

HP ProCurve Data Center Device Selection Guide

	Fixed-port switches				Modular switches		Blade switches				
Series	2910al series	6600 series		5400zl series		8200zl series	6120 series				
Products	2910al-24G 2910al-48G	6600-24G 6600-24G-4XG	6600-48G 6600-48G-4XG	6600-24XG		5406zl 5412zl	8206zl 8212zl	6120G/XG 6120XG			
Product key messages	<ul style="list-style-type: none"> • Cost optimized • Top-of-rack server connectivity • Flexible 10-Gigabit 	<ul style="list-style-type: none"> • Data center enhanced • Top-of-rack server connectivity • Intelligent edge • Flexibility 	<ul style="list-style-type: none"> • Data center enhanced • Top-of-rack server connectivity • Intelligent edge • Flexibility • Improved density 	<ul style="list-style-type: none"> • Data center enhanced • Top-of-rack server connectivity • Intelligent edge • Flexibility • Improved density 	<ul style="list-style-type: none"> • Flexibility and scalability • End-of-row server connectivity • Investment protection • Resiliency • Reduced OpEx 	<ul style="list-style-type: none"> • High performance • Highly available architecture • High-density end-of-row connectivity • Distribution/Core networking • Flexibility and scalability • Investment protection • Reduced OpEx 	<ul style="list-style-type: none"> • Flexible networking for HP BladeSystem c-Class enclosures 				
Ideal environment	Ideal for customers seeking affordable data center aggregation where advanced features, such as Layer 3, are less of a priority	Ideal for customers who demand 1-Gigabit performance and 10-Gigabit uplinks (6600-24G-4XG) for top-of-rack (TOR) data center server connections who also value future-proofing their environment to upgrade to the latest Layer 2/3/4 capability	Ideal for customers who demand 1-Gigabit performance, wire-speed 10-Gigabit uplinks (6600-48G-4XG), and improved density for top-of-rack (TOR) data center server connections who also value future-proofing their environment to upgrade to the latest Layer 2/3/4 capability	Ideal for customers who demand high-density 10-Gigabit for top-of-rack (TOR) data center server connections who also value future-proofing their environment to upgrade to the latest Layer 2/3/4 capability		Ideal for customers who demand performance, security, and redundancy for applications such as end-of-row (EOR) aggregation or distribution layer capabilities who also value future-proofing their environment to upgrade to the latest Layer 2/3/4 capability	Ideal for customers who demand security, the highest levels of performance, and redundancy for data center end-of-row (EOR), distribution layer, or core networking capabilities who also value future-proofing their environment to upgrade to the latest Layer 2/3/4 capability	Ideal for customers seeking network switching options within the BladeSystem c-Class enclosures, with HP ProCurve value propositions of standards-based, reliable, cost-effective networking			
Target application	• Top-of-rack server edge	• Top-of-rack server edge	• Top-of-rack server edge	• Top-of-rack server edge	• High-density 10-Gigabit end of row	• Top-of-rack server edge	• Data center distribution layer	• End-of-row server edge	• Data center distribution layer	• Data center core networking	• End-of-row server edge
Customer needs	<ul style="list-style-type: none"> • Basic Layer 2/3/4 switches that offer cost-effective high-performance stackable (24- and 48-port) form factor • Flexible 10-Gigabit uplinks • VLAN capabilities • Layer 3 capabilities, including static and RIP routing • Basic ACL structures with filtering rules on Layer 2/3/4 addresses and protocols 	<ul style="list-style-type: none"> • Advanced Layer 2/3/4 switches that offer intelligent edge capability in a stackable 1U (24-port) form factor • Optional 10-Gigabit uplinks (6600-24G-4XG only) • Advanced VLAN capabilities with Q-in-Q tagging • Advanced Layer 3 capabilities, including static, RIP, OSPF routing, and PIM SM/DM multicast support • Flexible ACL structures with filtering rules on Layer 2/3/4 addresses and protocols 	<ul style="list-style-type: none"> • Advanced Layer 2/3/4 switches that offer intelligent edge capability in a stackable 1U (48-port) form factor • Optional 10-Gigabit uplinks (6600-48G-4XG only) • Advanced VLAN capabilities with Q-in-Q tagging • Advanced Layer 3 capabilities, including static, RIP, OSPF routing, and PIM SM/DM multicast support • Flexible ACL structures with filtering rules on Layer 2/3/4 addresses and protocols 	<ul style="list-style-type: none"> • Advanced Layer 2/3/4 switches that offer intelligent edge capability in a stackable 1U (24-port) form factor • Integrated 10-Gigabit uplinks • Advanced VLAN capabilities with Q-in-Q tagging • Advanced Layer 3 capabilities, including static, RIP, OSPF routing, and PIM SM/DM multicast support • Flexible ACL structures with filtering rules on Layer 2/3/4 addresses and protocols 	<ul style="list-style-type: none"> • Advanced Layer 2/3/4 switches that offer intelligent edge capability in a chassis form factor that provides superior flexibility and scalability with a range of interface options • High-availability network configurations that demand redundant power supplies and customer-replaceable fan trays • 10-Gigabit scalability • Advanced VLAN capabilities with Q-in-Q tagging • Advanced Layer 3 capabilities, including static, RIP, OSPF routing, and PIM SM/DM multicast support • Flexible ACL structures with filtering rules on Layer 2/3/4 addresses and protocols 	<ul style="list-style-type: none"> • Advanced Layer 2/3/4 switches that offer intelligent edge capability in a chassis form factor that provides superior availability, flexibility, and scalability with a range of interface options • Mission-critical application support that demands the highest-availability designs and configurations, including redundant fabric modules, power supplies, and customer-replaceable fan trays • 10-Gigabit scalability • Advanced VLAN capabilities with Q-in-Q tagging • Advanced Layer 3 capabilities, including static, RIP, OSPF routing, and PIM SM/DM multicast support • Flexible ACL structures with filtering rules on Layer 2/3/4 addresses and protocols 	<ul style="list-style-type: none"> • Advanced Layer 2 blade switches that offer a cost-effective, reliable, high-performance networking choice for BladeSystem c-Class enclosures • Gigabit and 10-Gigabit uplink functionality • VLAN capabilities • Enterprise-class security and management 				

- The HP ProCurve Lifetime Warranty*, with next-business-day advance replacement included free of charge
- Free telephone and Web support
- Free software updates

* For as long as you own the product, with next-business-day advance replacement (available in most countries). The following hardware products have a five-year hardware warranty for the disk drive and lifetime hardware warranty (for as long as you own the product) for the rest of the module: HP ProCurve ONE Services z1 Module, HP ProCurve Threat Management Services z1 Module, and HP ProCurve MSM765z1 Mobility Controller. The following hardware products and their related series modules have a one-year hardware warranty with extensions available: HP ProCurve Routing Switch 9300m series, HP ProCurve Switch 8100f series, HP ProCurve Network Access Controller 800, and HP ProCurve DCM Controller. The following hardware products have a one-year hardware warranty with extensions available: HP ProCurve M111 Client Bridge, HP ProCurve MSM3xxR Access Points, HP ProCurve MSM7xx Mobility and Access Controllers, HP ProCurve RF Manager IDS/IPS Systems, HP ProCurve MSM Power Supplies, HP ProCurve 1-Port Power Injector, HP ProCurve CNMS Appliances, and HP ProCurve MSM317 Access Device. Standalone software, upgrades, or licenses may have a different warranty duration. For details, refer to the ProCurve Software License, Warranty, and Support booklet at www.hp.com/go/procurve/warranty.



Why choose HP ProCurve?

- Choice and flexibility**—performance and interoperability
- Advanced technology**—30 years of leadership
- Security and trust**—safe and field-tested solutions
- Proven reliability**—backed by a lifetime warranty
- Return on IT investment**—easy to install and use

Series	Fixed-port switches				Modular switches		Blade switches
	2910al series	6600 series	5400zl series	8200zl series	6120 series		
Products	2910al-24G (J9145A) 2910al-48G (J9147A)	6600-24G (J9263A) 6600-24G-4XG (J9264A)	6600-48G (J9451A) 6600-48G-4XG (J9452A)	6600-24XG (J9265A)	5406zl (J8797A/J8699A) 5412zl (J8798A/J8700A)	8206zl (J9475A) 8212zl (J8715B)	6120G/XG (498358-B21) 6120XG (516733-B21)
Product design							
Form factor	1U	1U	1U	1U	5406zl: 4U 5412zl: 7U	8206zl: 6U 8212zl: 9U	c-Class blade switches
Memory (compact flash/SDRAM)	1 GB/512 MB	256 MB/256 MB	256 MB/256 MB	1 GB/256 MB	128 MB/256 MB	128 MB/256 MB	6120G/XG: 256 MB/512 MB 6120XG: 640 MB/512 MB
Interface/Service module slots	2	–	–	–	5406zl: 6 5412zl: 12	8206zl: 6 8212zl: 12	–
Airflow	Side-to-side	Front-to-back (reversible)	Front-to-back (reversible)	Front-to-back (reversible)	Side-to-side	Side-to-side	–
Connectivity							
10/100	–	–	–	–	5406zl: Up to 144 5412zl: Up to 288	8206zl: Up to 144 8212zl: Up to 288	–
10/100/1000	2910al-24G: 20 2910al-48G: 44	20	6600-48G: 44 6600-48G-4XG: 48	–	5406zl: Up to 144 5412zl: Up to 288	8206zl: Up to 144 8212zl: Up to 288	6120G/XG: 4
Mini-GBIC	–	–	–	–	5406zl: Up to 144 5412zl: Up to 288	8206zl: Up to 144 8212zl: Up to 288	6120G/XG: 2
10-GbE	4 ports—SFP+ and/or CX4	6600-24G-4XG: 4 SFP+	6600-48G-4XG: 4 SFP+	24 SFP+	5406zl: Up to 24 X2-CX4-SFP+ 5412zl: Up to 48 X2-CX4-SFP+	8206zl: Up to 24 X2-CX4-SFP+ 8212zl: Up to 48 X2-CX4-SFP+	6120G/XG: 3 6120XG: 8
Dual personality (10/100/1000/mini-GBIC) Server downlinks (blade switches only)	4 –	4 –	6600-48G: 4 –	– –	– –	– –	6120G/XG: 16 GbE 6120XG: 16 10-GbE
Performance							
Routing/Switching capacity (Gbps)	2910al-24G: 128.0 2910al-48G: 176.0	6600-24G: 48.0 6600-24G-4XG: 101.8	6600-48G: 96.0 6600-48G-4XG: 176.0	322.8	5406zl: 322.8 5412zl: 645.6	8206zl: 322.8 8212zl: 645.6	6120G/XG: 124 6120XG: 480
1-Gb/10-Gb Latency (FIFO 64-byte packet) (microseconds)	< 2.9/< 1.3	< 3.7/< 2.1	< 3.4/< 2.4	< 3.7/< 2.1	< 3.7/< 2.1	< 3.7/< 2.1	6120G/XG: < 3.55/< 1.85 6120XG: < 2.71/< 1.94
Throughput (Mpps)	2910al-24G: 95.2 2910al-48G: 130.9	6600-24G: 35.7 6600-24G-4XG: 75.7	6600-48G: 71.4 6600-48G-4XG: 130.9	240.2	5406zl: 240.2 5412zl: 480.3	8206zl: 240.2 8212zl: 480.3	6120G/XG: 92.2 6120XG: 357.12*
MAC address/Routing table size (max. entries)	16,000/2,000	64,000/10,000	64,000/10,000	64,000/10,000	64,000/10,000	64,000/10,000	6120G/XG: 16,000/– 6120XG: 32,000/–
Security							
IEEE 802.1X/Access control (MAC/Web Auth)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dynamic ARP protection/DHCP protection media	Yes	Yes	Yes	Yes	Yes	Yes	–
Dynamic IP lockdown	–	Yes	Yes	Yes	Yes	Yes	–
Virus throttling	–	Yes	Yes	Yes	Yes	Yes	–
Management							
Console management/Out-of-band management	RJ-45/–	DB-9/–	RJ-45/Yes	RJ-45/Yes	DB-9/–	RJ-45/–	Mini-USB/c-Class onboard admin.
ProCurve Manager Plus	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Remote port mirroring (based on ACL, port, MAC, or VLAN)	Yes	Yes	Yes	Yes	Yes	Yes	–
RMON, XRMON, sFlow	Yes	Yes	Yes	Yes	Yes	Yes	RMON
IEEE 802.1AB—Link Layer Discovery Protocol (LLDP)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RADIUS (AAA support)/TACACS+	Yes	Yes	Yes	Yes	Yes	Yes	Yes
High availability							
Redundant fabric and management	–	–	–	–	–	–	–
Hot-swappable modules	–	–	–	–	Yes	Yes	–
Redundant, hot-swappable power supplies	Optional RPS	Yes	Yes	Yes	Yes	Yes	–
Hot-swappable fan trays	Replaceable only	Yes	Yes	Yes	Yes	Yes	–
Switch meshing	–	Yes	Yes	Yes	Yes	Yes	–
VRRP**	–	Yes	Yes	Yes	Yes	Yes	–
IEEE 802.ad (LACP) and IEEE 802.1s (STP, RSTP, and MSTP)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Equal-cost multipath (load balancing)	Static ECMP	OSPF ECMP**	OSPF ECMP**	OSPF ECMP**	OSPF ECMP**	OSPF ECMP**	–
Distributed trunking (server-switch only)	No	Yes	Yes	Yes	Yes	Yes	No
QoS							
IEEE 802.1p—8 priority levels	2–8 queues	2–8 queues	2–8 queues	2–8 queues	2–8 queues	2–8 queues	2–4 queues
Class of Service (CoS)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Layer 4 priority	Yes	Yes	Yes	Yes	Yes	Yes	–
Advanced switching, routing, and IP services							
IEEE 802.1Q VLAN tagging	4,096 IDs/256 VLANs	4,096 IDs/2,048 VLANs	4,096 IDs/2,048 VLANs	4,096 IDs/2,048 VLANs	4,096 IDs/2,048 VLANs	4,096 IDs/2,048 VLANs	4,096 IDs/256 VLANs
Jumbo Frames	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Static routing/RIP	Yes	Yes	Yes	Yes	Yes	Yes	–
OSPF**/PIM multicast routing**	–	Yes	Yes	Yes	Yes	Yes	–
IPv6 host	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IGMP	Yes	Yes	Yes	Yes	Yes	Yes	Yes
iSCSI support	Yes	Yes	Yes	Yes	Yes	Yes	Yes

* Theoretical maximum

** Available via Premium Software License

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