

# HP FlexNetwork Portfolio Guide



HP is changing the rules of networking with a full portfolio of standards-based products, integrated solutions, and services developed specifically to solve the complexities of the extended enterprise.

Portfolio guide

Updated March 2012



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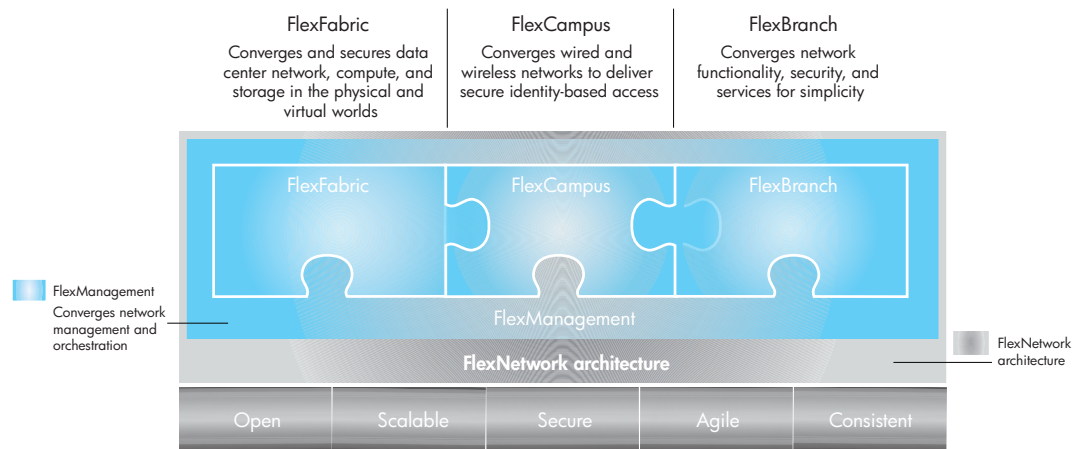
HP is changing the rules of networking with a full portfolio of high-performance, standards-based products, solutions, and services. These offerings are secure, energy-efficient, cost-saving, and developed specifically to simplify the complexities of networking for all customers, from the largest enterprise to the smallest emerging business. By investing in HP's best-in-class technology, customers can build high-performance, secure, and efficiently managed network environments that are flexible, interoperable with other networking and computing technology, and highly cost-effective. And integrated as part of the HP Converged Infrastructure and supported by HP and partner service capabilities, HP networking solutions deliver application and business services across the extended enterprise to meet any business demand.



# The HP FlexNetwork architecture

The HP FlexNetwork architecture is a key component of the HP Converged Infrastructure. Enterprises can align their networks with their business needs—even as they change—by segmenting their networks into four interrelated modular building blocks that comprise the HP FlexNetwork architecture: HP FlexFabric, HP FlexCampus, HP FlexBranch, and HP FlexManagement. FlexFabric converges and secures the data center network with compute and storage. FlexCampus converges wired and wireless networks to deliver media-enhanced, secure, and identity-based access. FlexBranch converges network functionality and services to simplify the branch office. FlexManagement converges network management and orchestration.

## The industry's only network architecture converging the data center, campus, and branch office



The HP FlexNetwork architecture is designed to allow IT to manage these different network segments through a single-pane-of-glass management application, the HP Intelligent Management Center (IMC). Because the FlexNetwork architecture is based on open standards, enterprises have the freedom to choose the best-in-class solution for their businesses. Even with the shift to the network cloud, the HP FlexNetwork architecture is ideal for supporting this evolution. Enterprises deploying private clouds must implement flatter, simpler data center networks to support the bandwidth-intensive, delay-sensitive server-to-server virtual machine and workload traffic flows that are associated with cloud computing. They must also be able to administer and secure virtual resources and orchestrate on-demand services. The HP FlexNetwork architecture helps enterprises to securely deploy and centrally orchestrate video, cloud, and mobility-enhanced architectures that scale from the data center to the network edge.

## Switches

### Core/Aggregation

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
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#### HP 12500 Switch Series



HP 12518 AC Switch Chassis (JF430C)	38	18			864		864	576	13.32 Tbps
HP 12508 AC Switch Chassis (JF431C)	21	8			384		384	256	6.12 Tbps
HP 12518 DC Switch Chassis (JC653A)	38	18			864		864	576	13.32 Tbps
HP 12508 DC Switch Chassis (JC652A)	21	8			384		384	256	6.12 Tbps

#### HP 12500 Switch Series at a glance...

Next-generation, large core/data center switching platforms with innovative Intelligent Resilient Framework (IRF) technology. Available with 18 or 8 slots dedicated to I/O modules and two slots for fully redundant management modules, with up to 13.32 Tbps performance and up to 288 (1:1) or 576 (4:1) 10-GbE ports, and 864 (1:1) GbE ports. Nonblocking (L2, L3 IPv4, L3 IPv6, MPLS), zero service interruption design, mid-plane/CLOS architecture ready for future 40 GbE/100 GbE modules. IRF technology that enables multiple interconnected switches to be managed as a single logical entity.

#### HP 9500 Switch Series



HP 9512 Switch Chassis (JC125B)	17	12+2	576		576		576	192	1.44 Tbps
HP 9508-V Switch Chassis (JC474B)	22	8+2	384		384		384	128	960 Gbps
HP 9505 Switch Chassis (JC124B)	11	5+2	240		240		240	80	600 Gbps

#### HP 9500 Switch Series at a glance...

Robust core switching for demanding enterprise networks, data centers, and Metro Ethernet. 12-, 8-V, and 5-slot switches with up to 1.44 Tbps performance and up to 192 10-GbE ports and 576 GbE ports. High availability and architecture ready for 40 GbE and 100 GbE. Wire-speed L2/ L3/IPv4/IPv6/MPLS. Open Application Architecture (OAA) that extends and integrates application capability into the network. Innovative Intelligent Resilient Framework (IRF) technology that enables multiple interconnected switches to be managed as a single logical entity.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

#### HP 12500 Switch Series

##### Modules

- HP 12500 Main Processing Unit (JC072B)
- HP 1250x G2 Fabric Module (JC658A)
- HP 12500 48-port Gig-T LEB Module (JC074B)
- HP 12500 48-port Gig-T LEC Module (JC065B)
- HP 12500 48-port GbE SFP LEB Module (JC075B)
- HP 12500 48-port GbE SFP LEC Module (JC069B)
- HP 12500 48-port GbE SFP LEB Module (JC660A)
- HP 12500 8-port 10GbE XFP LEB Module (JC073B)
- HP 12500 8-port 10GbE XFP LEC Module (JC068B)
- HP 12500 8-port 10GbE SFP+ LEB Module (JC780A)
- HP 12500 8-port 10GbE SFP+ LEC Module (JC781A)
- HP 12500 8-port 10GbE SFP+ LEB Module (JC659A)
- HP 12500 16-port 10GbE SFP+ LEB Module (JC782A)
- HP 12500 16-port 10GbE SFP+ LEC Module (JC783A)
- HP 12500 32-port 10GbE SFP+ REB Module (JC064B)
- HP 12500 32-port 10GbE SFP+ REC Module (JC476B)
- HP 12500 Power Monitor Module (JC502A)
- HP 12518 G2 Fabric Module (JC657A)
- HP 12518 Fabric Module (JC066A)
- HP 12508 Fabric Module (JC067B)

##### Cables

- HP 12518 Top and Bottom Cable Guides for DC Powered Switch (JC788A)
- HP X210 10-meter JG Connector to Bare 6AWG 37800 Watt 72V DC Power Cable (JG280A)
- HP 12508 Top and Bottom Cable Guides for DC Powered Switch (JC787A)

##### Power supplies

- HP 12500 AC Power Entry Module (JF426A)
- HP 12500 2000W AC Power Supply (JF429A)
- HP 12500 1800W DC Power Supply (JC651A)

##### Fans

- HP 12518 Fan Assembly (JC080A)
- HP 12508 Fan Assembly (JC081A)
- HP 12518 Optional Air Filter (JC083A)
- HP 12508 Optional Air Filter (JC082A)

##### Mounting kit

- HP X420 Chassis Universal 4-post Rack Mounting Kit (JC665A)

##### Appliance

- HP 12500 VPN Firewall Module (JC635A)

##### Cables

- HP 12500 Side Cable Management Guide (JC084A)
- HP 12508 Top and Bottom Cable Guides for AC Powered Switch (JC785A)
- HP 12518 Top and Bottom Cable Guides for AC Powered Switch (JC786A)

##### Transceivers

See pages 61–66 for the HP Networking Transceiver Matrix.

#### HP 9500 Switch Series

##### Modules

- HP 9500 720 Gbps Fabric/Main Processing Unit (JC120A)
- HP 9505 360 Gbps Fabric/Main Processing Unit (JC121A)
- HP 9500 16-port 10-GbE SFP+ REB Module (JC108A)

- HP 9500 2-port 10-GbE XFP LEB Module (JC112A)
- HP 9500 2-port 10-GbE XFP LEC Module (JC470A)
- HP 9500 4-port 10-GbE XFP LEB Module (JC114A)
- HP 9500 4-port 10-GbE XFP LEC Module (JC118A)
- HP 9500 48-port Gig-T LEB Module (JC107A)
- HP 9500 48-port GbE SFP LEB Module (JC113A)
- HP 9500 48-port Gig-T LEC Module (JC115A)
- HP 9500 48-port GbE SFP LEC Module (JC471A)
- HP 9500 16-port GbE SFP/8-port GbE Combo LEC Module (JC117A)
- HP 9500 16-port Gig-T/8-port GbE Combo LEC Module (JC119A)
- HP 9500 16-port Gig-T/8-port GbE Combo LEB Module (JC122A)
- HP 9500 16-port GbE SFP/8-port GbE Combo LEB Module (JC123A)

##### Appliances

- HP 9500 VPN Firewall Module (JD245A)
- HP 9500 NetStream Monitoring Module (JD246A)
- HP 9500 Load Balancing Module (JD247A)

##### Memory

- HP 1GB SDRAM (JC071A)

##### Power supplies



- HP 9500/8800 1800W AC Power Supply (JC110B)
- HP 9500/8800 AC Power Frame (JC111A)
- HP 9500/8800 2000W DC Power Supply (JC029B)
- HP 9500/8800 3500W DC Power Supply (JC473A)

##### Transceivers

See pages 61–66 for the HP Networking Transceiver Matrix.

## Switches (continued)

### Top-of-Rack

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	QSFP+ 40-GbE ports	Switching capacity
<b>HP 5920 Switch Series</b>											
									24		480 Gbps
	<b>HP 5920AF-24XG Switch (JG296A)</b> <a href="#">HP 5920 Switch Series at a glance...</a> The HP 5920 Switch Series is a family of high-density 10-GbE with large packet buffers top-of-rack (ToR) switches, dual internal AC/DC power supply, front-to-back or back-to-front airflow, full Layer 2 and Layer 3, IPv4/IPv6 dual-stack switch.										
<b>HP 5900 Switch Series</b>											
									48	4	1.28 Tbps
	<b>HP 5900AF-48XG-4QSFP+ Switch (JC772A)</b> <a href="#">HP 5900 Switch Series at a glance...</a> The HP 5900 Switch Series is a family of high-density 10-GbE with 40G uplink and ultra-low-latency top-of-rack (ToR) switches, dual internal AC/DC power supply, front-to-back or back-to-front airflow, full Layer 2 and Layer 3, IPv4/IPv6 dual-stack switch.										

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

#### HP 5920 Switch Series

##### Power supplies

- HP 58x0AF 650W AC Power Supply (JC680A)
- HP 58x0AF 650W DC Power Supply (JC681A)

##### Fan trays

- HP 5920AF-24XG Back (power-side) to Front (port-side) Airflow Fan Tray (JG297A)
- HP 5920AF-24XG Front (port-side) to Back (power-side) Airflow Fan Tray (JG298A)

##### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.

#### HP 5900 Switch Series

##### Power supplies

- HP 58x0AF 650W AC Power Supply (JC680A)
- HP 58x0AF 650W DC Power Supply (JC681A)

##### Fan trays

- HP 58x0AF Back (power side) to Front (port side) Airflow Fan Tray (JC682A)
- HP 58x0AF Front (port side) to Back (power side) Airflow Fan Tray (JC683A)


##### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.



## Switches (continued)

### Top-of-Rack (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
<b>HP 5830 Switch Series</b>										
	1	1			48				4	160 Gbps
	2	0			96				10	392 Gbps

#### HP 5830 Switch Series at a glance...

High-performance Gigabit Ethernet data center top-of-rack switches. Ultra-deep buffer for IDC, dual internal AC/DC power supply, front-to-back or back-to-front airflow, full Layer 2 and Layer 3, IPv4/IPv6 dual-stack switch.

### HP 5820 Switch Series

	1				4				24	488 Gbps
	2	2+1x OAA			4				14 (22)	488 Gbps
	1	0			2				24	484 Gbps

#### HP 5820 Switch Series at a glance...

High-performance 10-Gigabit Ethernet flex chassis switches. High density. L2/L3/L4, RIP/OSPF/BGP, MPLS, and VPLS. 10-GbE line-rate performance and IRF technology. Open Application Architecture (OAA) that extends and integrates application capability into the network.

### HP 5810-48G Switch

	1	0			48				2	136 Gbps
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#### HP 5810-48G Switch at a glance...

Fixed-configuration, wire-speed Layer 2 switch designed for data center top-of-rack server access that requires significant levels of application buffering.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

#### HP 5830 Switch Series

##### Module

- HP 5500/5120 2-port 10GbE SFP+ Module (JD368B)

##### Power supplies

- HP 58x0AF 650W AC Power Supply (JC680A)
- HP 58x0AF 650W DC Power Supply (JC681A)

##### Fan trays

- HP 5830AF-48G Switch with 1 Interface Slot (JC691A)**
  - HP 5830AF-48G Back (power side) to Front (port side) Airflow Fan Tray (JC692A)
  - HP 5830AF-48G Front (port side) to Back (power side) Airflow Fan Tray (JC693A)

##### HP 5830AF-96G Switch (JC694A)

- HP 5830AF-96G Back (power side) to Front (port side) Airflow Fan Tray (JC695A)
- HP 5830AF-96G Front (port side) to Back (power side) Airflow Fan Tray (JC696A)

##### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.

#### HP 5820 Switch Series

##### Power supplies

- HP 5800 300W AC Power Supply (JC087A)
- HP 5800 300W DC Power Supply (JC090A)
- HP RPS1600 Redundant Power System (JG136A)
- HP RPS1600 1600W AC Power Supply (JG137A)

##### Appliance

- HP 5820 VPN Firewall Module (JD255A)

##### HP 5820-14XG-SFP+ Switch with 2 Slots (JC106A)

- HP 5820 4-port 8/4/2 Gbps FCoE SFP+ Module (JC530A)
- HP 5800 4-port 10GbE SFP+ Module (JC091A)
- HP 5800 2-port 10GbE SFP+ Module (JC092B)
- HP 5800 2RU Spare Fan Assembly (JC096A)
- HP 5820 VPN Firewall Module (JD255A)

##### HP 5820-24XG-SFP+ Switch (JC102A)

- HP 5800 1RU Spare Fan Assembly (JC098A)

#### HP 5820AF-24XG Switch (JG219A)

- HP 58x0AF 650W AC Power Supply (JC680A)
- HP 58x0AF 650W DC Power Supply (JC681A)
- HP 58x0AF Back (power side) to Front (port side) Airflow Fan Tray (JC682A)
- HP 58x0AF Front (port side) to Back (power side) Airflow Fan Tray (JC683A)

##### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.

#### HP 5810-48G Switch

##### Power supply

- HP 5800 300W AC Power Supply (JC087A)

##### Fan tray


- HP 5800 1RU Spare Fan Assembly (JC098A)

##### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.

## Switches (continued)


### Top-of-Rack (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
<b>HP 5800 Switch Series</b>										
										
HP 5800-48G-PoE+ Switch with 1 Interface Slot (JC104A)	1	1			(16)	48		(16)	4 (8)	256 Gbps
HP 5800-48G-PoE+ Switch with 2 Interface Slots (JC101A)	2	2+1x OAA			48 (80)	48		(32)	0 (8)	284 Gbps
HP 5800-48G Switch with 1 Interface Slot (JC105A)	1	1			48 (64)			(16)	4 (8)	256 Gbps
HP 5800-24G-SFP Switch with 1 Interface Slot (JC103A)	1	1			(16)			24 (40)	4 (8)	208 Gbps
HP 5800-24G-PoE+ Switch (JC099A)	1	1			(16)	24		(16)	4 (8)	208 Gbps
HP 5800-24G Switch (JC100A)	1	1			24 (40)			(16)	4 (8)	208 Gbps
HP 5800AF-48G Switch (JG225A)	1	0			48				6	216 Gbps

#### HP 5800 Switch Series at a glance...

Advanced Gigabit Ethernet and 10-Gigabit Ethernet flex chassis switches. L2/L3/L4, RIP/OSPF/BGP, MPLS, and VPLS. Both modular and fixed port (up to 48 ports). Media and OAA module slots; IRF; IPv4/IPv6.

### HP 6600 Switch Series

										
HP 6600-48G-4XG Switch (J9452A)	1				48				4 (SFP+)	176 Gbps
HP 6600-24XG Switch (J9265A)	1								24 (SFP+)	322.8 Gbps
HP 6600-24G-4XG Switch (J9264A)	1				24			4 DP	4 (SFP+)	101.8 Gbps

#### HP 6600 Switch Series at a glance...

Switches enhanced for the data center server access layer. 24- and 48-port GbE and 10-GbE models with front-to-back/back-to-front airflow, redundant fans and power supplies.

Note: DP = Dual-personality ports

### Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

#### HP 5800 Switch Series

##### Modules

- HP 5820X/A5800 4-port 10-GbE SFP+ Module (JC091A)
- HP 5820X/A5800 2-port 10-GbE SFP+ Module (JC092B)
- HP 5800 16-port Gig-T Module (JC094A)
- HP 5800 16-port GbE SFP Module (JC095A)
- HP 5800 PoE Module (JC097B)

##### OAA module

- HP 5820 VPN Firewall Module (JD255A)

##### Power supplies

- HP 5800 750W AC PoE Power Supply (JC089A)
- HP 5800 750W DC Power Supply (JC088A)
- HP 5820/A5800 300W AC Power Supply (JC087A)
- HP 5820/A5800 300W DC Power Supply (JC090A)
- HP 5800/A5500 150W AC Power Supply (JD362A)

- HP 5800/A5500 150W DC Power Supply (JD366A)
- HP 58x0AF 650W AC Power Supply (JC680A)
- HP 58x0AF 650W DC Power Supply (JC681A)

##### Fans

- HP 5800 2RU Spare Fan Assembly (JC096A)
- HP 5800 1RU Spare Fan Assembly for 5800-24G-SFP Switch with 1 Interface Slot (JC098A)
- HP A58x0AF Back (power side) to Front (port side) Airflow Fan Tray (JC682A)
- HP A58x0AF Front (port side) to Back (power side) Airflow Fan Tray (JC683A)

##### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.

#### HP 6600 Switch Series

##### Module

- HP 6600 Switch Fan Tray (J9271A)

##### Power supply

- HP 6600 Switch Power Supply (J9269A)

##### Mounting kits

- HP 6600 Series Rack Kit (J9469A)
- HP 6600-24XG, 48G, 48G-4XG Air Plenum Kit (J9480A)
- HP 6600-24G and 24G-4XG Air Plenum Kit (J9481A)

##### License


- HP 6600 Switch Premium License (J9305A)

##### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.

## Switches (continued)


### Blade

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
<b>HP 6120 Series</b>									
 <b>HP 6120XG Blade Switch (516733-B21)</b>	1							8 uplinks, 16 internal	480 Gbps
<b>HP 6120G/XG Blade Switch (498358-B21)</b>	1							3 uplinks	106 Gbps

#### HP 6120 Series at a glance...

Designed for the HP BladeSystem c-Class enclosure, the HP 6120 series provides two distinct edge switches with options for blade server customers. The HP 6120XG Blade Switch provides 16 1-Gb/10-Gb downlinks and 8 10-Gb SFP+ uplinks, including a dual-personality CX4 and SFP+ 10-Gb uplink, and two 10-Gb cross-connects. The 6120G/XG provides sixteen 1-Gb downlinks as well as four 1-Gb copper uplinks, two 1-Gb SFP uplinks along with three 10-Gb uplinks, and a single 10-Gb cross-connect.

### Virtual Connect

 <b>HP Virtual Connect FlexFabric 10 Gb/24-Port Module (571956-B21)</b>	1								480 Gbps
<b>HP Virtual Connect FlexFabric 10/24 Enterprise Edition BLc7000 Option (605865-B21)</b>	1								480 Gbps

#### Virtual Connect at a glance...

The HP Virtual Connect FlexFabric 10 Gb/24-Port Module with 16x 10-Gb downlinks, 4x 1-Gb/10-Gb Ethernet (SFP+) shared uplinks, 4x 10-Gb Ethernet or 2/3/8 Gb Fibre Channel (SFP+) is the most flexible way to connect virtualized server blades to data or storage networks in an HP BladeSystem c7000 Enclosure. The Enterprise Edition includes two of the FlexFabric modules.

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

#### HP 6120 Series

##### 6120XG

##### Transceivers

- HP 1Gb SX Ethernet SFP (453151-B21)
- HP 1Gb RJ-45 Ethernet SFP (453154-B21)
- HP SFP+ Ethernet SR (455883-B21)
- HP SFP+ Ethernet LR (455886-B21)
- HP SFP+ Ethernet LRM (455889-B21)
- HP X132 10G SFP+ LC SR Transceiver (J9150A)
- HP X132 10G SFP+ LC LR Transceiver (J9151A)
- HP X132 10G SFP+ LC LRM Transceiver (J9152A)

##### Cables

- HP BladeSystem c-Class Small Form-Factor Pluggable .5m 10GbE Copper Cable (487649-B21)
- HP BladeSystem c-Class Small Form-Factor Pluggable 1m 10GbE Copper Cable (487652-B21)
- HP BladeSystem c-Class Small Form-Factor Pluggable 3m 10GbE Copper Cable (487655-B21)
- HP BladeSystem c-Class Small Form-Factor Pluggable 5m 10GbE Copper Cable (537963-B21)
- HP BladeSystem c-Class Small Form-Factor Pluggable 7m 10GbE Copper Cable (487658-B21)
- HP X242 SFP+ SFP+ 1m Direct Attach Cable (J9281B)
- HP X242 SFP+ SFP+ 3m Direct Attach Cable (J9283B)
- HP X242 SFP+ SFP+ 7m Direct Attach Cable (J9285B)

##### License

- HP 6120XG Switch CEE License (608074-B21)

#### 6120G/XG

##### Transceivers

- HP 1Gb SX Ethernet SFP (453151-B21)
- HP 1Gb RJ-45 Ethernet SFP (453154-B21)
- HP 1350nm Long-range 10 Gigabit Small Form Factor Pluggable Module Option Kit (443757-B21)
- HP 850nm Short-range 10 Gigabit Small Form Factor Pluggable Module Option Kit (443756-B21)

##### Cables

- HP BladeSystem c-Class .5m 10-GbE CX4 Cable Option (444477-B21)
- HP BladeSystem c-Class 1m 10-GbE CX4 Cable Option (444477-B22)
- HP BladeSystem c-Class 3m 10-GbE CX4 Cable Option (444477-B23)
- HP BladeSystem c-Class 15m 10-GbE CX4 Cable Option (444477-B27)

##### XFP to SFP+ cables

- HP X244 XFP SFP+ 1m Direct Attach Cable (J9300A)
- HP X244 XFP SFP+ 3m Direct Attach Cable (J9301A)
- HP X244 XFP SFP+ 5m Direct Attach Cable (J9302A)

#### Virtual Connect

##### Transceivers


- HP 1Gb SX Ethernet SFP (453151-B21)
- HP 1Gb RJ-45 Ethernet SFP (453154-B21)
- HP SFP+ Ethernet SR (455883-B21)
- HP SFP+ Ethernet LR (455886-B21)
- HP SFP+ Ethernet LRM (455889-B21)
- HP 4Gb Short Wave B-series Fibre Channel SFP (AJ715A)
- HP 4Gb Long Wave B-series 30km Fibre Channel SFP (AN211A)

- HP 4Gb Short Wave SFP (A7446B)
- HP 8Gb Short Wave B-series Fibre Channel SFP+ (AJ716A)
- HP 8Gb Long Wave B-series 10km Fibre Channel SFP+ (AJ717A)
- HP 8Gb Short Wave 500m Fibre Channel SFP+ (AJ718A)

##### Cables

- HP BladeSystem c-Class Small Form-Factor Pluggable .5m 10GbE Copper Cable (487649-B21)
- HP BladeSystem c-Class Small Form-Factor Pluggable 1m 10GbE Copper Cable (487652-B21)
- HP BladeSystem c-Class Small Form-Factor Pluggable 3m 10GbE Copper Cable (487655-B21)
- HP BladeSystem c-Class Small Form-Factor Pluggable 5m 10GbE Copper Cable (537963-B21)
- HP BladeSystem c-Class Small Form-Factor Pluggable 7m 10GbE Copper Cable (487658-B21)
- HP X242 SFP+ SFP+ 1m Direct Attach Cable (J9281B)
- HP X242 SFP+ SFP+ 3m Direct Attach Cable (J9283B)
- HP X242 SFP+ SFP+ 7m Direct Attach Cable (J9285B)
- HP X244 XFP SFP+ 1m Direct Attach Cable (J9300A)
- HP X240 10G SFP+ SFP+ 0.65m DA Cable (JD095B)
- HP X240 10G SFP+ SFP+ 1.2m DA Cable (JD096B)
- HP X240 10G SFP+ SFP+ 3m DA Cable (JD097B)
- HP X244 XFP SFP+ 3m Direct Attach Cable (J9301A)
- HP X244 XFP SFP+ 5m Direct Attach Cable (J9302A)
- HP 3m C-series Passive Copper SFP+ Cable (AP784A)
- HP 5m C-series Passive Copper SFP+ Cable (AP785A)
- HP 1m B-series Active Copper Cable with Integrated SFP+ Transceiver (AP818A)
- HP 3m B-series Active Copper Cable with Integrated SFP+ Transceiver (AP819A)
- HP 5m B-series Active Copper Cable with Integrated SFP+ Transceiver (AP820A)

## Routers

	Height (RU)	Module slots	SDRAM (included/available)	CompactFlash slot	Hardware hot-swap	Routing performance (PPS)	Routing/Switching capacity	Routing table size	
<b>HP 8800 Router Series</b>									
	HP 8812 Router Chassis (JC150B)	17	12 + 2 slots	2/4 GB	1	Yes	864 million	1.44 Tbps	3 million entries
	HP 8808 Router Chassis (JC149B)	21	8 + 2 slots	2/4 GB	1	Yes	576 million	960 Gbps	3 million entries
	HP 8805 Router Chassis (JC148B)	11	5 + 2 slots	2/4 GB	1	Yes	360 million	600 Gbps	3 million entries

### HP 8800 Router Series at a glance...

Routers with up to 12 I/O slots, 1.44 Tbps switching capacity. Series provides carrier-class H-QoS, dynamic routing, MPLS, IPv4/IPv6, multicast, security, and availability. Supports IPv6 and IPv4-to-IPv6 Transition technologies.

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

### HP 8800 Router Series

#### Modules

- HP 8800 Single Fabric Main Processing Unit (JC597A)
- HP 8800 Dual Fabric Main Processing Unit (JC596A)
- HP 8800 Single Processor Service Engine Module (JC598A)
- HP 8800 Dual Processor Service Engine Module (JC599A)
- HP Enhanced Single Service Processing Engine 8800 Module (JC130A)
- HP Enhanced Dual Service Processing Engine 8800 Module (JC133A)
- HP 8800 Net Analysis Service Processing Module (JC143A)
- HP 8800 Firewall Processing Module (JD251A)
- HP 8800 Network Address Translation Service Module (JC607A)
- HP 8800 48-port GbE SFP Service Processing Module (JC604A)
- HP 8800 4-port 10-GbE XFP Service Processing Module (JC602A)
- HP 8800 2-port 10-GbE XFP Service Processing Module (JC605A)
- HP 8800 10-port GbE SFP Module (JC131A)
- HP 20-port 1000Base-X 8800 Module (JC132B)
- HP 20-port 10/100/1000 Ethernet Electrical Interface 8800 Module (JC135B)
- HP 8800 1-port 10-GbE XFP Module (JC129A)

- HP 8800 1-port OC-3/STM-1 (E1/T1) CPOS/8-port GbE SFP Module (JC477A)
- HP 8800 2-port OC-3/STM-1 (E1/T1) CPOS/8-port GbE SFP Module (JC478A)
- HP 8800 4-port OC-3/STM-1 (E3/T3) CPOS/4-port GbE SFP Module (JC479A)
- HP 8800 1-port OC-12/STM-4 (E3/T3) CPOS/4-port GbE SFP Module (JC480A)
- HP 8800 1-port OC-48/STM-16 (OC-3) CPOS SFP Module (JC481A)
- HP 8800 8-port E1/T1/8-port SFP Module (JC134A)
- HP 8800 32-port E1/T1/2-port GbE SFP Module (JC145A)
- HP 8800 8-port OC-3c/OC-12c POS/GbE SFP Module (JC482A)
- HP 8800 2-port OC-3c/STM-1c POS SFP/6-port GbE SFP Module (JC483A)
- HP 8800 2-port OC-12c/STM-4c POS SFP/6-port GbE SFP Module (JC484A)
- HP 8800 2-port OC-48c/STM-16c POS SFP/4-port GbE SFP Module (JC485A)
- HP 8800 4-port OC-48c/STM-16c POS SFP Module (JC486A)
- HP 8800 1-port OC-192c/STM-64c POS XFP Module (JC487A)
- HP 8800 2-port OC-48c/STM-16c RPR SFP Module (JC488A)
- HP 8800 1-port OC-192c/STM-64c RPR XFP Module (JC489A)
- HP 8800 4-port OC-3c/STM-1c ATM SFP Module (JC490A)
- HP 8800 1-port OC-12c/STM-4c ATM SFP Module (JC491A)

#### Cables

- HP X260 T1 Router Cable (JD518A)
- HP X260 E1 RJ45 BNC Conversion Router Cable (JD511A)
- HP X500 T1/E1 Voice RJ45 Interface Connector (JD535A)
- HP X230 SIS 50cm CX4 Cable (JD341A)
- HP X260 E1 RJ45 120 ohm 2m Router Cable (JC156A)
- HP X260 E1 RJ45 120 ohm 15m Router Cable (JC151A)
- HP X260 E1 RJ45 120 ohm 30m Router Cable (JC152A)
- HP X260 E1 BNC Extend 10m Router Cable (JC153A)
- HP X260 E1 BNC Extend 15m Router Cable (JC154A)
- HP X260 E1 BNC Extend 20m Router Cable (JC155A)
- HP X260 E1 RJ45 120 ohm 3m Router Cable (JC126A)
- HP X260 E1 BNC 75 ohm 3m Router Cable (JC127A)
- HP X260 T1 RJ45 100 ohm 3m Router Cable (JC128A)

#### Power supplies

- HP 9500/8800 3500W DC Power Supply (JC473A)
- HP 9500/8800 1800W AC Power Supply (JC110B)
- HP 9500/8800 AC Power Frame (JC111A)

#### License

- HP 8800 Router Software License (JC157A)


#### Memory

- HP 8800 1GB SDRAM (JC136A)
- HP 1GB Compact Flash Card (JD276A)
- HP 2GB Registered DDR2 SDRAM (JC609A)

#### Transceivers

See pages 61–66 for the HP Networking Transceiver Matrix.

## Routers (continued)

	Height (U)	Module slots	CompactFlash slot	Hardware hot-swap	Routing performance (PPS)	Routing table size
<b>HP 6600 Router Series</b>						
	20	16 HIM	1	Yes	Up to 252 million	2 million entries
<b>HP 6616 Router Chassis (JC496A)</b>	20	16 HIM	1	Yes	Up to 252 million	2 million entries
<b>HP 6608 Router Chassis (JC177B)</b>	7	8 HIM	1	Yes	Up to 108 million	2 million entries
<b>HP 6604 Router Chassis (JC178B)</b>	5	4 HIM	1	Yes	Up to 36 million	2 million entries
<b>HP 6602 Router (JC176A)</b>	1	2 HIM	1	Yes	4.5 million	1 million entries

### HP 6600 Router Series at a glance...

Series of 16-, 8-, 4-, and 2-HIM-slot routers with a complete portfolio of LAN and WAN interface modules and a hardware-based encryption engine. The series' fully distributed architecture (6604/6608/6616) eliminates single points of failure.

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

### HP 6600 Router Series

#### Modules

- HP 6600 RPE-X1 Main Processing Unit (JC165A)
- HP 6600 FIP-110 Flexible Interface Platform Module (JC166B)
- HP 6600 FIP-210 Flexible Interface Platform Module (JC167B)
- HP 6600 Firewall Processing Module (JD250A)
- HP MSR 2-port Enhanced Sync/Async Serial MIM Module (JD540A)
- HP MSR 4-port Enhanced Sync/Async Serial MIM Module (JD541A)
- HP MSR 8-port Enhanced Sync/Async Serial MIM Module (JD552A)
- HP MSR 8-port E1/CE1/PRI (75ohm) MIM Module (JD563A)
- HP MSR 8-port E1/Fractional E1 (75ohm) MIM Module (JF255A)
- HP MSR 2-port Gig-T MIM Module (JD548A)
- HP MSR 8-port T1/CT1/PRI MIM Module (JC160A)
- HP MSR 8-port T1/Fractional T1 MIM Module (JC159A)
- HP MSR 1-port E3/CE3/FE3 MIM Module (JD630A)
- HP MSR 1-port T3/CT3/FT3 MIM Module (JD628A)
- HP 6600 4-port Gig-T HIM Module (JC163A)
- HP 6600 8-port Gig-T HIM Module (JC164A)
- HP 6600 4-port GbE SFP HIM Module (JC171A)
- HP 6600 8-port GbE SFP HIM Module (JC174A)

- HP 6600 1-port OC-3/STM-1 (E1/T1) CPOS SFP HIM Module (JC161A)
- HP 6600 2-port OC-3/STM-1 (E1/T1) CPOS SFP HIM Module (JC162A)
- HP 6600 1-port OC-3/STM-1 (E3/T3) CPOS SFP HIM Module (JC170A)
- HP 6600 2-port OC-3/STM-1 (E3/T3) CPOS SFP HIM Module (JC169A)
- HP 6600 2-port OC-3c/STM-1c or 1-port OC-12c/STM-4c POS SFP HIM Module (JC173A)
- HP 6600 4-port OC-3c/STM-1c or 2-port OC-12c/STM-4c POS SFP HIM Module (JC172A)
- HP 6600 1-port OC-48c/STM-16c POS/CPOS SFP HIM Module (JC494A)
- HP 6600 1-port OC-3c/STM-1c ATM SFP HIM Module (JC175A)
- HP 6600 2-port OC-3c/STM-1c ATM SFP HIM Module (JC495A)
- HP 6600 1-port 10-GbE XFP HIM Module (JC168A)
- HP 6600 RSE-X1 Main Processing Unit (JC566A)
- HP 6600 48-p Gig-T Service Aggregation Platform Module (JC567A)
- HP 6600 24-p GbE SFP Service Aggregation Platform Module (JC568A)

#### Cables

- HP X200 V.24 DTE 3m Serial Port Cable (JD519A)
- HP X200 V.24 DCE 3m Serial Port Cable (JD521A)
- HP X200 V.35 DTE 3m Serial Port Cable (JD523A)
- HP X200 V.35 DCE 3m Serial Port Cable (JD525A)
- HP X200 X.21 DTE 3m Serial Port Cable (JD527A)
- HP X200 X.21 DCE 3m Serial Port Cable (JD529A)
- HP X260 RS449 3m DTE Serial Port Cable (JF825A)
- HP X260 RS449 3m DCE Serial Port Cable (JF826A)
- HP X260 RS530 3m DTE Serial Port Cable (JF827A)
- HP X260 RS530 3m DCE Serial Port Cable (JF828A)
- HP X260 8E1 BNC 75 ohm 3m Router Cable (JD512A)
- HP X260 E1 RJ45 BNC Conversion Router Cable (JD511A)
- HP X290 A-MSR30 1m RPS Cable (JD637A)

#### Power supplies

- HP RPS800 Redundant Power System (JD183A)
- HP 6600 650W AC Power Supply (JC492A)
- HP 6600 650W DC Power Supply (JC493A)

#### License

- HP 6600 Router Software License (JC180A)


#### Memory

- HP 6600 1GB SDRAM (JC179A)

#### Transceivers

See pages 61–66 for the HP Networking Transceiver Matrix.

Core/Distribution

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
<b>HP 10500 Switch Series</b>									
	HP 10508-V Switch Chassis (JC611A)	20	8		384		384	128	2.6 Tbps
	HP 10508 Switch Chassis (JC612A)	14	8		384		384	128	2.6 Tbps
	HP 10504 Switch Chassis (JC613A)	8	4		192		192	64	1.3 Tbps

**HP 10500 Switch Series at a glance...**

Next-generation enterprise network core switches setting a new benchmark for performance, low latency, reliability, and future-proof scalability, as well as green technology to enable a video-ready network and provide an unmatched user experience with an advanced, simplified network architecture.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

**HP 10500 Switch Series**

**Modules**

- HP 10500 Main Processing Unit (JC614A)
- HP 10500 16-port GbE SFP/8-port GbE Combo/2-port 10GbE XFP SE Module (JC617A)
- HP 10500 48-port Gig-T SE Module (JC618A)
- HP 10500 48-port GbE SFP SE Module (JC619A)
- HP 10500 4-port 10GbE XFP SE Module (JC620A)
- HP 10500 16-port GbE SFP/8-port GbE Combo/2-port 10GbE XFP EA Module (JC621A)
- HP 10500 48-port GbE SFP EA Module (JC622A)
- HP 10500 48-port Gig-T EA Module (JC623A)
- HP 10500 4-port 10GbE XFP EA Module (JC624A)
- HP 10500 48-port GbE SFP EB Module (JC625A)
- HP 10500 16-port GbE SFP/8-port GbE Combo/2-port 10GbE XFP EB Module (JC626A)
- HP 10500 4-port 10GbE XFP EB Module (JC627A)
- HP 10500 16-port 10GbE SFP+ SC Module (JC628A)
- HP 10500 8-port 10GbE SFP+ EB Module (JC629A)

- HP 10500 8-port 10GbE SFP+ EA Module (JC630A)
- HP 10500 8-port 10GbE SFP+ SE Module (JC631A)

**Power supply**

- HP 10500 2500W AC Power Supply (JC610A)

**Mounting kit**

- HP X420 Chassis Universal 4-post Rack Mounting Kit (JC665A)

**Licenses**

- HP 7500 SSL VPN 1000-user License (JD257A)
- HP 7500 SSL VPN 5000-user License (JD258A)

**Appliances**

- HP 7500 Advanced VPN Firewall Module (JD249A)
- HP 7500 SSL VPN Module with 500-user license (JD253A)
- HP 7500 NetStream Monitoring Module (JD254A)
- HP 7500 Load Balancing Module (JD252A)

**HP 10508-V Switch Chassis (JC611A)**

- HP 10508/10508-V 640Gbps Type A Fabric Module (JC616A)
- HP 10508-V Spare Fan Assembly (JC634A)

**HP 10508 Switch Chassis (JC612A)**

- HP 10508/10508-V 640Gbps Type A Fabric Module (JC616A)
- HP 10508 Spare Fan Assembly (JC633A)

**HP 10504 Switch Chassis (JC613A)**


- HP 10504 320Gbps Type A Fabric Module (JC615A)
- HP 10504 Spare Fan Assembly (JC632A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

## Switches (continued)

### Core/Distribution (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
<b>HP 7500 Switch Series</b>										
 <b>HP 7510 Switch Chassis (JD238B)</b>	16	10+2	480	480	504	480	504	504	84	1.152 Tbps
<b>HP 7506-V Switch Chassis (JD241B)</b>	21	6+2	288	288	312	288	312	312	52	768 Gbps
<b>HP 7506 Switch Chassis (JD239B)</b>	13	6+2	288	288	312	288	312	312	52	768 Gbps
<b>HP 7503-S Switch Chassis (JD243B)</b>	4	2+1	96	96	120	116	120	120	16	144 Gbps
<b>HP 7503 Switch Chassis (JD240B)</b>	10	3+2	144	144	168	144	168	168	28	480 Gbps
<b>HP 7502 Switch Chassis (JD242B)</b>	4	2+2	96	96	96	96	96	96	16	192 Gbps
<b>HP 7500 Switch Series at a glance...</b> Cost-effective 10-Gigabit Ethernet port density. 10-, 6-, 6-V, 3-, 3-S, and 2-slot switches with up to 1.152 Tbps performance, up to 84 10-GbE and 504 GbE ports, and innovative Intelligent Resilient Framework (IRF) technology that enables multiple interconnected switches to be managed as a single logical entity. Wire-speed L2/L3/IPv4/IPv6/MPLS and OSPF/BGP/IS-IS routing. Open Application Architecture (OAA) that extends and integrates application capability into the network.										

### Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

#### HP 7500 Switch Series

##### Modules

- HP 7510 768 Gbps Fabric/Main Processing Unit (JD220A)
- HP 7500 384 Gbps Fabric/Main Processing Unit (JD194B)
- HP 7500 384 Gbps Fabric/Main Processing Unit with 2 10-GbE XFP Ports (JD193B)
- HP 7500 384 Gbps Fabric/Advanced Main Processing Unit (JD195A)
- HP 7503-S 144 Gbps Fabric/Main Processing Unit with 16 GbE SFP Ports and 8 GbE Combo Ports (JD222A)
- HP 7502 Main Processing Unit (JD196A)
- HP 7500 48-port 100Base-FX SA Module (JD197B)
- HP 7500 48-port 10/100Base-TX PoE-upgradable SA Module (JD198B)
- HP 48-port Gig-T PoE-ready 7500 Module (JD199B)
- HP 7500 48-port GbE SFP SC Module (JD211B)
- HP 7500 48-port Gig-T PoE-upgradable SC Module (JD210A)
- HP 7500 40-port Gig-T/8-port GbE SFP PoE-upgradable SC Module (JD228B)
- HP 7500 24-port GbE SFP/2-port 10-GbE XFP SC Module (JD205A)
- HP 7500 24-port Gig-T/2-port 10-GbE XFP SC Module (JD206A)
- HP 7500 24-port GbE SFP SC Module (JD203B)
- HP 7500 24-port Gig-T SC Module (JD204B)
- HP 7500 16-port GbE SFP/8-port GbE Combo SC Module (JD223A)

- HP 7500 12-port GbE SFP SC Module (JD207A)
- HP 7500 8-port 10-GbE SFP+ SC Module (JF290A)
- HP 7500 2-port 10-GbE XFP SC Module (JD201A)
- HP 12-port GbE SFP Advanced 7500 Module (JD202A)
- HP 1-port 10-GbE XFP Advanced 7500 Module (JD200A)
- HP 7500 48-port GbE SFP SD Module (JD237A)
- HP 7500 48-port Gig-T PoE+ SD Module (JD229B)
- HP 7500 24-port GbE SFP/2-port 10-GbE XFP SD Module (JD230A)
- HP 7500 16-port GbE SFP/8-port GbE Combo SD Module (JD234A)
- HP 7500 8-port 10-GbE XFP SD Module (JD191A)
- HP 7500 4-port 10-GbE XFP SD Module (JD235A)
- HP 7500 2-port 10-GbE XFP SD Module (JD236A)
- HP 7500 48-port GbE SFP EB Module (JD221A)
- HP 7500 16-port GbE SFP/8-port GbE Combo EB Module (JD231A)
- HP 7500 4-port 10-GbE XFP EB Module (JD232A)
- HP 7500 2-port 10-GbE XFP EB Module (JD233A)

##### Appliances

- HP 7500 SSL VPN Module with 500-user license (JD253A)
- HP TippingPoint S1200N IPS 7500 Module (JC527A)
- HP 7500 VPN Firewall Module (JD249A)
- HP 7500 Load Balancing Module (JD252A)
- HP 7500 NetStream Monitoring Module (JD254A)

##### Memory

- HP 7500 48-port PoE DIMM (JD192B)

##### Power supplies

- HP 7500 6000W AC Power Supply (JD227A)
- HP 7500 2800W AC Power Supply (JD219A)
- HP 7500 1400W AC Power Supply (JD218A)
- HP 7500 1400W DC Power Supply (JD208A)
- HP 7500 650W AC Power Supply (JD217A)
- HP 7500 650W DC Power Supply (JD209A)
- HP 7502 300W AC Power Supply (JD226A)
- HP 7502 300W DC Power Supply (JD225A)

##### Fans


- HP 7510 Spare Fan Assembly (JD216A)
- HP 7506-V Spare Fan Assembly (JD215A)
- HP 7506 Spare Fan Assembly (JD214A)
- HP 7503 Spare Fan Assembly (JD212A)
- HP 7502 Spare Fan Assembly (JD213A)


##### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.

## Switches (continued)

### Core/Distribution (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity (Gbps)	Switching capacity/with v2 modules (Gbps)
<b>HP 8200 zl Switch Series</b>											
	<b>HP 8212 zl Switch with Premium Software (J9641A)</b>	9	12	288	288	288	288	288	96	645.6	1123.2
	<b>HP 8206 zl Switch with Premium Software (J9640A)</b>	6	6	144	144	144	144	144	48	322.8	561.6
	<b>HP 8212-92G-PoE+/2XG-SFP+ v2 zl Switch with Premium Software (J9639A)</b>	9	12	288	288	288	288	288	96	645.6	1123.2
	<b>HP 8206-44G-PoE+/2XG-SFP+ v2 zl Switch with Premium Software (J9638A)</b>	6	6	144	144	144	144	144	48	322.8	561.6
<p><b>HP 8200 zl Switch Series at a glance...</b>                      Core, distribution, and mission-critical access layer switch with advanced high availability, Layer 2 to Layer 4 and intelligent edge feature set, and enterprise-class performance and security. Integrated solutions are available with HP Services zl modules. Scalable 10 Gb and 10/100/1000 Gb connectivity is provided in a modular form factor.</p>											

<b>HP 6200-24G-mGBIC yl Switch</b>											
	<b>HP 6200-24G-mGBIC yl Switch (J8992A)</b>	1	1				24	24	4	101.8	
<p><b>HP 6200-24G-mGBIC yl Switch at a glance...</b>                      Premium Layer 2/3/4 Gigabit SFP switch ideal for distribution layer switching. Enterprise-class manageability with robust command-line interface (CLI), Web interface, and full SNMP support. Advanced Layer 3 routing—including OSPF, PIM-SM, PIM-DM, RIP v1/v2, and static routes. Comprehensive IPv4/IPv6 operation. One expansion slot for up to four optional 10-Gigabit Ethernet ports.</p>											

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

### HP 8200 zl Switch Series

#### Modules

- HP 8-port 10GBASE-T v2 zl Module (J9546A)
- HP 8-port 10GbE SFP+ v2 zl Module (J9538A)
- HP 20-port Gig-T PoE+/2-port 10GbE SFP+ v2 zl Module (J9536A)
- HP 20-port Gig-T/2-port 10GbE SFP+ v2 zl Module (J9548A)
- HP 20-port Gig-T PoE+/4-port SFP v2 zl Module (J9535A)
- HP 20-port Gig-T/4-port SFP v2 zl Module (J9549A)
- HP 24-port SFP v2 zl Module (J9537A)
- HP 12-port Gig-T PoE+/12-port SFP v2 zl Module (J9637A)
- HP 24-port Gig-T PoE+ v2 zl Module (J9534A)
- HP 24-port Gig-T v2 zl Module (J9550A)
- HP 24-port 10/100/1000 PoE zl Module (J8702A)
- HP 20-port Gig-T/4-port Mini-GBIC zl Module (J8705A)
- HP 24-port Mini-GBIC zl Module (J8706A)
- HP 24-port 10/100 PoE+ v2 zl Module (J9547A)
- HP 24-port 10/100 PoE+ zl Module (J9478A)
- HP 24-port 10/100/1000 PoE+ zl Module (J9307A)
- HP 20-port 10/100/1000 PoE+/4-port Mini-GBIC zl Module (J9308A)
- HP 4-port 10GbE CX4 zl Module (J8708A)
- HP 4-port 10GbE X2 zl Module (J8707A)
- HP 4-port 10GbE SFP+ zl Module (J9309A)
- HP 8200 zl System Support Module (J9095A)
- HP 8200 zl Management Module (J9092A)

- HP 8200 zl Fabric Module (J9093A)
- HP Extended Services zl Module with Riverbed Steelhead RiOS™ Application (J9517A)
- HP Survivable Branch Communication zl Module powered by Microsoft® Lync (J9485A)
- HP Services zl Module for Avaya Aura Session Border Controller powered by Acme Packet (J9486A)
- HP Threat Management Services zl Module with 1-year IPS Subscription Service (J9156A)
- HP Threat Management Services zl Module (J9155A)
- HP Services zl Module (J9289A)
- HP Advanced Services zl Module (J9483A)
- HP Advanced Services zl Module with Microsoft® Windows® Server 2008 R2 Standard (J9666A)
- HP Advanced Services zl Module with Citrix XenServer platform (J9747A)
- HP Advanced Services zl Module with VMware vSphere Platform (J9748A)

#### Power supplies

- HP 875 W zl Power Supply (J8712A)
- HP 1500 W zl Power Supply (J8713A)
- HP 1500 W PoE+ zl Power Supply (J9306A)

#### EPS/RPS

- HP zl Power Supply Shelf (J8714A)

#### Licenses

- HP 8200 zl Switch Premium License (J9474A)
- HP MSM760/765 40-access point license (J9371A)

#### WLAN

- HP MSM765zl Mobility Controller (J9370A)

#### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.

### HP 6200-24G-mGBIC yl Switch

#### Modules

- HP 10 GbE 2-port X2/2-port CX4 yl Module (J8694A)
- HP 10 GbE 2-port SFP+/2-port CX4 yl Module (J9312A)

#### EPS/RPS

- HP 620 Redundant/External Power Supply (J8696A)
- HP 630 Redundant and/or External Power Supply (J9443A)

#### Mounting kit


- HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)

#### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.



### Core/Distribution (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity (Gbps)	Switching capacity/with v2 modules (Gbps)
<b>HP 5400 zl Switch Series</b>											
	HP 5412 zl Switch with Premium Software (J9643A)	7	12	288	288	288	288	288	95	645.6	758.4
	HP 5406 zl Switch with Premium Software (J9642A)	4	6	144	144	144	144	144	48	322.8	379.2
	HP 5406-44G-PoE+/2XG-SFP+ v2 zl Switch with Premium Software (J9533A)	4	6	144	144	144	144	144	48	322.8	379.2
	HP 5412-92G-PoE+/2XG-SFP+ v2 zl Switch with Premium Software (J9532A)	7	12	288	288	288	288	288	96	645.6	758.4
	HP 5406-44G-PoE+/4G-SFP v2 zl Switch with Premium Software (J9539A)	4	6	144	144	144	144	144	48	322.8	379.2
	HP 5412-92G-PoE+/4G-SFP v2 zl Switch with Premium Software (J9540A)	7	12	288	288	288	288	288	96	645.6	758.4

#### HP 5400 zl Switch Series at a glance...

Core, distribution, and advanced access layer switch with Layer 2 to Layer 4 and intelligent edge features, scalable 10/100/1000 and 10 GbE connectivity, enterprise-class performance and security, and HP Services zl module integration.

### Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

#### HP 5400 zl Switch Series

##### Modules

- HP 8-port 10GBASE-T v2 zl Module (J9546A)
- HP 8-port 10GbE SFP+ v2 zl Module (J9538A)
- HP 20-port Gig-T PoE+/2-port 10GbE SFP+ v2 zl Module (J9536A)
- HP 20-port Gig-T PoE+/4-port SFP v2 zl Module (J9535A)
- HP 24-port SFP v2 zl Module (J9537A)
- HP 12-port Gig-T PoE+/12-port SFP v2 zl Module (J9637A)
- HP 24-port 10/100/1000 PoE zl Module (J8702A)
- HP 20-port 10/100/1000 PoE+/4-port Mini-GBIC zl Module (J9308A)
- HP 4-port 10GbE CX4 zl Module (J8708A)
- HP 4-port 10GbE X2 zl Module (J8707A)
- HP 4-port 10GbE SFP+ zl Module (J9309A)
- HP 20-port Gig-T/4-port Mini-GBIC zl Module (J8705A)
- HP 24-port Mini-GBIC zl Module (J8706A)
- HP 24-port 10/100/1000 PoE+ zl Module (J9307A)
- HP 24-port Gig-T PoE+ v2 zl Module (J9534A)
- HP 24-port 10/100 PoE+ zl Module (J9478A)

- HP 24-port 10/100 PoE+ v2 zl Module (J9547A)
- HP 24-port Gig-T v2 zl Module (J9550A)
- HP 20-port Gig-T/4-port SFP v2 zl Module (J9549A)
- HP 20-port Gig-T/2-port 10GbE SFP+ v2 zl Module (J9548A)
- HP Extended Services zl Module with Riverbed Steelhead RiOS™ Application (J9517A)
- HP Survivable Branch Communication zl Module powered by Microsoft® Lync (J9485A)
- HP Services zl Module for Avaya Aura Session Border Controller powered by Acme Packet (J9486A)
- HP Threat Management Services zl Module with 1-year IPS Subscription Service (J9156A)
- HP Threat Management Services zl Module (J9155A)
- HP Services zl Module (J9289A)
- HP Advanced Services zl Module (J9483A)
- HP Advanced Services zl Module with Microsoft® Windows® Server 2008 R2 Standard (J9666A)
- HP Advanced Services zl Module with Citrix XenServer platform (J9747A)
- HP Advanced Services zl Module with VMware vSphere Platform (J9748A)

##### Power supplies

- HP 875 W zl Power Supply (J8712A)
- HP 1500 W zl Power Supply (J8713A)
- HP 1500 W PoE+ zl Power Supply (J9306A)

##### EPS/RPS

- HP zl Power Supply Shelf (J8714A)

##### Licenses

- HP MSM760/765 40-access point license (J9371A)
- HP 5400 zl Switch Premium License (J8994A)


##### WLAN

- HP MSM765zl Mobility Controller (J9370A)

##### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.

Core/Distribution (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
<b>HP 3800 Switch Series</b>										
	HP 3800-24G-PoE+-2SFP+ Switch (J9573A)	1	1				24		2	88 Gbps
	HP 3800-48G-PoE+-4SFP+ Switch (J9574A)	1	1				48		4	176 Gbps
	HP 3800-24G-PoE+-2XG Switch (J9587A)	1	1				24		2	88 Gbps
	HP 3800-48G-PoE+-4XG Switch (J9588A)	1	1				48		4	176 Gbps
	HP 3800-24G-2SFP+ Switch (J9575A)	1	1		24				2	88 Gbps
	HP 3800-48G-4SFP+ Switch (J9576A)	1	1		48				4	176 Gbps
	HP 3800-24G-2XG Switch (J9585A)	1	1		24				2	88 Gbps
	HP 3800-48G-4XG Switch (J9586A)	1	1		48				4	176 Gbps
	HP 3800-24SFP-2SFP+ Switch (J9584A)	1	1					24	2	88 Gbps

**HP 3800 Switch Series at a glance...**

Next-generation managed 1U fixed-configuration Gigabit Ethernet switches with 10G uplinks and meshed stacking technology. With Layer 2/3/4 features, low latency, and highly resilient HP ProVision ASIC architecture. Support for SFP+, 10GBase-T, PoE+, modular stacking, and more.

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

**HP 3800 Switch Series**

**Module**

- HP 3800 4-port Stacking Module (J9577A)

**Cables**

- HP 3800 0.5m Stacking Cable (J9578A)
- HP 3800 1m Stacking Cable (J9665A)
- HP 3800 3m Stacking Cable (J9579A)

**Power supplies**

- HP X311 400W 100-240VAC to 12VDC Power Supply (J9581A)
- HP X312 1000W 100-240VAC to 54VDC Power Supply (J9580A)

**Fan tray**

- HP 3800 Switch Fan Tray (J9582A)


**Mounting kit**


- HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

Access

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
<b>HP 5500 HI Switch Series</b>										
 <b>HP 5500-24G-2SFP HI Switch with 2 Interface Slots (JG311A)</b>	1	2			24 (40)		4 (20)	4 (20)	2 (6)	176 Gbps
<b>HP 5500-48G-4SFP HI Switch with 2 Interface Slots (JG312A)</b>	1	2			48 (64)		4 (20)	4 (20)	2 (6)	224 Gbps
<p><b>HP 5500 HI Switch Series at a glance...</b>                      The 5500 HI Series Switches are 24- and 48-port Gigabit switches with full L3+ features as well as Enhanced MPLS/VPLS support, dual modular power supplies for high resiliency, full IRF Stacking, and IPv4/IPv6 dual-stack routing.</p>										

<b>HP 5500 EI Switch Series</b>										
 <b>HP 5500-48G-PoE EI Switch (JD376A)</b>	1	2				48 PoE		4 (8)	0 (4)	196 Gbps
<b>HP 5500-48G EI Switch with 2 Interface Slots (JD375A)</b>	1	2			48			4 (8)	0 (4)	196 Gbps
<b>HP 5500-24G-SFP EI Switch with 2 Interface Slots (JD374A)</b>	1	2			8			24 (28)	0 (4)	144 Gbps
<b>HP 5500-24G-PoE EI Switch (JD378A)</b>	1	2				24 PoE		4 (8)	0 (4)	144 Gbps
<b>HP 5500-24G EI Switch with 2 Interface Slots (JD377A)</b>	1	2			24			4 (8)	0 (4)	144 Gbps
<b>HP 5500-24G DC EI Switch (JD373A)</b>	1	2			24			4 (8)	0 (4)	144 Gbps
<b>HP 5500-48G-PoE+ EI Switch with 2 Interface Slots (JG240A)</b>	1	2				48 PoE+		4 (8)	0 (4)	196 Gbps
<b>HP 5500-24G-PoE+ EI Switch with 2 Interface Slots (JG241A)</b>	1	2				24 PoE+		4 (8)	0 (4)	144 Gbps
<p><b>HP 5500 EI Switch Series at a glance...</b>                      Scalable LAN switch series that enhances network performance with Gigabit Ethernet. 24- and 48-port GbE switches with 10 GbE uplinks and L2/L3/L4 RIP/OSPF. PoE/non-PoE/PoE+; AC/DC; IRF; IPv4/IPv6.</p>										

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

**HP 5500 HI Switch Series**

**Modules**

- HP 5500 2-port 10GbE XFP Module (JD359B)
- HP 5500 2-port 10GbE Local Connect Module (JD360B)
- HP 5500 1-port 10GbE XFP Module (JD361B)
- HP 5500/4800 2-port GbE SFP Module (JD367A)
- HP 5500/5120 2-port 10GbE SFP+ Module (JD368B)
- HP 5500 HI 8-port Gig-T Module (JG313A)
- HP 5500 HI 8-port SFP Module (JG314A)

**Power supplies**

- HP 5800/5500 150W AC Power Supply (JD362A)
- HP 5800/5500 150W DC Power Supply (JD366A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

(This product line adds 2 new modules with 8 ports of Gigabit or SFP which dramatically increases the max port counts).

**HP 5500 EI Switch Series**

**Modules**

- HP 5500/5120-EI 2-port 10-GbE XFP Module (JD359B)
- HP 5500/5120-EI 2-port 10-GbE CX4 Module (JD360B)
- HP 5500/5120-EI 1-port 10-GbE XFP Module (JD361B)
- HP 2-port 10-GbE SFP+ 5500/4800/4500 Module (JD368B)
- HP 5500/5120-EI 2-port GbE SFP Module (JD367A)

**Power supplies**

- HP 5800/5500 150W AC Power Supply (JD362A)
- HP 5800/5500 150W DC Power Supply (JD366A)


**RPS**

- HP RPS800 Redundant Power System (JD183A)
- HP RPS1600 Redundant Power System (JG136A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

Access (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
<b>HP 5500 SI Switch Series</b>										
										
HP 5500-48G SI Switch with 2 Interface Slots (JD370A)	1	2			48			4 (8)	0 (4)	192 Gbps
HP 5500-24G SI Switch with 2 Interface Slots (JD369A)	1	2			24			4 (8)	0 (4)	144 Gbps
HP 5500-24G-PoE+ SI Switch with 2 Interface Slots (JG238A)	1	2				24 PoE+		4 DP—4 (8)	0 (4)*	144 Gbps
HP 5500-48G-PoE+ SI Switch with 2 Interface Slots (JG239A)	1	2				48 PoE+		4 DP—4 (8)	0 (4)*	192 Gbps
<p><b>HP 5500 SI Switch Series at a glance...</b>                      Flexible, scalable, highly resilient Gigabit Ethernet switching for demanding enterprise network applications. 24- and 48-port Gigabit Ethernet switches with 10 GbE uplinks and L2/L3 (RIP). PoE/non-PoE/PoE+; AC/DC; IRF; IPv4/IPv6.</p>										

Note: DP = Dual-personality ports

\* Using 2 modules

**HP 5400 zl Switch Series**

Refer to the FlexCampus Switch on page 17.

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

**HP 5500 SI Switch Series**

**Modules**

- HP 5500/5120-EI 2-port 10-GbE XFP Module (JD359B)
- HP 5500/5120-EI 2-port 10-GbE CX4 Module (JD360B)
- HP 5500/5120-EI 1-port 10-GbE XFP Module (JD361B)

- HP 2-port 10-GbE SFP+ 5500/4800/4500 Module (JD368B)
- HP 5500/5120-EI 2-port GbE SFP Module (JD367A)


**RPS**

- HP RPS800 Redundant Power System (JD183A)
- HP RPS1600 Redundant Power System (JG136A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.


Access (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
<b>HP 5120 EI Switch Series</b>										
										
HP 5120-48G EI Switch with 2 Interface Slots (JE069A)	1	2			48			4	(4)	196 Gbps
HP 5120-48G EI Switch (JE067A)	1				48			4		96 Gbps
HP 5120-24G EI Switch with 2 Interface Slots (JE068A)	1	2			24			4	(4)	144 Gbps
HP 5120-24G EI Switch (JE066A)	1				24			4		48 Gbps
HP 5120-48G-PoE+ EI Switch with 2 Interface Slots (JG237A)	1	2				48 (PoE+)		4 DP—4 (8)	(4)	196 Gbps
HP 5120-24G-PoE+ EI Switch with 2 Interface Slots (JG236A)	1	2				24 (PoE+)		4 DP—4 (8)	(4)	144 Gbps

**HP 5120 EI Switch Series at a glance...**

Gigabit Ethernet switches that support diversified services, with up to four 10-GbE extended interfaces. Static L3 routing, IRF, IPv6/IPv4, PoE/non-PoE/PoE+.

Note: DP = Dual-personality ports

<b>HP 5120 SI Switch Series</b>										
										
HP 5120-48G SI Switch (JE072A)	1				48			4		104 Gbps
HP 5120-24G SI Switch (JE074A)	1				24			4		56 Gbps
HP 5120-16G SI Switch (JE073A)	1				16			4		40 Gbps
HP 5120-24G-PoE+ (370W) SI Switch (JG091A)	1					24 PoE+		4		56 Gbps
HP 5120-24G-PoE+ (170W) SI Switch (JG092A)	1					24 PoE+		4		56 Gbps

**HP 5120 SI Switch Series at a glance...**

Intelligent manageable switches designed for high performance, high-density port access, and easy installation. Gigabit Ethernet ports, Gigabit SFP uplinks, static L3 routing, IPv6/IPv4, IRF, PoE+, and single IP address management.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

**HP 5120 EI Switch Series**

**Modules**

- HP 5500/5120-EI 2-port GbE SFP Module (JD367A)
- HP 5500/5120-EI 2-port 10-GbE XFP Module (JD359B)
- HP 2-port 10-GbE SFP+ 5500/4800/4500 Module (JD368B)
- HP 5500/5120-EI 2-port 10-GbE CX4 Module (JD360B)
- HP 5500/5120-EI 1-port 10-GbE XFP Module (JD361B)

**RPS**

- HP RPS800 Redundant Power System (JD183A)
- HP RPS1600 Redundant Power System (JG136A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

**HP 5120 SI Switch Series**

**RPS**

- HP RPS1600 Redundant Power System (JG136A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

Access (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
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HP 4800G Switch Series



HP 4800-48G-PoE Switch (JD011A)	1	2				48	4 DP	4 DP	4	192 Gbps
HP 4800-48G Switch (JD010A)	1	2			48		4 DP	4 DP	4	192 Gbps
HP 4800-24G-PoE Switch (JD008A)	1	2				24	4 DP	4 DP	4	144 Gbps
HP 4800-24G-SFP Switch (JD009A)	1	2			8		4 DP	16 + 8 DP	4	144 Gbps

HP 4800G Switch Series at a glance...

Premium Layer 2/3/4 Gigabit Ethernet switches with two expansion slots for up to four optional 10-Gigabit Ethernet ports or stacking ports. Enterprise-class manageability with command-line interface (CLI), Web interface, and full SNMP support. Non-PoE and PoE models. Advanced Layer 3 routing—including OSPF, PIM-SM, PIM-DM, and RIP v1/v2. Comprehensive IPv4/IPv6 operation. All models have Gigabit SFP ports for fiber flexibility. Advanced nine-high stacking with 96 Gbps available stacking bandwidth, distributed link aggregation, distributed routing, and single IP management.

Note: DP = Dual-personality ports

HP 4200 v1 Switch Series



HP 4208-96 v1 Switch (J8775B)	5	8	192		192		32	32	4 (X2)	76.8 Gbps
HP 4208-68G-4SFP v1 Switch (J9030A)	5	8	192		192		32	32	4 (X2)	76.8 Gbps
HP 4208 v1 Switch Chassis (J8773A)	5	8	192		192		32	32	4 (X2)	76.8 Gbps
HP 4204-44G-4SFP v1 Switch (J9064A)	3	4	96		96		16	16	4 (X2)	38.4 Gbps
HP 4204 v1 Switch Chassis (J8770A)	3	4	96		96		16	16	4 (X2)	38.4 Gbps
HP 4202-72 v1 Switch (J8772B)	3	2	120		48		8	8	2 (X2)	33.6 Gbps

HP 4200 v1 Switch Series at a glance...

Access layer switch with Layer 2 with Layer 3 static IP routing feature set, scalable 10/100/1000 connectivity, and 10 GbE uplinks.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

HP 4800G Switch Series

Modules

- HP 5500/5120-EI 2-port GbE SFP Module (JD367A)
- HP 2-Port 10-GbE SFP+ 5500/4800/4500 Module (JD368B)
- HP 2-Port 10-Gig XFP E45/E48 Module (JE049A)
- HP 1-Port 10-Gig XFP E45/E48 Module (JE053A)
- HP 2-Port 10-Gig LCM E45/E48 Module (JE051A)
- HP 2-Port 10-GbE A5500 Local Conn Module (JD360B)

Power supplies

- HP 5800/5500 150W AC Power Supply (JD362A)\*
- HP 5800/5500 150W DC Power Supply (JD366A)\*

Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.

Note:

\*For the HP 4800-24G-SFP Switch (JD009A) only. Switch ships with one AC PSU and one empty redundant PSU slot. Order this for 1+1 PSU redundancy.

HP 4200 v1 Switch Series

Modules

- HP 12-port 100FX MTRJ v1 Module (J8763A)
- HP 24-port 10/100-TX v1 Module (J8765B)
- HP 24-port Gig-T v1 Module (J8768A)
- HP 4-port SFP v1 Module (J8776A)
- HP 20-port Gig-T/4-port SFP v1 Module (J9033A)
- HP 1-port 10GbE X2 v1 Module (J8766A)

EPS/RPS

- HP gl/xl/v1 Switch Redundant Power Supply (J4839A)

Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.

HP 3800 Switch Series

Refer to the FlexCampus — Switches on page 18.

Access (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
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### HP 3600 EI Switch Series



HP 3600-48-PoE EI Switch (JD328A)	1		48				4			17.6 Gbps
HP 3600-24-SFP EI Switch (JD334A)	1				2		24	2		12.8 Gbps
HP 3600-24-PoE+ V2 EI Switch (JG301A)	1		24 (PoE+)					4 (2 DP)		12.8 Gbps
HP 3600-24 V2 EI Switch (JG299A)	1	24						4 (2 DP)		12.8 Gbps
HP 3600-48 V2 EI Switch (JG300A)	1	48						4 (2 DP)		17.6 Gbps
HP 3600-24-SFP V2 EI Switch (JG303A)	1	24						4 (2 DP)		12.8 Gbps

#### HP 3600 EI Switch Series at a glance...

Stackable, scalable, voice-optimized Gigabit Ethernet switches for high-performance networking. Up to 48 10/100 PoE or non-PoE ports, four Gigabit Ethernet uplinks, 17.6 Gbps switching capacity. Supports Distributed Device Management (DDM), Dynamic Link Aggregation (DLA), and RIP and OSPF routing; IPv6 full Layer 3 unicast and multicast routing (for V2 SKUs), IPv6/IPv4 dual stack (for V2 SKUs).

Note: DP = Dual-personality ports

### HP 3600 SI Switch Series



HP 3600-24-PoE SI Switch (JD325A)	1		24				4			12.8 Gbps
HP 3600-24 V2 SI Switch (JG304A)	1	24						4 (2 DP)		12.8 Gbps
HP 3600-48 V2 SI Switch (JG305A)	1	48						4 (2 DP)		17.6 Gbps
HP 3600-48-PoE+ V2 SI Switch (JG307A)	1		48 (PoE+)					4 (2 DP)		17.6 Gbps

#### HP 3600 SI Switch Series at a glance...

Premier multi-layer switches that fulfill the enterprise requirement for a unified, highly resilient network. 48 or 24 10/100 ports, Gigabit Ethernet uplinks, PoE and non-PoE configurations. AC or DC power, IEEE 802.1X access control, and MAC authentication. Supports RIP routing, IRF, Distributed Device Management (DDM), and Dynamic Link Aggregation (DLA); IPv6 Layer 3 routing (for V2 SKUs), IPv6/IPv4 dual stack (for V2 SKUs).

Note: DP = Dual-personality ports

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

#### HP 3600 EI Switch Series

##### Cable

- HP 3600 Switch SFP Stacking Kit (JD324B)

##### RPS

- HP RPS800 Redundant Power System (JD183A)
- HP RPS1600 Redundant Power System (JG136A)

##### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.

#### HP 3600 SI Switch Series

##### Cable

- HP 3600 Switch SFP Stacking Kit (JD324B)


##### RPS

- HP RPS800 Redundant Power System (JD183A)
- HP RPS1600 Redundant Power System (JG136A)

##### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.

Access (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
<b>HP 3500 yl Switch Series</b>										
	HP 3500-48G-PoE+ yl Switch (J9311A)	1	1			48		4 DP	4	149.8 Gbps
	HP 3500-24G-PoE+ yl Switch (J9310A)	1	1			24		4 DP	4	101.8 Gbps
	HP 3500-48G-PoE yl Switch (J8693A)	1	1			48		4 DP	4	149.8 Gbps
	HP 3500-24G-PoE yl Switch (J8692A)	1	1			24		4 DP	4	101.8 Gbps
<b>HP 3500 Switch Series (10/100 models)</b>										
	HP 3500-48-PoE Switch (J9473A)	1		44		4		4 DP		16.8 Gbps
	HP 3500-48 Switch (J9472A)	1	44		4			4 DP		16.8 Gbps
	HP 3500-24-PoE Switch (J9471A)	1		20		4		4 DP		12 Gbps
	HP 3500-24 Switch (J9470A)	1	20		4			4 DP		12 Gbps

**HP 3500 Switch Series at a glance...**

Advanced Layer 2/3/4 switches with enterprise-class manageability, robust command-line interface (CLI) and Web interface, and full SNMP support. Purpose-built, programmable ProVision ASIC supports demanding networking features. Non-PoE, PoE, and PoE+ models. Advanced Layer 3 routing—including OSPF\*, PIM-SM\*, PIM-DM\*, RIP v1/v2, and static routes. Comprehensive IPv4/IPv6 operation. Gigabit SFP ports for fiber flexibility, and expansion slot for up to four optional 10-Gigabit Ethernet ports.

\*Requires Premium License

Note: DP = Dual-personality ports

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

**HP 3500 yl Switch Series**

**Modules**

- HP 10 GbE 2-port X2/2-port CX4 yl Module (J8694A)
- HP 10 GbE 2-port SFP+/2-port CX4 yl Module (J9312A)

**EPS/RPS**

- HP E620 Redundant/External Power Supply (J8696A)
- HP E630 Redundant and/or External Power Supply (J9443A)

**Mounting kit**

- HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)

**License**

- HP E3500 Switch Premium License (J8993A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

**HP 3500 Switch Series (10/100 models)**

**EPS/RPS**

- HP 620 Redundant/External Power Supply (J8696A)

**Mounting kit**

- HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)

**License**


- HP 3500 Switch Premium License (J8993A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.




Access (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
<b>HP 3100 EI Switch Series</b>										
	HP 3100-24-PoE EI Switch (JD313A)	1		24	2 DP		(2)	2		8.8 Gbps
	HP 3100-24 V2 EI Switch (JD320B)	1		24	2 DP		(2)	2		8.8 Gbps
	HP 3100-24 DC EI Switch (JD315A)	1		24	2 DP		(2)	2		8.8 Gbps
	HP 3100-16 V2 EI Switch (JD319B)	1		16	2 DP					7.2 Gbps
	HP 3100-16-PoE EI Switch (JD312A)	1		16	2 DP		(2)	2		7.2 Gbps
	HP 3100-16 DC EI Switch (JD314A)	1		16	2 DP		(2)	2		7.2 Gbps
	HP 3100-8 DC EI Switch (JD316A)	1		8	1 DP		(1)	1		3.6 Gbps
	HP 3100-8-PoE EI Switch (JD311A)	1		8	1 DP		(1)	1		3.6 Gbps
	HP 3100-8 V2 EI Switch (JD318B)	1		8	1 DP		(1)	1		3.6 Gbps

**HP 3100 EI Switch Series at a glance...**

Stackable switch line with enterprise-class security and support for converged voice and data. 8-, 16-, and 24-port L2 Fast Ethernet switches. Gigabit Ethernet uplinks. PoE/non-PoE, AC and DC models, ACL support, single IP address management.

Note: DP = Dual-personality ports

<b>HP 3100 SI Switch Series</b>										
	HP 3100-8 V2 SI Switch (JG221A)	1		8				1		3.6 Gbps
	HP 3100-16 V2 SI Switch (JG222A)	1		16				2		7.2 Gbps
	HP 3100-24 V2 SI Switch (JG223A)	1		24				2		8.8 Gbps

**HP 3100 SI Switch Series at a glance...**

Intelligent network-manageable L2 Fast Ethernet switches offering high performance, high port density, low power consumption, and easy installation. 8, 16, and 24 10/100 downlink ports, Gigabit Ethernet uplinks, single IP address management.

Note: DP = Dual-personality ports

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

**HP 3100 EI Switch Series**

**RPS**

- HP RPS 800 Redundant Power Supply (JD183A)
- HP RPS1600 Redundant Power System (JG136A)
- HP RPS1600 1600W AC Power Supply (JG137A)

**Mounting kits**

- HP 3100/4210-16 Rack Mount Kit (JD321A)
- HP 3100/4210-9 Rack Mount Kit (JD322A)
- HP 3100/4210-16/-8 PoE Rack Mount Kit (JD323A)

**Power cords**

- HP X290 500 C 1m RPS Cable (JD184A)
- HP X290 1000 A JD5 2m RPS Cable (JD187A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

**HP 3100 SI Switch Series**

**Mounting kits**

- HP 3100/4210-9 Rack-mount Kit (JD322A)
- HP 3100/4210-16 Rack-mount Kit (JD321A)
- HP 3100/4210-16/-8 PoE Rack-mount Kit (JD323A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

Access (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
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### HP 2915-8G-PoE Switch



<b>HP 2915-8G-PoE Switch (J9562A)</b>	1					8		2 DP		20 Gbps
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**HP 2915-8G-PoE Switch at a glance...**

Fully managed 8-port 10/100/1000 switch with two additional dual-personality Gigabit Ethernet ports for copper or SFP connectivity. Static and RIP IPv4 routing. Quiet fanless operation, and a compact form factor for wall, surface, or rack mounting.

Note: DP = Dual-personality ports

### HP 2910 al Switch Series



<b>HP 2910-48G-PoE+ al Switch (J9148A)</b>	1	2				48		4 DP	4	176 Gbps
<b>HP 2910-48G al Switch (J9147A)</b>	1	2			48			4 DP	4	176 Gbps
<b>HP 2910-24G-PoE+ al Switch (J9146A)</b>	1	2				24		4 DP	4	128 Gbps
<b>HP 2910-24G al Switch (J9145A)</b>	1	2			24			4 DP	4	128 Gbps

**HP 2910 al Switch Series at a glance...**

Layer 2 with Layer 3 static IP and RIP IPv4 routing and two expansion slots for up to four optional 10-Gigabit Ethernet ports. Enterprise-class manageability with robust command-line interface (CLI), Web interface, and full SNMP support. Non-PoE and PoE+ models. All models have Gigabit SFP ports for fiber flexibility.

Note: DP = Dual-personality ports

### HP 2810 Switch Series



<b>HP 2810-48G Switch (J9022A)</b>	1				44			4 DP		96 Gbps
<b>HP 2810-24G Switch (J9021A)</b>	1				24			4 DP		48 Gbps

**HP 2810 Switch Series at a glance...**

Layer 2 Gigabit Ethernet switches with four Gigabit SFP ports for fiber flexibility. Enterprise-class manageability with robust command-line interface (CLI), Web interface, and full SNMP support; includes sFlow traffic monitoring, source port filtering, and enhanced security features. Hardware support for an optional redundant power supply.

Note: DP = Dual-personality ports

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

#### HP 2915-8G-PoE Switch

**Additional accessories**

- HP 2915/2615/2520 Cable Guard (J9700A)
- HP 2915/2615/2520 Power Supply Shelf (J9071A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

#### HP 2910 al Switch Series

**Modules**

- HP 2-Port 10 GbE CX4 al Module (J9149A)
- HP 2-Port 10 GbE SFP+ al Module (J9008A)
- HP 10 GbE al Switch Interconnect Kit (J9165A)

**EPS/RPS**

- HP 630 Redundant and/or External Power Supply (J9443A)
- HP 620 Redundant/External Power Supply (J8696A)

**Mounting kit**

- HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

#### HP 2810 Switch Series

**EPS/RPS**

- HP 600 Redundant and External Power Supply (J8168A)


**Mounting kit**


- HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

Access (continued)

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
<b>HP 2620 Switch Series</b>										
	<b>HP 2620-48-PoE+ Switch (J9627A)</b>	1		48 PoE+	2			2		17.6 Gbps
	<b>HP 2620-24-PPoE+ Switch (J9624A)</b>	1	12	12 PoE+	2			2		12.8 Gbps
	<b>HP 2620-24-PoE+ Switch (J9625A)</b>	1		24 PoE+	2			2		12.8 Gbps
	<b>HP 2620-48 Switch (J9626A)</b>	1	48		2			2		17.6 Gbps
	<b>HP 2620-24 Switch (J9623A)</b>	1	24		2			2		12.8 Gbps
<p><b>HP 2620 Switch Series at a glance...</b>                      Fully managed Lite Layer 3 Fast Ethernet switches with IPv4/IPv6 static and RIP routing, two Gigabit Ethernet 10/100/1000 ports, and two SFP ports. Non-PoE and PoE+ models. HP 2620-24 Switch is fanless. Optional redundant external power supply.</p> <p>Note: DP = Dual-personality ports</p>										

<b>HP 2615-8-PoE Switch</b>										
	<b>HP 2615-8-PoE Switch (J9565A)</b>	1		8				2 DP		5.6 Gbps
	<p><b>HP 2615-8-PoE Switch at a glance...</b>                      Fully managed Lite Layer 3 Fast Ethernet 8-port 10/100 switch with two additional dual-personality Gigabit Ethernet ports for copper or SFP connectivity. Static and RIP IPv4 routing, robust security and management, enterprise-class features, lifetime warranty† (see page 67) for as long as you own the product, and software updates when and if available. Fanless for quiet operation, and compact form factor for wall, surface, or rack mounting.</p> <p>Note: DP = Dual-personality ports</p>									

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

**HP 2620 Switch Series**

**Mounting kit**

- HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)

**EPS/RPS**

**HP 2620-48-PoE+ Switch (J9627A)**

- HP 630 Redundant and/or External Power Supply (J9443A)
- HP 620 Redundant/External Power Supply (J8696A)

**HP 2620-24-PPoE+ Switch (J9624A)**

- HP 600 Redundant and External Power Supply (J8168A)

**HP 2620-24-PoE+ Switch (J9625A)**

- HP 630 Redundant and/or External Power Supply (J9443A)
- HP 620 Redundant/External Power Supply (J8696A)

**HP 2620-48 Switch (J9626A)**

- HP 600 Redundant and External Power Supply (J8168A)

**HP 2620-24 Switch (J9623A)**

- HP 600 Redundant and External Power Supply (J8168A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

**HP 2615-8-PoE Switch**

**Additional accessories**

- HP 2915/2615/2520 Cable Guard (J9700A)
- HP 2915/2615/2520 Power Supply Shelf (J9071A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

**Access (continued)**

	Height (RU)	Module slots (max)	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX) (max)	SFP (1000Base-X) (max)	10GBase-X (max)	Switching capacity
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**HP 2520 Switch Series**


<b>HP 2520-24G-PoE Switch (J9299A)</b>	1					20		4 DP		48 Gbps
<b>HP 2520-8G-PoE Switch (J9298A)</b>	1					8		2 DP		20 Gbps
<b>HP 2520-24-PoE Switch (J9138A)</b>	1		24	2				2 DP		12.8 Gbps
<b>HP 2520-8-PoE Switch (J9137A)</b>	1		8					2 DP		5.6 Gbps

**HP 2520 Switch Series at a glance...**

Layer 2 switches in 24- and 8-port PoE configurations. Rack-mountable. Enterprise-class manageability with robust command-line interface (CLI), Web interface, and full SNMP support. Gigabit SFP ports for fiber flexibility. 8-port models offer fanless design.

Note: DP = Dual-personality ports (dual-personality ports can be used as either an RJ-45 10/100/1000 port or as an SFP slot)

**HP 2510 Switch Series**


<b>HP 2510-48G Switch (J9280A)</b>	1				44			4 DP		96 Gbps
<b>HP 2510-24G Switch (J9279A)</b>	1				20			4 DP		48 Gbps
<b>HP 2510-48 Switch (J9020A)</b>	1	48		2				2		17.6 Gbps
<b>HP 2510-24 Switch (J9019B)</b>	1	24						2 DP		8.8 Gbps

**HP 2510 Switch Series at a glance...**

Layer 2 switches with enterprise-class manageability, robust command-line interface (CLI) and Web interface, and full SNMP support. All units have Gigabit SFP ports for fiber flexibility. 24-port fanless design (HP 2510-24 Switch only).

Note: DP = Dual-personality ports

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

**HP 2520 Switch Series**
**Mounting kit**

- HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)

**Additional accessories for 8-port switch**

- HP X510 1U Cable Guard (J9700A)
- HP X520 1U Power Adapter Shelf (J9701A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.


**HP 2510 Switch Series**
**Mounting kit**

- HP X410 1U Universal 4-post Rack Mounting Kit (J9583A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

Access (continued)

	Dimensions	10/100Base-TX ports	10/100/1000Base-TX ports	RJ-45 pass-through ports	Powered by PoE	PoE forwarding	Managed
<b>HP IntelliJack Gigabit Switch Series</b>							
	5.1 x 3.2 x 1.6 in. (13 x 8 x 4 cm)		5	2	PoE Enhanced PoE	Yes	Yes
	5.1 x 3.2 x 1.6 in. (13 x 8 x 4 cm)		5	2	PoE Enhanced PoE	Yes	

**HP IntelliJack Gigabit Switch Series at a glance...**

Unique "in-the-wall" Gigabit Ethernet switch designed to fit in a standard wall outlet box. Quickly convert a single-port Ethernet wall jack into a four-port Gigabit Ethernet connection. Power up to two attached PoE devices. Ideal for hard-to-wire locations needing additional wired Ethernet connections.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

**HP IntelliJack Gigabit Switch Series**

**Power supplies**

- HP NJ1000/NJ2000 Local AC-to-DC 48V Power Supply (JD055A)
- HP Single-port 802.3at Gigabit PoE Midspan Power Supply (JD054A)

**Mounting kit**

- HP NJ1000/NJ2000 IntelliJack Desktop Stand (JD056A)

## Routers

Routers

**HP 8800 Router Series**

Refer to the FlexFabric — Routers on page 12.

**HP 6600 Router Series**

Refer to the FlexFabric — Routers on page 13.

### MSM Access Points and Controller Series

	10/100/1000	PoE/PoE+ (IEEE 802.3af/at) ports	Number of radios	Virtual AP/multiple SSID (max)	Wireless Distribution System (WDS) Bridging	Wi-Fi certification	IEEE 802.11a/b/g/n	Internal antennas (standard)	External antennas (optional)
<b>HP MSM 802.11n Dual Radio Access Point Series</b>									
	1	1	2 (450 Mbps)	32	Yes	Yes	a/n + a/b/g/n	0	6
	1	1	2 (450 Mbps)	32	Yes	Yes	a/n + a/b/g/n	0	6
	1	1	2 (450 Mbps)	32	Yes	Yes	a/n + a/b/g/n	0	6
	1	1	2 (450 Mbps)	32	Yes	Yes	a/n + a/b/g/n	0	6
	1	1	2 (450 Mbps)	32	Yes	Yes	a/n + a/b/g/n	0	6
	1	1	2 (450 Mbps)	32	Yes	Yes	a/n + a/b/g/n	0	6
	1	1	2 (450 Mbps)	32	Yes	Yes	a/n + a/b/g/n	0	6
	1	1	2 (450 Mbps)	32	Yes	Yes	a/n + a/b/g/n	0	6
	1	1	450 Mbps	16	Yes	Yes	b/g/n	0	3
[NOTE: Due to Israeli regulations, only 2.4GHz can be used outdoors.]									
	1	1	2 (450 Mbps)	32	Yes	Yes	a/n + b/g/n	6	0
	1	1	2 (450 Mbps)	32	Yes	Yes	a/n + b/g/n	6	0
	1	1	2 (450 Mbps)	32	Yes	Yes	a/n + b/g/n	6	0
	1	1	2 (450 Mbps)	32	Yes	Yes	a/n + b/g/n	6	0
	1	1	2 (450 Mbps)	32	Yes	Yes	a/n + b/g/n	6	0
	1	1	2 (300 Mbps)	32	Yes	Yes	a/n + b/g/n	6	0
	1	1	2 (300 Mbps)	32	Yes	Yes	a/n + b/g/n	6	0
	1	1	2 (300 Mbps)	32	Yes	Yes	a/n + b/g/n	6	0
	1	1	2 (300 Mbps)	32	Yes	Yes	a/n + b/g/n	6	0
	1	1	2 (300 Mbps)	32	Yes	Yes	a/n + b/g/n	6	0

#### HP MSM 802.11n Dual Radio Access Point Series at a glance...

The MultiService Access Points (MSM APs) bring intelligence to the network edge, providing scalable, seamless, secure, wireless access from more places, anytime, either autonomously or centrally controlled by MSM Controllers. **MSM460 and MSM466 access points are the first 3x3 MIMO access points on the market with three spatial streams, supporting 450 Mbps per radio.** All the above APs support beam forming and beam steering.

Note: When operating with a controller, the controller must be running V5.5 firmware or later. The **MSM466-R** is the first outdoor AP supporting dual radio 3x3 MIMO technology with three spatial streams. Supporting temperatures from -40°C to +55°C and are IP67 and NEMA 4X compliant. When running with a wireless controller, the controller must be running at least v5.7.

#### Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

##### HP MSM 802.11n Dual Radio Access Point Series

###### Power supply

- HP 1-Port Power Injector (J9407B)

###### Adapter

- Optional HP 802.11n Dual Frequency (USB) Wireless Client Adapter (JD039A)

##### HP MSM466 Dual Radio 802.11n Access Point

- HP Indoor-Outdoor Sector Dual Band 8/10dBi MIMO 3 Element Antenna (J9169A)


- HP Indoor-Outdoor Point-to-Point Dual Band 10/13dBi MIMO 3 Element Antenna (J9170A)
- HP Indoor Omnidirectional Dual Band 3/4dBi MIMO 3 Element Antenna (J9171A)
- HP Indoor Omnidirectional Dual Band 2.5/6dBi MIMO 6 Element Antenna (J9659A)
- HP Dual-Band Antenna Lightning Arrester (J8996A)

##### HP MSM466-R Dual Radio 802.11n Access Point (Indoor and Outdoor)

- HP Outdoor Omnidirectional 6dBi at 2.4GHz MIMO 3 Element Antenna (J9719A)

- HP Outdoor Omnidirectional 8dBi at 5GHz MIMO 3 Element Antenna (J9720A)
- HP Indoor-Outdoor Sector Dual Band 8/10dBi MIMO 3 Element Antenna (J9169A)
- HP Indoor-Outdoor Point-to-Point Dual Band 10/13dBi MIMO 3 Element Antenna (J9170A)
- HP Indoor Omnidirectional Dual Band 3/4dBi MIMO 3 Element Antenna (J9171A)
- HP Indoor Omnidirectional Dual Band 2.5/6dBi MIMO 6 Element Antenna (J9659A)
- HP Dual-Band Antenna Lightning Arrester (J8996A)


### MSM Access Points and Controller Series (continued)

	10/100/1000	PoE/PoE+ (IEEE 802.3af/at) ports	Number of radios	Virtual AP/multiple SSID (max)	Wireless Distribution System (WDS) Bridging	Wi-Fi certification	IEEE 802.11a/b/g/n	Internal antennas (standard)	External antennas (optional)
<b>HP MSM 802.11n Access Point Series</b>									
									
HP MSM410 Access Point WW (J9427B)	1	1	1 (n/a/b/g)	16 SSIDs	Yes	Yes	a/b/g/n	3	
HP MSM410 Access Point US (J9426B)	1	1	1 (n/a/b/g)	16 SSIDs	Yes	Yes	a/b/g/n	3	
HP MSM410 Access Point JP (J9529B)	1	1	1 (n/a/b/g)	16 SSIDs	Yes	Yes	a/b/g/n	3	
HP MSM410 Access Point IL (J9616A)	1	1	1 (n/a/b/g)	16 SSIDs	Yes	Yes	a/b/g/n	3	

#### HP MSM 802.11n Access Point Series at a glance...

Full-n-speed access points with legacy a/b/g support; completely support IEEE 802.3af PoE with full 3x3 MIMO.

### HP MSM317 Access Device Series

									
HP MSM317 Access Device US (J9422A)	4 (10/100) 1 pass-through	1	1 (b/g)	16 SSIDs		Yes	b/g	2	
HP MSM317 Access Device WW (J9423A)	4 (10/100) 1 pass-through	1	1 (b/g)	16 SSIDs		Yes	b/g	2	

#### HP MSM317 Access Device Series at a glance...

This unique device provides wired and wireless connectivity in a small "all-in-one" unit that can quickly and discretely be installed in a standard wall outlet. The device consists of an integrated IEEE 802.11 b/g Wi-Fi access point, four Ethernet ports, and a pass-through RJ-45 connector. MSM317 access devices require a wireless controller.

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

#### HP MSM 802.11n Access Point Series

##### Power supply

- HP 1-Port Power Injector (J9407B)

##### Adapter


- Optional HP 802.11n Dual Frequency (USB) Wireless Client Adapter (JD039A)

#### HP MSM317 Access Device Series

##### Power supply

- HP 1-Port Power Injector (J9407B)

### MSM Access Points and Controller Series (continued)

	10/100/Gigabit/10G ports	PoE/PoE+ (IEEE 802.3af/at) ports	APs managed (std)	APs managed (max)	Layer 3 roaming support	Fast roaming support	Embedded server for authentication	Redundancy support
<b>HP MultiService (MSM) Controller Series</b>								
	HP MSM765zl Mobility Controller (J9370A)	2 (10 GbE)		40	200 <sup>1</sup>	Yes	Yes	Yes <sup>1</sup>
	HP MSM760 Mobility Controller (J9420A)	2 (1 GbE)		40	200 <sup>1</sup>	Yes	Yes	Yes <sup>1</sup>
	HP MSM760 Access Controller (J9421A)	2 (1 GbE)		40	200 <sup>1</sup>	Yes <sup>2</sup>	Yes	Yes <sup>1,2</sup>
	HP MSM720 Premium Mobility Controller (WW) (J9694A)	4 (1 GbE); 2 DP		10	40 <sup>3</sup>	Yes	Yes	Yes <sup>3</sup>
	HP MSM720 Access Controller (WW) (J9693A)	4 (1 GbE); 2 DP		10	40 <sup>3</sup>	Yes <sup>2</sup>	Yes	Yes <sup>2,3</sup>
	HP MSM720 TAA Premium Mobility Controller (J9696A)	4 (1 GbE); 2 DP		10	40 <sup>3</sup>	Yes	Yes	Yes <sup>3</sup>
	HP MSM720 TAA Access Controller (J9695A)	4 (1 GbE); 2 DP		10	40 <sup>3</sup>	Yes <sup>2</sup>	Yes	Yes <sup>2,3</sup>
	HP MSM710 Mobility Controller (J9325A)	2 (1 GbE)	1	10	10	Yes	Yes	No
	HP MSM710 Access Controller (J9328A)	2 (1 GbE)	1	10	10	Yes <sup>2</sup>	Yes	No

#### HP MultiService (MSM) Controller Series at a glance...

IEEE 802.11n-ready controllers providing centralized AP management, control, and guest services. Mobility controllers deliver fast roaming and VoWiFi with consistent security.

<sup>1</sup>Up to 5 MSM760 or 5 MSM765 controllers (cross chassis) can be teamed to support up to 800 APs in a redundant configuration through a single management interface.

<sup>2</sup>With Premium Mobility controller upgrade.

<sup>3</sup>Up to 2 MSM720 controllers can be teamed to support up to 40 APs in a redundant configuration through a single management interface.

### Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

#### HP MultiService (MSM) Controller Series

##### HP MSM765zl Mobility Controller (J9370A)

- HP MSM760/765 40-access point license (J9371A)
- HP MSM720/760/765 Additional 10 Access Point License (J9697A)

##### HP MSM760 Mobility Controller (J9420A)

- HP MSM760/765 40-access point license (J9371A)
- HP MSM720/760/765 Additional 10 Access Point License (J9697A)

##### HP MSM760 Access Controller (J9421A)

- HP MSM760 Premium License (J9491A)
- HP MSM760/765 40-access point license (J9371A)
- HP MSM720/760/765 Additional 10 Access Point License (J9697A)

##### HP MSM720 Premium Mobility Controller (WW) (J9694A)

- HP X121 1G SFP LC SX Transceiver (J4858C)
- HP X121 1G SFP LC LX Transceiver (J4859C)
- HP X121 1G SFP LC LH Transceiver (J4860C)
- HP X111 100M SFP LC FX Transceiver (J9054C)
- HP X112 100M SFP LC BX-D Transceiver (J9099B)
- HP X112 100M SFP LC BX-U Transceiver (J9100B)
- HP X122 1G SFP LC BX-D Transceiver (J9142B)
- HP X122 1G SFP LC BX-U Transceiver (J9143B)
- HP MSM720/760/765 Additional 10 Access Point License (J9697A)

##### HP MSM720 Access Controller (WW) (J9693A)

- HP X121 1G SFP LC SX Transceiver (J4858C)
- HP X121 1G SFP LC LX Transceiver (J4859C)
- HP X121 1G SFP LC LH Transceiver (J4860C)
- HP X111 100M SFP LC FX Transceiver (J9054C)
- HP X112 100M SFP LC BX-D Transceiver (J9099B)
- HP X112 100M SFP LC BX-U Transceiver (J9100B)
- HP X122 1G SFP LC BX-D Transceiver (J9142B)
- HP X122 1G SFP LC BX-U Transceiver (J9143B)
- HP MSM720/760/765 Additional 10 Access Point License (J9697A)
- HP MSM720 Premium Mobility License (J9698A)

##### HP MSM720 TAA Premium Mobility Controller (J9696A)

- HP X121 1G SFP LC SX Transceiver (J4858C)
- HP X121 1G SFP LC LX Transceiver (J4859C)
- HP X121 1G SFP LC LH Transceiver (J4860C)
- HP X121 1G SFP RJ45 T Transceiver (J8177C)
- HP X111 100M SFP LC FX Transceiver (J9054C)
- HP X112 100M SFP LC BX-D Transceiver (J9099B)
- HP X112 100M SFP LC BX-U Transceiver (J9100B)
- HP X122 1G SFP LC BX-D Transceiver (J9142B)
- HP X122 1G SFP LC BX-U Transceiver (J9143B)
- HP MSM720/760/765 Additional 10 Access Point License (J9697A)

##### HP MSM720 TAA Access Controller (J9695A)

- HP X121 1G SFP LC SX Transceiver (J4858C)
- HP X121 1G SFP LC LX Transceiver (J4859C)
- HP X121 1G SFP LC LH Transceiver (J4860C)
- HP X121 1G SFP RJ45 T Transceiver (J8177C)
- HP X111 100M SFP LC FX Transceiver (J9054C)
- HP X112 100M SFP LC BX-D Transceiver (J9099B)
- HP X112 100M SFP LC BX-U Transceiver (J9100B)
- HP X122 1G SFP LC BX-D Transceiver (J9142B)
- HP X122 1G SFP LC BX-U Transceiver (J9143B)
- HP MSM720/760/765 Additional 10 Access Point License (J9697A)
- HP MSM720 Premium Mobility License (J9698A)

##### HP MSM710 Mobility Controller (J9325A)

- HP 1-Port Power Injector (J9407B)
- HP MSM710 Controller Rack Mounting Kit (J9404A)
- HP MSM710 Mobility Services upgrade (J9331A)

##### HP MSM710 Access Controller (J9328A)

- HP 1-Port Power Injector (J9407B)
- HP MSM710 Controller Rack Mounting Kit (J9404A)
- HP MSM710 Mobility Services upgrade (J9331A)

#### Access points managed

##### 802.11a/b/g/n Access Points

- HP MSM430 Dual Radio 802.11n AP (AM) (J9650A)
- HP MSM430 Dual Radio 802.11n AP (WW) (J9651A)
- HP MSM430 Dual Radio 802.11n AP (JP) (J9652A)
- HP MSM430 Dual Radio 802.11n AP (IL) (J9653A)
- HP MSM460 Dual Radio 802.11n AP (AM) (J9590A)
- HP MSM460 Dual Radio 802.11n AP (IL) (J9618A)
- HP MSM460 Dual Radio 802.11n AP (WW) (J9591A)
- HP MSM460 Dual Radio 802.11n AP (JP) (J9589A)
- HP MSM466 Dual Radio 802.11n AP (AM) (J9621A)
- HP MSM466 Dual Radio 802.11n AP (JP) (J9620A)
- HP MSM466 Dual Radio 802.11n AP (WW) (J9622A)
- HP MSM466 Dual Radio 802.11n AP (IL) (J9619A)
- HP MSM466-R Dual Radio 802.11n AP (AM) (J9715A)
- HP MSM466-R Dual Radio 802.11n AP (WW) (J9716A)
- HP MSM466-R Dual Radio 802.11n AP (JP) (J9717A)
- HP MSM466-R Dual Radio 802.11n AP (IL) (J9718A)
- HP MSM410 Access Point JP (J9529B)
- HP MSM410 Access Point US (J9426B)
- HP MSM410 Access Point WW (J9427B)
- HP MSM410 Single Radio 802.11n Access Point (IL) (J9616A)

##### 802.11a/b/g Access Points

- HP MSM317 Access Device US (J9422A)
- HP MSM317 Access Device WW (J9423A)
- HP MSM310 Access Point US (J9374B)
- HP MSM310 Access Point WW (J9379B)
- HP MSM310 Access Point JP (J9524B)

#### Transceivers and Cables

See pages 61–66 for the HP Networking Transceiver Matrix.



### Stand Alone Wireless

	10/100/1000	PoE/PoE+ (IEEE 802.3af/at) ports	Number of radios	Virtual AP/multiple SSID (max)	Wireless Distribution System (WDS) Bridging	Wi-Fi certification	IEEE 802.11a/b/g/n	Internal antennas (standard)	External antennas (optional)
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#### HP M200 802.11n Access Point Series



HP M200 802.11n Access Point (US) (J9467A)	1		1	4	Yes	a/b/g/n	a/b/g/n		3
HP M200 802.11n Access Point (WW) (J9468A)	1		1	4	Yes	a/b/g/n	a/b/g/n		3

#### HP M200 802.11n Access Point Series at a glance...

IEEE 802.11n Independent Dual Band Access Point powered by PoE. Easy-to-use and deploy secure connectivity for all of the current and future wireless needs of growing small and medium businesses.

#### HP Mobility Integrated Services Access Point Series



HP MSM313 Access Point WW (J9350B)	2 (10/100)	1	1 (a/b/g)	16 SSIDs	Yes	Yes	a/b/g	0	2
HP MSM313 Access Point US (J9346B)	2 (10/100)	1	1 (a/b/g)	16 SSIDs	Yes	Yes	a/b/g	0	2
HP MSM313 Access Point JP (J9525B)	2 (10/100)	1	1 (a/b/g)	16 SSIDs	Yes	Yes	a/b/g	0	2

#### HP Mobility Integrated Services Access Point Series at a glance...

Integrated, full-featured MultiService Mobility Access Point and MultiService Mobility Controller in a single turnkey unit.

### Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

#### HP M200 802.11n Access Point Series

##### Wireless client adapter

- HP 802.11n Dual Frequency (USB) Wireless Client Adapter (JD039A)

##### Power supply

- HP 1-Port Power Injector (J9407B)

#### HP Mobility Integrated Services Access Point Series

##### Power supply

- HP MSM31x and MSM32x Power Supply (J9405A)

##### Mounting kit

- HP MSM310/MSM320 AP Mounting Bracket (J9403A)

##### External antennas


- HP 5 dBi @ 2.4GHz Indoor/Outdoor Omnidirectional Antenna (J8441A)

- HP 8 dBi @ 2.4GHz Outdoor Omnidirectional Antenna (J8444A)
- HP 3 dBi Dual-Band Diversity Antenna (J8997A)
- HP 7 dBi Dual-Band Directional Antenna (J8999A)
- HP Dual-Band Antenna Lightning Arrester (J8996A)

##### Adapter

- Optional HP 802.11n Dual Frequency (USB) Wireless Client Adapter (JD039A)

Adapters

	10/100/Gigabit/10G ports	PoE/PoE+ (IEEE 802.3af/at) ports	Number of radios	Virtual AP/multiple SSID (max)	Wireless Distribution System (WDS) Bridging	Wi-Fi Certified	IEEE 802.11a/b/g/n	Internal antennas (standard)	External antennas (optional)
<b>HP M111 Client Bridge Series</b>									
	HP M111 Client Bridge (J9389A)	1 (10/100)	1	1 (a/b/g)	16 SSIDs	Yes	Yes	a/b/g	2
	HP M111 Client Bridge JP (J9523A)	1 (10/100)	1	1 (a/b/g)	16 SSIDs	Yes	Yes	a/b/g	2

**HP M111 Client Bridge Series at a glance...**

The HP M111 Client Bridge bridges an Ethernet LAN segment, supporting a wide range of DECnet, IPX, AppleTalk, and other devices, to IEEE 802.11a/b/g WLAN, providing IEEE 802.1X PEAP authentication and up to WPA2 security without upgrading the clients.

**HP Dual Band 802.11n Wireless USB Adapter**



**HP Dual Band 802.11n Wireless USB Adapter (JD039A)**

USB connection only

**HP Dual Band 802.11n Wireless USB Adapter at a glance...**

The HP Dual Band 802.11n Wireless USB Adapter is a simple, low-cost solution for bringing advanced high-speed wireless access to PCs that don't have these capabilities. Use it to add uncongested 5 GHz wireless support to PCs or laptops that only support 2.4 GHz. Bring IEEE 802.11n wireless to devices that have older embedded wireless or no wireless at all. Take advantage of the highest wireless performance by upgrading your end stations so they match the high-speed wireless infrastructure you are putting in place.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

**HP M111 Client Bridge Series**


**Power supplies**

- HP MSM31x and MSM32x Power Supply (J9405A)
- HP 1-Port Power Injector (J9407B)

**HP Dual Band 802.11n Wireless USB Adapter**

This product has no modules or accessories.

### Wireless Security

	10/100/Gigabit/10G ports	PoE/PoE+ (IEEE 802.3af/at) ports	Number of radios	Virtual AP/multiple SSID (max)	Wireless Distribution System (WDS) Bridging	Wi-Fi Certified	IEEE 802.11a/b/g/n	Internal antennas (standard)	External antennas (optional)
<b>HP RF Manager Mobility Security IDS/IPS System Series</b>									
									
HP MSM415 RF Security Sensor (J9522A)	1 (1GbE)	1	1	N/A	N/A	N/A	a, b, g, n	3	No
HP RF Manager Controller with 50-sensor license (J9521A)	2 (1G)	N/A	N/A	N/A	N/A	N/A	a, b, g, n	N/A	N/A

**HP RF Manager Mobility Security IDS/IPS System Series at a glance...**  
 802.11a/b/g/n sensor, a highly scalable WIPS manager, and site planning software protect the network and users from unauthorized wireless access 24x7, enforce comprehensive wireless and “no-wireless” policies, and provide extensive compliance reporting.

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

#### HP RF Manager Mobility Security IDS/IPS System Series


##### Supported sensors

- HP MSM415 RF Security Sensor (J9522A)

##### Licenses

- HP RF Manager Sensor License 50-sensor upgrade (J9399A)
- HP RF Manager Advanced Wireless IPS License (J9644A)  
 [For RF Manager v6.0 or later]
- HP RF Manager Location-Based Policy License (J9393A)  
 [For RF Manager v5.9 or earlier]

### Wireless RF Planning

	10/100/Gigabit/10G ports	PoE/PoE+ (IEEE 802.3af/at) ports	Number of radios	Virtual AP/multiple SSID (max)	Wireless Distribution System (WDS) Bridging	Wi-Fi Certified	IEEE 802.11a/b/g/n	Internal antennas (standard)	External antennas (optional)
<b>HP RF Planner</b>									
									
HP RF Planner (J9400A)	N/A	N/A	N/A	N/A	N/A	N/A	a, b, g, n	N/A	N/A

**HP RF Planner at a glance...**  
 HP RF Planner accurately models WLAN coverage by factoring in variables such as physical features, building materials, and WLAN equipment characteristics. It also facilitates deployment by assessing security risks and generating equipment lists.

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

#### HP RF Planner

This product has no modules or accessories.

**Switches****HP 5500 HI Switch Series**

Refer to FlexCampus Switches — Access — on page 19.

**HP 5500 EI Switch Series**

Refer to FlexCampus Switches — Access — on page 19.

**HP 5500 SI Switch Series**

Refer to FlexCampus Switches — Access — on page 20.

**HP 5400 zI Switch Series**

Refer to FlexCampus Switches — Access — on page 17.

**HP 5120 EI Switch Series**

Refer to FlexCampus Switches — Access — on page 21.

**HP 5120 SI Switch Series**

Refer to FlexCampus Switches — Access — on page 21.

**HP 4800G Switch Series**

Refer to FlexCampus Switches — Access — on page 22.

**HP 4200 vI Switch Series**

Refer to FlexCampus Switches — Access — on page 22.

**HP 3800 Switch Series**

Refer to FlexCampus Switches — Access — on page 22.

**HP 3600 EI Switch Series**

Refer to FlexCampus Switches — Access — on page 23.

**HP 3600 SI Switch Series**

Refer to FlexCampus Switches — Access — on page 23.

**HP 3500 yI Switch Series**

Refer to FlexCampus Switches — Access — on page 24.

**HP 3500 Switch Series (10/100 models)**

Refer to FlexCampus Switches — Access — on page 24.

**HP 3100 EI Switch Series**

Refer to FlexCampus Switches — Access — on page 25.

**HP 3100 SI Switch Series**

Refer to FlexCampus Switches — Access — on page 25.

**HP 2915-8G-PoE Switch**

Refer to FlexCampus Switches — Access — on page 26.

**HP 2910 aI Switch Series**

Refer to FlexCampus Switches — Access — on page 26.

**HP 2810 Switch Series**

Refer to FlexCampus Switches — Access — on page 26.

**HP 2620 Switch Series**

Refer to FlexCampus Switches — Access — on page 27.

**HP 2615-8-PoE Switch**

Refer to FlexCampus Switches — Access — on page 27.

**HP 2520 Switch Series**

Refer to FlexCampus Switches — Access — on page 28.

**HP 2510 Switch Series**

Refer to FlexCampus Switches — Access — on page 28.

**HP IntelliJack Gigabit Switch Series**

Refer to FlexCampus Switches — Access — on page 29.

**MSM Access Point and Controller Series****HP MSM 802.11n Dual Radio Access Point Series**

Refer to FlexCampus — Wireless on page 30.

**HP MSM 802.11n Access Point Series**

Refer to FlexCampus — Wireless on page 31.

**HP MSM317 Access Device Series**

Refer to FlexCampus — Wireless on page 31.

**HP MultiService (MSM) Controller Series**

Refer to FlexCampus — Wireless on page 32.

**Stand Alone Wireless****HP M200 802.11n Access Point Series**

Refer to FlexCampus — Wireless on page 33.

**HP Mobility Integrated Services Access Point Series**

Refer to FlexCampus — Wireless on page 33.

**Adapters****HP M111 Client Bridge Series**

Refer to FlexCampus — Wireless on page 34.

**HP Dual Band 802.11n Wireless USB Adapter**

Refer to FlexCampus — Wireless on page 34.

**Wireless Security****HP RF Manager Mobility Security IDS/IPS System Series**

Refer to FlexCampus — Wireless on page 35.

**Wireless RF Planning****HP RF Planner**

Refer to FlexCampus — Wireless on page 35.

	Height (RU)	Module slots	Included ports	USB ports	Enhanced service modules supported	SDRAM (included/available)	CompactFlash slot	Embedded voice support (VPM/VCPM)	Hardware hot-swap	Routing performance (pps)
<b>HP MSR50 Series</b>										
<b>HP MSR50-60 Router Chassis (JF231A)</b>	4	6 FIC/4 SIC	2/3 GbE*	2	2	512/1024 MB	1	4/1	Yes	Up to 1.28 million*
<b>HP MSR50-60 DC Router Chassis (JF640A)</b>	4	6 FIC/4 SIC	2/3 GbE*	2	2	512/1024 MB	1	4/1	Yes	Up to 1.28 million*
<b>HP MSR50-40 Router Chassis (JD433A)</b>	3	4 FIC/4 SIC	2/3 GbE*	2	2	512/1024 MB	1	4/1	Yes	Up to 1.28 million*
<b>HP MSR50-40 DC Router Chassis (JF285A)</b>	3	4 FIC/4 SIC	2/3 GbE*	2	2	512/1024 MB	1	4/1	Yes	Up to 1.28 million*



### HP MSR50 Series at a glance...

Designed for large branch, regional office, and enterprise deployments, the routers deliver high-performance converged routing, switching, wireless, security, and voice services with modular, high-density WAN, LAN, and voice interface options in a single platform. The HP MSR50 Series provides full-featured routing, IPv6, QoS, MPLS, security, switching, wireless, and voice services with optional embedded hardware-based encryption and voice processing to deliver superior forwarding up to 1280 Kpps.

\* MPU G2

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

### HP MSR50 Series

#### Processing modules

- HP MSR50 G2 Main Processing Unit (JD429B)
- HP MSR50 Main Processing Unit (JD653A)
- HP MSR50 G2 Multi-Service Module (JD430A)
- HP MSR50 Multi-Service Module (JD651A)

#### Cables

- HP X260 E1 BNC 75 ohm 3m Router Cable (JD175A)
- HP X260 Auxiliary Router Cable (JD508A)
- HP X260 E1 RJ45 3m Router Cable (JD509A)
- HP X260 E1 RJ45 BNC Conversion Router Cable (JD511A)
- HP X260 8E1 BNC 75 ohm 3m Router Cable (JD512A)
- HP X260 E1 BNC 20m Router Cable (JD514A)
- HP X260 E1 RJ45 20m Router Cable (JD517A)
- HP X260 T1 Router Cable (JD518A)
- HP X200 V.24 DTE 3m Serial Port Cable (JD519A)
- HP X200 V.24 DCE 3m Serial Port Cable (JD521A)
- HP X200 V.35 DTE 3m Serial Port Cable (JD523A)
- HP X200 V.35 DCE 3m Serial Port Cable (JD525A)
- HP X200 X.21 DTE 3m Serial Port Cable (JD527A)
- HP X200 X.21 DCE 3m Serial Port Cable (JD529A)
- HP X260 T3/E3 Router Cable (JD531A)
- HP X260 E3-30 E3/T3 Router Cable (JD533A)
- HP X500 T1/E1 Voice RJ45 Interface Connector (JD535A)
- HP X260 E1 8-port Router Cable (JD635A)
- HP X200 Transit Plug D25F Single Cable (JD636A)
- HP X260 E1 4-port IMA Router Cable (JD638A)
- HP X260 8T1 RJ45 3m Router Cable (JD639A)
- HP X260 T1 4-port IMA Router Cable (JD640A)
- HP X260 Transit RJ45 0.5m Single Cable (JD641A)
- HP X260 SIC-8AS RJ45 0.28m Router Cable (JD642A)
- HP X260 2E1 BNC 3m Router Cable (JD643A)
- HP X260 RS449 3m DTE Serial Port Cable (JF825A)
- HP X260 RS449 3m DCE Serial Port Cable (JF826A)
- HP X260 RS530 3m DTE Serial Port Cable (JF827A)
- HP X260 RS530 3m DCE Serial Port Cable (JF828A)
- HP X260 mini D-28 to 4-RJ45 0.3m Router Cable (JG263A)

#### Flexible interface card (FIC) modules

- HP MSR 2-port 10/100Base-T FIC Module (JD577A)
- HP MSR 1-port 1000Base-X FIC Module (JD582A)
- HP MSR 1-port Gig-T FIC Module (JD583B)
- HP MSR 16-port 10/100Base-T/1-port GbE Combo Switch FIC Module (JD604A)
- HP MSR 16-port 10/100Base-T PoE/1-port GbE Combo Switch FIC Module (JD616A)
- HP 24-port 10/100 PoE DFIC Module (JD617A)

- HP MSR 2-port E1/CE1/PRI FIC Module (JD578A)
- HP MSR 8-port E1/CE1/PRI (75ohm) FIC Module (JD585A)
- HP 24-port 10/100 DFIC A-MSR Module (JD603A)
- HP MSR 8-port Enhanced Sync/Async Serial FIC Module (JD580A)
- HP MSR 4-port Enhanced Sync/Async Serial FIC Module (JD584A)
- HP 2-port E1 Voice FIC A-MSR Module (JD587A)
- HP 4-port CE1/PRI FIC A-MSR Module (JD588A)
- HP MSR 4-port Enhanced ISDN-S/T FIC Module (JD589A)
- HP 4-port Fractional E1 FIC A-MSR Module (JD591A)
- HP MSR 4-port T1/Fractional T1 FIC Module (JD592A)
- HP MSR 4-port FXO FIC Module (JD593A)
- HP MSR 4-port FXS FIC Module (JD594A)
- HP 1-port T3 ATM FIC A-MSR Module (JD595A)
- HP 1-port E3 ATM FIC A-MSR Module (JD596A)
- HP MSR 4-port E&M FIC Module (JD602A)
- HP 1-port T1 Voice FIC A-MSR Module (JD605A)
- HP 2-port T1 Voice FIC A-MSR Module (JD606A)
- HP 1-port E1 Voice FIC A-MSR Module (JD607A)
- HP 4-port E1-IMA FIC-75 A-MSR Module (JD622A)
- HP MSR 1-port E3/CE3/FE3 FIC Module (JD625A)
- HP MSR 1-port T3/CT3/FT3 FIC Module (JD629A)
- HP MSR 1-port OC-3c/STM-1c ATM SFP FIC Module (JD633A)
- HP MSR 4-port 10/100Base-T FIC Module (JF824A)
- HP 8p Async Serial RJ45 FIC MSR Module (JF260B)
- HP 16p Async Serial RJ45 FIC MSR Module (JF265B)
- HP 2-port Gig-T RJ45 FIC MSR Module (JF269B)
- HP 2p 1000M Ethernet Optical FIC Module (JF270B)
- HP MSR 1-port OC-3c/STM-1c POS FIC Module (JD581C)
- HP MSR 1-port OC-3/STM-1 (E1/T1) CPOS FIC Module (JG201A)

#### Smart interface card (SIC) modules

- HP MSR 4-port 10/100Base-T Switch SIC Module (JD573B)
- HP MSR 1-port 10/100Base-T SIC Module (JD545B)
- HP MSR 9-port 10/100Base-T Switch DSIC Module (JD574B)
- HP MSR 4-port 10/100Base-T PoE Switch SIC Module (JD620A)
- HP MSR 9-port 10/100Base-T PoE Switch DSIC Module (JD621A)
- HP MSR 1-port GbE Combo SIC Module (JD572A)
- HP 1-port Analog Modem SIC MSR Module (JD536A)
- HP MSR 1-port ADSL over POTS SIC Module (JD537A)
- HP MSR 1-port T1/Fractional T1 SIC Module (JD538A)
- HP MSR 1-port Enhanced Sync/Async Serial SIC Module (JD557A)
- HP MSR 2-port FXO SIC Module (JD558A)

- HP MSR 1-port FXO SIC Module (JD559A)
- HP MSR 2-port FXS SIC Module (JD560A)
- HP MSR 1-port FXS SIC Module (JD561A)
- HP MSR 1-port ISDN-U SIC Module (JD570A)
- HP MSR 1-port ISDN-S/T SIC Module (JD571A)
- HP 1-port E1-Voice SIC A-MSR Module (JD575A)
- HP 1-port T1-Voice SIC A-MSR Module (JD576A)
- HP MSR 2-port FXS/1-port FXO SIC Module (JD632A)
- HP MSR 1-port E1/Fractional E1 SIC Module (JD634B)
- HP 2-port Fractional E1 SIC A-MSR Module (JF842A)
- HP MSR 2-port ISDN-S/T Voice SIC Module (JF821A)
- HP MSR 1-port 100Base-X SIC Module (JF280A)
- HP MSR 8-port Async Serial SIC Module (JF281A)
- HP MSR 802.11b/g/n Wireless Access Point SIC Module (JF819A)
- HP 3G Wireless GSM/WCDMA WAN SIC Module (JF820A)
- HP MSR 802.11b/g/n Wireless Access Point SIC Module (NA) (JG211A)
- HP MSR 1-port ADSL over ISDN SIC Module (JG056B)
- HP MSR 1-port 8-wire G.SHDSL (RJ45) DSIC Module (JG191A)
- HP MSR 16-port Async Serial SIC Module (JG186A)

#### Voice processors

- HP MSR Voice Co-processing Module (JD610A)
- HP MSR 32-Channel Voice Processing Module (JD598A)
- HP MSR 24-Channel Voice Processing Module (JD599A)
- HP MSR 16-Channel Voice Processing Module (JD600A)
- HP MSR 8-Channel Voice Processing Module (JD601A)

#### Encryption sub-cards

- HP MSR Advanced Network Data Encryption ESM Module (JD608A)
- HP MSR Standard Network Data Encryption ESM Module (JD609A)

#### Power supplies

- HP MSR50 350W AC Power Supply (JD650A)
- HP MSR50 500W PoE Power Module (JD652A)
- HP MSR50 350W DC Power Supply (JF443A)

#### License


- HP MSR50 Series Standard Version Router Software License (JD434A)

#### Memory

- HP 256MB DDR2 Register SDRAM (JD647A)
- HP 512MB DDR2 Register SDRAM (JD648A)

#### Transceivers

See pages 61–66 for the HP Networking Transceiver Matrix.

	Height (RU)	Module slots	Included ports	USB ports	Enhanced service modules supported	SDRAM (included/available)	CompactFlash slot	Embedded voice support (VPM/VCPM)	Routing performance (PPS)
<b>HP MSR30 Series</b>									
									
HP MSR30-60 PoE Router (JF804A)	3	6 MIM/4 SIC	2 GbE	2	2	256/1024 MB	1	3/1	360,000
HP MSR30-60 Router (JF230A)	3	6 MIM/4 SIC	2 GbE	2	2	256/1024 MB	1	3/1	360,000
HP MSR30-60 DC Router (JF801A)	3	6 MIM/4 SIC	2 GbE	2	2	256/1024 MB	1	3/1	360,000
HP MSR30-40 PoE Router (JF803A)	2	4 MIM/4 SIC	2 GbE	2	2	256/1024 MB	1	3/1	360,000
HP MSR30-40 Router (JF229A)	2	4 MIM/4 SIC	2 GbE	2	2	256/1024 MB	1	3/1	360,000
HP MSR30-40 DC Router (JF287A)	2	4 MIM/4 SIC	2 GbE	2	2	256/1024 MB	1	3/1	360,000
HP MSR30-20 PoE Router (JF802A)	1	2 MIM/4 SIC	2 GbE	2	2	256/1024 MB	1	3/1	300,000
HP MSR30-20 Router (JF284A)	1	2 MIM/4 SIC	2 GbE	2	2	256/1024 MB	1	2/1	300,000
HP MSR30-20 DC Router (JF235A)	1	2 MIM/4 SIC	2 GbE	2	2	256/1024 MB	1	2/1	300,000
HP MSR30-16 Router (JF233A)	1	1 MIM/4 SIC	2 x 10/100	1	2	256/768 MB	1	2/1	240,000
HP MSR30-16 PoE Router (JF234A)	1	1 MIM/4 SIC	2 x 10/100	1	2	256/768 MB	1	2/1	240,000
HP MSR30-11 Multi-Service Router (JF800A)	1	1 MIM/2 SIC	2 x 10/100, 1 serial	0	1	256 MB	0	0/0	220,000
HP MSR30-11E Router (JG182A)	1	1 MIM/2 SIC	2 x 10/100 WAN, 24 x 10/100 LAN	1	1	256 MB	0	0/0	220,000
HP MSR30-11F Router (JG183A)	1	1 MIM/2 SIC	2 x 10/100 WAN, 48 x 10/100 LAN	1	1	256 MB	0	0/0	220,000
HP MSR30-10 Router (JF816A)	1	1 MIM/2 SIC	2 x 10/100	1	1	256 MB	0	1/0	220,000

**HP MSR30 Series at a glance...**

Ideal for medium to large branch and regional offices; provide unmatched performance, integrated routing, switching, security, wireless, and voice services with a rich set of modular WAN/LAN and voice interface options in a single device to reduce operating and capital costs and simplify complexity.

Note: DP = Dual-personality port

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

**HP MSR30 Series**

**PoE modules (for MSR30 PoE routers)**

- HP 24-port 10/100 PoE DMIM MSR Module (JD619A)
- HP MSR 16-port 10/100Base-T PoE Switch MIM Module (JD618A)
- HP MSR 9-port 10/100Base-T PoE Switch DSIC Module (JD621A)
- HP MSR 4-port 10/100Base-T PoE Switch SIC Module (JD620A)

**Cables**

Please refer to the HP MSR50 Series for a complete list of applicable cables for the HP MSR30 Series.

**Multifunction interface modules (MIM)**

- HP 24-port 10/100 DMIM MSR Module (JD564A)
- HP MSR 16-port 10/100Base-T Switch MIM Module (JD569A)
- HP MSR 2-port Gig-T MIM Module (JD548A)
- HP MSR 2-port 10/100Base-T MIM Module (JD613A)
- HP 1-port E1 Voice MIM A-MSR Module (JD565A)
- HP MSR 1-port OC-3c/STM-1c ATM SFP MIM Module (JD624A)
- HP NDEC2 Encryption Accel MIM MSR Module (JD554A)
- HP VCX Connect Primary MIM Module (JE252A)
- HP VCX Connect Secondary MIM Connectivity Module (JE253A)
- HP VCX Branch MIM Connectivity Module (JE254A)
- HP MSR 4-port E&M MIM Module (JD539A)
- HP MSR 4-port Enhanced Sync/Async Serial MIM Module (JD541A)
- HP MSR 2-port Enhanced Sync/Async Serial MIM Module (JD540A)
- HP MSR 4-port FXO MIM Module (JD542A)
- HP MSR 2-port FXO MIM Module (JD543A)
- HP 2-port CE1/PRI MIM MSR Module (JD544A)
- HP MSR 1-port 4-Wire G.SHDSL MIM Module (JD547A)
- HP MSR 2-port T1/CT1/PRI MIM Module (JD549A)
- HP 4-port CE1/CT1 PRI MIM MSR Module (JD550A)
- HP MSR 4-port FXS MIM Module (JD553A)

- HP 4-port T1 IMA MIM MSR Module (JD556A)
- HP 1-port T1 Voice MIM MSR Module (JD566A)
- HP 2-port E1-Voice MIM MSR Module (JD567A)
- HP 2-port T1-Voice MIM MSR Module (JD568A)
- HP MSR 1-port T3/CT3/FT3 MIM Module (JD628A)
- HP MSR 1-port E3/CE3/FE3 MIM Module (JD630A)
- HP MSR 16-port 10/100Base-T Switch XMIM Module (JF279A)
- HP MSR 24-port 10/100Base-T Switch XMIM Module (JF276A)
- HP MSR 8-port Enhanced Async Serial MIM Module (JF840A)
- HP MSR 16-port Enhanced Async Serial MIM Module (JF841A)
- HP MSR 16-port FXS MIM Module (JF822A)
- HP MSR 4-port ISDN-S/T Voice MIM Module (JF837A)
- HP MSR 8-port E1/CE1/PRI (75ohm) MIM Module (JD563A)
- HP MSR 8-port E1/Fractional E1 (75ohm) MIM Module (JF255A)
- HP MSR 4-port 10/100Base-T MIM Module (JD551A)
- HP MSR 8-port Enhanced Sync/Async Serial MIM Module (JD552A)
- HP MSR 1-port OC-3c/STM-1c POS MIM Module (JG193A)

**Smart interface card (SIC) modules**

- HP MSR 1-port GbE Combo SIC Module (JD572A)
- HP MSR 2-port FXO SIC Module (JD558A)
- HP MSR 1-port FXO SIC Module (JD559A)
- HP MSR 2-port FXS SIC Module (JD560A)
- HP MSR 1-port FXS SIC Module (JD561A)
- HP MSR 2-port FXS/1-port FXO SIC Module (JD632A)
- HP MSR 1-port ISDN-U SIC Module (JD570A)
- HP MSR 1-port ISDN-S/T SIC Module (JD571A)
- HP 1-port T1-Voice SIC MSR Module (JD576A)
- HP 1-port E1-Voice SIC MSR Module (JD575A)
- HP MSR 1-port T1/Fractional T1 SIC Module (JD538A)
- HP MSR 1-port E1/Fractional E1 SIC Module (JD634B)
- HP 1-port Analog Modem SIC MSR Module (JD536A)
- HP MSR 1-port ADSL over POTS SIC Module (JD537A)
- HP MSR 1-port Enhanced Sync/Async Serial SIC Module (JD557A)
- HP 2-port Fractional E1 SIC MSR Module (JF842A)

- HP MSR 2-port ISDN-S/T Voice SIC Module (JF821A)
- HP MSR 1-port 100Base-X SIC Module (JF280A)
- HP MSR 8-port Async Serial SIC Module (JF281A)
- HP MSR 802.11b/g/n Wireless Access Point SIC Module (JF819A)
- HP 3G Wireless GSM/WCDMA WAN SIC Module (JF820A)
- HP MSR 802.11b/g/n Wireless Access Point SIC Module (NA) (JG211A)
- HP MSR 1-port ADSL over ISDN SIC Module (JG056B)
- HP MSR 1-port 8-wire G.SHDSL (RJ45) DSIC Module (JG191A)
- HP MSR 16-port Async Serial SIC Module (JG186A)

**Voice processors**

- HP MSR 32-Channel Voice Processing Module (JD598A)
- HP MSR 24-Channel Voice Processing Module (JD599A)
- HP MSR 16-Channel Voice Processing Module (JD600A)
- HP MSR 8-Channel Voice Processing Module (JD601A)
- HP MSR Voice Co-processing Module (JD610A)

**Encryption sub-cards**

- HP MSR Advanced Network Data Encryption ESM Module (JD608A)
- HP MSR Standard Network Data Encryption ESM Module (JD609A)

**Power supplies**

- HP RPS800 Redundant Power System (JD183A)
- HP X290 MSR30 1m RPS Cable (JD637A)

**Software**


- HP MSR30 Series Standard Version Router Software License (JD679A)

**Memory**

- HP 256MB DDR2 Register SDRAM (JD647A)
- HP 512MB DDR2 Register SDRAM (JD648A)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

	Height (RU)	Module slots	Included ports	USB ports	Enhanced service modules supported	SDRAM (included/available)	CompactFlash slot	Embedded voice support (VPM/VCPM)	Routing performance (pps)
<b>HP MSR20 Series</b>									
									
<b>HP MSR20-40 Router (JF228A)</b>	1	4 SIC	2 x 10/100	1	2	256/384 MB	1	2/1	180,000
<b>HP MSR20-20 Router (JF283A)</b>	1	2 SIC	2 x 10/100	1	1	256/384 MB	1	0	180,000
<b>HP MSR20-21 Router (JD663B)</b>	1	2 SIC	2 x 10/100 + 8 switched 10/100	1	1	256/384 MB	1	0	180,000

**HP MSR20 Series at a glance...**

Flexible, economical, full-featured routing, switching, security, and voice with flexible modular WAN and LAN connectivity options in a high-performance converged routing platform that is ideal for small to medium branch offices and enterprise deployments.

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

**HP MSR20 Series**

**Cables**

- HP X260 Auxiliary Router Cable (JD508A)
- HP X260 SIC-8AS RJ45 0.28m Router Cable (JD642A)
- HP X260 T1 Router Cable (JD518A)
- HP X500 T1/E1 Voice RJ45 Interface Connector (JD535A)
- HP X260 2E1 BNC 3m Router Cable (JD643A)
- HP X260 E1 BNC 20m Router Cable (JD514A)
- HP X260 E1 RJ45 20m Router Cable (JD517A)
- HP X260 E1 RJ45 3m Router Cable (JD509A)
- HP X260 E1 BNC 75 ohm 3m Router Cable (JD175A)
- HP X260 E1 RJ45 BNC Conversion Router Cable (JD511A)
- HP X200 V.24 DTE 3m Serial Port Cable (JD519A)
- HP X200 V.24 DCE 3m Serial Port Cable (JD521A)
- HP X200 V.35 DTE 3m Serial Port Cable (JD523A)
- HP X200 V.35 DCE 3m Serial Port Cable (JD525A)
- HP X200 X.21 DTE 3m Serial Port Cable (JD527A)
- HP X200 X.21 DCE 3m Serial Port Cable (JD529A)
- HP X200 Transit Plug D25F Single Cable (JD636A)
- HP X260 Transit RJ45 0.5m Single Cable (JD641A)
- HP X260 RS449 3m DTE Serial Port Cable (JF825A)
- HP X260 RS449 3m DCE Serial Port Cable (JF826A)
- HP X260 RS530 3m DTE Serial Port Cable (JF827A)
- HP X260 RS530 3m DCE Serial Port Cable (JF828A)
- HP X260 mini D-28 to 4-RJ45 0.3m Router Cable (JG263A)

**Smart interface card (SIC) modules**

- HP MSR 1-port GbE Combo SIC Module (JD572A)
- HP MSR 2-port FXO SIC Module (JD558A)
- HP MSR 1-port FXO SIC Module (JD559A)
- HP MSR 2-port FXS SIC Module (JD560A)
- HP MSR 1-port FXS SIC Module (JD561A)
- HP MSR 2-port FXS/1-port FXO SIC Module (JD632A)
- HP MSR 1-port ISDN-U SIC Module (JD570A)
- HP MSR 1-port ISDN-S/T SIC Module (JD571A)
- HP 1-port T1-Voice SIC MSR Module (JD576A)
- HP 1-port E1-Voice SIC MSR Module (JD575A)
- HP MSR 1-port T1/Fractional T1 SIC Module (JD538A)
- HP MSR 1-port E1/Fractional E1 SIC Module (JD634B)
- HP 1-port Analog Modem SIC MSR Module (JD536A)
- HP MSR 1-port ADSL over POTS SIC Module (JD537A)
- HP MSR 1-port Enhanced Sync/Async Serial SIC Module (JD557A)
- HP 2-port Fractional E1 SIC MSR Module (JF842A)
- HP MSR 2-port ISDN-S/T Voice SIC Module (JF821A)
- HP MSR 1-port 100Base-X SIC Module (JF280A)
- HP MSR 8-port Async Serial SIC Module (JF281A)
- HP MSR 802.11b/g/n Wireless Access Point SIC Module (JF819A)
- HP 3G Wireless GSM/WCDMA WAN SIC Module (JF820A)
- HP MSR 802.11b/g/n Wireless Access Point SIC Module (NA) (JG211A)

- HP MSR 1-port ADSL over ISDN SIC Module (JG056B)
- HP MSR 1-port 8-wire G.SHDSL (RJ45) DSIC Module (JG191A)
- HP MSR 16-port Async Serial SIC Module (JG186A)

**Voice processors (for use in HP MSR20-40 routers)**

- HP MSR 32-Channel Voice Processing Module (JD598A)
- HP MSR 24-Channel Voice Processing Module (JD599A)
- HP MSR 16-Channel Voice Processing Module (JD600A)
- HP MSR 8-Channel Voice Processing Module (JD601A)
- HP MSR Voice Co-processing Module (JD610A)

**Encryption sub-cards**


- HP MSR Advanced Network Data Encryption ESM Module (JD608A)
- HP MSR Standard Network Data Encryption ESM Module (JD609A)

**Memory**

- HP MSR 256MB SDRAM SO-DIMM Memory (JD677A)

**Transceivers**

See pages 61–66 for the HP Networking Transceiver Matrix.

	Height (RU)	Module slots	Included ports	USB ports	SDRAM (included/available)	Routing performance (PPS)
<b>HP MSR20-1x Series</b>						
	1	1 SIC	1 x ADSL2+ 1 x 10/100 + 4 switched 10/100 + 1 x AM + 802.11b/g	1	256/256 MB	160,000
	1	1 SIC	1 x ADSL2+ 1 x 10/100 + 4 switched 10/100 + 1 AM	1	256/256 MB	160,000
	1	1 SIC	1 x ADSL2+ 1 x 10/100 + 4 switched 10/100 + 1 x ISDN BRI + 802.11b/g	1	256/256 MB	160,000
	1	1 SIC	1 x ADSL2+ 1 x 10/100 + 4 switched 10/100 + 1 x ISDN BRI	1	256/256 MB	160,000
	1	1 SIC	1 x G.SHDSL + 1 x 10/100 + 4 switched 10/100 + 1 x ISDN BRI	1	256/256 MB	160,000
	1	1 SIC	1 x G.SHDSL+ 1 x 10/100 + 4 switched 10/100 + 1 x ISDN BRI + 802.11b/g	1	256/256 MB	160,000
	1	1 SIC	1 x G.SHDSL+ 1 x 10/100 + 4 switched 10/100 + 802.11b/g	1	256/256 MB	160,000
	1	1 SIC	1 x E1 + 1 x 10/100 + 4 switched 10/100	1	256/256 MB	160,000
	1	1 SIC	1 x T1 + 1 x 10/100 + 4 switched 10/100	1	256/256 MB	160,000
	1	1 SIC	1 x T1 + 1 x 10/100 + 4 switched 10/100	1	256/256 MB	160,000
	1	1 SIC	1 x E1 + 1 x 10/100 + 4 switched 10/100 + 802.11b/g	1	256/256 MB	160,000
	1	1 SIC	1 x Serial + 1 x 10/100 + 4 switched 10/100	1	256/256 MB	160,000
	1	1 SIC	1 x 10/100 + 4 switched 10/100	1	256/256 MB	160,000
<b>HP MSR20-1x Series at a glance...</b>						
Full-featured, economical routers designed for converged wired and wireless WAN and LAN environments at small remote branch offices and small to medium-size businesses. The HP MSR20-1x Series routers deliver high-performance integrated routing, switching, security, wireless, and voice services with modular interface options in a single device.						

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

**HP MSR20-1x Series**

**Cables**

- HP X260 SIC-8AS RJ45 0.28m Router Cable (JD642A)
- HP X500 T1/E1 Voice RJ45 Interface Connector (JD535A)
- HP X260 E1 BNC 20m Router Cable (JD514A)
- HP X260 2E1 BNC 3m Router Cable (JD643A)
- HP X260 E1 BNC 75 ohm 3m Router Cable (JD175A)
- HP X200 V.24 DTE 3m Serial Port Cable (JD519A)
- HP X200 V.24 DCE 3m Serial Port Cable (JD521A)
- HP X200 V.35 DTE 3m Serial Port Cable (JD523A)
- HP X200 V.35 DCE 3m Serial Port Cable (JD525A)
- HP X200 X.21 DTE 3m Serial Port Cable (JD527A)
- HP X200 X.21 DCE 3m Serial Port Cable (JD529A)
- HP X200 Transit Plug D25F Single Cable (JD636A)
- HP X260 Transit RJ45 0.5m Single Cable (JD641A)
- HP X260 mini D-28 to 4-RJ45 0.3m Router Cable (JG263A)

**Smart interface card (SIC) modules**

- HP MSR 1-port GbE Combo SIC Module (JD572A)
- HP MSR 2-port FXO SIC Module (JD558A)
- HP MSR 1-port FXO SIC Module (JD559A)
- HP MSR 2-port FXS SIC Module (JD560A)
- HP MSR 1-port FXS SIC Module (JD561A)
- HP MSR 2-port FXS/1-port FXO SIC Module (JD632A)
- HP MSR 1-port ISDN-U SIC Module (JD570A)
- HP MSR 1-port ISDN-S/T SIC Module (JD571A)
- HP MSR 1-port T1/Fractional T1 SIC Module (JD538A)
- HP 1-port Analog Modem SIC MSR Module (JD536A)
- HP MSR 1-port ADSL over POTS SIC Module (JD537A)
- HP MSR 1-port Enhanced Sync/Async Serial SIC Module (JD557A)
- HP MSR 1-port E1/Fractional E1 SIC Module (JD634B)
- HP 2-port Fractional E1 SIC MSR Module (JF842A)
- HP MSR 2-port ISDN-S/T Voice SIC Module (JF821A)
- HP MSR 1-port 100Base-X SIC Module (JF280A)
- HP MSR 8-port Async Serial SIC Module (JF281A)

- HP MSR 802.11b/g/n Wireless Access Point SIC Module (JF819A)
- HP 3G Wireless GSM/WCDMA WAN SIC Module (JF820A)
- HP MSR 802.11b/g/n Wireless Access Point SIC Module (NA) (JG211A)
- HP MSR 1-port ADSL over ISDN SIC Module (JG056B)
- HP MSR 1-port 8-wire G.SHDSL (RJ45) DSIC Module (JG191A)
- HP MSR 16-port Async Serial SIC Module (JG186A)


**Voice processors (for use in HP MSR20-15/20-12 routers)**

- HP MSR 32-Channel Voice Processing Module (JD598A)
- HP MSR 24-Channel Voice Processing Module (JD599A)
- HP MSR 16-Channel Voice Processing Module (JD600A)
- HP MSR 8-Channel Voice Processing Module (JD601A)
- HP MSR Voice Co-processing Module (JD610A)

**Transceivers**

See pages 61–66 for the HP Networking Transceiver Matrix.



	Height (RU)	Module slots	Included ports	USB ports	SDRAM (included/available)	Routing performance (PPS)
<b>HP MSR900 Series</b>						
						
<b>HP MSR900 Router (JF812A)</b>	1	Fixed	2 x 10/100 + 4 switched 10/100	1	256 MB/256 MB	70,000
<b>HP MSR920 Router (JF813A)</b>	1	Fixed	2 x 10/100 + 8 switched 10/100	1	256 MB/256 MB	100,000
<b>HP MSR900-W Router (JF814A)</b>	1	Fixed	2 x 10/100 + 4 switched 10/100 + 802.11b/g	1	256 MB/256 MB	70,000
<b>HP MSR920-W Router (JF815A)</b>	1	Fixed	2 x 10/100 + 8 switched 10/100 + 802.11b/g	1	256 MB/256 MB	100,000
<p><b>HP MSR900 Series at a glance...</b>            Combines performance with full-featured routing, switching, security, wireless, and voice services in a compact form factor for small office/home office (SOHO), remote branch offices, and small to medium-size businesses.</p>						

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

**HP MSR900 Series**

This product has no modules or accessories.

### Intelligent Management Center—Platforms

	Maximum network size	Platform	External database support	Extensible for 3rd-party device support	Downloadable trial version	Deployment options	Additional node licenses supported	Bulk agent updates	Bulk configuration
<b>HP Intelligent Management Center Standard Software Platform</b>									
<b>HP Intelligent Management Center Standard Software Platform with 100-node License (JF377A); Electronic License (JF377AAE)</b>	Unlimited	Windows®, Red Hat Linux	Yes*	Yes	Yes	Centralized, distributed, hierarchical (child)	Yes	Yes	Enhanced

#### HP Intelligent Management Center Standard Software Platform at a glance...

HP Intelligent Management Center (IMC) Standard Software Platform is next-generation management software that provides a self-contained, comprehensive management platform with the flexibility and scalability to meet the needs of advanced enterprise networks.

### HP Intelligent Management Center Enterprise Software Platform

<b>HP Intelligent Management Center Enterprise Software Platform with 200-node and 2-NTA-IMC node License (JF378A); Electronic License (JF378AAE)</b>	Unlimited	Windows, Red Hat Linux	Yes*	Yes		Centralized, distributed, hierarchical (parent)	Yes		
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#### HP Intelligent Management Center Enterprise Software Platform at a glance...

HP Intelligent Management Center Enterprise Software Platform allows additional scaling to tens of thousands of nodes by offering a hierarchical mode of deployment.

\*IMC can support either Microsoft® SQL, MySQL, or Oracle Database, depending on the operating system in use.

### Intelligent Management Center—Modules

	Maximum network size	Platform	External database support	Extensible for 3rd-party device support	Downloadable trial version	Deployment options	Additional node licenses supported	Bulk agent updates	Bulk configuration
<b>HP IMC Network Traffic Analyzer Software</b>									
<b>HP IMC Network Traffic Analyzer Software Module with 10-node License (JF384A); Electronic License (JF384AAE)</b>	Unlimited	Windows, Red Hat Linux	Yes*	Yes	Yes	Centralized, distributed	Yes		

#### HP IMC Network Traffic Analyzer Software at a glance...

HP IMC Network Traffic Analyzer Software provides traffic analysis and visibility services for HP IMC.

### HP IMC User Authentication Management Software

<b>HP IMC User Authentication Management Software Module with 200-user License (JF388A); Electronic License (JF388AAE)</b>	Unlimited	Windows, Red Hat Linux	Yes*	Yes	Yes	Centralized, distributed	Yes		
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#### HP IMC User Authentication Management Software at a glance...

HP IMC User Authentication Management Software enhances networking security and network management with HP IMC by providing access control for users and device management, extending management to network users.

\*IMC can support either Microsoft® SQL, MySQL, or Oracle Database, depending on the operating system in use.

### Intelligent Management Center—Modules (continued)

	Maximum network size	Platform	External database support	Extensible for 3rd-party device support	Downloadable trial version	Deployment options	Additional node licenses supported	Bulk agent updates	Bulk configuration
<b>HP IMC User Behavior Auditor Software Module</b>									
<b>HP IMC User Behavior Auditor Software Module with 200-user License (JF421A); Electronic License (JF421AAE)</b>	Unlimited	Windows, Red Hat Linux	Yes*			Centralized, distributed	Yes		
<a href="#">HP IMC User Behavior Auditor Software Module at a glance...</a> HP IMC User Behavior Auditor Software delivers intelligent logging and network analysis of internal users, providing a behavioral audit service for HP IMC.									
<b>HP IMC QoS Manager Software</b>									
<b>HP IMC QoS Manager Software Module License (JF408A); Electronic License (JF408AAE)</b>	Unlimited	Windows, Red Hat Linux	Yes*		Yes	Centralized, distributed	Yes		Yes
<a href="#">HP IMC QoS Manager Software at a glance...</a> HP IMC QoS Manager Software enables traffic classification and control, and service-level reporting for HP IMC.									
<b>HP IMC Endpoint Admission Defense (EAD) Software</b>									
<b>HP IMC Endpoint Admission Defense Software Module with 200-user License (JF391A); Electronic License (JF391AAE)</b>	Unlimited	Windows, Red Hat Linux	Yes*	Yes	Yes	Centralized, distributed	Yes		
<a href="#">HP IMC Endpoint Admission Defense Software at a glance...</a> HP IMC Endpoint Admission Defense Software helps companies use HP IMC to control and secure their mission-critical data by providing robust Network Access Control (NAC).									
<b>HP IMC Wireless Services Manager Software</b>									
<b>HP IMC Wireless Services Manager Software Module with 50-Access Point License (JF414A); Electronic License (JF414AAE)</b>	Unlimited	Windows, Red Hat Linux	Yes*	Yes	Yes	Centralized, distributed	Yes		Yes
<a href="#">HP IMC Wireless Services Manager Software at a glance...</a> HP IMC Wireless Service Manager Software delivers wired and wireless enterprise network management solutions for HP IMC.									
<b>HP IMC MPLS VPN Software</b>									
<b>HP IMC MPLS VPN Software Module with 50-node License (JF410A); Electronic License (JF410AAE)</b>	Unlimited	Windows, Red Hat Linux	Yes**	Yes	Yes	Centralized, distributed	Yes	Yes	Yes
<a href="#">HP IMC MPLS VPN Software at a glance...</a> HP IMC MPLS VPN Software provides MPLS VPN discovery, topology, monitoring, auditing, performance, and VPN deployment for HP IMC.									
<b>HP IMC Voice Services Manager Software</b>									
<b>HP IMC Voice Services Manager Software Module with 100-phone License (JF402A); Electronic License (JF402AAE)</b>	Unlimited	Windows	Yes**		Yes	Centralized, distributed	Yes		Yes
<a href="#">HP IMC Voice Services Manager Software at a glance...</a> HP IMC Voice Services Manager Software delivers secure, reliable, and managed IP telephony services for HP IMC.									

\*IMC can support either Microsoft SQL, MySQL, or Oracle Database, depending on the operating system in use.

\*\*IMC can support either Microsoft SQL or Oracle Database, depending on the operating system in use.

### Intelligent Management Center—Modules (continued)

	Maximum network size	Platform	External database support	Extensible for 3rd-party device support	Downloadable trial version	Deployment options	Additional node licenses supported	Bulk agent updates	Bulk configuration
<b>HP IMC IPSec/VPN Manager Software</b>									
<b>HP IMC IPSec/VPN Manager Software Module with 25-node License (JG144A); Electronic License (JG144AAE)</b>	Unlimited	Windows, Red Hat Linux	Yes*		Yes	Centralized, distributed	Yes	Yes	Yes
<a href="#">HP IMC IPSec/VPN Manager Software at a glance...</a> HP IMC IPSec VPN manages IPSec devices and provides detailed information regarding the private network and visibility in the topology.									
<b>HP IMC Service Operation Management Software</b>									
<b>HP IMC Service Operation Management Software Module License (JG139A); Electronic License (JG139AAE)</b>	Unlimited	Windows, Red Hat Linux	Yes*		Yes	Centralized, distributed	Yes		Yes
<a href="#">HP IMC Service Operation Management Software at a glance...</a> HP IMC Service Operation Management Software provides full workflow management to ticket creation, resolution, and knowledge-base creation, and integrates with IMC's configuration center and fault management.									
<b>3Com to HP OpenView Network Node Manager Integration Kit</b>									
<b>3Com to HP OpenView Network Node Manager Integration Kit (JD801A)</b>	Unlimited	Windows	Yes**	Yes			Yes	Yes	Yes
<a href="#">3Com to HP OpenView Network Node Manager Integration Kit at a glance...</a> 3Com to HP OpenView Network Node Manager Integration Kit allows integration of HP IMC with HP Network Node Manager.									
<b>HP IMC Branch Intelligent Management System Software</b>									
<b>HP IMC Branch Intelligent Management System Software Module with 50-node License (JG265A); Electronic License (JG265AAE)</b>	Unlimited	Windows, Red Hat Linux	Yes*	Yes	Yes	Centralized, distributed	Yes		Yes
<a href="#">HP IMC Branch Intelligent Management System Software at a glance...</a> IMC Branch Intelligent Management System Software is based on TR-069 protocol, which allows the remote management of customer premise equipment (CPE) in WANs.									
*IMC can support either Microsoft SQL, MySQL, or Oracle Database, depending on the operating system in use.									
**IMC can support either Microsoft SQL or Oracle Database, depending on the operating system in use.									

PCM+ Network Management

	Platforms supported	Manage HP wired and wireless devices	Manage non-HP wired or wireless devices	Device autodiscovery	Topology and mapping	Usable troubleshooting data and alerts	Device configuration and management	Customize and execute policies across groups	Basic configuration and diagnostic wizards	Web-based event monitoring
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HP PCM Software



HP PCM v4 Software

Windows OS and ESX systems	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
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HP PCM Software at a glance...

HP PCM is a basic network discovery, mapping, and monitoring Windows-based software product. Supports up to 25 HP devices.

HP PCM Plus Network Management Software Series



HP PCM+ v4 Software Platform with 50-device License (J9755A)

Windows OS and ESX systems	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
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HP PCM+ v4 Software Platform with Unlimited-device License (J9757A)

Windows OS and ESX systems	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
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HP PCM Plus Network Management Software Series at a glance...

HP PCM+ adds to PCM significant configuration management, network traffic monitoring, reporting, and other easy-to-use functions to simplify wired and wireless management of networks in the medium to large business environment. Additional plug-ins, Identity Driven Manager, and Mobility Manager can be added for network security and WLAN management. PCM+ can support up to 3,500 devices using PCM+ remote agents.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

HP PCM Software

This product has no modules or accessories.


HP PCM Plus Network Management Software Series

Software

- HP Identity Driven Manager—500 users (J9752A)
- HP Identity Driven Manager—additional 1000 users (J9754A)

- HP Identity Driven Manager—unlimited users (J9753A)
- HP PCM+ Mobility Manager v4 Software Module License (J9751A)

PCM+ Network Management (continued)

	Users managed	RADIUS authentication servers (max)	Traffic prioritization	Rate limiting	Policy-based network access rights	Automatic VLAN assignment	Endpoint posture awareness	User-based ACLs	Integration with Microsoft Network Access Protection
<b>HP Identity Driven Manager (IDM) Software Series</b>									
	HP PCM+ Identity Driven Manager v4 Software Module with 500-user License (J9752A)	500	10	Yes	Yes	Yes	Yes	Yes	Yes
	HP PCM+ Identity Driven Manager v4 Software Module with Unlimited-user License (J9753A)	10,000	10	Yes	Yes	Yes	Yes	Yes	Yes

**HP Identity Driven Manager (IDM) Software Series at a glance...**

Plug-in to HP PCM Plus that dynamically provisions network security and performance settings based on user, device, location, time, and endpoint posture. Allows network administrators to centrally define and automatically apply policy-based network access rights to users and devices as they connect, enforcing network security while providing appropriate access.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

**HP Identity Driven Manager (IDM) Software Series**

**Software**

- HP PCM+ Identity Driven Manager v4 additional 1000-user License (J9754A)

	Devices supported	Site summary	Performance monitoring	Real-time fat and thin AP health status	Wireless client and device search	Reports and graphs	Rogue device detection	Heat maps	WLAN configuration
<b>HP Mobility Manager (MM) Software Series</b>									
	HP PCM+ Mobility Manager v4 Software Module License (J9751A)	HP Wireless	Yes	Yes	Yes	Yes	Yes	Yes	Yes

**HP Mobility Manager (MM) Software Series at a glance...**

Plug-in that monitors wireless networks, aids in RF visualization, and leverages HP PCM+ tools in the management of mobility devices. Monitors MSM controllers, controlled MSM APs, autonomous MSM APs, and HP legacy devices. Features customizable dashboards, graphs and reports, and an easy-to-use, integrated site view with planning and real-time views of client connections to APs in floor plans. Investigation of past performance (up to 2 years) is easily performed with Wireless Search and Define timespan tools.

Note: Requires the PCM+ v4 platform license (50-device or unlimited). PCM+ counts wired devices, controllers, and APs. Mobility Manager v4 is no longer device-count based.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

**HP Mobility Manager (MM) Software Series**


This product has no modules or accessories.


Wireless RF Planning


**HP RF Planner**

Refer to FlexCampus — Wireless on page 35.

Small Business Switches — Smart Web Managed

	Height (RU)	Module slots	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX)	SFP (1000Base-X)	SFP (10GBase-X)	Switching capacity
<b>HP 1910 Switch Series</b>										
	HP 1910-48G Switch (JE009A)	1			48			4		104 Gbps
	HP 1910-24G-PoE (365W) Switch (JE007A)	1				24		4		56 Gbps
	HP 1910-24G-PoE (170W) Switch (JE008A)	1				24		4		56 Gbps
	HP 1910-24G Switch (JE006A)	1			24			4		56 Gbps
	HP 1910-16G Switch (JE005A)	1			16			4		40 Gbps
<p><b>HP 1910 Switch Series at a glance...</b>                      Advanced smart managed Gigabit Ethernet switches ideal for technology-savvy small businesses. Features include Layer 3 static routing, ACLs, 802.1X, IGMP snooping, QoS, STP/RSTP/MSTP, VLANs, and link aggregation. Plug-and-play setup yet highly customizable using a Web-based interface for advanced feature setup. Includes two PoE models.</p>										

<b>HP 1905 Switch Series</b>										
	HP 1905-10G-PoE Switch (JD864A)	1					10		1 DP	20 Gbps
	HP 1905-48 Switch (JD994A)	1		48	2				2 DP	13.6 Gbps
	HP 1905-24 Switch (JD990A)	1		24	2				2 DP	8.8 Gbps
	HP 1905-24-PoE Switch (JD992A)	1			24	2			2 DP	8.8 Gbps
	HP 1905-8-PoE Switch (JD877A)	1RU/ Desktop			8	1			1 DP	3.6 Gbps
<p><b>HP 1905 Switch Series at a glance...</b>                      Advanced smart managed Fast Ethernet switches for small businesses. Plug-and-play setup, yet highly customizable using an advanced Web-based interface. PoE model available for Voice over IP implementations. Features include ACLs, 802.1X, IGMP snooping, QoS, STP/RSTP, VLANs, and a PoE model.</p> <p>Note: DP = Dual-personality ports</p>										

<b>HP 1900 Switch Series</b>										
	HP 1900-8G Switch (JD865A)		Desktop			8			1 DP	16 Gbps
<p><b>HP 1900 Switch Series at a glance...</b>                      Compact, smart managed Gigabit Ethernet switch for small businesses. 8x 10/100/1000 ports, including one dual-purpose (combo) SFP port. Features include 802.1X, IGMP snooping, QoS, STP/RSTP, VLANs, and link aggregation.</p> <p>Note: DP = Dual-personality ports</p>										

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

**HP 1910 Switch Series Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.


**HP 1905 Switch Series Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

**HP 1900 Switch Series Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.


Small Business Switches — Smart Web Managed (continued)

	Height (RU)	Module slots	10/100 ports (max)	10/100 PoE ports (max)	10/100/1000 ports (max)	10/100/1000 PoE ports (max)	SFP (100Base-FX)	SFP (1000Base-X)	SFP (10GBase-X)	Switching capacity
<b>HP 1810 Switch Series</b>										
					48			4		104 Gbps
					24			2 DP		48 Gbps
	1RU/ Desktop				8					16 Gbps

**HP 1810 Switch Series at a glance...**

Entry-level smart managed Gigabit Ethernet switches for small businesses. Easily configurable via an intuitive Web interface. Features include QoS, loop protection, VLANs, link aggregation, and Kensington lock slot security. Compact 8-port can be PoE powered for remote placement. Energy-efficient green design.

Note: DP = Dual-personality ports

<b>HP 1700 Switch Series</b>										
			22		2			2 DP		8.4 Gbps
	1RU/ Desktop		7		1					3.4 Gbps

**HP 1700 Switch Series at a glance...**

Entry-level smart managed Fast Ethernet switches for small businesses. Offers plug-and-play setup and basic features configurable via an intuitive Web interface. Layer 2 features include QoS, VLANs, and link aggregation.

Note: DP = Dual-personality ports

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

**HP 1810-24G and 1810-48G Switches**

- HP X111 100M SFP LC FX Transceiver (J9054C)
- HP X121 1G SFP LC SX Transceiver (J4858C)
- HP X121 1G SFP LC LX Transceiver (J4859C)
- HP X121 1G SFP RJ45 T Transceiver (J8177C) (48-port only)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

**HP 1700-24 Switch**


- HP X121 1G SFP LC SX Transceiver (J4858C)
- HP X121 1G SFP LC LX Transceiver (J4859C)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.



Small Business Switches — Unmanaged

	Height (RU)	Module slots	10/100 ports	10/100 PoE ports	10/100/1000 ports	10/100/1000 PoE ports	SFP (100 Base-FX)	SFP (1000 Base-X)	SFP (10G Base-X)	Switching capacity
<b>HP 1410 Switch Series</b>										
	HP 1410-24G Switch (J9561A)	1			24			2 DP		48 Gbps
	HP 1410-16G Switch (J9560A)	1			16					32 Gbps
	HP 1410-8G Switch (J9559A)	0.5RU/ Desktop			8					16 Gbps
	HP 1410-24-2G Switch (J9664A)	1	24		2					8.8 Gbps
	HP 1410-24 Switch (J9663A)	1	24							4.8 Gbps
	HP 1410-16 Switch (J9662A)	1	16							3.2 Gbps
	HP 1410-8 Switch (J9661A)	0.5RU/ Desktop	8							1.6 Gbps

**HP 1410 Switch Series at a glance...**

Unmanaged plug-and-play switches ideal for small business and entry-level networking. Flexible mounting options, including rack mounting of 16- and 24-port models, fanless design, compact desktop 8-port models. Energy-efficient green power-saving features, including the industry's first unmanaged Fast Ethernet switches compliant with the IEEE 802.3az Energy Efficient Ethernet standard.

Note: DP = Dual-personality ports


**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

**HP 1410-24G Switch**

- HP X111 100M SFP LC FX Transceiver (J9054C)
- HP X121 1G SFP LC SX Transceiver (J4858C)
- HP X121 1G SFP LC LX Transceiver (J4859C)

**Transceivers and Cables**

See pages 61–66 for the HP Networking Transceiver Matrix.

	Height (RU)	10/100 ports	10/100/1000 ports	IEEE 802.1p prioritization	
<b>HP 1405 Small Office Switch Series</b>					
	HP 1405-16G Desktop Switch (JD844A)	Desktop		16	Yes
	HP 1405-8G Switch (JD871A)	Desktop		8	Yes
	HP 1405-5G Switch (JD869A)	Desktop		5	Yes
	HP 1405-16 Desktop Switch (JD858A)	Desktop	16		Yes
	HP 1405-8 Switch (JD867A)	Desktop	8		Yes
	HP 1405-5 Switch (JD866A)	Desktop	5		Yes

**HP 1405 Small Office Switch Series at a glance...**

Unmanaged desktop switches for small office/home office networking. Certified "Class B" for business or home use. Quick plug-and-play setup and fanless design for silent operation. Energy-efficient green power-saving features.


**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

**HP 1405 Small Office Switch Series**

This product has no modules or accessories.

# HP Networking Unified Communications

## HP Networking Unified Communications

	Optimized for Lync	Audio quality	Speakerphone	Sidetone support	Headset support	Display	Power	Ethernet ports	LLDP	CODEC supported	
<b>Microsoft Lync Solutions</b>											
	HP 4110 IP Phone (J9765A)	Yes	Wideband	Full duplex	Yes	No	3.5" Color QVGA	PoE Class 2	Dual 10/100/1000	Yes	RT Audio, G.711, G.722, G.722.1
	HP 4120 IP Phone (J9766A)	Yes	Wideband	Full duplex	Yes	Yes (RJ9)	3.5" Color QVGA	PoE Class 2	Dual 10/100/1000	Yes	RT Audio, G.711, G.722, G.722.1
	HP Survivable Branch Communication zI Module powered by Microsoft Lync (J9485A) Please see page 55 for details.										
<p><b>Microsoft Lync Solutions at a glance...</b></p> <p><b>HP 4110 and HP 4120 IP Phones</b>—Common area and desktop IP phones from HP Networking, optimized for Microsoft Lync. The HP 4110 and HP 4120 IP Phones are natively integrated unified communications (UC) devices that deliver rich presence; clear, high-definition audio; and seamless plug-and-play functionality. This family of IP phones provides customers with integrated, tested, and optimized IP phones, fine-tuned for Microsoft Lync and engineered to meet the high-quality standards of HP.</p> <p><b>HP Survivable Branch Communication zI Module powered by Microsoft Lync</b>—HP Survivable Branch Communication zI Module (SBM) powered by Microsoft Lync provides survivable branch services such as external phone call capability while sustaining internal peer-to-peer communications when the data center cannot be reached.</p>											

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

### Microsoft Lync Solutions

#### Power supply

- HP IP Phone 5V Power Supply (J9767A)

# HP Networking Unified Communications

## HP Networking Unified Communications (continued)

	Optimized for Lync	Audio quality	Speakerphone	Headset support	Display	Ethernet ports	Maximum calls	Programmable buttons	Backlit	Energy Save Mode
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### HP 350x IP Phone Series



<b>HP 3500B IP Phone (JC505A)</b>	No	Wideband	Full duplex	Yes (RJ9)	3.5" (85 mm x 28 mm)	2	2	2	No	Yes
<b>HP 3500 IP Phone (JC504A)</b>	No	Wideband	Full duplex	Yes (RJ9)	3.5" (85 mm x 28 mm)	2	2	2	No	Yes
<b>HP 3501 IP Phone (JC506A)</b>	No	Wideband	Full duplex	Yes (RJ9)	3.5" (85 mm x 28 mm)	2	2	2	Yes	Yes
<b>HP 3502 IP Phone (JC507A)</b>	No	Wideband	Full duplex	Yes (RJ9)	4.3" (95 mm x 52 mm)	2	6	15	Yes	Yes
<b>HP 3503 IP Phone (JC508A)</b>	No	Wideband	Full duplex	Yes (RJ9)	5" (110.6 mm x 67.4 mm) Color	2	8	21	Yes	Yes

#### HP 350x IP Phone Series at a glance...

The full-featured, SIP-based HP 350x IP Phone Series meets the diverse communications needs of organizations of all sizes with a full range of call-handling features and functionality that encourage collaboration and increases productivity. 350x IP Phones are a family of energy-efficient, backlit, SIP-based phones that are compatible with VCX version 9.5 and higher but are not Microsoft Lync certified and not compatible with the NBX system.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

### HP 350x IP Phone Series

#### IP Phone accessories

- HP 350x IP Phone AC Adapter (JC509A)
- HP 350x IP Phone Wall Mount Bracket (JC510A)
- HP 350x IP Phone Stand/Bracket (JC511A)

	Lync interoperability	SIP enabled	Voice mail	Telephony	Sofiphone	Redundancy	Gateways	Auto-attendant	Music on hold	Fax	Web provisioning
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### HP VCX Solutions



<b>HP VCX Connect MSR MIM Module (JE252A)</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>HP VCX Enterprise Branch Communications MIM Module (JE254A)</b>	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
<b>HP MSR30-40 Router with VCX MIM Module (JD023A)</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>HP MSR30-16 Router with VCX Enterprise Branch Communications MIM Module (JD024A)</b>	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

#### HP VCX Solutions at a glance...

Delivering reliable, productivity-enhancing communications to customers around the world who value high-performance solutions with minimized complexity and cost. The VCX Connect MIM leverages MSR modularity to provide a true office-in-a-box solution by affording organizations a comprehensive suite of integral WAN, LAN, security, WLAN, and voice interfaces.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

### HP VCX Solutions

#### VCX solution components/connectivity modules


- HP VCX Connect Secondary MSR MIM Module (JE253A)
- HP MSR30-40 Multi-Service Router (JF229A)
- HP MSR30-16 Multi-Service Router (JF233A)

- HP MSR 2-port FXO SIC Module (JD558A)
- HP MSR 2-port FXS SIC Module (JD560A)
- HP MSR 4-port FXO MIM Module (JD542A)
- HP MSR 4-port FXS MIM Module (JD553A)
- HP MSR 4-port ISDN-S/T Voice MIM Module (JF837A)

- HP MSR 1-port T1 Voice MIM Module (JD566A)
- HP MSR 24-channel Voice Processor Module (JD599A)
- HP MSR 1-port E1 Voice MIM Module (JD565A)
- HP MSR 32-channel Voice Processor Module (JD598A)

# Application Delivery Platforms and Solutions

## Application Delivery Platforms and Solutions

	Firewall throughput	IPS/IDS throughput	VPN throughput	Dedicated IPSec VPN tunnels	Concurrent sessions	New sessions/second	Number of policies	Number of users	Number of VLANs
<b>HP Threat Management Services zl Module</b>									
	<b>HP Threat Management Services zl Module (J9155A)</b>								
	5.0 Gbps	1.5 Gbps	300 Mbps AES, 70 Mbps 3DES	4,800	600,000	15,000	20,000	Unrestricted	256
<b>HP Threat Management Services zl Module at a glance...</b>									
Multifunction security system for the HP 5400 zl Switch Series and 8200 zl Switch Series consisting of a stateful firewall, intrusion detection/prevention system (IDS/IPS), and virtual private network (VPN) concentrator.									

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)



### HP Threat Management Services zl Module

#### Bundles

- HP Threat Management Services zl Module with 1-year IPS Subscription Service (J9156A)

#### Licenses

- HP Threat Management Services 1-year IPS Subscription Service (J9157A)
- HP Threat Management Services 2-year IPS Subscription Service (J9158A)
- HP Threat Management Services 3-year IPS Subscription Service (J9159A)

	ProVision ASIC	Processor	Memory	Hard disk drive	USB 2.0	E5400 zl	E5406 zl	E8206 zl	E8212 zl
<b>HP Services zl Module</b>									
	<b>HP Services zl Module (J9289A)</b>								
	Yes	Intel® Core™ 2 Duo Processor T7500, 2.2 GHz	Maximum of 4 GB DDR2 SDRAM (installed)	250 GB SATA	Yes	4	4	2	4
<b>HP Services zl Module at a glance...</b>									
The HP Services zl Module is a x86-based server module that provides two 10-GbE network links into the switch backplane that enables secure best-in-class applications and services in the 5400 zl and 8200 zl chassis environment.									
<b>HP Advanced Services zl Module</b>									
	<b>HP Advanced Services zl Module (J9483A)</b>								
	Yes	Intel Core 2 Duo Processor T9400, 2.53 GHz	Maximum of 4 GB DDR2 SDRAM (installed)	250 GB SATA	Yes	4	4	2	4
<b>HP Advanced Services zl Module at a glance...</b>									
The HP Advanced Services zl Module provides capabilities to host applications in the HP networking zl chassis and offers enhanced performance to customers.									

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

### HP Services zl Module


This product has no modules or accessories.

### HP Advanced Services zl Module

This product has no modules or accessories.


# Application Delivery Platforms and Solutions

## Application Delivery Platforms and Solutions (continued)

		Processor	Memory	Hard disk drive	Operating system/application	USB 2.0	Applicable chassis	Number of Services zI Module in the chassis
<b>HP Advanced Services zI Module with Microsoft Windows Server 2008 R2 Standard Edition</b>								
	<b>HP Advanced Services zI Module with Microsoft Windows Server 2008 R2 Standard Edition (J9666A)</b>	Intel Core 2 Duo Processor T9400, 2.53 GHz	Maximum of 4 GB DDR2 SDRAM (installed)	250 GB SATA	Microsoft Windows Server 2008 R2 Standard Edition (OEM version)	Yes	5400 and 8200	Up to 4 (max of 2 for the 8206zl switch)

### HP Advanced Services zI Module with Microsoft Windows Server 2008 R2 Standard Edition at a glance...

The HP Advanced Services zI Module with Microsoft Windows Server 2008 R2 improves business productivity and continuity by providing network services and local hosting of Microsoft-compatible applications in the branch office—all of which are seamlessly integrated into the 5400 and 8200 series switch.

<b>HP Advanced Services zI Module with VMware vSphere platform</b>								
	<b>HP Advanced Services zI Module with VMware vSphere platform (J9748A)</b>	Intel Core 2 Duo Processor T9400, 2.53 GHz	Maximum of 8 GB DDR2 SDRAM (installed)	250 GB SATA	VMware vSphere 5.0	Yes	5400 and 8200	Up to 4 (max of 2 for the 8206zl switch)

### HP Advanced Services zI Module with VMware vSphere platform at a glance...

The HP Advanced Services zI Module with VMware vSphere platform is a converged networking, computing, and virtualization solution inside the 5400 and 8200 zI switch family that hosts one or multiple networking or business applications inside the switch.

**Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)**

#### HP Advanced Services zI Module with Microsoft Windows Server 2008 R2 Standard Edition


This product has no modules or accessories.

#### HP Advanced Services zI Module with VMware vSphere platform

This product has no modules or accessories.

# Application Delivery Platforms and Solutions

## Application Delivery Platforms and Solutions (continued)

	Processor	Memory	Hard disk drive	Operating system/application	USB 2.0	Applicable chassis	Number of Services zl Modules in the chassis	
<b>HP Advanced Services zl Module with Citrix XenServer platform</b>								
	<b>HP Advanced Services zl Module with Citrix XenServer platform (J9747A)</b>	Intel Core 2 Duo Processor T9400, 2.53 GHz	Maximum of 4 GB DDR2 SDRAM (installed)	250 GB SATA	Citrix XenServer 5.6 SP2	Yes	5400 and 8200	Up to 4 (max of 2 for the 8206zl switch)


### HP Advanced Services zl Module with Citrix XenServer platform at a glance...

The HP Advanced Services zl Module with Citrix XenServer platform is a converged networking, computing, and virtualization solution inside the 5400zl and 8200zl switch family that hosts one or multiple networking or business applications inside the switch.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

### HP Advanced Services zl Module with Citrix XenServer platform

This product has no modules or accessories.

	Optimized WAN capacity	Maximum TCP connections	Hard drive	Data store capacity	WAN optimization	Applicable chassis	Number of Services zl Module in the chassis	
<b>HP Extended Services zl Module with Riverbed Steelhead RiOS Application</b>								
	<b>HP Extended Services zl Module with Riverbed Steelhead RiOS Application (J9517A)</b>	10 Mbps	1300	500 GB	100 GB	Application acceleration Data reduction cuts bandwidth utilization	5400 zl and 8200 zl	1

### HP Extended Services zl Module with Riverbed Steelhead RiOS Application at a glance...

The HP Extended Services zl Module with Riverbed Steelhead RiOS Application enables businesses to improve application responsiveness across the wide area network, improve available WAN bandwidth, and drive down operational costs by delaying or avoiding costly WAN bandwidth upgrades.


Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

### HP Extended Services zl Module with Riverbed Steelhead RiOS Application

This product has no modules or accessories.

# Application Delivery Platforms and Solutions

## Application Delivery Platforms and Solutions (continued)

	Processor	Memory	Hard disk drive	Maximum number of simultaneous calls	Microsoft Lync (Survivable Branch)	Integrated media gateway	Survivable solution	Toll bypass support	Least-cost routing support
<b>HP Survivable Branch Communication zI Module powered by Microsoft Lync</b>									
 <p><b>HP Survivable Branch Communication zI Module powered by Microsoft Lync (J9485A)</b></p>	Intel T9400 Core 2 Duo 2.53 GHz	Maximum of 4 GB DDR2 SDRAM (installed)	250 GB SATA	120	Yes	Yes	Yes	Yes	Yes

### HP Survivable Branch Communication zI Module powered by Microsoft Lync at a glance...


HP Survivable Branch Communication zI Module (SBM) powered by Microsoft Lync provides survivable branch services such as external phone call capability while sustaining internal peer-to-peer communications when the data center cannot be reached.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

### HP Survivable Branch Communication zI Module powered by Microsoft Lync

- Sangoma 1-port T1/E1/J1 Telephony Card (J9487A)
- Sangoma 2-port T1/E1/J1 Telephony Card (J9488A)
- Sangoma 4-port T1/E1/J1 Telephony Card (J9489A)

- Sangoma 4-port FXS Telephony Card (J9482A)
- Sangoma 4-port FXO Telephony Card (J9516A)
- Sangoma 2-port FXO/2-port FXS Telephony Card (J9518A)

	Processor	Memory	Hard disk drive	Number of concurrent sessions	Session management	Real-time, interactive communications	Enterprise peering	Internal enterprise	Interoperability	Remote worker provisioning	SLA assurance	Regulatory compliance
<b>HP Services zI Module for Avaya Aura Session Border Controller powered by Acme Packet</b>												
 <p><b>HP Services zI Module for Avaya Aura Session Border Controller powered by Acme Packet (J9486A)</b></p>	Intel T9400 Core 2 Duo 2.53 GHz	Maximum of 8 GB DDR2 SDRAM (installed)	500 GB SATA II	350	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

### HP Services zI Module for Avaya Aura Session Border Controller powered by Acme Packet at a glance...

The HP Services zI Module for Avaya Aura Session Border Controller (SBC) powered by Acme Packet allows businesses to secure the enterprise perimeter for real-time interactive communications and provides a clear demarcation point to help ensure greater service reach.

Modules and accessories (For the most complete listing of modules, transceivers, power options, and other accessories, visit [www.hp.com/networking](http://www.hp.com/networking).)

### HP Services zI Module for Avaya Aura Session Border Controller powered by Acme Packet

This product has no modules or accessories.

	Specialty ports		Resiliency			Security			Convergence			Layer 3		Layer 2		IPv6			
	PoE/PoE+	10G ports	Advanced stacking (IRF, XRN, etc.)	Redundant power	Redundant fabric	Hot-swap modules	Access control lists	RADIUS login	DHCP snooping	IEEE 802.1p prioritization	DSCP (DiffServ)	Voice VLAN	Static routes	RIP v1/v2	OSPF	Multicast filtering	Link aggregation	IPv6 management	IPv6 routing
<b>Switches</b>																			
<b>Modular switches</b>																			
HP 12500 Switch Series		•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•
HP 10500 Switch Series		•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•
HP 9500 Switch Series		•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•
HP 7500 Switch Series	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP 8200 zl Switch Series	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP 5400 zl Switch Series	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP 4200 vl Switch Series		•		•		•		•	•	•	•		•			•	•		



# HP Networking Product Matrix (continued)

	Specialty ports		Resiliency				Security			Convergence			Layer 3		Layer 2		IPv6		
	PoE/PoE+	10G ports	Advanced stacking (IRF, XRN, etc.)	Redundant power	Redundant fabric	Hot-swap modules	Access control lists	RADIUS login	DHCP snooping	IEEE 802.1p prioritization	DSCP (DiffServ)	Voice VLAN	Static routes	RIP v1/v2	OSPF	Multicast filtering	Link aggregation	IPv6 management	IPv6 routing
<b>Switches</b>																			
<b>Fixed-port switches</b>																			
HP 5900 Switch Series		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP 5830 Switch Series		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP 5820 Switch Series		•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP 5810-48G Switch		•		•		•	•	•	•	•	•	•	•			•	•	•	
HP 5800 Switch Series	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP 5500 EI Switch Series	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP 5500 HI Switch Series		•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP 3800 Switch Series	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP 3500 yl Switch Series	•	•		•			•	•	•	•	•	•	•	•	•	•	•	•	•
HP 6600 Switch Series		•		•		•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP 6200-24G-mGBIC yl Switch		•		•			•	•	•	•	•	•	•	•	•	•	•	•	•
HP 4800G Switch Series	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP 3600 EI Switch Series	•		•	•			•	•	•	•	•	•	•	•	•	•	•	•	•+
HP 3600 SI Switch Series	•		•	•			•	•	•	•	•	•	•	•	•	•	•	•+	•+
HP 3500 Switch Series (10/100 models)	•			•			•	•	•	•	•	•	•	•	•	•	•	•	•
HP 5500 SI Switch Series	•	•	•	•		•	•	•	•	•	•	•	•	•		•	•	•	•
HP 5120 EI Switch Series	•	•	•	•			•	•	•	•	•	•	•			•	•	•	•
HP 5120 SI Switch Series							•	•	•	•	•	•	•			•	•	•	•
HP 2910 al Switch Series	•	•		•			•	•	•	•	•	•	•	•		•	•	•	•
HP 2915-8G-PoE Switch	•						•	•	•	•	•	•	•			•	•	•	•
HP 2620 Switch Series	•			•			•	•	•	•	•	•	•			•	•	•	•
HP 2615-8-PoE Switch	•						•	•	•	•	•	•	•			•	•	•	•
HP 2520 Switch Series	•							•	•	•	•					•	•	•	
HP 2510 Switch Series									•	•						•	•		
HP 2810 Switch Series				•					•	•						•	•		
HP 3100 EI Switch Series	•			•			•	•	•	•	•					•	•	•	
HP 3100 SI Switch Series								•	•	•	•					•	•	•+	
HP 1910 Switch Series	•						•	•	•	•	•	•	•			•	•		
HP 1905 Switch Series (10/100/1000 models)	•						•	•	•	•	•	•				•	•		
HP 1905 Switch Series (10/100 models)	•						•	•	•	•	•	•				•	•		
HP 1900 Switch Series								•		•							•		
HP 1810 Switch Series									•								•		
HP 1700 Switch Series									•								•		
HP IntelliJack Gigabit Switch Series	•								•								•		
HP 1410 Switch Series									•										
HP 1405 Small Office Switch Series									•										

+ V2 switches only

# HP Networking Product Matrix (continued)

## Routers

	Hardware			Resiliency		Security			Convergence			Routing				Unified OS and Management				
	CompactFlash slot	USB ports	Enhanced service modules supported	Hardware hotswap	Bandwidth on demand/Dial on demand	Firewall and access control lists	Layer 2 and 3 VPN: MPLS and IPSec	Encryption: DES, 3DES, and AES	Converged, full-featured routing, switching, and security services platform	Integrated voice support	SIP voice gateway	Modular WAN/LAN connectivity	BGP, OSPF, RIPv1/v2, static routes, IPv4/IPv6	MPLS	Multicast routing (IGMP, PIM-SM, PIM-DM)	Quality of Service (QoS)	Management (SNMPv1/2/3, SSH)	Single operating system (Comware)	Dual software image/Configuration rollback and control, and data plane separation	Single pane of glass management with HP IMC
<b>Routers</b>																				
HP 8800 Router Series	•			•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•
HP 6600 Router Series	•			•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•
HP MSR50 Series	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•
HP MSR30 Series	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP MSR20 Series	•	•	•		•	•	•	•	•		•	•	•	•	•	•	•	•	•	•
HP MSR20-1x Series	•	•	•		•	•	•	•	•		•	•	•	•	•	•	•	•	•	•
HP MSR900 Series	•	•		•	•	•	•	•	•			•	•	•	•	•	•	•	•	•

## Wireless LAN

	Hardware			Security				Management			
	10G ports	PoE/PoE+ ports	SNMP v3 and SSH	RADIUS authentication	IEEE 802.1X support	EAP-TLS and EAPMD5, EAP-TTLA, PEAP	WPA/WPA2	SNMP v1/v2	Telnet support	HP IMC/WSM/PCM+/PMM management	Web management and discovery wizard
<b>Wireless controllers</b>											
HP MultiService (MSM) Controller Series	•		•	•	•	•	•	•	•	•	•

# HP Networking Product Matrix (continued)

## Wireless LAN (continued)

	Ports		Modes						Wireless features				Security							
	PoE/PoE+ ports	Multiple radio design	Turbo mode	108 Mbps	IEEE 802.11a (54 Mbps)	IEEE 802.11b (11 Mbps)	IEEE 802.11g (54 Mbps)	IEEE 802.11n (300 Mbps)	IEEE 802.11n (450 Mbps)	Virtual AP/Multiple SSID	Wireless distribution system (WDS) bridging	Wi-Fi Certified	Wi-Fi multimedia (WMM) QoS	AES encryption	SNMP v3 and SSH	RADIUS authentication	IEEE 802.1X support	EAPTLS and EAPMD5, EAPTTLS PEAP	WPA/WPA2	VPN initiation and termination
<b>Wireless routers and access points</b>																				
HP MSM 802.11n Dual Radio Access Point Series	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
HP MSM 802.11n Access Point Series	•	•			•	•	•	•		•		•	•	•	•	•	•	•		•
HP MSM317 Access Device Series	•					•	•			•			•	•	•	•	•	•		•
HP Mobility Integrated Services Access Point Series	•	•	•		•	•	•	•		•	•	•	•	•	•	•	•	•	•	•
HP M200 802.11n Access Point Series	•				•	•	•	•		•	•	•	•	•	•	•	•	•		•
HP M111 Client Bridge Series	•				•	•	•			•	•	•	•	•	•	•	•	•		•
<b>Wireless security, bridges</b>																				
HP Networking Mobility Security IDS/IPS Series	•	•			•	•	•	•						•						
<b>Wireless client adapters</b>																				
HP 802.11n Dual Frequency (USB) Wireless Client Adapter					•	•	•	•			•					•		•		

## Security

	Security								HA features				Management			
	Inline enforcement	Threat suppression engine (TSE)	Stateful firewall	VPN concentrator	Deep packet inspection (layer 2-7)	Traffic classification and rate shaping	Periodic delivery of attack filter updates	Network discovery	Redundant power supplies	Layer 2 fallback	Active-active or active-passive stateful redundancy (IPS + SMS)	Zero power high availability—internal	Zero power high availability—external	Command-line interface (CLI)	Web-based management	Supported by enterprise security management system
<b>Intrusion Prevention Systems (IPS)</b>																
HP S Intrusion Prevention System (IPS) N Series	•	•			•	•	•	•	•	•	•	•	•	•	•	•
HP Core Controller Base Chassis with 48x1000Base-T and 6x10GbE Ports	•	•			•	•	•	•	•	•	•	•	•	•	•	•
HP S Intrusion Prevention System (IPS) Series	•	•			•	•	•	•	•	•	•	•	•	•	•	•
<b>HP threat management services</b>																
HP Threat Management Services zl Module	•		•	•	•		•	•						•	•	•
<b>Security management</b>																
HP Security Management System Appliance Series							•	•	•		•					•

# HP Networking Product Matrix (continued)

	Resource management				Performance monitoring			Integration and licensing				Configuration				Wireless				
	Discovery	Topology mapping	Monitoring	Inventory reports	Enhanced events and alarms	Scheduled tasks	Audit reports	Error and utilization reports	External database support	Unlimited maximum network size	Additional node licenses supported	HP OpenView Windows integration	Configuration backup and restore	Network-wide VLAN support	Bulk agent updates	Bulk configuration	Extensible for third-party device support	Radio/WLAN discovery	WLAN security configuration	Radio/RF configuration
<b>Management software</b>																				
<b>HP Intelligent Management Center (IMC)</b>																				
HP Intelligent Management Center Standard Software Platform	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
HP Intelligent Management Center Enterprise Software Platform	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
HP IMC Integration Kit for Network Node Manager	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•				
HP IMC Network Traffic Analyzer Software			•	•	•	•			•*	•	•			•			•			
HP IMC User Behavior Auditor Software			•						•*	•	•									
HP IMC QoS Manager Software			•	•	•	•	•	•	•*	•	•				•	•				
HP IMC User Authentication Management Software		•	•	•	•		•	•	•*	•	•					•				
HP IMC Endpoint Admission Defense Software			•	•	•		•	•	•*	•	•									
HP IMC Wireless Services Manager Software		•	•	•	•	•	•	•	•*	•	•				•			•	•	•
HP IMC MPLS VPN Software		•	•	•	•	•	•	•	•**	•	•				•	•	•			
HP IMC Voice Services Manager Software		•	•	•	•	•	•	•	•**	•	•		•							
HP IMC IPsec VPN Manager Software	•	•	•	•	•	•	•	•	•*	•	•		•		•	•				
HP IMC Service Operation Management Software				•	•	•	•	•	•*	•	•									
HP IMC Branch Intelligent Management Software	•		•	•	•	•			•*	•	•		•		•	•	•			
<b>Management software</b>																				
HP PCM Software	•	•	•	•																
HP PCM Plus Network Management Software Series	•	•	•	•	•	•	•	•			•	•	•	•	•	•				
HP Identity Driven Manager (IDH) Software Series	•		•				•	•	•	•	•									
HP Mobility Manager (MM) Software Series	•																	•	•	•

\*IMC can support either Microsoft SQL, MySQL, or Oracle Database, depending on the operating system in use.

\*\*IMC can support either Microsoft SQL or Oracle Database, depending on the operating system in use.

# HP Networking Transceiver Matrix

Transceiver	SKU	12500	10500	9500	8800 Router	8200	7500	6600 Router	6600 Switch	6400	6200	5920	5900	5830	5820	5810G	5800G	5500G	5500 EI	5500 HI		
HP X121 1G SFP LC SX Transceiver	J4858C					•			•		•											
HP X121 1G SFP LC LX Transceiver	J4859C					•			•		•											
HP X121 1G SFP LC LH Transceiver	J4860C					•			•		•											
HP X121 1G SFP RJ45 T Transceiver	J8177C					•					•											
HP X131 10G X2 SC SR Transceiver	J8436A					•				•	•											
HP X131 10G X2 SC LR Transceiver	J8437A					•				•	•											
HP X131 10G X2 SC ER Transceiver	J8438A					•				•	•											
HP X130 CX4 Optical Media Converter	J8439A					•				•	•											
HP X131 10G X2 CX4 Transceiver	J8440C					•				•	•											
HP X111 100M SFP LC FX Transceiver	J9054C					•			•		•											
HP X112 100M SFP LC BX-D Transceiver	J9099B					•			•		•											
HP X112 100M SFP LC BX-U Transceiver	J9100B					•			•		•											
HP X122 1G SFP LC BX-D Transceiver	J9142B					•			•		•											
HP X122 1G SFP LC BX-U Transceiver	J9143B					•			•		•											
HP X131 10G X2 SC LRM Transceiver	J9144A					•					•											
HP X132 10G SFP+ LC SR Transceiver	J9150A					•			•													
HP X132 10G SFP+ LC LR Transceiver	J9151A					•			•													
HP X132 10G SFP+ LC LRM Transceiver	J9152A					•			•													
HP X132 10G SFP+ LC ER Transceiver	J9153A					•			•													
HP X242 SFP+ SFP+ 1m Direct Attach Cable	J9281B					•			•													
HP X242 SFP+ SFP+ 3m Direct Attach Cable	J9283B					•			•													
HP X242 SFP+ SFP+ 7m Direct Attach Cable	J9285B					•			•													
HP X242 SFP+ SFP+ 10m Direct Attach Cable	J9286B					•																
HP X242 SFP+ SFP+15m Direct Attach Cable	J9287B					•																
HP X244 XFP SFP+ 1m Direct Attach Cable	J9300A					•			•													
HP X244 XFP SFP+ 3m Direct Attach Cable	J9301A					•			•													
HP X244 XFP SFP+ 5m Direct Attach Cable	J9302A					•			•													
HP X240 10G SFP+ 7m Direct Attach Cable	JC784A	•																				
HP X124 1G SFP LC LH40 1310nm Transceiver	JD061A	•	•	•	•		•	•				•	•	•	•	•	•			•	•	•
HP X120 1G SFP LC LH40 1550nm Transceiver	JD062A	•	•	•	•		•	•				•	•	•	•	•	•			•	•	•
HP X125 1G SFP LC LH70 Transceiver	JD063B	•	•	•	•		•	•				•	•	•	•	•	•	•		•	•	•
HP X160 2.5G SFP LC 2km Transceiver	JD084A				•			•														
HP X160 2.5G SFP LC 15km Transceiver	JD085A				•			•														
HP X160 2.5G SFP LC 40km Transceiver	JD086A				•			•														
HP X160 2.5G SFP LC 80km Transceiver	JD087A				•			•														
HP X135 10G XFP LC LR Transceiver	JD088A				•																	
HP X125 1G SFP RJ45 T Transceiver	JD089B	•	•	•	•		•	•				•	•	•	•		•	•		•	•	•
HP X110 100M SFP LC LH40 Transceiver	JD090A		•		•		•	•						•		•	•			•	•	•
HP X110 100M SFP LC LH80 Transceiver	JD091A		•		•		•	•						•		•	•			•	•	•
HP X130 SFP+ LC SR Transceiver	JD092B	•	•	•			•					•	•	•	•	•	•			•	•	•
HP X130 SFP+ LC LRM Transceiver	JD093B	•	•	•			•					•	•	•	•	•	•			•	•	•
HP X130 SFP+ LC LR Transceiver	JD094B	•	•	•			•					•	•	•	•	•	•			•	•	•
HP X240 SFP+ SFP+ 0.65 m Direct Attach Cable	JD095B		•				•					•	•	•	•	•	•			•	•	•
HP X240 SFP+ SFP+ 1.2 m Direct Attach Cable	JD096B		•				•					•	•	•	•	•	•			•	•	•
HP X240 SFP+ SFP+ 3 m Direct Attach Cable	JD097B	•	•	•			•					•	•	•	•	•	•			•	•	•
HP X120 1G SFP LC BX 10-U Transceiver	JD098B	•	•	•	•		•	•				•	•				•			•	•	•
HP X120 1G SFP LC BX 10-D Transceiver	JD099B	•	•	•	•		•	•				•	•				•			•	•	•
HP X115 100M SFP LC BX 10-U Transceiver	JD100A		•				•															

# HP Networking Transceiver Matrix (continued)

Transceiver	SKU	12500	10500	9500	8800 Router	8200	7500	6600 Router	6600 Switch	6400	6200	5920	5900	5830	5820	5810G	5800G	5500G	5500 EI	5500 HI
HP X115 100M SFP LC BX 10-D Transceiver	JD101A		•				•													
HP X110 100M SFP LC FX Transceiver	JD102B		•		•		•	•						•		•	•		•	•
HP X120 1G SFP LC LH100 Transceiver	JD103A	•	•	•	•		•	•												
HP X135 SC ER XENPAK Transceiver	JD105A																		•	
HP X135 SC SR XENPAK Transceiver	JD106B																		•	
HP X130 SC ZR XFP Transceiver	JD107A	•	•	•	•		•													
HP X130 SC LR XFP Transceiver	JD108B	•	•	•	•		•	•											•	•
HP X170 1G SFP LC LH70 1550 Transceiver	JD109A	•	•	•	•		•							•						
HP X170 1G SFP LC LH70 1570 Transceiver	JD110A	•	•	•	•		•							•					•	•
HP X170 1G SFP LC LH70 1590 Transceiver	JD111A	•	•	•	•		•							•						
HP X170 1G SFP LC LH70 1610 Transceiver	JD112A	•	•	•	•		•							•						
HP X170 1G SFP LC LH70 1470 Transceiver	JD113A	•	•	•	•		•							•						
HP X170 1G SFP LC LH70 1490 Transceiver	JD114A	•	•	•	•		•							•						
HP X170 1G SFP LC LH70 1510 Transceiver	JD115A	•	•	•	•		•							•						
HP X170 1G SFP LC LH70 1530 Transceiver	JD116A	•	•	•	•		•							•						
HP X130 LC SR XFP Transceiver	JD117B	•	•	•	•		•	•											•	•
HP X125 1G SFP LC SX Transceiver	JD118B	•	•	•	•		•	•				•	•	•	•	•	•	•	•	•
HP X120 1G SFP LC LX Transceiver	JD119B	•	•	•	•		•	•				•	•	•	•	•	•	•	•	•
HP X110 100M SFP LC LX Transceiver	JD120B		•		•		•	•						•		•	•		•	•
HP X135 LC ER XFP Transceiver	JD121A	•	•	•	•		•	•											•	•
HP X124 1G SFP LC SX Transceiver	JD493A														•				•	
HP X124 1G SFP LC LX Transceiver	JD494A														•				•	
HP X110 100M SFP LC FX Dual Mode Transceiver	JD497A																		•	•
HP X110 100M SFP LC LX10 Transceiver	JD498A																		•	•
HP X130 SC LX4 XENPAK Transceiver	JD499A																		•	
HP X130 CX4 XENPAK Transceiver	JD502A																		•	
HP X130 CX4 XFP Transceiver	JD506A																		•	
HP X120 622M SFP LC LX 15km Transceiver	JF829A				•			•												
HP X120 622M SFP LC LH 40km 1310 Transceiver	JF830A				•			•												
HP X120 622M SFP LC LH 80km 1550 Transceiver	JF831A				•			•												
HP X120 100M/1G SFP LC LX Transceiver	JF832A	•		•																
HP X110 100M SFP LC FX Transceiver	JF833A	•		•																
HP X240 SFP+ SFP+ 5m DAC Cable	JG081B	•	•	•			•					•	•	•	•		•			
HP X180 10G XFP LC LH 80km 1538.98nm DWDM Transceiver	JG226A	•	•	•			•													
HP X180 10G XFP LC LH 80km 1539.77nm DWDM Transceiver	JG227A	•	•	•			•													
HP X180 10G XFP LC LH 80km 1540.56nm DWDM Transceiver	JG228A	•	•	•			•													
HP X180 10G XFP LC LH 80km 1542.14nm DWDM Transceiver	JG229A	•	•	•			•													
HP X180 10G XFP LC LH 80km 1542.94nm DWDM Transceiver	JG230A	•	•	•			•													
HP X180 10G XFP LC LH 80km 1558.98nm DWDM Transceiver	JG231A	•	•	•			•													
HP X180 10G XFP LC LH 80km 1559.79nm DWDM Transceiver	JG232A	•	•	•			•													
HP X180 10G XFP LC LH 80km 1560.61nm DWDM Transceiver	JG233A	•	•	•			•													
HP X130 10G SFP+ LC ER 40km Transceiver	JG234A	•	•	•								•	•	•	•		•			
HP X240 40G QSFP+ to QSFP+ 1m DAC Cable	JG326A													•						
HP X240 40G QSFP+ to QSFP+ 3m DAC Cable	JG327A													•						
HP X240 40G QSFP+ to QSFP+ 5m DAC Cable	JG328A													•						
HP X240 40G QSFP+ to 4x10G SFP+ 1m DAC Cable	JG329A													•						
HP X240 40G QSFP+ to 4x10G SFP+ 3m DAC Cable	JG330A													•						
HP X240 40G QSFP+ to 4x10G SFP+ 5m DAC Cable	JG331A													•						

# HP Networking Transceiver Matrix (continued)

Transceiver	SKU	5500 SI	5500	5400	5120G EI	5120G SI	4800G	4510G	4500G	4500	4210G	4210	4200	3800	3600 EI	3600 SI	3500 y1	3500	3100 EI	3100 SI
HP X121 1G SFP LC SX Transceiver	J4858C			•									•	•			•	•		
HP X121 1G SFP LC LX Transceiver	J4859C			•									•	•			•	•		
HP X121 1G SFP LC LH Transceiver	J4860C			•									•	•			•	•		
HP X121 1G SFP RJ45 T Transceiver	J8177C			•									•	•						
HP X131 10G X2 SC SR Transceiver	J8436A			•									•				•			
HP X131 10G X2 SC LR Transceiver	J8437A			•									•				•			
HP X131 10G X2 SC ER Transceiver	J8438A			•									•				•			
HP X130 CX4 Optical Media Converter	J8439A			•									•				•			
HP X131 10G X2 CX4 Transceiver	J8440C			•									•				•			
HP X111 100M SFP LC FX Transceiver	J9054C			•									•				•	•		
HP X112 100M SFP LC BX-D Transceiver	J9099B			•									•				•	•		
HP X112 100M SFP LC BX-U Transceiver	J9100B			•									•				•	•		
HP X122 1G SFP LC BX-D Transceiver	J9142B			•									•	•			•	•		
HP X122 1G SFP LC BX-U Transceiver	J9143B			•									•	•			•	•		
HP X131 10G X2 SC LRM Transceiver	J9144A			•									•				•			
HP X132 10G SFP+ LC SR Transceiver	J9150A			•										•			•			
HP X132 10G SFP+ LC LR Transceiver	J9151A			•										•			•			
HP X132 10G SFP+ LC LRM Transceiver	J9152A			•										•			•			
HP X132 10G SFP+ LC ER Transceiver	J9153A			•										•			•			
HP X242 SFP+ SFP+ 1m Direct Attach Cable	J9281B			•										•			•			
HP X242 SFP+ SFP+ 3m Direct Attach Cable	J9283B			•										•			•			
HP X242 SFP+ SFP+ 7m Direct Attach Cable	J9285B			•										•			•			
HP X242 SFP+ SFP+ 10m Direct Attach Cable	J9286B			•										•			•			
HP X242 SFP+ SFP+15m Direct Attach Cable	J9287B			•										•			•			
HP X244 XFP SFP+ 1m Direct Attach Cable	J9300A			•										•			•			
HP X244 XFP SFP+ 3m Direct Attach Cable	J9301A			•										•			•			
HP X244 XFP SFP+ 5m Direct Attach Cable	J9302A			•										•			•			
HP X240 10G SFP+ 7m Direct Attach Cable	JC784A																			
HP X124 1G SFP LC LH40 1310nm Transceiver	JD061A	•	•		•	•	•				•				•	•				
HP X120 1G SFP LC LH40 1550nm Transceiver	JD062A	•	•		•	•	•								•	•				
HP X125 1G SFP LC LH70 Transceiver	JD063B	•	•		•	•	•	•	•	•	•	•			•	•				
HP X160 2.5G SFP LC 2km Transceiver	JD084A																			
HP X160 2.5G SFP LC 15km Transceiver	JD085A																			
HP X160 2.5G SFP LC 40km Transceiver	JD086A																			
HP X160 2.5G SFP LC 80km Transceiver	JD087A																			
HP X135 10G XFP LC LR Transceiver	JD088A																			
HP X125 1G SFP RJ45 T Transceiver	JD089B	•	•		•	•	•	•	•	•					•	•			•	
HP X110 100M SFP LC LH40 Transceiver	JD090A						•								•					
HP X110 100M SFP LC LH80 Transceiver	JD091A						•								•					
HP X130 SFP+ LC SR Transceiver	JD092B	•			•		•	•	•		•									
HP X130 SFP+ LC LRM Transceiver	JD093B	•			•		•	•	•		•									
HP X130 SFP+ LC LR Transceiver	JD094B	•			•		•	•	•		•									
HP X240 SFP+ SFP+ 0.65 m Direct Attach Cable	JD095B	•			•			•	•											
HP X240 SFP+ SFP+ 1.2 m Direct Attach Cable	JD096B	•			•			•	•											
HP X240 SFP+ SFP+ 3 m Direct Attach Cable	JD097B	•			•			•	•											
HP X120 1G SFP LC BX 10-U Transceiver	JD098B	•	•		•	•	•								•	•			•	
HP X120 1G SFP LC BX 10-D Transceiver	JD099B	•	•		•	•	•								•	•			•	
HP X115 100M SFP LC BX 10-U Transceiver	JD100A		•									•			•					

# HP Networking Transceiver Matrix (continued)

Transceiver	SKU	5500 SI	5500	5400	5120G EI	5120G SI	4800G	4510G	4500G	4500	4210G	4210	4200	3800	3600 EI	3600 SI	3500 YI	3500	3100 EI	3100 SI
HP X115 100M SFP LC BX 10-D Transceiver	JD101A		•									•			•					
HP X110 100M SFP LC FX Transceiver	JD102B		•				•					•			•					•
HP X120 1G SFP LC LH100 Transceiver	JD103A														•					
HP X135 SC ER XENPAK Transceiver	JD105A																			
HP X135 SC SR XENPAK Transceiver	JD106B																			
HP X130 SC ZR XFP Transceiver	JD107A																			
HP X130 SC LR XFP Transceiver	JD108B	•			•		•	•	•		•									
HP X170 1G SFP LC LH70 1550 Transceiver	JD109A		•												•	•				
HP X170 1G SFP LC LH70 1570 Transceiver	JD110A		•												•	•				
HP X170 1G SFP LC LH70 1590 Transceiver	JD111A		•												•	•				
HP X170 1G SFP LC LH70 1610 Transceiver	JD112A		•												•	•				
HP X170 1G SFP LC LH70 1470 Transceiver	JD113A		•												•	•				
HP X170 1G SFP LC LH70 1490 Transceiver	JD114A		•												•	•				
HP X170 1G SFP LC LH70 1510 Transceiver	JD115A		•												•	•				
HP X170 1G SFP LC LH70 1530 Transceiver	JD116A		•												•	•				
HP X130 LC SR XFP Transceiver	JD117B	•			•		•	•	•		•									
HP X125 1G SFP LC SX Transceiver	JD118B	•	•		•	•	•			•					•	•				•
HP X120 1G SFP LC LX Transceiver	JD119B	•	•		•	•	•			•	•	•			•	•				•
HP X110 100M SFP LC LX Transceiver	JD120B		•				•								•					•
HP X135 LC ER XFP Transceiver	JD121A	•			•		•	•	•		•									
HP X124 1G SFP LC SX Transceiver	JD493A		•				•	•	•	•	•	•								
HP X124 1G SFP LC LX Transceiver	JD494A		•				•			•	•	•								
HP X110 100M SFP LC FX Dual Mode Transceiver	JD497A	•	•		•		•	•	•	•										
HP X110 100M SFP LC LX10 Transceiver	JD498A	•	•		•		•	•	•	•										
HP X130 SC LX4 XENPAK Transceiver	JD499A																			
HP X130 CX4 XENPAK Transceiver	JD502A																			
HP X130 CX4 XFP Transceiver	JD506A						•	•	•		•									
HP X120 622M SFP LC LX 15km Transceiver	JF829A																			
HP X120 622M SFP LC LH 40km 1310 Transceiver	JF830A																			
HP X120 622M SFP LC LH 80km 1550 Transceiver	JF831A																			
HP X120 100M/1G SFP LC LX Transceiver	JF832A																			
HP X110 100M SFP LC FX Transceiver	JF833A																			
HP X240 SFP+ SFP+ 5m DAC Cable	JG081B																			
HP X180 10G XFP LC LH 80km 1538.98nm DWDM Transceiver	JG226A																			
HP X180 10G XFP LC LH 80km 1539.77nm DWDM Transceiver	JG227A																			
HP X180 10G XFP LC LH 80km 1540.56nm DWDM Transceiver	JG228A																			
HP X180 10G XFP LC LH 80km 1542.14nm DWDM Transceiver	JG229A																			
HP X180 10G XFP LC LH 80km 1542.94nm DWDM Transceiver	JG230A																			
HP X180 10G XFP LC LH 80km 1558.98nm DWDM Transceiver	JG231A																			
HP X180 10G XFP LC LH 80km 1559.79nm DWDM Transceiver	JG232A																			
HP X180 10G XFP LC LH 80km 1560.61nm DWDM Transceiver	JG233A																			
HP X130 10G SFP+ LC ER 40km Transceiver	JG234A																			
HP X240 40G QSFP+ to QSFP+ 1m DAC Cable	JG326A																			
HP X240 40G QSFP+ to QSFP+ 3m DAC Cable	JG327A																			
HP X240 40G QSFP+ to QSFP+ 5m DAC Cable	JG328A																			
HP X240 40G QSFP+ to 4x10G SFP+ 1m DAC Cable	JG329A																			
HP X240 40G QSFP+ to 4x10G SFP+ 3m DAC Cable	JG330A																			
HP X240 40G QSFP+ to 4x10G SFP+ 5m DAC Cable	JG331A																			



# HP Networking Transceiver Matrix (continued)

Transceiver	SKU	2915	2910	2810	2620	2615	2520	2510	1910	1905	1900	1810+	1700+	1410-24G++	1405	MSM720	MSR900	MSR50	MSR30	MSR20-1x	MSR20
HP X121 1G SFP LC SX Transceiver	J4858C	•	•	•	•	•	•	•	•	•		•	•	•		•					
HP X121 1G SFP LC LX Transceiver	J4859C	•	•	•	•	•	•	•	•	•		•	•	•		•					
HP X121 1G SFP LC LH Transceiver	J4860C	•	•	•	•	•	•	•								•					
HP X121 1G SFP RJ45 T Transceiver	J8177C				•			•	•			•									
HP X131 10G X2 SC SR Transceiver	J8436A																				
HP X131 10G X2 SC LR Transceiver	J8437A																				
HP X131 10G X2 SC ER Transceiver	J8438A																				
HP X130 CX4 Optical Media Converter	J8439A																				
HP X131 10G X2 CX4 Transceiver	J8440C																				
HP X111 100M SFP LC FX Transceiver	J9054C	•	•	•	•	•	•	•				•		•		•					
HP X112 100M SFP LC BX-D Transceiver	J9099B	•	•	•	•	•	•	•								•					
HP X112 100M SFP LC BX-U Transceiver	J9100B	•	•	•	•	•	•	•								•					
HP X122 1G SFP LC BX-D Transceiver	J9142B	•	•	•	•	•	•	•								•					
HP X122 1G SFP LC BX-U Transceiver	J9143B	•	•	•	•	•	•	•								•					
HP X131 10G X2 SC LRM Transceiver	J9144A																				
HP X132 10G SFP+ LC SR Transceiver	J9150A		•																		
HP X132 10G SFP+ LC LR Transceiver	J9151A		•																		
HP X132 10G SFP+ LC LRM Transceiver	J9152A		•																		
HP X132 10G SFP+ LC ER Transceiver	J9153A																				
HP X242 SFP+ SFP+ 1m Direct Attach Cable	J9281B		•																		
HP X242 SFP+ SFP+ 3m Direct Attach Cable	J9283B		•																		
HP X242 SFP+ SFP+ 7m Direct Attach Cable	J9285B		•																		
HP X242 SFP+ SFP+ 10m Direct Attach Cable	J9286B																				
HP X242 SFP+ SFP+15m Direct Attach Cable	J9287B																				
HP X244 XFP SFP+ 1m Direct Attach Cable	J9300A																				
HP X244 XFP SFP+ 3m Direct Attach Cable	J9301A																				
HP X244 XFP SFP+ 5m Direct Attach Cable	J9302A																				
HP X240 10G SFP+ 7m Direct Attach Cable	JC784A																				
HP X124 1G SFP LC LH40 1310nm Transceiver	JD061A																	•	•	•	•
HP X120 1G SFP LC LH40 1550nm Transceiver	JD062A																	•	•	•	•
HP X125 1G SFP LC LH70 Transceiver	JD063B																	•	•	•	•
HP X160 2.5G SFP LC 2km Transceiver	JD084A																				
HP X160 2.5G SFP LC 15km Transceiver	JD085A																				
HP X160 2.5G SFP LC 40km Transceiver	JD086A																				
HP X160 2.5G SFP LC 80km Transceiver	JD087A																				
HP X135 10G XFP LC LR Transceiver	JD088A																				
HP X125 1G SFP RJ45 T Transceiver	JD089B								•												
HP X110 100M SFP LC LH40 Transceiver	JD090A																	•	•	•	•
HP X110 100M SFP LC LH80 Transceiver	JD091A																	•	•	•	•
HP X130 SFP+ LC SR Transceiver	JD092B																				
HP X130 SFP+ LC LRM Transceiver	JD093B																				
HP X130 SFP+ LC LR Transceiver	JD094B																				
HP X240 SFP+ SFP+ 0.65 m Direct Attach Cable	JD095B																				
HP X240 SFP+ SFP+ 1.2 m Direct Attach Cable	JD096B																				
HP X240 SFP+ SFP+ 3 m Direct Attach Cable	JD097B																				
HP X120 1G SFP LC BX 10-U Transceiver	JD098B																	•	•	•	•
HP X120 1G SFP LC BX 10-D Transceiver	JD099B																	•	•	•	•
HP X115 100M SFP LC BX 10-U Transceiver	JD100A																				

++ 24- or 48-port version only.

# HP Networking Transceiver Matrix (continued)

Transceiver	SKU	2915	2910	2810	2620	2615	2520	2510	1910	1905	1900	1810 <sup>++</sup>	1700 <sup>++</sup>	1410-24G <sup>++</sup>	1405	MSM720	MSR900	MSR50	MSR30	MSR20-1x	MSR20	
HP X115 100M SFP LC BX 10-D Transceiver	JD101A																					
HP X110 100M SFP LC FX Transceiver	JD102B																	•	•	•	•	
HP X120 1G SFP LC LH100 Transceiver	JD103A																	•	•	•	•	
HP X135 SC ER XENPAK Transceiver	JD105A																					
HP X135 SC SR XENPAK Transceiver	JD106B																					
HP X130 SC ZR XFP Transceiver	JD107A																					
HP X130 SC LR XFP Transceiver	JD108B																					
HP X170 1G SFP LC LH70 1550 Transceiver	JD109A																					
HP X170 1G SFP LC LH70 1570 Transceiver	JD110A																					
HP X170 1G SFP LC LH70 1590 Transceiver	JD111A																					
HP X170 1G SFP LC LH70 1610 Transceiver	JD112A																					
HP X170 1G SFP LC LH70 1470 Transceiver	JD113A																					
HP X170 1G SFP LC LH70 1490 Transceiver	JD114A																					
HP X170 1G SFP LC LH70 1510 Transceiver	JD115A																					
HP X170 1G SFP LC LH70 1530 Transceiver	JD116A																					
HP X130 LC SR XFP Transceiver	JD117B																					
HP X125 1G SFP LC SX Transceiver	JD118B								•									•	•	•	•	
HP X120 1G SFP LC LX Transceiver	JD119B								•	•	•							•	•	•	•	
HP X110 100M SFP LC LX Transceiver	JD120B																	•	•	•	•	
HP X135 LC ER XFP Transceiver	JD121A																					
HP X124 1G SFP LC SX Transceiver	JD493A								•	•	•											
HP X124 1G SFP LC LX Transceiver	JD494A								•	•												
HP X110 100M SFP LC FX Dual Mode Transceiver	JD497A																					
HP X110 100M SFP LC LX10 Transceiver	JD498A																					
HP X130 SC LX4 XENPAK Transceiver	JD499A																					
HP X130 CX4 XENPAK Transceiver	JD502A																					
HP X130 CX4 XFP Transceiver	JD506A																					
HP X120 622M SFP LC LX 15km Transceiver	JF829A																					
HP X120 622M SFP LC LH 40km 1310 Transceiver	JF830A																					
HP X120 622M SFP LC LH 80km 1550 Transceiver	JF831A																					
HP X120 100M/1G SFP LC LX Transceiver	JF832A																					
HP X110 100M SFP LC FX Transceiver	JF833A																					
HP X240 SFP+ SFP+ 5m DAC Cable	JG081B																					
HP X180 10G XFP LC LH 80km 1538.98nm DWDM Transceiver	JG226A																					
HP X180 10G XFP LC LH 80km 1539.77nm DWDM Transceiver	JG227A																					
HP X180 10G XFP LC LH 80km 1540.56nm DWDM Transceiver	JG228A																					
HP X180 10G XFP LC LH 80km 1542.14nm DWDM Transceiver	JG229A																					
HP X180 10G XFP LC LH 80km 1542.94nm DWDM Transceiver	JG230A																					
HP X180 10G XFP LC LH 80km 1558.98nm DWDM Transceiver	JG231A																					
HP X180 10G XFP LC LH 80km 1559.79nm DWDM Transceiver	JG232A																					
HP X180 10G XFP LC LH 80km 1560.61nm DWDM Transceiver	JG233A																					
HP X130 10G SFP+ LC ER 40km Transceiver	JG234A																					
HP X240 40G QSFP+ to QSFP+ 1m DAC Cable	JG326A																					
HP X240 40G QSFP+ to QSFP+ 3m DAC Cable	JG327A																					
HP X240 40G QSFP+ to QSFP+ 5m DAC Cable	JG328A																					
HP X240 40G QSFP+ to 4x10G SFP+ 1m DAC Cable	JG329A																					
HP X240 40G QSFP+ to 4x10G SFP+ 3m DAC Cable	JG330A																					
HP X240 40G QSFP+ to 4x10G SFP+ 5m DAC Cable	JG331A																					

<sup>++</sup> 24- or 48-port version only.

# HP Networking Services and Support

## HP Networking Warranty HP Network Services

HP networking products come with warranties you would expect from HP. From industry-leading lifetime<sup>†</sup> warranties (for as long as you own the product) through competitive one-year warranties, HP networking product warranties have been developed to complement a broad portfolio of HP services to effectively meet your needs. All of our warranties feature advance replacement (available in most countries)\*, with coverage for the entire product, including fans and power supplies, for the entire warranty period. The HP Hardware Warranty Statement containing the terms and conditions for the warranty on HP networking products can be viewed at [www.hp.com/networking/warranty](http://www.hp.com/networking/warranty). The warranty period for each of our products is also listed in the HP Networking Warranty Coverage quick reference at [www.hp.com/networking/warrantyquickref](http://www.hp.com/networking/warrantyquickref).

Our warranty, though, is just the beginning of what we include with our products. To help make it easier for you to implement, use, and maintain our products, we also include many support features with most of our products, including self-help tools available 24x7 on the Web, telephone support, email support and electronic case submission, and software releases. Refer to [www.hp.com/networking/support](http://www.hp.com/networking/support) for details on these support features, and visit [www.hp.com/networking/contact-support](http://www.hp.com/networking/contact-support) for details on how to contact HP for technical support.

### Services that add value to your business

Recent market developments have demonstrated the need for businesses everywhere to be prepared for unpredictability and to focus on improving employee productivity. This demands that your technology infrastructure be quick to respond to changing business needs, less expensive to maintain, and easy to manage.

Organizations around the world are looking to:

- Simplify their network to mitigate disruption while making changes
- Reduce telecom and travel costs without a “rip-and-replace” solution
- Enhance productivity by enabling the seamless exchange of data, voice, and video over a converged network
- Strengthen their networks to enable stability while supporting advanced technology solutions and mission-critical applications
- Improve their network security to effectively protect information assets

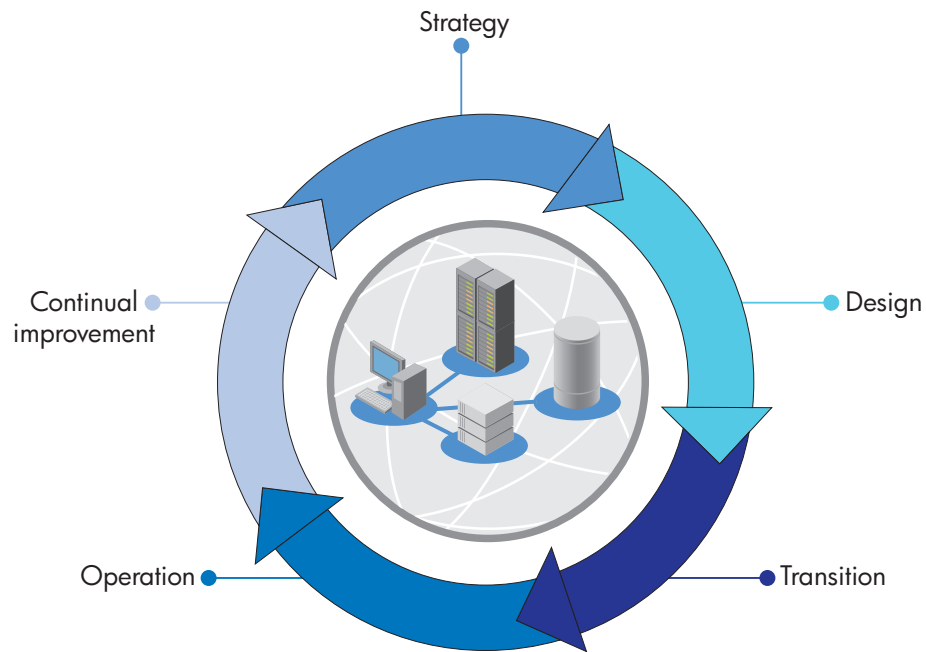
HP Network Services help our customers get the most value out of their networks. Our expertise and credentials span the network and IT, focusing on people, process, and converged infrastructure.

<sup>†</sup> HP warranty includes repair or replacement of hardware for as long as you own the product, with next business day advance replacement (available in most countries). The disk drive included with HP AllianceONE Advanced Services and Services z1 Modules, HP Threat Management Services z1 Module, HP AllianceONE Extended z1 Module with Riverbed Steelhead, HP MSM765 z1 Mobility Controller, and HP Survivable Branch Communication z1 Module powered by Microsoft Lync has a five-year hardware warranty. For details, refer to the Software license and hardware warranty statements at [www.hp.com/networking/warranty](http://www.hp.com/networking/warranty).

\* Response times are based on local standard business days and working hours. Response time begins once HP has completed confirming the product failure and identifying the replacement part. Response time is based on commercially reasonable effort and subject to a daily shipment cutoff time. In some countries and regions and under certain supplier constraints, response time may vary. If your location is outside the customary service zone, response time may be longer. Contact your local HP service organization for response time availability in your area.

# HP Network Lifecycle Services

Services for the entire lifecycle of your extensible network



## Network Consulting Services

The Network Consulting Services portfolio frees customers from proprietary networking and delivers simpler network architectures that perform better and are more secure. The new portfolio of end-to-end Lifecycle of Services provides a comprehensive set of offerings focused on Converged Network Infrastructure, Open Standards Networking, Unified Communications, and Network Security. These services enable our clients to transform their networks to enable anywhere, anytime access to applications across the extended enterprise, to plan and migrate to open standards networking for cost and performance benefits, and to accelerate network-based projects with deep multivendor networking expertise and certified project management plus deliver network readiness for Unified Communications projects.

### Planning and Strategy Services: Network Transformation

Network Transformation Services help break the network innovation gridlock and fully deploy the power of the network with anywhere, anytime access to applications across your extended enterprise.

- Visioning Workshop—Transformation Roadmap
- Business Benefits Roadmap Service—Business Case
- Strategic Architecture Service—Architectural Blueprints

Delivered using a consistent approach predicated by years of success in using proven methodologies and processes, these services employ the same approach that has been used to deliver data center, virtualization (server, client, storage), and, more recently, Unified Communications and cloud projects. Outcomes include seamless, secure access to applications anywhere, anytime from any device; faster provisioning of network services across the enterprise with higher ROI; better network performance at a lower TCO; and cost savings achieved by automating network provisioning, purchasing costs, reducing energy consumption, and in some cases short-term payback that self-sustains the transformation initiative.

### Planning and Migration Services: open standards networking

HP Planning and Migration Services help customers to assess, plan, and migrate from proprietary networking to open standards networking, enabling them to take advantage of design, performance, and TCO advantages without interrupting their businesses.

These services bring the unique expertise and knowledge HP gained from its own experience of migrating to open standards networking and new open standards-based reference architectures. Our consultants were critical to the HP team that migrated HP's core network in our six data centers to open standards-based networking.

## Assessments

The open standards readiness assessment service is delivered through an interactive workshop and whiteboard session that facilitates a comparison of a customer's existing network architecture to an open standards-based architecture. This service targets each network module, such as data center network, and its network layers, such as routing protocols, spanning tree, and network discovery protocols. Upon completion of the service, customers will understand the implications of transitioning their network to an open standards network.

Other assessments include network readiness for voice, video, network health check, wireless assessment, and security.

## Architecture, Design, Integration, and Deployment Services

Our architecture and design and implementation services include a detailed requirements analysis, and use a comprehensive HP network reference architecture to create a customer-specific design, site surveys, logical and physical design, network security design, network management rationalization, detailed bill of materials, and elaborated implementation guides. We also provide end-to-end implementation services from procurement through testing, cutover and acceptance, and knowledge transfer.

HP also has Global Deployment centers where we can stage and ship globally. In addition, HP can provide onsite installation and testing.

## Optimization

Our suite of optimization services can help customers identify and address performance issues related to or caused by the network infrastructure. This can include analyzing application traffic and WAN optimization.

# HP Network Support Services

The Network Support Services portfolio offers both standard and customized support service options, ranging from reactive hardware and software support to integrated support services, and from proactive mission-critical services to services customized for the data center. The specific components of the portfolio are:

## Reactive Hardware and Software Support

Reactive Hardware and Software Support offer protection against network downtime by extending the warranty coverage of your HP networking devices, and they increase the performance and availability

of your network infrastructure. These services offer advanced levels of hardware repair and replacement response times:

- Advanced levels of hardware repair and replacement response times, ranging from next-business-day to 13x5 and 24x7 coverage with four-hour response to six-hour or 24-hour Call-to-Repair services
- Software support that offers software updates, firmware upgrades, and 24x7 device-specific assistance for problem diagnosis and resolution over the phone
- Onsite support that dispatches a service technician with your replacement hardware

For customers who want a single point of contact for support, the Network Support Services portfolio offers *integrated hardware and software support* options, which include:

- **HP Support Plus:** We can help increase the performance and availability of your networking infrastructure with comprehensive, consistent hardware and software services as well as software updates (when applicable). Working with your IT team, HP service engineers deliver onsite hardware support and over-the-phone software support 13 hours a day on standard business days.
- **HP Support Plus 24:** This option offers the same hardware and software services that Support Plus provides; but the difference is that the support is offered around-the-clock 365 days a year.
- **Hardware Exchange + Software Support:** Our integrated hardware and software services offer a combination of next-business-day hardware exchange plus 24x7 software support, or 4-hour hardware exchange plus 24x7 software support. These services offer an affordable option to uplift the SW technical support from 9x5 to 24x7 and provide for a higher priority in the call center queue. In addition, these services also uplift the NBD support to 4-hour with that version of the service. With a single SKU for SW support and HW exchange, this integrated service can be delivered with increased simplicity.

### **Mission Critical and Proactive Support Services for the network**

These services proactively address issues before they become a problem and keep your mission-critical network components up and running 24x7. Depending on the customer's need, the scalable service offers include:

- **Proactive Care:** Proactive Care is designed to help customers deal with the challenges resulting from IT sprawl and the trend toward using industry-standard platforms for a converged, virtualized IT. Leveraging industry-leading remote support technologies and specialist resources, Proactive Care combines reactive and proactive services to help customers with an easy-to-purchase and cost-efficient solution to resolve complex problems faster and more easily while reducing unplanned outages. Proactive Care services for networking include these deliverables:
  - Range of hardware support levels (Next-Business Day Onsite, 4-hour response 24x7 Onsite, or 6-hour Call-To-Repair Onsite support), along with 24x7 software support and immediate response for critical problems
  - Firmware and software revision analysis, technical review, proactive services, and remote diagnosis
  - Rapid access to the Advanced Solutions Center
  - Local language Technical Solution Specialist to manage the issue from start to finish
  - Option to have an assigned account team that understands the customer's environment and business requirements
  - Optional advanced technical support and single point of accountability from an HP-trained specialist
- **HP Proactive 24 Service:** This proactive service combines hardware and software support services for efficient problem prevention with responsive technical support whenever you need it. The solution can help you understand your existing environment, identify improvements, and provide technical and operational assistance to augment your existing capabilities.
- **HP Critical Service:** This option assigns an account support manager to provide proactive onsite expertise, and it gives you access to priority reactive assistance from the HP worldwide network of mission-critical response centers and remote support tools to monitor your environment for potential problems. Moreover, a dedicated HP team evaluates how well your existing infrastructure meets availability needs, recommends ways to improve service levels, and helps you implement changes to enhance the management and control of technology processes and applications.

- **HP Critical Advantage:** This is an end-to-end infrastructure support solution that provides support at an environmental level. Combining proactive and reactive support, this integrated solution helps maintain high availability and performance, manage end-to-end support issues, and maximize return on IT investment. The highlights of the solution include a wide choice of reactive hardware services, 24x7 software support, 2-hour standard response, and expedited response from the Global Mission Critical Solution Center for critical calls. While you can seek expert advice from an account team that is assigned to meet your business/IT objectives, you can also use service credits offered for proactive services to address specific performance and availability issues.

### **HP Datacenter Care Services**

HP Datacenter Care Service is HP's most flexible support service and helps customers consistently meet their service level targets and other business objectives. Datacenter Care can be customized to fit a customer's specific requirements, from the support of a discrete IT solution to the support of a whole data center containing many thousands of devices. Datacenter Care is designed to complement the customer's own skills and capabilities by mixing and matching any of HP's support offerings against different parts of their IT solution or data center based on the role and importance of the devices in question.

In the event of a service incident, Datacenter Care provides access to HP technical solution specialists who can help customers to rapidly resolve critical issues. These reactive support options can be complemented by a set of optional proactive services designed to augment the skills of the customer's IT staff. These range from technology-specific activities such as firmware and OS patch analysis/recommendations and change management support, to a systematic approach, to continual improvement based on industry-recognized IT Service Management (ITSM) best practices. These proactive services are designed to offer flexible choice and be customized to support different components of a solution or different areas within a customer's environment.

With relationship management, enhanced call handling, and full end-to-end data center support, including full support for multivendor technologies, we offer high-touch support for business-critical environments and ensure a personalized, proactive, and simplified support experience for customers.

## Lifecycle Event Services

### • **HP Installation/Installation and Startup Services:**

Get your HP Networking device up and running quickly with these services, which provide everything from preliminary solution planning to installation, configuration, device verification, device startup, and product briefing services. By delivering these services through highly qualified experts, we limit disruption to your IT and business operations and free your IT resources to focus on strategic business needs.

- **Remote Network Monitoring Services:** Help manage your network environment effectively with 24x7 monitoring and real-time reporting of device health statistics and network usage information offered via a secure, dedicated VPN tunnel. Through HP Remote Network Monitoring Services, we proactively monitor, manage, and avert risks in increasingly complex environments for improved network availability and reduced downtime. We monitor and manage HP LAN, WAN, server, and storage assets; telecommunication lines and carriers; security; and VPN as well as multivendor networking products in your heterogeneous environment.

## HP Education Services

HP Education Services equip a customer's IT team with the skills to ease HP networking implementation, and streamline technology migration and consolidation while improving their return on their networking investment. Technical product and solution training course topics cover all aspects of networking and infrastructure products. HP's online and instructor-led courses can help customers improve system performance and availability.

## Outsourcing services

HP Network Services help clients manage the growing complexities of aligning their communications and network needs with their overall technology outsourcing strategies to support business goals. Offerings include:

- Network Application Services
- Network Management Services
- Network Security Services
- Network Transformation Services
- Unified Communications Services
- HP TippingPoint Managed Security Service

To get more details about the HP Services available in your country, please visit the Web:

[www.hp.com/networking/services](http://www.hp.com/networking/services)

- Business and IT Services overview  
[www.hp.com/services](http://www.hp.com/services)
- HP Network Services  
[www.hp.com/go/networks](http://www.hp.com/go/networks)
- HP Mission Critical and Proactive Services  
[www.hp.com/services/missioncritical](http://www.hp.com/services/missioncritical)
- Look up HP Care Pack services in Care Pack Central  
[www.hp.com/go/cpc](http://www.hp.com/go/cpc)
- HP Enterprise Services overview  
[www.hp.com/enterprise/services](http://www.hp.com/enterprise/services)

Please check the availability of these services in your respective country.

## For more information

To learn more about HP networking products and solutions, please visit [www.hp.com/go/networking](http://www.hp.com/go/networking).

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