

# HP ProCurve Data Center Device Selection Guide



Products	Stackables						Chassis products		
	2900 series	6600-24G	6600-24G-4XG	6600-48G*	6600-48G-4XG*	6600-24XG	5406zl	5412zl	8212zl
<b>Product key messages</b>	<ul style="list-style-type: none"> <li>Basic functionality</li> <li>Top-of-rack server connectivity</li> <li>Cost enhanced</li> </ul>	<ul style="list-style-type: none"> <li>Data center enhanced</li> <li>Top-of-rack server connectivity</li> <li>Intelligent edge</li> <li>Flexibility</li> </ul>	<ul style="list-style-type: none"> <li>Data center enhanced</li> <li>Top-of-rack server connectivity</li> <li>Intelligent edge</li> <li>Flexibility</li> </ul>	<ul style="list-style-type: none"> <li>Data center enhanced</li> <li>Top-of-rack server connectivity</li> <li>Intelligent edge</li> <li>Flexibility</li> <li>Improved density</li> </ul>	<ul style="list-style-type: none"> <li>Data center enhanced</li> <li>Top-of-rack server connectivity</li> <li>Intelligent edge</li> <li>Flexibility</li> <li>Improved density</li> </ul>	<ul style="list-style-type: none"> <li>Data center enhanced</li> <li>Top-of-rack server connectivity</li> <li>Intelligent edge</li> <li>Flexibility</li> <li>Improved density</li> </ul>	<ul style="list-style-type: none"> <li>Flexibility and scalability</li> <li>End-of-row server connectivity</li> <li>Investment protection</li> <li>Resiliency</li> <li>Reduced OpEx</li> </ul>	<ul style="list-style-type: none"> <li>Flexibility and scalability</li> <li>High-density end-of-row connectivity</li> <li>Investment protection</li> <li>Resiliency</li> <li>Reduced OpEx</li> </ul>	<ul style="list-style-type: none"> <li>High performance</li> <li>Highly available architecture</li> <li>High-density end-of-row connectivity</li> <li>Distribution/Core networking</li> <li>Flexibility and scalability</li> <li>Investment protection</li> <li>Reduced OpEx</li> </ul>
<b>Ideal environment</b>	Ideal for customers seeking affordable data center aggregation where upgradeability and future-proofing is less of a priority	Ideal for customers that demand 1-Gigabit performance for top-of-rack (TOR) data center server connections that also value future-proofing their environment to upgrade to the latest Layer 2/3/4 capability	Ideal for customers that demand 1-Gigabit performance and 10-Gigabit uplinks for top-of-rack (TOR) data center server connections that also value future-proofing their environment to upgrade to the latest Layer 2/3/4 capability	Ideal for customers that demand 1-Gigabit performance and improved density for top-of-rack (TOR) data center server connections that also value future-proofing their environment to upgrade to the latest Layer 2/3/4 capability	Ideal for customers that demand 1-Gigabit performance, wirespeed 10-Gigabit uplinks, and improved density for top-of-rack (TOR) data center server connections that also value future-proofing their environment to upgrade to the latest Layer 2/3/4 capability	Ideal for customers that demand high-density 10-Gigabit for top-of-rack (TOR) data center server connections that also value future-proofing their environment to upgrade to the latest Layer 2/3/4 capability	Ideal for customers that demand performance, security, and redundancy for applications such as end-of-row (EOR) aggregation or distribution layer capabilities that also value future-proofing their environment to upgrade to the latest Layer 2/3/4 capability	Ideal for customers that demand performance, security, and redundancy for applications such as end-of-row (EOR) aggregation or distribution layer capabilities that also value future-proofing their environment to upgrade to the latest Layer 2/3/4 capability	Ideal for customers that demand security, the highest levels of performance, and redundancy for data center end-of-row (EOR), distribution layer, or core networking capabilities that also value future-proofing their environment to upgrade to the latest Layer 2/3/4 capability
<b>Target application</b>	Top-of-rack server edge	Top-of-rack server edge	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	End-of-row server edge Data center distribution layer	End-of-row server edge Data center distribution layer	End-of-row server edge Data center core networking
<b>Customer needs</b>	<ul style="list-style-type: none"> <li>Basic Layer 2/3/4 switches that offers cost-effective high performance in a stackable (24-port and 48-port) form factor</li> <li>Integrated 10-Gigabit uplinks</li> <li>VLAN capabilities</li> <li>Layer 3 capabilities, including static and RIP routing</li> </ul>	<ul style="list-style-type: none"> <li>Advanced Layer 2/3/4 switches that offer intelligent edge capability in a stackable 1U (24-port) form factor</li> <li>Advanced VLAN capabilities with Q-in-Q tagging</li> <li>Advanced Layer 3 capabilities, including static, RIP, OSPF routing, PIM SM/DM multicast support</li> <li>Flexible ACL structures with filtering rules on Layer 2/3/4 addresses and protocols</li> </ul>	<ul style="list-style-type: none"> <li>Advanced Layer 2/3/4 switches that offer intelligent edge capability in a stackable 1U (24-port) form factor</li> <li>Integrated 10-Gigabit uplinks</li> <li>Advanced VLAN capabilities with Q-in-Q tagging</li> <li>Advanced Layer 3 capabilities, including static, RIP, OSPF routing, PIM SM/DM multicast support</li> <li>Flexible ACL structures with filtering rules on Layer 2/3/4 addresses and protocols</li> </ul>	<ul style="list-style-type: none"> <li>Advanced Layer 2/3/4 switches that offer intelligent edge capability in a stackable 1U (48-port) form factor</li> <li>Advanced VLAN capabilities with Q-in-Q tagging</li> <li>Advanced Layer 3 capabilities, including static, RIP, OSPF routing, PIM SM/DM multicast support</li> <li>Flexible ACL structures with filtering rules on Layer 2/3/4 addresses and protocols</li> </ul>	<ul style="list-style-type: none"> <li>Advanced Layer 2/3/4 switches that offer intelligent edge capability in a stackable 1U (48-port) form factor</li> <li>Integrated 10-Gigabit uplinks</li> <li>Advanced VLAN capabilities with Q-in-Q tagging</li> <li>Advanced Layer 3 capabilities, including static, RIP, OSPF routing, PIM SM/DM multicast support</li> <li>Flexible ACL structures with filtering rules on Layer 2/3/4 addresses and protocols</li> </ul>	<ul style="list-style-type: none"> <li>Advanced Layer 2/3/4 switches that offer intelligent edge capability in a stackable 1U (24-port) form factor</li> <li>Integrated 10-Gigabit uplinks</li> <li>Advanced VLAN capabilities with Q-in-Q tagging</li> <li>Advanced Layer 3 capabilities, including static, RIP, OSPF routing, PIM SM/DM multicast support</li> <li>Flexible ACL structures with filtering rules on Layer 2/3/4 addresses and protocols</li> </ul>	<ul style="list-style-type: none"> <li>Advanced Layer 2/3/4 switches that offer intelligent edge capability in a chassis form factor that offers superior flexibility and scalability with range of interface options</li> <li>High-availability network configurations that demand redundant power supplies and customer-replaceable fan trays</li> <li>10-Gigabit scalability</li> <li>Advanced VLAN capabilities with Q-in-Q tagging</li> <li>Advanced Layer 3 capabilities, including static, RIP, OSPF routing, PIM SM/DM multicast support</li> <li>Flexible ACL structures with filtering rules on Layer 2/3/4 addresses and protocols</li> </ul>	<ul style="list-style-type: none"> <li>Advanced Layer 2/3/4 switches that offer intelligent edge capability in a chassis form factor that offers superior flexibility and scalability with range of interface options</li> <li>High-availability network configurations that demand redundant power supplies and customer-replaceable fan trays</li> <li>10-Gigabit scalability</li> <li>Advanced VLAN capabilities with Q-in-Q tagging</li> <li>Advanced Layer 3 capabilities, including static, RIP, OSPF routing, PIM SM/DM multicast support</li> <li>Flexible ACL structures with filtering rules on Layer 2/3/4 addresses and protocols</li> </ul>	<ul style="list-style-type: none"> <li>Advanced Layer 2/3/4 switches that offer intelligent edge capability in a chassis form factor that offers superior availability, flexibility, and scalability with range of interface options</li> <li>Mission-critical application support that demands the highest-availability designs and configurations, including redundant fabric modules, power supplies, and customer-replaceable fan trays</li> <li>10-Gigabit scalability</li> <li>Advanced VLAN capabilities with Q-in-Q tagging</li> <li>Advanced Layer 3 capabilities, including static, RIP, OSPF routing, PIM SM/DM multicast support</li> <li>Flexible ACL structures with filtering rules on Layer 2/3/4 addresses and protocols</li> </ul>



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

## Why choose 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

\* Available 1H2009

For as long as you own the product, with next-business-day advance replacement (available in most countries). The following hardware products and their related series modules have a one-year hardware warranty with extensions available: HP ProCurve Routing Switch 9300m Series, HP ProCurve Switch 8100i Series, and HP ProCurve Network Access Controller 800. The following hardware mobility products have a one-year hardware limited warranty with extensions available: HP ProCurve M111 Client Bridge, HP ProCurve MSM3xx-R Access Points, HP ProCurve MSM7xx Mobility and Access Controllers, HP ProCurve RF Manager IDS/IPS Systems, HP ProCurve MSM Power Supplies, and HP ProCurve 1-Port Power Injector. Disk drives in the HP ProCurve ONE Services zI Module have a five-year hardware warranty. Standalone software, upgrades, or licenses may have a different warranty duration. For details, refer to the ProCurve Software License, Warranty, and Support booklet at [www.procurve.com/warranty](http://www.procurve.com/warranty).

	Stackables						Chassis products		
Products	2900 series	6600-24G	6600-24G-4XG	6600-48G*	6600-48G-4XG*	6600-24XG	5406zl	5412zl	8212zl
Product number	J9049A J9050A	J9263A	J9264A	J9451A	J9452A	J9265A	J8697A—Chassis J8699A—48G bundle	J8698A—Chassis J8700A—96G bundle	J8715A
<b>Product design</b>									
Form factor	1U	1U	1U	1U	1U	1U	4U	7U	9U
Memory (compact flash/SDRAM)	256 MB/256 MB	256 MB/256 MB	256 MB/256 MB	1 GB/256 MB	1 GB/256 MB	1 GB/256 MB	256 MB/256 MB	256 MB/256 MB	256 MB/256 MB
Module slots	–	–	–	–	–	–	6	12	12
Airflow	Side-to-side	Front-to-back (reversible)	Front-to-back (reversible)	Front-to-back (reversible)	Front-to-back (reversible)	Front-to-back (reversible)	Side-to-side	Side-to-side	Side-to-side
<b>Connectivity</b>									
10/100/1000	20/44	20	20	44	48	–	Up to 144	Up to 288	Up to 288
Mini-GBIC	–	–	–	–	–	–	Up to 144	Up to 288	Up to 288
10-GbE	2/2	–	4 SFP+	–	4 SFP+	24 SFP+	Up to 24 X2/CX4	Up to 24 X2/CX4	Up to 24 X2/CX4
Dual personality (10/100/1000/mini-GBIC)	4/4	4	4	4	–	–	–	–	–
<b>Performance</b>									
Routing/Switching capacity	101.8/149.8 Gbps	48.0 Gbps	101.8 Gbps	96.0 Gbps	176.0 Gbps	322.8 Gbps	322.8 Gbps	645.6 Gbps	645.6 Gbps
1 Gb Latency (FIFO 64-byte packet)	<3.7 microseconds	<3.7 microseconds	<3.7 microseconds	<3.7 microseconds	<3.7 microseconds	<3.7 microseconds	<3.7 microseconds	<3.7 microseconds	<3.7 microseconds
10 Gb Latency (FIFO 64-byte packet)	<2.1 microseconds	<2.1 microseconds	<2.1 microseconds	<2.1 microseconds	<2.1 microseconds	<2.1 microseconds	<2.1 microseconds	<2.1 microseconds	<2.1 microseconds
Throughput	75.7 Mpps/111.5 Mpps	35.7 Mpps	75.7 Mpps	71.4 Mpps	130.9 Mpps	240.2 Mpps	240.2 Mpps	480.3 Mpps	480.3 Mpps
Routing table size (max. entries)	2,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
MAC address table size (max. entries)	8,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000	64,000
<b>Security</b>									
IEEE 802.1X	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Access control (MAC/Web Auth)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dynamic ARP protection	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DHCP protection media	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dynamic IP lockdown	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Virus throttling	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Management</b>									
Console management	DB-9	DB-9	DB-9	RJ-45	RJ-45	RJ-45	DB-9	DB-9	RJ-45
Out-of-band management port	–	–	–	RJ-45	RJ-45	RJ-45	–	–	–
ProCurve Manager Plus 2.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Remote port mirroring (based on ACL, port, MAC, or VLAN)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RMON, XRMON, sFlow	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.1AB—Link Layer Discovery Protocol (LLDP)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RADIUS (AAA support)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TACACS+	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>High availability</b>									
Redundant fabric and management	–	–	–	–	–	–	–	–	Yes
Hot-swappable modules	–	–	–	–	–	–	Yes	Yes	Yes
Redundant, hot-swappable power supplies	Optional RPS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hot-swappable fan trays	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Switch meshing	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VRRP**	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.ad (LACP)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.1s (STR RSTP MSTP)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Equal Cost Multipath (load balancing)	–	OSPF ECMP**	OSPF ECMP**	OSPF ECMP**	OSPF ECMP**	OSPF ECMP**	OSPF ECMP**	OSPF ECMP**	OSPF ECMP**
<b>QoS</b>									
IEEE 802.1p—8 priority levels	4 queues	2–8 queues	2–8 queues	2–8 queues	2–8 queues	2–8 queues	2–8 queues	2–8 queues	2–8 queues
Class of Service (CoS)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Layer 4 priority	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Advanced switching, routing, and IP services</b>									
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/2,048 VLANs	4,096 IDs/2,048 VLANs	4,096 IDs/2,048 VLANs
Jumbo Frames	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
sFlow	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Static routing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RIP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OSPF**	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IPv6 Host	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IGMP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PIM multicast routing**	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
iSCSI support	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

\* Available 1H2009

\*\* Available via Premium Software License

## For more information

To learn more about HP ProCurve Networking, please visit [ProCurve.com](http://ProCurve.com)

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