ProCurve Switch 2600 Series

The ProCurve Switch 2600 series is a collection of low-cost, stackable, multi-layer, managed switches with 48, 24, or 8 auto-sensing 10/100 ports and dual-personality ports for 10/100/1000 or mini-GBIC connectivity. The ProCurve Switch 2650-PWR, 2626-PWR, and 2600-8-PWR are IEEE 802.3af-compliant for Power over Ethernet and provide up to 15.4 W per port. A redundant external power supply is also available as an accessory.

ProCurve Switch 2650
(J4899C)

ProCurve Switch 2650-PWR
(J8165A)

ProCurve Switch 2626
(J4900C)

ProCurve Switch 2626-PWR
(J8164A)

ProCurve Switch 2600-8-PWR
with Gigabit Uplink (J8762A)

ProCurve Switch 2600 Series

Features and benefits

Connectivity

• **Dual-personality functionality:** two 10/100/1000 ports or mini-GBIC slots for optional fiber connectivity such as Gigabit-SX, -LX, or -LH

• **Power over Ethernet (IEEE 802.3af) compliant (ProCurve 2650-PWR, ProCurve 2626-PWR, ProCurve 2600-8-PWR):** provides up to 15.4 W per port to power IP phones, wireless access points, Web cameras, and more (ProCurve 2650-PWR may require an external power supply to provide full 15.4 W for all 48 PoE-ready ports)

Performance

• **13.6 Gbps (ProCurve 2650 and 2650-PWR)/9.6 Gbps (ProCurve 2626, 2626-PWR, 2600-8-PWR) backplane:** wire-speed non-blocking architecture for low-latency throughput

Resiliency and high availability

• **IEEE 802.3ad Link Aggregation Control Protocol (LACP) and ProCurve trunking:** support for up to 6 trunks, each with up to 8 links (ports) per trunk; trunking across modules is supported

• **Spanning Tree Protocol (IEEE 802.1D):** provides redundant links while preventing network loops

• **IEEE 802.1w Rapid Convergence Spanning Tree Protocol:** increases network uptime through faster recovery from failed links

• **IEEE 802.1s Multiple Spanning Tree:** provides high link availability in multiple VLAN environments by allowing multiple spanning trees

• **Optional external redundant power supply (ProCurve 2650-PWR, ProCurve 2626-PWR, ProCurve 2600-8-PWR):** provides uninterrupted power; sold as an accessory

Layer 2 switching

• **VLAN support and tagging:** support complete IEEE 802.1Q (4,096 VLAN IDs) and 253 VLANs simultaneously

• **GARP VLAN Registration Protocol:** allows automatic learning and dynamic assignment of VLANs

Layer 3 routing

• **Basic IP routing:** enables automatic routing to the connected VLANs and up to 16 static routes--including one default route--in IP networks

Security

• **Port security:** allows access only to specified MAC addresses, which can be learned or specified by the administrator

• **MAC address lockout:** prevents configured particular MAC addresses from connecting to the network

• **Dynamic IP lockdown:** works with DHCP protection to block traffic from unauthorized host, preventing IP source address spoofing

• **Dynamic ARP protection:** blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data

• **Multiple user authentication methods:**
- **IEEE 802.1X:** industry-standard way of user authentication using an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server
- **Web-based authentication:** similar to IEEE 802.1X, provides a browser-based environment to authenticate clients that do not support the IEEE 802.1X supplicant
- **MAC-based authentication:** client is authenticated with the RADIUS server based on client's MAC address

NEW **Authentication flexibility:**
- **Multiple IEEE 802.1X users per port:**

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provides authentication of up to 8 IEEE 802.1X users per port; prevents user "piggybacking" on another user's IEEE 802.1X authentication

• **Secure FTP:** allows secure file transfer to/from the switch; protects against unwanted file downloads or unauthorized copying of switch configuration file

• **TACACS+:** eases switch management security administration by using a password authentication server

• **Source-port filtering:** allows only specified ports to communicate with each other

• **Secure Shell (SSHv2):** encrypts all transmitted data for secure, remote command-line interface (CLI) access over IP networks

• **Secure Sockets Layer (SSL):** encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch

• **Switch management logon security:** can require either RADIUS or TACACS+ authentication for secure switch CLI logon

Convergence

• **IEEE 802.1AB Link Layer Discovery Protocol (LLDP):** automated device discovery protocol for easy mapping by network management applications

• **LLDP-MED (Media Endpoint Discovery):** a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones

Quality of Service (QoS)

• **Traffic prioritization (IEEE 802.1p):** allows real-time ProCurve Switch 2600 series traffic classification into 8 priority levels mapped to 4 queues

• **Class of Service (CoS):** sets the IEEE 802.1p

priority tag based on IP address, IP Type of Service (ToS), L3 protocol, TCP/UDP port number, source port, and DiffServ

• **Layer 4 prioritization:** enables prioritization based on TCP/UDP port numbers

Manageability

• **RMON:** provides advanced monitoring and reporting capabilities for statistics, history, alarms, and events

• **Friendly port names:** allow assignment of descriptive names to ports

• **Auto-MDIX:** automatically adjusts for straight-through or crossover cables on all 10/100/1000 ports

• **Dual flash images:** provides independent primary and secondary OS files for backup while upgrading

• **Stacking capability:** single IP address management for a virtual stack of up to 16 switches, including the ProCurve 2500 series, 2510 series, 2600 series, 2800 series, 2810 series, 2900 series, 3400cl series, 3500yl series, 4200vl series, 6108, 6200yl-24G-mGBIC, and 6400cl series

• **Find-Fix-and-Inform:** finds and fixes common network problems automatically, then informs administrator

• **Troubleshooting:** ingress/egress port monitoring enables network problem-solving (ProCurve Switch 2626 and 2626-PWR only)

• **Software updates:** free downloads from the Web

Industry-leading warranty

• **Lifetime warranty** : for as long as you own the product, with next-business-day advance replacement (available in most countries)

Services

ProCurve Switch 2600 Series

ProCurve Switch 2650
• 3-year, 4-hour onsite, 13x5 coverage for hardware (H5481E)
• 3-year, 4-hour onsite, 24x7 coverage for hardware (U6303E)
• 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (U6302E)
• 3-year, 24x7 SW phone support, software updates (UE261E)
• Installation with minimum configuration, system-based pricing (U4826E)
• Installation with HP-provided configuration, system-based pricing (U4830E)

ProCurve Switch 2650-PWR
• 3-year, 4-hour onsite, 13x5 coverage for hardware (H4496E)
• 3-year, 4-hour onsite, 24x7 coverage for hardware (H2893E)
• 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (U6319E)
• 3-year, 24x7 SW phone support, software updates (UE264E)
• Installation with minimum configuration, system-based pricing (U4826E)
• Installation with HP-provided configuration, system-based pricing (U4830E)

ProCurve Switch 2626
• 3-year, 4-hour onsite, 13x5 coverage for hardware (U4683E)
• 3-year, 4-hour onsite, 24x7 coverage for hardware (U4835E)
• 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (U6321E)
• 3-year, 24x7 SW phone support, software updates (UF792E)
• Installation with minimum configuration, system-based pricing (U4826E)
• Installation with HP-provided configuration, system-based pricing (U4830E)

ProCurve Switch 2626-PWR

• 3-year, 4-hour onsite, 13x5 coverage for hardware (U2855E)
• 3-year, 4-hour onsite, 24x7 coverage for hardware (U2856E)
• 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (U6304E)
• 3-year, 24x7 SW phone support, software updates (UE262E)
• Installation with minimum configuration, system-based pricing (U4826E)
• Installation with HP-provided configuration, system-based pricing (U4830E)

ProCurve Switch 2600-8-PWR with Gigabit Uplink
• 3-year, 4-hour onsite, 13x5 coverage for hardware (UD537E)
• 3-year, 4-hour onsite, 24x7 coverage for hardware (UD538E)
• 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UD539E)
• 3-year, 24x7 SW phone support, software updates (UF793E)
• Installation with minimum configuration, system-based pricing (U4826E)
• Installation with HP-provided configuration, system-based pricing (U4830E)

ProCurve Switch 2600 Series

**ProCurve Switch 2650
(J4899C)**

**ProCurve Switch 2650-PWR
(J8165A)**

**ProCurve Switch 2626
(J4900C)**

Specifications

Ports			
	48 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Media Type: Auto-MDIX; Duplex: half or full	48 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Media Type: Auto-MDIX; Duplex: half or full	24 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Media Type: Auto-MDIX; Duplex: half or full
	1 RS-232C DB-9 console port	1 RS-232C DB-9 console port	1 RS-232C DB-9 console port
	2 dual-personality ports; each port can be used as either an RJ-45 10/100/1000 port (IEEE 802.3 Type 10Base-T; IEEE 802.3u Type 100Base-TX; IEEE 802.3ab 1000Base-T Gigabit Ethernet) or an open mini-GBIC slot (for use with mini-GBIC transceivers)	2 dual-personality ports; each port can be used as either an RJ-45 10/100/1000 port (IEEE 802.3 Type 10Base-T; IEEE 802.3u Type 100Base-TX; IEEE 802.3ab 1000Base-T Gigabit Ethernet) or an open mini-GBIC slot (for use with mini-GBIC transceivers)	2 dual-personality ports; each port can be used as either an RJ-45 10/100/1000 port (IEEE 802.3 Type 10Base-T; IEEE 802.3u Type 100Base-TX; IEEE 802.3ab 1000Base-T Gigabit Ethernet) or an open mini-GBIC slot (for use with mini-GBIC transceivers)
Physical characteristics			
Dimensions	12.8(d) x 17.32(w) x 1.75(h) in. (32.51 x 43.99 x 4.45 cm) (1U height)	18.03(d) x 17.42(w) x 1.75(h) in. (45.8 x 44.25 x 4.45 cm) (1U height)	12.8(d) x 17.32(w) x 1.73(h) in. (32.51 x 43.99 x 4.39 cm) (1U height)
Weight	9.78 lb. (4.44 kg), Fully loaded	16.31 lb. (7.4 kg), Fully loaded	9.15 lb. (4.15 kg), Fully loaded
Memory and processor			
Processor	Motorola PowerPC MPC8245 @ 266 MHz, 8 MB flash, 32 MB SDRAM	Motorola PowerPC MPC8245 @ 266 MHz, 8 MB flash, 32 MB SDRAM	Motorola PowerPC MPC8245 @ 266 MHz, 8 MB flash, 32 MB SDRAM
Mounting			
	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only
Performance			
Latency	< 13.3 µs (LIFO)	< 12 µs (LIFO)	< 13.3 µs (LIFO)
Throughput	up to 10.1 million pps	up to 10.1 million pps	up to 6.6 million pps
Routing/Switching capacity	13.6 Gbps	13.6 Gbps	9.6 Gbps
MAC address table size	8000 entries	8000 entries	8000 entries
Environment			
Operating temperature	32ºF to 131ºF (0ºC to 55ºC)	32ºF to 122ºF (0ºC to 50ºC)	32ºF to 122ºF (0ºC to 50ºC)
Operating relative humidity	15% to 95% @ 104ºF (40ºC), non-condensing	15% to 95% @ 104ºF (40ºC), non-condensing	15% to 95% @ 104ºF (40ºC), non-condensing
Non-operating/Storage temperature	-40ºF to 158ºF (-40ºC to 70ºC)	-40ºF to 158ºF (-40ºC to 70ºC)	-40ºF to 158ºF (-40ºC to 70ºC)
Non-operating/Storage relative humidity	15% to 95% @ 149ºF (65ºC), non-condensing	15% to 95% @ 149ºF (65ºC), non-condensing	15% to 95% @ 149ºF (65ºC), non-condensing
Altitude	up to 15000 ft. (4.6 km)	up to 15000 ft. (4.6 km)	up to 15000 ft. (4.6 km)
Acoustic	Power: 50 dB; DIN 45635T.19 per ISO 7779	Power: 53 dB; DIN 45635T.19 per ISO 7779	Power: 50 dB; DIN 45635T.19 per ISO 7779

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Electrical characteristics

Maximum heat dissipation	342 BTU/hr (360.81 kJ/hr)	2155 BTU/hr (2273.53 kJ/hr)	342 BTU/hr (360.81 kJ/hr)
Voltage	100-240 VAC	100-240 VAC	100-240 VAC
Current	1.5 A	7.5 / 3.5 A	1.5 A
Power consumption	100 W	631 W	100 W
Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz

Safety

	CSA 22.2 No. 950; cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition; UL 60950	CSA 22.2 No. 950; cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition; UL 60950	CSA 22.2 No. 950; cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition; UL 60950

Emissions

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

Immunity

Generic	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2; 4 kV CD, 8 kV AD	IEC 61000-4-2; 4 kV CD, 8 kV AD	IEC 61000-4-2; 4 kV CD, 8 kV AD
Radiated	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
Surge	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC
Conducted	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V
Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3

Management

	ProCurve Manager Plus; ProCurve Manager (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)	ProCurve Manager Plus; ProCurve Manager (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)	ProCurve Manager Plus; ProCurve Manager (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)

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Standards and Protocols

Device Management
HTML and telnet management

General Protocols
IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
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 802.3af Power over Ethernet
IEEE 802.3x Flow Control
RFC 768 UDP
RFC 783 TFTP Protocol (revision 2)
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 951 BOOTP

RFC 1542 BOOTP Extensions
RFC 2030 Simple Network Time Protocol (SNTP) v4
RFC 3046 DHCP Relay Agent Information Option

IP Multicast
RFC 2236 IGMPv2

MIBs
RFC 1213 MIB II
RFC 1493 Bridge MIB
RFC 2021 RMONv2 MIB
RFC 2096 IP Forwarding Table MIB
RFC 2613 SMON MIB
RFC 2618 RADIUS Client MIB
RFC 2665 Ethernet-Like-MIB
RFC 2668 802.3 MAU MIB
RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
RFC 2737 Entity MIB (Version 2)

RFC 2863 The Interfaces Group MIB

Network Management
IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)
RFC 3164 BSD syslog Protocol
ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)
SNMPv1/v2c/v3

Security
IEEE 802.1X Port Based Network Access Control
RFC 1492 TACACS+
RFC 2138 RADIUS Authentication
RFC 2866 RADIUS Accounting
Secure Sockets Layer (SSL)
SSHv1/SSHv2 Secure Shell

ProCurve Switch 2600 Series

ProCurve Switch 2626-PWR (J8164A)

ProCurve Switch 2600-8-PWR with Gigabit Uplink (J8762A)

Specifications

Ports

	24 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Media Type: Auto-MDIX; Duplex: half or full	8 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Media Type: Auto-MDIX; Duplex: half or full
	1 RS-232C DB-9 console port	1 RS-232C DB-9 console port
	2 dual-personality ports; each port can be used as either an RJ-45 10/100/1000 port (IEEE 802.3 Type 10Base-T; IEEE 802.3u Type 100Base-TX; IEEE 802.3ab 1000Base-T Gigabit Ethernet) or an open mini-GBIC slot (for use with mini-GBIC transceivers)	1 dual-personality port; each port can be used as either an RJ-45 10/100/1000 port (IEEE 802.3 Type 10Base-T; IEEE 802.3u Type 100Base-TX; IEEE 802.3ab 1000Base-T Gigabit Ethernet) or an open mini-GBIC slot (for use with mini-GBIC transceivers)
		Supports a maximum of 8 auto-sensing 10/100 ports

Physical characteristics

Dimensions	18.03(d) x 17.42(w) x 1.75(h) in. (45.8 x 44.25 x 4.45 cm) (1U height)	8.86(d) x 17.44(w) x 1.73(h) in. (22.5 x 44.3 x 4.39 cm) (1U height)
Weight	15.01 lb. (6.81 kg), Fully loaded	7.5 lb. (3.4 kg)

Memory and processor

Processor	Motorola PowerPC MPC8245 @ 266 MHz, 8 MB flash, 32 MB SDRAM	Motorola PowerPC MPC8245 @ 266 MHz, 8 MB flash, 32 MB SDRAM

Mounting

	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only

Performance

Latency	< 12 μs (LIFO)	< 12 μs (LIFO)
Throughput	up to 6.6 million pps	up to 6.6 million pps
Routing/Switching capacity	9.6 Gbps	9.6 Gbps
MAC address table size	8000 entries	8000 entries

Environment

Operating temperature	32ºF to 122ºF (0ºC to 50ºC)	32ºF to 122ºF (0ºC to 50ºC)
Operating relative humidity	15% to 95% @ 104ºF (40ºC), non-condensing	15% to 95% @ 104ºF (40ºC), non-condensing
Non-operating/Storage temperature	-40ºF to 158ºF (-40ºC to 70ºC)	-40ºF to 158ºF (-40ºC to 70ºC)
Non-operating/Storage relative humidity	15% to 95% @ 149ºF (65ºC), non-condensing	15% to 95% @ 149ºF (65ºC), non-condensing
Altitude	up to 15000 ft. (4.6 km)	up to 15000 ft. (4.6 km)
Acoustic	Power: 53 dB; DIN 45635T.19 per ISO 7779	Power: 57 dB; DIN 45635T.19 per ISO 7779

Electrical characteristics

Maximum heat dissipation	2155 BTU/hr (2273.53 kJ/hr)	649 BTU/hr (685 kJ/hr), including the switch and attached PoE devices; switch only: 228 BTU/hr (241 kJ/hr)
Voltage	100-240 VAC	100-240 VAC
Current	7.5 / 3.5 A	3.3 / 1.7 A

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Power consumption	631 W	190 W
Frequency	50 / 60 Hz	50 / 60 Hz

Safety

	CSA 22.2 No. 950; cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition; UL 60950	CSA 22.2 No. 950; cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition; UL 60950

Emissions

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

Immunity

Generic	EN 55024, CISPR 24	EN 55024, CISPR 24
EN	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2; 4 kV CD, 8 kV AD	IEC 61000-4-2; 4 kV CD, 8 kV AD
Radiated	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
Surge	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC
Conducted	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V
Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3

Management

	ProCurve Manager Plus; ProCurve Manager (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)	ProCurve Manager Plus; ProCurve Manager (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)

ProCurve Switch 2600 Series

Standards and Protocols

Device Management
HTML and telnet management

General Protocols
IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
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 802.3af Power over
Ethernet
IEEE 802.3x Flow Control
RFC 768 UDP
RFC 783 TFTP Protocol (revision
2)
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 951 BOOTP

RFC 1542 BOOTP Extensions
RFC 2030 Simple Network Time
Protocol (SNTP) v4
RFC 3046 DHCP Relay Agent
Information Option

IP Multicast
RFC 2236 IGMPv2

MIBs
RFC 1213 MIB II
RFC 1493 Bridge MIB
RFC 2021 RMONv2 MIB
RFC 2096 IP Forwarding Table
MIB
RFC 2613 SMON MIB
RFC 2618 RADIUS Client MIB
RFC 2665 Ethernet-Like-MIB
RFC 2668 802.3 MAU MIB
RFC 2674 802.1p and IEEE
802.1Q Bridge MIB
RFC 2737 Entity MIB (Version 2)

RFC 2863 The Interfaces Group
MIB

Network Management
IEEE 802.1AB Link Layer
Discovery Protocol (LLDP)
RFC 2819 Four groups of RMON:
1 (statistics), 2 (history), 3
(alarm) and 9 (events)
RFC 3164 BSD syslog Protocol
ANSI/TIA-1057 LLDP Media
Endpoint Discovery (LLDP-MED)
SNMPv1/v2c/v3

Security
IEEE 802.1X Port Based Network
Access Control
RFC 1492 TACACS+
RFC 2138 RADIUS Authentication
RFC 2866 RADIUS Accounting
Secure Sockets Layer (SSL)
SSHv1/SSHv2 Secure Shell

ProCurve Switch 2600 Series

Accessories

ProCurve Gigabit-SX-LC Mini-GBIC (J4858C)
A small form factor pluggable (SFP) Gigabit SX transceiver that provides a full-duplex Gigabit solution up to 550 m on multimode fiber.

Ports
1 LC 1000Base-SX port (IEEE 802.3z Type 1000Base-SX)
Duplex: full only

Physical characteristics
Dimensions: 2.24(d) x 0.54(w) x 0.486(h) in. (5.69 x 1.37 x 1.23 cm)
Weight: 0.04 lb. (0.02 kg)

Cabling

Type:
• 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively

Maximum distance:
• 220 m (62.5 µm core diameter, 160 MHz/km bandwidth)• 275 m (62.5 µm core diameter, 200 MHz/km bandwidth)• 500 m (50 µm core diameter, 400 MHz/km bandwidth)• 550 m (50 µm core diameter, 500 MHz/km bandwidth)

ProCurve Gigabit-LX-LC Mini-GBIC (J4859C)
A small form factor pluggable (SFP) Gigabit LX transceiver that provides a full-duplex Gigabit solution up to 10 km (singlemode) or 550 m (multimode).

Ports
1 LC 1000Base-LX port (IEEE 802.3z Type 1000Base-LX)
Duplex: full only

Physical characteristics
Dimensions: 2.24(d) x 0.54(w) x 0.486(h) in. (5.69 x 1.37 x 1.23 cm)
Weight: 0.04 lb. (0.02 kg)

Cabling

Type:
• Either single mode or multimode
• 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively
• Low metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1

Maximum distance:
• 10 km (single mode) or 550 m (multimode)

Notes
A mode conditioning patch cord may be needed in some multimode fiber installations.

ProCurve Gigabit-LH-LC Mini-GBIC (J4860C)
A small form factor pluggable (SFP) Gigabit LH transceiver that provides a full-duplex Gigabit solution up to 70 km on singlemode fiber.

Ports
1 LC 1000Base-LH port (no IEEE standard exists for 1550 nm optics)
Duplex: full only

Physical characteristics
Dimensions: 2.17(d) x 0.60(w) x 0.46(h) in. (5.5 x 1.53 x 1.18 cm)
Weight: 0.04 lb. (0.02 kg)

Cabling

Type:
• Low metal content, single-mode fiber-optic, complying with ITU-T G.652 and ISO/IEC 793-2 Type B1

Maximum distance:
• 70 km

ProCurve Switch 2600 Series

ProCurve 600 Redundant External Power Supply (J8168A)
The ProCurve 600 Redundant and External Power Supply (RPS/EPS) has six RPS ports and two EPS ports and supplies backup and Power over Ethernet power.

Ports
6 redundant power supply ports
Restrictions: Each port can provide redundant +12 V power to a connected switch; only one port can provide power at a given time
2 external power supply ports
Restrictions: Provides +50 VDC external PoE to up to two switch devices; provides max. of 408 W full power to one device, and half power (204 W each) if connected to two devices

Physical characteristics
Dimensions: 12.83(d) x 17.44(w) x 1.73(h) in. (32.59 x 44.3 x 4.39 cm) (1U height)
Weight: 11.78 lb. (5.34 kg), Fully loaded

Mounting
1U rack-mountable and wall-mountable enclosure using standard mounting hardware

Environment
Operating temperature: 32ºF to 131ºF (0ºC to 55ºC)
Operating relative humidity: 15% to 95% @ 104ºF (40ºC), non-condensing
Non-operating/Storage temperature: -40ºF to 158ºF (-40ºC to 70ºC)
Non-operating/Storage relative humidity: 15% to 95% @ 149ºF (65ºC), non-condensing
Altitude: up to 15000 ft. (4.6 km)
Acoustic: Noise emission LwA=59.2 dB at virtual workspace, according to DIN 45635 T.19

Electrical characteristics
Description: The unit automatically adjusts to any voltage between 100-240 V and either 50 or 60 Hz
Voltage: 100-240 VAC
Current: 9 / 5 A

Power consumption: 800 W
RPS power: 180 W
PoE power: 408 W
Frequency: 50 / 60 Hz

Safety
CSA 22.2 No. 60950
EN 60950/IEC 60950
UL 60950

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

Immunity
EN: EN 55024, CISPR 24
ESD: IEC 61000-4-2; 4 kV CD, 8 kV AD
Radiated: IEC 61000-4-3; 3 V/m
EFT/Burst: IEC 61000-4-4; 1.0 kV (power line), 0.05 kV (signal line)
Surge: IEC 61000-4-5; 1 kV/2 kV AC
Conducted: IEC 61000-4-6; 3 V
Power frequency magnetic field: IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions: IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics: EN 61000-3-2, IEC 61000-3-2
Flicker: EN 61000-3-3, IEC 61000-3-3

Management
Provides information via port interfaces of attached devices

Notes
Supported devices
• ProCurve Switch 2600-PWR series, ProCurve Switch 2800 series, ProCurve Switch 5300xl series, ProCurve Switch 3400cl series, ProCurve Switch 6400cl series, ProCurve Secure Router 7000dl series

ProCurve Switch 2600 Series

ProCurve 610 External Power Supply (J8169A)
The ProCurve 610 External Power Supply (EPS) has four EPS ports and provides power to connected Switch xl 10/100-TX PoE modules.

Ports
4 external power supply ports
Restrictions: Provides +50 VDC external PoE power to up to four switch devices; each pair of EPS ports provides max. of 408 W full power to one device, and half power (204 W each) if connected to two devices; total 816 W of power

Physical characteristics
Dimensions: 19.02(d) x 17.3(w) x 1.73(h) in. (48.31 x 43.94 x 4.39 cm) (1U height)
Weight: 16.44 lb. (7.46 kg), Fully loaded

Mounting
1U rack-mountable and wall-mountable enclosure using standard mounting hardware

Environment
Operating temperature: 32ºF to 122ºF (0ºC to 50ºC)
Operating relative humidity: 15% to 95% @ 104ºF (40ºC), non-condensing
Non-operating/Storage temperature: -40ºF to 158ºF (-40ºC to 70ºC)
Non-operating/Storage relative humidity: 15% to 95% @ 149ºF (65ºC), non-condensing
Altitude: up to 15000 ft. (4.6 km)
Acoustic: Noise emission LwA=58 dB at virtual workspace, according to DIN 45635 T.19

Electrical characteristics
Description: The unit automatically adjusts to any voltage between 110-240 V and either 50 or 60 Hz
Voltage: 110-240 VAC
Current: 11 / 6 A
Power consumption: 1000 W

PoE power: 816 W
Frequency: 50 / 60 Hz
Notes: For Japan, the unit only operates at 200 V, 50 Hz, and 6 A.

Safety
CSA 22.2 No. 60950
EN 60950/IEC 60950
UL 60950

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

Immunity
EN: EN 55024, CISPR 24
ESD: IEC 61000-4-2; 4 kV CD, 8 kV AD
Radiated: IEC 61000-4-3; 3 V/m
EFT/Burst: IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
Surge: IEC 61000-4-5; 1 kV/2 kV AC
Conducted: IEC 61000-4-6; 3 V
Power frequency magnetic field: IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions: IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics: EN 61000-3-2, IEC 61000-3-2
Flicker: EN 61000-3-3, IEC 61000-3-3

Management
Unmanaged power supply; provides information via LEDs or through port interfaces of attached devices

Notes
Supported devices: ProCurve Switch 2600-PWR series, ProCurve Switch 5300xl series

ProCurve Switch 2600 Series

ProCurve Manager 2.3 (-)
Windows Server-based network management for
ProCurve LAN products

System requirements

For networks having 50 to 250 managed
devices, ProCurve recommends the
following:
Minimum system hardware
2.0 GHz Intel Pentium 4 or equivalent
processor
2 GB RAM memory
10 GB storage
1000 MB NIC
for PCM+ as a standalone application,
assuming a dedicated server
Recommended system hardware
3.0 GHz Intel Pentium 4 or equivalent
processor
3 GB RAM memory
40 GB storage
1000 MB NIC
for PCM+ assuming a dedicated server,
and including ProCurve Identity Driven
Manager, Mobility Manager, and Network
Immunity Manager on the same server
Recommended software
Microsoft Windows 2003 Server
Windows XP SP2
Windows XP Professional SP2

For networks having 250 to 2,000
managed devices, ProCurve recommends
the following:
Minimum system hardware
3.0 GHz Intel Pentium 4 or equivalent
processor
3 GB RAM memory
40 GB storage
1000 MB NIC
for PCM+ as a standalone application,
assuming a dedicated server

Recommended system hardware
Intel Xeon or equivalent processor
4 GB RAM memory
80 GB storage
1000 MB NIC
for PCM+ assuming a dedicated server,
and including ProCurve Identity Driven
Manager, Mobility Manager, and Network
Immunity Manager on the same server
Recommended software
Microsoft Windows 2003 Server
Windows XP SP2
Windows XP Professional SP2

Browsers
Microsoft Internet Explorer version 5.0 or
later

Supported platforms
HP OpenView Network Node Manager
version 6.41 or 7.01 or 7.5 (optional)

Additional requirements
NOTE: ProCurve Network Immunity
Manager when loaded on PCM+ 2.3 can
sample up to 500 managed ports using
sFlow or XRMON.

Notes
Unlimited license means that ProCurve
does not impose a limit on the number of
devices attached to the network as a
condition of the license. Some
degradation in performance may be
expected the greater the number of
devices attached to the network.

Specifications subject to change

**ProCurve Identity Driven Manager 2.2 base
product--500-user license (J9012A)**
ProCurve Identity Driven Manager is a plug-in to
ProCurve Manager Plus that dynamically applies security
and performance settings based on user, device,
location, time, and client system state -- 500-user
license

System requirements

Please see ProCurve Manager Plus for
system requirements.
Required platforms

Supported platforms

RADIUS server support
Free RADIUS
Funk Steelbelted RADIUS Server
Microsoft IAS

Features
Intuitive Explorer-style interface
OpenView NNM integration
Application of policies by user identity
- Auto VLAN assignment

- Auto set quality of service by user
- Auto set bandwidth assignment by user
Rule-based access rights deployment
Dynamic rights assignment based on:
- Time
- Location
- User system
Auto-discovery of:
- RADIUS servers
- Realms
- Users

Notes
The base product for Identity Driven
Manager allows for managing up to 500
users. Customers may add users in
quantities of 2,000 by purchasing J9014A.

ProCurve Identity Driven Manager 2.2 base product (upgrade from 1.0) (J9013A)
Identity Driven Manager 2.2 500-user upgrade from 1.0 allows existing 1.0 customers to get the features of 2.0, with a 500-user limitation.

System requirements

Please see ProCurve Manager Plus for system requirements.
Required platforms

Supported platforms

RADIUS server support
FreeRADIUS (on Red Hat ES3 or ES4 or SuSe Linux 9)
Funk Steelbelted RADIUS Server
Microsoft IAS

Features
Intuitive Explorer-style interface
OpenView NNM integration
Application of policies by user identity
- Auto VLAN assignment

- Auto set quality of service by user
- Auto set bandwidth assignment by user
Rule-based access rights deployment
Dynamic rights assignment based on:
- Time
- Location
- User system
Auto-discovery of:
- RADIUS servers
- Realms
- Users

Notes
This upgrade provides Identity Driven Manager 2.0, which allows for managing up to 500 users. Customers may add users in quantities of 2,000 by purchasing J9014A.

ProCurve Identity Driven Manager 2.2--add 2,000 users license (J9014A)
Adds support for 2,000 additional users to the base Identity Driven Manager 2.2 product

System requirements

This license adds support for an additional 2,000 users to the IDM base products of J9012A or J9013A
Recommended software

Browsers

Required platforms

RADIUS server support
Free RADIUS
Funk Steelbelted RADIUS Server
Microsoft IAS

Features
Intuitive Explorer-style interface
OpenView NNM integration
Application of policies by user identity
- Auto VLAN assignment
- Auto set quality of service by user
- Auto set bandwidth assignment by user
Rule-based access rights deployment
Dynamic rights assignment based on:
- Time
- Location
- User system
Auto-discovery of:
- RADIUS servers
- Realms
- Users

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To learn more, visit www.procurve.com
Information is subject to change without notice

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