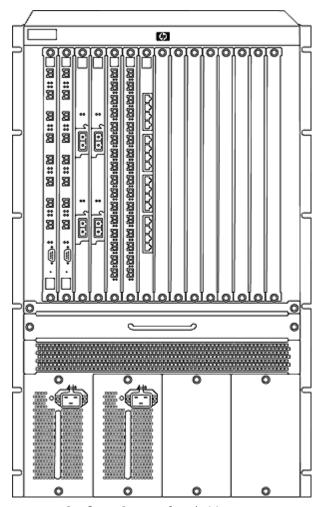
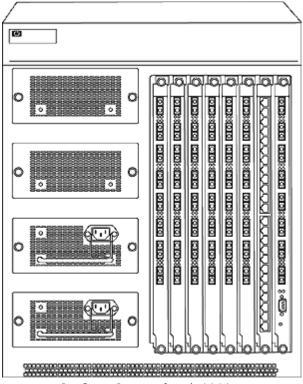
Overview

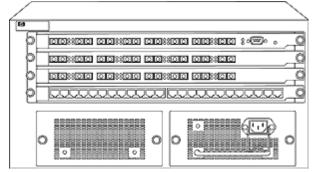


ProCurve Routing Switch 9315m

Overview



ProCurve Routing Switch 9308m



ProCurve Routing Switch 9304m

Models

ProCurve Routing Switch 9315m ProCurve Routing Switch 9308m ProCurve Routing Switch 9304m J4874A

J4138A

J4139A

Introduction

The ProCurve Routing Switch 9300m series delivers high-performance capabilities and investment protection for medium and large enterprise networks. By providing high-performance throughput from the wiring closet into the data center and out to the edge of the WAN, the non-blocking architecture of the ProCurve 9300m series enables network managers to build scalable and highly available network designs.

Features and Benefits

Performance



Overview

- Up to 345 million pps performance: provides the high performance required by large networks
- Jumbo frames: on Gigabit/Enhanced Performance modules and 10-Gigabit/non-Enhanced Performance modules allow high-performance remote backup and disaster-recovery services
- Hardware-based wire-speed access control lists: feature-rich ACL implementation (selective ACL logging, scalability, and syntax compatibility) with enhanced editing capabilities helps ensure high levels of security and ease of administration without impacting network performance
- Increased on-board memory and flash capacity (Enhanced Performance modules only): enables more robust management scalability and capability

Connectivity

- Superior port density (Enhanced Performance modules only): provides enhanced system capabilities and overall investment protection
- 10-Gigabit Ethernet (10-GbE): simplify data-center configurations and increase backbone throughput

Resiliency and high availability

- Port trunking: for higher switch-to-switch and switch-to-server throughput and link-level redundancy, with support for standards-based link aggregation (IEEE 802.3ad)
- Next-generation Spanning Tree functionality: single-instance STP, Per VLAN Spanning Tree (PVST), Per VLAN Group STP (PVGST), Rapid Spanning Tree Protocol (IEEE 802.1w), and Multi-Instance Spanning Tree (IEEE 802.1s) all provide improved availability and scalability for Spanning Tree-based networks
- Hot-swappable chassis modules: allow swapping of modules without interrupting the network
- Automatic routing switch failover: provides hot-standby redundancy using standards-based VRRP (Virtual Router Redundancy Protocol) or SRP (Standby Routing Protocol)
- Optional redundant management: provides automatic failover from the active management module to the standby management module for high availability

Security

- Advanced access security: protection against denial-of-service attacks; unauthorized network access and associated
 downtime are avoided using Secure Shell v2, Secure Sockets Layer (SSL), Secure Copy, wire-speed rate limiting, and user
 authentication (with AAA, RADIUS, and TACACS+)
- Dynamic IP ACLs and MAC filters: provide an additional level of security via dynamic port configuration to IEEE 802.1X ports, based on user profile information sent by the authentication server

Layer 2 switching

- IP multicast snooping and data-driven IGMP: provides IGMP to control multicast traffic in non-routed environments
- Policy-based VLANs: allow assigning of VLANs on a port, protocol, subnet, or IEEE 802.1Q tagged basis

Layer 3 routing

- IP multicast routing: provides DVMRP, PIM Dense, PIM sparse, and PIM snooping mode support in routed environments to control multicast traffic
- IP/IPX/AppleTalk routing: provides routing of IP and IPX at media speed

Quality of service (QoS)

• Layer 4 prioritization: delivers QoS for delay-sensitive applications

Manageability

- Full-featured console: provides complete control of the switch with a familiar command-line interface (CLI)
- Web interface: allows configuration of the switch from any Web browser on the network



Overview

Monitoring and diagnostics

- sFlow (RFC 3176) (Enhanced Performance modules only): wire-speed traffic accounting and monitoring
- Software updates: free downloads from the Web

Industry-leading warranty

• One-year next-business-day advance replacement (available in most countries), with extensions available

Services		
ProCurve Switch 9308m	3-year, parts only, global next-day advance exchange	UA121E
and Switch 9315m	3-year, 4-hour onsite, 13x5 coverage, for hardware	H2885E
	3-year, 4-hour onsite, 24x7 coverage for hardware	H2886E
	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support	U2867E
	1-year, post-warranty, parts only, global next-day advance exchange	H7640PPE
	1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware	H2739PPE
	1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware	U2868PPE
	1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support	UA424PPE
	Installation with minimum configuration, system-based pricing	U4829E
	Installation with HP-provided configuration, system-based pricing	U4833E
ProCurve Switch 9304m	3-year, parts only, global next-day advance exchange	UA120E
	3-year, 4-hour onsite, 13x5 coverage for hardware	H2887E
	3-year, 4-hour onsite, 24x7 coverage for hardware	H2888E
	3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support	U2865E
	1-year, post-warranty, parts only, global next-day advance exchange	H7639PE
	1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware	H2738PE
	1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware	U2866PE
	1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support	UA423PE
	Installation with minimum configuration, system-based pricing	U4829E
	Installation with HP-provided configuration, system-based pricing	U4833E

Check http://www.hp.com/go/procurveservices for part numbers and service-level descriptions. For details about services and response times in your area, please contact your local HP sales office.



Technical Specifications

ProCurve	e Routing	Switch
9315m	(J4874A)	

What's included 2 ProCurve 9315m Redundant Power Supply (J4875A)

Ports 15 open module slots

Maximum ports Supports a maximum of 28 10-GbE, 232

Gigabit, or 672 10/100 ports

Physical characteristics Dimensions 15.0 x 19.0 x 29.75 in. (38.1 x 48.26 x 75.57

cm) (17U height)

Weight (fully loaded) 256 lb. (116.1 kg)

Memory and processor EP management (J4885A) Packet buffer size 4 MB per module

Processor type and speed Motorola PowerPC

@ 466 MHz

RAM/ROM capacity 512 MB per module

Flash capacity 16 MB

Mounting Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware

included); horizontal surface mounting only

Performance Latency <7 μs (FIFO)

Throughput 345 million pps (64-byte packets)

480 Gbps

Routing/Switching

capacity

Routing table size 64,000 entries

Environment Operating temperature 32° to 104° F (0° to 40° C)

Operating relative 5% to 90% @ 104° F (40° C), non-condensing

humidity

Non-operating/ -13° to 158° F (-25° to 70° C)

Storage temperature

Non-operating/ 90% @ 149° F (65° C), non-condensing

Storage relative humidity

Shock and vibration EN 60068 (IEC 68)

Electrical characteristics Maximum BTUs 5,857 BTU/hr

Voltage 100–120 VAC/200–240 VAC

 Current
 17A/8.5A

 Power consumption
 1,715W

 Frequency
 50/60 Hz

Safety CSA 950; EN 60950/IEC 60950; UL 1950

Emissions FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A

Immunity ESD IEC 61000-4-2:2001; 4 kV CD, 8 kV AD

Radiated IEC 61000-4-3:2002; 3V/m

EFT/Burst IEC 61000-4-4:2001; 1.0 kV (power line), 0.5

kV (signal line)

Conducted IEC 61000-4-6:2001; 3V

Management ProCurve Manager (included); ProCurve Manager Plus; IEEE 802.3 Ethernet

MIB; Repeater MIB; Ethernet Interface MIB

Technical Specifications

Standards and protocols IEEE 802.3X Flow Control; RFC 2236 IGMP v1/v2/v3; RFC 1583 OSPFv2;

IEEE 802.1D Spanning Tree; SSHv1/SSHv2 Secure Shell, Secure Sockets Layer (SSL); IEEE 802.1Q VLANs; IEEE 802.1Q VLAN tagging; IEEE 802.1p Priority; SNMPv1/v2c/v3; RFC 1493 Bridge MIB; RFC 1075 DVMRP; PIMdense, PIM-sparse, and PIM snooping mode; RFC 2338 VRRP; RFC 1058 RIP; RVC 1723 RIPv2; RFC 2819 Four groups of RMON: 1 (statistics), 2

(history), 3 (alarm), and 9 (events)

ProCurve Routing Switch 9308m (J4138A)

What's included 2 ProCurve 9304m/9308m Redundant Power Supply (J4147A)

Ports 8 open module slots

Maximum ports Supports a maximum of 14 10-GbE, 120

Gigabit, or 336 10/100 ports

Physical characteristics Dimensions 15.0 x 17.5 x 20.75 in. (38.1 x 44.45 x 52.71

cm) (12U height)

Weight (fully loaded) 117 lb. (53.1 kg)

Memory and processor EP management (J4885A) Packet buffer size 4 MB per module

Processor type and speed Motorola PowerPC

@ 466 MHz

RAM/ROM capacity 512 MB per module

Flash capacity 16 MB

Mounting Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware

included); horizontal surface mounting only

Performance Latency $<7 \mu s$ (FIFO)

Throughput 178 million pps (64-byte packets)

Routing/Switching

capacity

256 Gbps

Routing table size 64,000 entries

Environment Operating temperature 32° to 104° F (0° to 40° C)

Operating relative

humidity

5% to 90% @ 104° F (40° C), non-condensing

Non-operating/

Storage temperature

–13° to 158° F (–25° to 70° C)

Non-operating/ 90% @ 149° F (65° C), non-condensing

Storage relative humidity

Shock and vibration EN 60068 (IEC 68)

Electrical characteristics Maximum BTUs 2,835 BTU/hr

Voltage 100–120 VAC/200–240 VAC

Current 8 A/4 A
Power consumption 830 W
Frequency 50/60 Hz

Safety CSA 950; EN 60950/IEC 60950; UL 1950

Emissions FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A

Technical Specifications

Immunity ESD IEC 61000-4-2:2001; 4 kV CD, 8 kV AD

Radiated IEC 61000-4-3:2002; 3V/m

EFT/Burst IEC 61000-4-4:2001; 1.0 kV (power line), 0.5

kV (signal line)

Conducted IEC 61000-4-6:2001; 3V

Management ProCurve Manager (included); ProCurve Manager Plus; IEEE 802.3 Ethernet

MIB; Repeater MIB; Ethernet Interface MIB

Standards and protocols IEEE 802.3XFlow Control;RFC 2236 IGMP v1/v2/v3; RFC 1583 OSPFv2;

IEEE 802.1D Spanning Tree; SSHv1/SSHv2 Secure Shell, Secure Sockets Layer (SSL); IEEE 802.1Q VLANs; IEEE 802.1Q VLAN tagging; IEEE 802.1p Priority; SNMPv1/v2c/v3; RFC 1493 Bridge MIB; RFC 1075 DVMRP; PIMdense, PIM-sparse, and PIM snooping mode; RFC 2338 VRRP; RFC 1058 RIP; RFC 1723 RIPv2; RFC 2819 Four groups RMON: 1 (statistics), 2

(history), 3 (alarm), and 9 (events)

ProCurve Routing Switch 9304m (J4139A)

What's included 1 ProCurve 9304m/9308m Redundant Power Supply (J4147A)

Ports 4 open module slots

Maximum ports Supports a maximum of 6 10-GbE, 56 Gigabit,

or 144 10/100 ports

Physical characteristics Dimensions 15.0 x 17.5 x 8.75 in. (38.1 x 44.45 x 22.23

cm) (5U height)

Weight (fully loaded) 60 lb. (27.2 kg)

Memory and processor EP management (J4885A) Packet buffer size 4 MB per module

Processor type and speed Motorola PowerPC

@ 466 MHz

RAM/ROM capacity 512 MB per module

Flash capacity 16 MB

Mounting Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware

included); horizontal surface mounting only

Performance Latency $<7 \mu s$ (FIFO)

Throughput 83 million pps (64-byte packets)

Routing/Switching 128 Gbps

capacity

Routing table size 64,000 entries

Environment Operating temperature 32° to 104° F (0° to 40° C)

Operating relative 5% to 90% @ 104° F (40° C), non-condensing

humidity

Non-operating/ -13° to 158° F (-25° to 70° C)

Storage temperature

Non-operating/ 95% @ 149° F (65° C), non-condensing

Storage relative humidity

Shock and vibration EN 60068 (IEC 68)



Technical Specifications

Electrical characteristics Maximum BTUs 1,435 BTU/hr

Voltage 100–120 VAC/200–240 VAC

 $\begin{tabular}{lll} Current & 8 A/4 A \\ Power consumption & 270 W \\ Frequency & 50/60 Hz \\ \end{tabular}$

Safety CSA 950; EN 60950/IEC 60950; UL 1950

Emissions FCC Class A; EN 55022/CISPR-22 Class A; VCCI Class A

Immunity ESD IEC 61000-4-2:2001; 4 kV CD, 8 kV AD

Radiated IEC 61000-4-3:2002; 3V/m

EFT/Burst IEC 61000-4-4:2001; 1.0 kV (power line), 0.5

kV (signal line)

Conducted IEC 61000-4-6:2001; 3V

Management ProCurve Manager (included); ProCurve Manager Plus; IEEE 802.3 Ethernet

MIB; Repeater MIB; Ethernet Interface MIB

Standards and protocols IEEE 802.3X Flow Control; RFC 2236 IGMP v1/v2/v3; RFC 1583 OSPFv2;

IEEE 802.1D Spanning Tree; SSHv1/SSHv2 Secure Shell, Secure Sockets Layer (SSL); IEEE 802.1Q VLANs; IEEE 802.1Q VLAN tagging; IEEE 802.1p Priority; SNMPv1/v2c/v3; RFC 1493 Bridge MIB; RFC 1075 DVMRP; PIMdense, PIM-sparse, and PIM snooping mode; RFC 2338 VRRP; RFC 1058 RIP; RFC 1723 RIPv2; RFC 2819 Four groups of RMON: 1 (statistics), 2

(history), 3 (alarm), and 9 (events)

Modules and RPS

ProCurve 9300 EP 8-Port	Por	ts
Mini-GBIC Redundant		
Management Module		
(14885A)	-	

8 open mini-GBIC slots 1 RS-232C DB-9 console port

Duplex: full

Physical characteristics

Dimensions: 16.0 x 12.5 x 1.0 in. (40.64 x 31.75 x 2.54 cm)

Weight: 4.35 lb. (1.96 kg)

Mini-GBICs supported (ordered separately)

• J4858B ProCurve Gigabit-SX-LC mini-GBIC J4859B ProCurve Gigabit-LX-LC mini-GBIC

J4860B ProCurve Gigabit-LH-LC mini-GBIC

J8177B ProCurve Gigabit 1000Base-T Mini-GBIC

Other mini-GBICs supported

J4858A ProCurve Gigabit-SX-LC Mini-GBIC

J4859A ProCurve Gigabit-LX-LC Mini-GBIC J4860A ProCurve Gigabit-LH-LC Mini-GBIC

Notes

This module cannot be installed in the same chassis with non-EP modules. Two modules are required for redundant configuration.

ProCurve 9300 EP 16-Port Mini-GBIC Module (J4894A)

Ports

16 open mini-GBIC slots

Duplex: full

Physical characteristics

Dimensions: 16.0 x 12.54 x 1.0 in. (40.64 x 31.85 x 2.54 cm)

Weight: 4.31 lb. (1.94 kg)

Mini-GBICs supported (ordered separately)

 J4858B ProCurve Gigabit-SX-LC mini-GBIC J4859B ProCurve Gigabit-LX-LC mini-GBIC

J4860B ProCurve Gigabit-LH-LC mini-GBIC

Other mini-GBICs supported

• J8177B ProCurve Gigabit 1000Base-T Mini-GBIC J4858A ProCurve Gigabit-SX-LC Mini-GBIC

J4859A ProCurve Gigabit-LX-LC Mini-GBIC J4860A ProCurve Gigabit-LH-LC Mini-GBIC

Note

This module cannot be installed in the same chassis with non-EP modules.

ProCurve 9300 EP 16-Port 100/1000-T Module (J4895A)

Ports

16 auto-sensing 100/1000 ports (IEEE 802.3u Type 100Base-TX; IEEE

802.3ab Type 1000Base-T)

Connector: RJ-45

Duplex: full or half (100 ports @ half duplex)

Physical characteristics

Dimensions: 16.0 x 12.5 x 1.0 in. (40.64 x 31.75 x 2.54 cm)

Weight: 4.31 lb. (1.94 kg)

Cabling

Type:

 100Base-TX: Category 5 (or better), 100 O differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3u 100Base-TX

1000Base-T: Category 5 (5E or better recommended), 100 O differentiated 4-pair unshielded twisted pair (UTP) or shielded twisted

pair (STP), complying with IEEE 802.3ab 1000Base-T

Note

This module cannot be installed in the same chassis with non-EP modules.



Modules and RPS

ProCurve 9300 EP 48-Port 10/100-TX RJ-45 Module (J4881B)

Ports 48 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T; IEEE 802.3u

> Type 100Base-TX) Connector: RJ-45 Duplex: full

Physical characteristics Dimensions: 16.0 x 12.5 x 2.0 in. (40.64 x 31.75 x 5.08 cm)

Weight: 5.2 lb. (2.34 kg)

Cabling Type:

> • 10Base-T: Category 3 (or better), 100 O differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3 Type 10Base-T

100Base-TX: Category 5 (or better), 100 O differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3u 100Base-TX

This module cannot be installed in the same chassis with non-EP modules.

Requires software version 07.8.00 or greater. This module occupies two chassis slots. This module supports full duplex mode only.

ProCurve 9300 EP 48-**Ports** Port 10/100-TX Telco (RJ-21) Module (J4889B)

48 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T; IEEE 802.3u

Type 100Base-TX) Connector: RJ-21 Duplex: full

Physical characteristics

Notes

Notes

Ports

Notes

Dimensions: 16.0 x 12.5 x 1.0 in. (40.64 x 31.75 x 2.54 cm)

Weight: 4.64 lb. (2.09 kg)

Cabling

Type:

• 10Base-T: Category 3 (or better), 100 O differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3 Type 10Base-T

100Base-TX: Category 5 (or better), 100 O differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3u 100Base-TX

This module cannot be installed in the same chassis with non-EP modules.

Requires software version 07.8.00 or greater.

ProCurve 9300 2-Port 10-GbE Module (J8174A) 2 open 10-GbE XENPAK transceiver slots

Duplex: full

Physical characteristics

Dimensions: 16.0 x 12.5 x 1.0 in. (40.64 x 31.75 x 2.54 cm)

Weight: 5.2 lb. (2.34 kg)

XENPAK transceivers supported (ordered separately)

• J8173A ProCurve 9300 10GbE LR optic

• J8175A ProCurve 9300 10GbE SR optic • J8176A ProCurve 9300 10GbE ER optic

This module can be installed in the same chassis with either EP or non-EP

modules.

This module requires software version 07.6.04 or greater.



Modules and RPS

ProCurve 9300 EP 24-Port 100Base-FX Module

(J8178A)

Ports 24 100Base-FX ports (IEEE 802.3u Type 100Base-FX)

> Connector: MTRJ Duplex: full

Dimensions: 16.0 x 12.5 x 1.0 in. (40.64 x 31.75 x 2.54 cm) Physical characteristics

Weight: 3.0 lb. (1.35 kg)

Cabling Type: $62.5/125 \mu m$ or $50/125 \mu m$ (core/cladding) diameter, graded-index,

multimode fiber-optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type

Alb or Ala, respectively Maximum distance: 2 km

This module cannot be installed in the same chassis with non-EP modules. Notes

This module supports full duplex mode only.

ProCurve 9304m/9308m Physical characteristics

Redundant Power Supply

(J4147A)

Dimensions: 13.6 x 7.3 x 3.15 in (34.54 x 18.54 x 8.0 cm)

Weight: 8.15 lb (3.67 kg)

Electrical characteristics Voltage: 100-120 VAC/200-240 VAC

> Current: 8.0 A/4.0 A Frequency: 50/60 Hz

Notes For additional RPS specification information, see the data sheet for the

product in which the RPS is being installed. This RPS is supported only in the

following chassis:

J4138A ProCurve Routing Switch 9308m

• J4139A ProCurve Routing Switch 9304m

Switch 9304m includes one power supply; supports max of 2. Switch 9308m includes two power supplies; supports max of 4.

Adding one additional power supply (for total of 3) provides N+1

redundancy.

Adding two additional power supplies (for total of 4) allows use of 2

separate power grids.

ProCurve 9315m Redundant Power Supply (J4875A)

Physical characteristics

Dimensions: 15.5 x 7.75 x 4.4 in (39.37 x 19.68 x 11.18 cm)

Weight: 14.5 lb (6.53 kg)

Electrical characteristics

Voltage: 100-120 VAC/200-240 VAC

Current: 16 A Frequency: 47/63 Hz

Notes

For additional RPS specification information, see the data sheet for the product in which the RPS is being installed. This RPS is supported only in the

J4874A ProCurve Routing Switch 9315m.

Switch 9315m includes 2 power supplies; supports max of 4.

 Adding one additional power supply (for total of 3) provides N+1 redundancy.

Adding two additional power supplies (for total of 4) allows use of 2 separate power grids.



Modules and RPS

Additional accessories	ProCurve 10-GbE XENPAK LR Optic	J8173A
	(See the ProCurve Optics QuickSpec for details.)	
	ProCurve 10-GbE XENPAK ER Optic	J8176A
	(See the ProCurve Optics QuickSpec for details.)	
	ProCurve 10-GbE XENPAK SR Optic	J8175A
	(See the ProCurve Optics QuickSpec for details.)	
	ProCurve Gigabit-SX-LC Mini-GBIC	J4858B
	(See the ProCurve Mini-GBICs QuickSpec for details.)	
	ProCurve Gigabit-LX-LC Mini-GBIC	J4859B
	(See the ProCurve Mini-GBICs QuickSpec for details.)	
	ProCurve Gigabit-LH-LC Mini-GBIC	J4860B
	(See the ProCurve Mini-GBICs QuickSpec for details.)	
	ProCurve Gigabit 1000Base-T Mini-GBIC	J8177B
	(See the ProCurve Mini-GBICs QuickSpec for details.)	
Services for accessories ar	re covered under the product in which they are installed.	

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