





HP ProCurve MultiService Controller Series

Product overview

Working with HP ProCurve MultiService Mobility Access Points, HP ProCurve MultiService Mobility Controllers deliver a high-performance networking solution. The enhanced architecture scales from IEEE 802.11b to 802.11n without expensive controller upgrades. Robust identity and roles-based user account profiles, as well as Virtual Service Communities (VSCs) with independently configurable Quality of Service (QoS), authentication, encryption, and VLAN support, deliver intelligence to the edge of the network. Scalable from branch offices to large organizations, the controllers deliver fast-roaming and ultraspeed hand-offs. Wireless security is rock solid with support for the internal and external authentication, authorization, and accounting (AAA) servers, built-in stateful firewall, per-user VLAN mapping, and mutual controller/access point (AP) authentication.

Key features

- Enhanced WLAN architecture reduces LAN traffic
- IEEE 802.11n capable
- Rock-solid WLAN security

Features and benefits

Industry-leading warranty



- Lifetime Warranty applies only to the MSM765zl Mobility Controller J9370A, with the exception of the hard disk drive, which has a warranty of five (5) years
- One year hardware limited warranty for MSM760 Access Controller (J9421A) and MSM760 Mobility Controller (J9420A)

Firewall

- **Stateful firewall:** enforces firewall policies to control traffic and filter access to network services; maintains session information for every connection passing through it, enabling the firewall to control packets based on existing sessions
- NAT/PAT: choice of dynamic or static network address translator (NAT) preserves a network's IP address pool or conceals the private address of network resources, such as Web servers, made accessible to users of a guest or public wireless LAN
- Authenticated network access: firewall can authenticate the user at a given IP address using RADIUS or a local user directory before allowing connections from that location
- Address management:

- NAT (RFC 1631), CIDR (RFC 1519)

Management

- Complete session logging: provides detailed information for problem identification and resolution
- **Remote configuration and management:** through secure Web browser or command-line interface (CLI)
- Management interface control: each of the following interfaces can be enabled or disabled depending on security preferences: console port, telnet port, or reset button
- Management VLAN: segments traffic to and from management interfaces, including CLI/telnet, Web browser interface, and SNMP

- **RADIUS accounting support:** separates RADIUS accounting server support per SSID; provides detailed session, usage, and billing information for each client activity
- **RADIUS accounting support:** separates RADIUS accounting server support per BSSID; provides detailed session, usage, and billing information for each client activity
- Secure Web GUI: provides a secure, easy-to-use graphical interface for configuration of the module via HTTPS
- Command-line interface (CLI): provides a secure, easy-to-use command-line interface for configuration of the module via SSH or switch console; provides direct real-time session visibility
- **HP ProCurve Manager:** central management through HP ProCurve Manager Plus for discovery, logging, and status management
- **Logging:** local and remote logging of events via SNMP (v2c and v3) and syslog; provides log throttling and log filtering to reduce the number of log events generated

Controller networking:

- Bridging and routing: IEEE 802.1d-compliant bridging, RIP v1 (RFC 1058) and v2 (RFC 1723)
- Stateful firewall
- Other: PPPoE Client (RFC 2516), ICMP (RFC 792), and IEEE 802.1q VLAN tagging

DHCP options:

- DNS Relay, SMTP Redirection
- DHCP: Server (RFC 2131), Client, and Option-82 Relay (RFC 3046)

Network management:

- Fully manageable using PCM3.0 AU1 and PMM3.0 AU2
- SNMP v2c, MIB-II with Traps, RADIUS Authentication Client MIB (RFC 2618), RIPv2 MIB Extension (RFC 1724)
- Embedded HTML management tool with secure access (SSL and VPN)
- Scheduled configuration and firmware upgrades from central server
- Per-user activity records by time used or data transferred
- Remote syslog

For as long as you own the product, with next-business-day advance replacement (available in most countries). The following hardware products and their related series modules have a one-year hardware warranty with extensions available: HP ProCurve Routing Switch 9300m series, HP ProCurve Switch 8100fl series, HP ProCurve Network Access Controller 800, and HP ProCurve DCM Controller. The following hardware mobility products have a one-year hardware warranty with extensions available: HP ProCurve MSIMT Access Controller, HP ProCurve MSM3xxR Access Points, HP ProCurve MSM7xx Mobility and Access Controllers, HP ProCurve RF Manager IDS/IPS Systems, HP ProCurve MSM Power Supplies, HP ProCurve 1 Post Power Injector, HP ProCurve MSM Appliances, and HP ProCurve MSM317 Access Device. Disk drives in the HP ProCurve ONE Services zl modules, HP ProCurve Threat Mgmt Services zl module, and HP ProCurve MSM765zl Mobility Controller have a five year hardware warranty. Standalone software, upgrades, or licenses may have a different warranty duration. For details, refer to the ProCurve Software License, Warranty, and Support booklet at <u>www.procurve.com/warranty</u>.

Connectivity

- **Two 10-GbE connections to the switch:** two 10-GbE wire-speed internal connections help ensure that the network connections from application to switch backplane will not limit the performance of the application
- : This is only available in the MSM765zl Mobility Controller J9370A

Performance

- The following Performance Benefits are only supported in the MSM765zl Mobility Controller J9370A
- **High-performance network bandwidth:** two internal wire-speed 10-GbE ports to the switch backplane
- High-performance processor system: Intel Core 2 Duo T7500 Processor with 2.2 GHz, 4 MB cache provides a high-performance compute environment in a small footprint using a single switch slot
- **Memory subsystems:** 4 GB of DDR2-667 dual-channel memory provides for quick application performance
- **Disk drive:** 250 GB SATA II 7200 rpm hard disk drive (210 GB application space plus 40 GB diagnostic/maintenance space) allows quick data read/writes to speed applications along

Manageability

- **Web interface:** allows configuration of the switch from any Web browser on the network
- Multiple configuration files: allow multiple configuration files to be stored to flash image
- Integration with HP ProCurve Manager: enables discovery and mapping via ProCurve Manager, available as a free download from the Web

Mobility

- Solutions enhanced for businesses: HP ProCurve MSM700 Controllers deliver services for healthcare, hospitality, education, manufacturing, transportation, and service providers
- **Powerful security capabilities:** robust, identityand role-based user account profiles use embedded or external AAA services

- Simplified management with central control: HP ProCurve MSM700 Controllers reduce the time and complexity of managing a wireless network; the solutions control hundreds of APs from a single management interface and help ensure that a consistent set of services is delivered throughout the wireless network; pushing authentication, encryption, QoS enforcement, and access policies to the access points delivers the intelligence to the edge of your mobile network
- Capacity that scales from small office to enterprise campus: efficiently deploy wireless LAN (WLAN) capacity with the MSM710 controller, which controls 10 APs; the MSM730 controller, which controls 40 APs; and the MSM750 controller, which controls 200 APs; MSM760 controller, which controls 40 -200 APs; MSM765zl controller, which controls 40 -200 APs; all with the ability to interconnect in mobility clusters
- Solutions that cover the most important WLAN applications: MSM700 controllers and the rest of the HP ProCurve MultiService Mobility Solution deliver rich application support, including guest access, location-based services, Voice over Wi-Fi (VoWi-Fi), hotspot, surveillance, and secure point of sale
- Controller Client Access Control:
- SSL-protected universal access method, MAC address authentication, and IEEE 802.1q authentication
- Web proxy server; support for centralized portal
- AAA Security
- Fixed IP client address spoofing
- Per-site and per-user access lists; white list and black list support
- Bandwidth limiting per user or per VLAN
- Concurrent users (up to 100 for MSM710; up to 500 for MSM730; and up to 2,000 for MSM750, MSM760, and MSM765zl)
- Services:
- Fast roaming
- VoWLAN support
- Plug-and-play MAP management
- Public/Guest Internet access
- Maximum MAPs (controlled/autonomous)
- Maximum public/guest access users
- Exception for Services: Fast Roaming and VoWLAN Support is not supported on any Access Controller

• Intra-/Inter-Subnet Roaming:

- TLS-protected Inter Access Point Protocol for secure communication with MAPs
- Generic Routing Encapsulation (RFC 2784)
- Exception for Intra-/Inter Subnet Roaming: Intra-/Inter Subnet Roaming in not support on any Access Controller

Security

- 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
- IEEE 802.1X and RADIUS network login: control port-based access for authentication and accountability
- **RADIUS-based MAC authentication:** a wireless client is authenticated with a RADIUS server based on the MAC address of the client; this is useful for clients that have minimal or no user interface
- 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
- **IEEE 802.1X supplicant:** supports IEEE 802.1X supplicant mode, where the router transmits and receives EAP requests from the authenticator to support IEEE 802.1X-enabled environments and prevent rogue networking equipment deployments
- Secure management access: all access methods-CLI, GUI, or MIB-are securely encrypted through SSHv2, SSL, and/or SNMPv3
- Management password: provides security so that only authorized access to the Web browser interface is allowed

Quality of Service (QoS)

- Rate limiting: per-port ingress enforced maximums and per-port, per-queue guaranteed minimums
- Network management:
 - Fully manageable using PCM3.0 AU1 and PMM3.0 AU2
 - SNMP v2c, SNMP v3, MIB-II with Traps, and RADIUS Authentication Client MIB (RFC 2618)
 - Embedded HTML management tool with secure access (SSL and VPN)
 - Scheduled configuration and firmware upgrades from central server

Diagnostic:

- Client event log records association, authentication, and DHCP events
- Packet capture tool for Ethernet and IEEE 802.11 interfaces (PCAP format)
- Data Rate Matrix

Policy management

 Standards-based authentication support for LDAP, Active Directory, and IEEE
 802.1X: seamlessly integrates into existing authentication services or uses the built-in database

Warranty and support

- **Warranty:** one-year hardware limited warranty with next-business-day advance replacement (available in most countries); warranty extensions are available
- Electronic and telephone support: limited electronic and telephone support is available from HP; refer to the HP Web site at <u>www.procurve.com/support</u> for details on the support provided and the period during which support is available
- **Software releases:** refer to the HP Web site at <u>www.procurve.com/support</u> for details on the software releases provided and the period during which software releases are available

Specifications

vility Controller (J9325A)	HP ProCurve MSM730 Mobility Controller (J9326A)	HP ProCurve MSM750 Mobility Controller (J9327A)
00/1000 ports (IEEE 5 802.3u Type 5 Type 1000Base-T); e-TX: half or full;	2 RJ-45 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Duplex: half or full 1 RS-232C DB-9 console port	2 RJ-45 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only
ort		1 RJ-45 serial console port
n. (19.05 x 25.4 x 4.42	14.17(d) x 16.85(w) x 1.73(h) in. (36.0 x 42.8 x 4.4 cm)	17.2(d) x 16.85(w) x 1.73(h) in. (43.7 x 42.8 x 4.4 cm) (1U height)
	21.61 lb. (9.8 kg)	35.27 lb. (16 kg)
P ProCurve MSM710 Kit (J9404A)	1U rack mount	1U rack mount
C)	32°F to 122°F (0°C to 50°C)	41°F to 122°F (5°C to 50°C)
ing	20% to 90%, non-condensing	20% to 90%, non-condensing
0°C)	32°F to 158°F (0°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
g	5% to 95%, non-condensing	5% to 95%, non-condensing
nt, or 48 VDC input from		
	100-240 VAC	100-240 VAC
	1.0 / 0.4 A	1.0 / 0.4 A
	100 W	450 W
	50 / 60 Hz	50 / 60 Hz
d maximum heat ase theoretical maximum ning the infrastructure uipped), 100% traffic, all nodules populated.	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
	UL 60950-1	UL 60950-1
55022 Class A; CISPR 265-003; AS/NZS 3548	FCC part 15 Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; ICES-003; AS/NZS 3548 Class A	FCC part 15 Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; ICES-003; AS/NZS 3548 Class A
2.11a/b/g/n MSM ineous guest access users ices	Supports up to 40 IEEE 802.11a/b/g/n MSM Access Points Supports up to 500 simultaneous guest access users Provides the following services • WLAN management • Guest access • Ultraspeed roaming	Supports up to 200 IEEE 802.11a/b/g/n MSM Access Points Supports up to 2,000 simultaneous guest access users Provides the following services • WLAN management • Guest access • Ultraspeed roaming
next-day advance 5 coverage for hardware 7 coverage for hardware 7 coverage for hardware, nort (UN538E) upport, software updates t Bus. Day Exchange our response 13x5 Onsite our response 24x7 Onsite and SW 24x7 Phone oport, software updates	3-year, parts only, global next-day advance exchange (UM497E) 3-year, 4-hour onsite, 13x5 coverage for hardware (UM498E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UM499E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UM500E) 3-year, 24x7 SW phone support, software updates (UG578E) 1 Year Post Warranty Next Bus. Day Exchange (UM501PE) 1 Year Post Warranty 4 hour response 13x5 Onsite Support (UM503PE) 1 Year Post Warranty 4 hour response 24x7 Onsite HW Support (UM503PE) 1 Year Post Warranty HW and SW 24x7 Phone Support (UM503PE) 1 Year Post Warranty HW and SW 24x7 Phone Support (UM504PE) 3-Year, 9x5 SW phone support, software updates (UQ577E) Refer to the HP Web site at www.procurve.com/services for details on the service-level descriptions and product numbers. For	 3-year, parts only, global next-day advance exchange (UM457E) 3-year, 4-hour onsite, 13x5 coverage for hardware (UM458E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UM459E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UM460E) 3-year, 24x7 SW phone support, software updates (UQ574E) 1 Year Post Warranty Next Bus. Day Exchange (UM461PE) 1 Year Post Warranty 4 hour response 13x5 Onsite Support (UM462PE) 1 Year Post Warranty 4 hour response 13x5 Onsite Support (UM463PE) 1 Year Post Warranty 4 hour response 24x7 Onsite HW Support (UM463PE) 1 Year Post Warranty HW and SW 24x7 Phone Support (UM464PE) 3-Year, 9x5 SW phone support, software updates (UQ573E) Refer to the HP Web site at www.procurve.com/services for details on the service-level descriptions and product numbers. For details about services and response times in your
	t es for details on the nd product numbers. For	opport, software updates 3-Year, 9x5 SW phone support, software updates (UQ577E) t Refer to the HP Web site at www.procurve.com/services for details on the

Specifications

	HP ProCurve MSM710 Access Controller (J9328A)	HP ProCurve MSM730 Access Controller (J9329A)	HP ProCurve MSM750 Access Controller (J9330A)
Ports	2 RJ-45 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only	2 RJ-45 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX); Duplex: half or full 1 RS-232C DB-9 console port	2 RJ-45 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T); Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only
	1 RS-232C DB-9 console port		1 RJ-45 serial console port
Physical characteristics Dimensions	7.52(d) x 10(w) x 1.73(h) in. (19.1 x 25.4 x 4.4 cm)	14.17(d) x 16.85(w) x 1.73(h) in. (36.0 x 42.8 x 4.4 cm)	17.2(d) x 16.85(w) x 1.73(h) in. (43.7 x 42.8 x 4.4 cm) (1U height)
Weight	6 lb. (2.72 kg)	21.61 lb. (9.8 kg)	35.27 lb. (16 kg)
Mounting	1U rack mountable with HP ProCurve MSM710 Controller Rack Mounting Kit (J9404A)	1U rack mount	1U rack mount
Environment Operating temperature Operating relative humidity Non-operating/Storage temperature Non-operating/Storage relative humidity	41°F to 122°F (5°C to 50°C) 20% to 90%, non-condensing -40°F to 176°F (-40°C to 80°C) 5% to 95%, non-condensing	32°F to 122°F (0°C to 50°C) 20% to 90%, non-condensing 32°F to 158°F (0°C to 70°C) 5% to 95%, non-condensing	41°F to 122°F (5°C to 50°C) 20% to 90%, non-condensing -40°F to 158°F (-40°C to 70°C) 5% to 95%, non-condensing
Electrical characteristics			
Description	IEEE 802.3af PoE compliant, or 48 VDC input from included AC power supply		
Voltage	100-240 VAC	100-240 VAC	100-240 VAC
Current	0.2 / 0.1 A	1.0 / 0.4 A	1.0 / 0.4 A
Maximum power rating Frequency	6 W 50 / 60 Hz	100 W 50 / 60 Hz	450 W 50 / 60 Hz
Notes	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.	Maximum power rating and maximum heat dissipation are the worst-case theoretical maximum numbers provided for planning the infrastructure with fully loaded PoE (if equipped), 100% traffic, all ports plugged in, and all modules populated.
Safety	UL 60950-1	UL 60950-1	UL 60950-1
Emissions	FCC part 15 Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; ICES-003; AS/NZS 3548 Class A	FCC part 15 Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; ICES-003; AS/NZS 3548 Class A	FCC part 15 Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; ICES-003; AS/NZS 3548 Class A
Notes	Supports up to 10 IEEE 802.11a/b/g/n MSM Access Points Supports up to 100 simultaneous guest access users Provides the following services • WLAN management • Guest access	Supports up to 40 IEEE 802.11a/b/g/n MSM Access Points Supports up to 500 simultaneous guest access users Provides the following services • WLAN management • Guest access	Supports up to 200 IEEE 802.11a/b/g/n MSM Access Points Supports up to 2,000 simultaneous guest access users Provides the following services • WLAN management • Guest access
Services	3-year, 4-hour onsite, 13x5 coverage for hardware (UN639E) 3-year, 4-hour onsite, 13x5 coverage for hardware (UN640E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UN641E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UN642E) 3-year, 24x7 SW phone support, software updates (UQ584E) 1 Year Post Warranty Next Bus. Day Exchange (UN643PE) 1 Year Post Warranty 4 hour response 13x5 Onsite Support (UN644PE) 1 Year Post Warranty 4 hour response 24x7 Onsite HW Support (UN645PE) 1 Year Post Warranty HW and SW 24x7 Phone Support (UN646PE) 3-Year, 9x5 SW phone support, software updates (UQ583E)	3-year, parts only, global next-day advance exchange (UM505E) 3-year, 4-hour onsite, 13x5 coverage for hardware (UM506E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UM507E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UM508E) 3-year, 24x7 SW phone support, software updates (UQ580E) 1 Year Post Warranty Next Bus. Day Exchange (UM509PE) 1 Year Post Warranty 4 hour response 13x5 Onsite Support (UM510PE) 1 Year Post Warranty 4 hour response 24x7 Onsite HW Support (UM525PE) 1 Year Post Warranty HW and SW 24x7 Phone Support (UN526PE) 3-Year, 9x5 SW phone support, software updates (UQ579E)	3-year, parts only, global next-day advance exchange (UM473E) 3-year, 4-hour onsite, 13x5 coverage for hardware (UM474E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UM475E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UM476E) 3-year, 24x7 SW phone support, software updates (UQ576E) 1 Year Post Warranty Next Bus. Day Exchange (UM477PE) 1 Year Post Warranty 4 hour response 13x5 Onsite Support (UM478PE) 1 Year Post Warranty 4 hour response 24x7 Onsite HW Support (UM479PE) 1 Year Post Warranty 4 hour response 24x7 Onsite HW Support (UM479PE) 1 Year Post Warranty HW and SW 24x7 Phone Support (UM480PE) 3-Year, 9x5 SW phone support, software updates (UQ575E)
	Refer to the HP Web site at <u>www.procurve.com/services</u> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP Web site at <u>www.procurve.com/services</u> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.	Refer to the HP Web site at <u>www.procurve.com/services</u> for details on the service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

Specifications

HP ProCurve MSM760 Access Controller (J9421A)	HP ProCurve MSM760 Mobility Controller (J9420A)	HP ProCurve MSM765zl Mobility Controller (J9370A)
15.38(d) x 17.32(w) x 1.75(h) in. (39.07 x 43.99 x 4.45 cm) (1U height)	15.38(d) x 17.32(w) x 1.75(h) in. (39.07 x 43.99 x 4.45 cm) (1U height)	10.3(d) x 8.13(w) x 1.75(h) in. (26.16 x 20.65 x 4.45 cm)
13.45 lb. (6.1 kg)	13.45 lb. (6.1 kg)	2.05 lb. (0.93 kg)
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.	Install the blade in any of the following chassis: HP ProCurve Switch 5406zl J8697A HP ProCurve Switch 5412zl J8698A HP ProCurve Switch 8212zl J8715A
41°F to 104°F (5°C to 40°C)	41°F to 104°F (5°C to 40°C)	
15% to 80%, non-condensing	15% to 80%, non-condensing	
-40°F to 149°F (-40°C to 65°C)	-40°F to 149°F (-40°C to 65°C)	-40°F to 158°F (-40°C to 70°C) 15% to 95%, non-condensing
		IEEE 802.3af PoE compliant or 48 VDC input from included AC power supply
131 BTU/br (157 87 kl/br)	131 BTU/br (157 87 kl/br)	included AC power supply
		100.0 (0) (4.0
	-	100-240 VAC
		1.0 / 0.4 A
50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
CAN/CSA 22.2 No. 60950-1; IEC 60950-1; EN 60950-1	CAN/CSA 22.2 No. 60950-1; IEC 60950-1; EN 60950-1	UL 60950-1
FCC part 15 Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; ICES-003; AS/NZS 3548 Class A	FCC part 15 Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; ICES-003; AS/NZS 3548 Class A	FCC part 15 Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; ICES-003; AS/NZS 3548 Class A
		A maximum of four MSM765zls can be installed in the same chassis and a maximum of three MSM765zls are supported in the 5406zl.
 3-year, parts only, global next-day advance exchange (UQ652E) 3-year, 4-hour onsite, 13x5 coverage for hardware (UQ653E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UQ654E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UQ655E) 3-year, 24x7 SW phone support, software updates (UQ614E) 1-year, post-warranty, parts only, global next-day advance exchange (UQ657PE) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (UQ658PE) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (UQ658PE) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (UQ658PE) 3-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UQ660PE) 3-Year, 9x5 SW phone support, software updates (UQ613E) Refer to the HP Web site at www.procurve.com/services for details on the service-level descriptions and product numbers. For 	3-year, parts only, global next-day advance exchange (UQ652E) 3-year, 4-hour onsite, 13x5 coverage for hardware (UQ653E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UQ654E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UQ656E) 3-year, 24x7 SW phone support, software updates (UQ616E) 1-year, post-warranty, parts only, global next-day advance exchange (UQ657PE) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (UQ658PE) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (UQ658PE) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UQ661PE) 3-Year, 9x5 SW phone support, software updates (UQ615E) Refer to the HP Web site at <u>www.procurve.com/services</u> for details on the service-level descriptions and product numbers. For	3-year, 4-hour onsite, 13x5 coverage for hardware (UQ601E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UQ602E) 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UQ604E) 3-year, 24x7 SW phone support, software updates (UQ618E) 3-Year, 9x5 SW phone support, software updates (UQ617E) 4-year, 4-hour onsite, 13x5 coverage for hardware (UQ605E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UQ606E) 4-year, 4-hour onsite, 24x7 coverage for hardware (UQ606E) 4-year, 24x7 SW phone support, software updates (UQ607E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UQ607E) 5-year, 4-hour onsite, 13x5 coverage for hardware (UQ607E) 5-year, 4-hour onsite, 24x7 coverage for hardware (UQ610E) 5-year, 24x7 SW phone support, software updates
-	HP ProCurve MSM760 Access Controller (J9421A) 2 RJ-45 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3u Type 100Base-TX, IEEE 802.3u Type 1000Base-TX, IEEE 802.3u Type 1000Base-TX, IEEE 802.3u Type 1000Base-TX in Interference and the sensitive function of the sensitive 1000Base-T full only 15.38(d) x 17.32(w) x 1.75(h) in. (39.07 x 43.99 x 4.45 cm) (1U height) 13.45 lb. (6.1 kg) Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only. 41°F to 104°F (5°C to 40°C) 15% to 80%, non-condensing -40°F to 149°F (-40°C to 65°C) 434 BTU/hr (457.87 kJ/hr) 100-127 / 200-240 VAC 2 / 1 A 50 / 60 Hz CAN/CSA 22.2 No. 60950-1; IEC 60950-1; EN 60950-1 FCC part 15 Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; ICES-003; AS/NZS 3548 Class A 3-year, parts only, global next-day advance exchange (UQ652E) 3-year, 4-hour onsite, 13x5 coverage for hardware (UQ653E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UQ654E) 3-year, 4-hour onsite, 24x7 coverage for hardware (UQ654E) 3-year, 24x7 SW phone support (UQ655PE) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (UQ657PE) 1-year, post-warranty, 4-hour onsite, 13x5 coverage for hardware (UQ657PE) 1-year, post-warranty, 4-hour onsite, 24x7 coverage for hardware (UQ657PE) 1-year, post-	HP ProCurve MSM760 Access Cantroller (J9421A) HP ProCurve MSM760 Mobility Controller (J9420A) 2 8145 outo-sensing 10/100/1000 ports (IEEE 802.3 Type 100aser, TEE 802.3 u type 1008ase TX, IEEE 802.3 u type 10008ase T; Dupker: 1008ase TX ball or full; 1008ase TX, IEEE 802.3 u type 10008ase T; Dupker: 108ase T/ 108ase TX inter 802.3 u type 1008ase Tx inter 802.3 u type 1008ase Tx inter 0 to 100 13.4 5 lb. (6.1 lsg) 15.38(d) x 17.32(w) x 1.75(h) in. (39.07 x 43.99 x 4.45 cm (1U height) 13.4 5 lb. (6.1 lsg) Mounts in an ElAstandard 19 in. telco rack or equipment cobinet (hordware included); horizontal surface mounting only. Mounts in an ElAstandard 19 in. telco rack or equipment cobinet (hordware included); horizontal surface mounting only. 41% to 104% (5°C to 40°C) 15% to 80%, non-condensing 40% to 149% (40°C to 65°C) 41% to 104% (5°C to 40°C) 15% to 80%, non-condensing 40% to 149% (40°C to 65°C) 434 BTU/hr (457.87 kJ/hr) 100-127 / 200-240 VAC 2 / 1 A 50 / 60 Hz 434 BTU/hr (457.87 kJ/hr) 100-127 / 200-240 VAC 2 / 1 A 50 / 60 Hz CAN/CSA 22.2 No. 60950-1; EN 60950-1 3year, parts only, global nextday advance exchange (UG652E) 3year, 4hour onsite, 13x5 coverage for hardware (UG654F) 3year, 4hour onsite, 13x5 coverage for hardware (UG654F) 3year, 4hour onsite, 13x5 coverage for hardware (UG654F) 3year, 4hour onsite, 24x7 coverage for hardware (UG654F) 1year, past-warranty, 4hour onsite, 13x5 coverage for hardware (UG657FE) 1year, past-warranty, 4hour onsite, 13x5 coverage for hardware (UG657FE) 1

service-level descriptions and product numbers. For details about services and response times in your area, please contact your local HP sales office.

HP ProCurve MultiService Controller Series accessories

HP ProCurve MSM710 Mobility Controller (J9325A)

HP ProCurve MSM710 Controller Rack Mounting Kit (J9404A)

HP ProCurve MSM710 Access Controller (J9328A)

HP ProCurve MSM710 Controller Rack Mounting Kit (J9404A)

HP ProCurve MSM710 Mobility Services upgrade (J9331A) HP ProCurve 1-Port Power Injector (J9407A)

HP ProCurve MSM730 Access Controller (J9329A)

HP ProCurve MSM730 Mobility Services upgrade (J9332A) HP ProCurve MSM750 Access Controller (J9330A)

HP ProCurve MSM750 Mobility Services upgrade (J9333A)

HP ProCurve MSM760 Access Controller (J9421A)

NEW HP ProCurve MSM760 Premium License (J9491A) **NEW** HP ProCurve MSM760/765 40-access point license (J9371A)

HP ProCurve MSM760 Mobility Controller (J9420A)

NEW HP ProCurve MSM760/765 40-access point license (J9371A)

HP ProCurve MSM765zl Mobility Controller (J9370A)

NEW HP ProCurve MSM760/765 40-access point license (J9371A)

Technology for better business outcomes

To learn more, visit www.hp.com/go/procurve

© Copyright 2008-2009 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein. Intel, Core, Pentium, and Xeon are trademarks of Intel Corporation in the U.S. and other countries. Microsoft, Windows, Windows NT, and Windows Vista are U.S. registered trademarks of Microsoft Corporation.

