



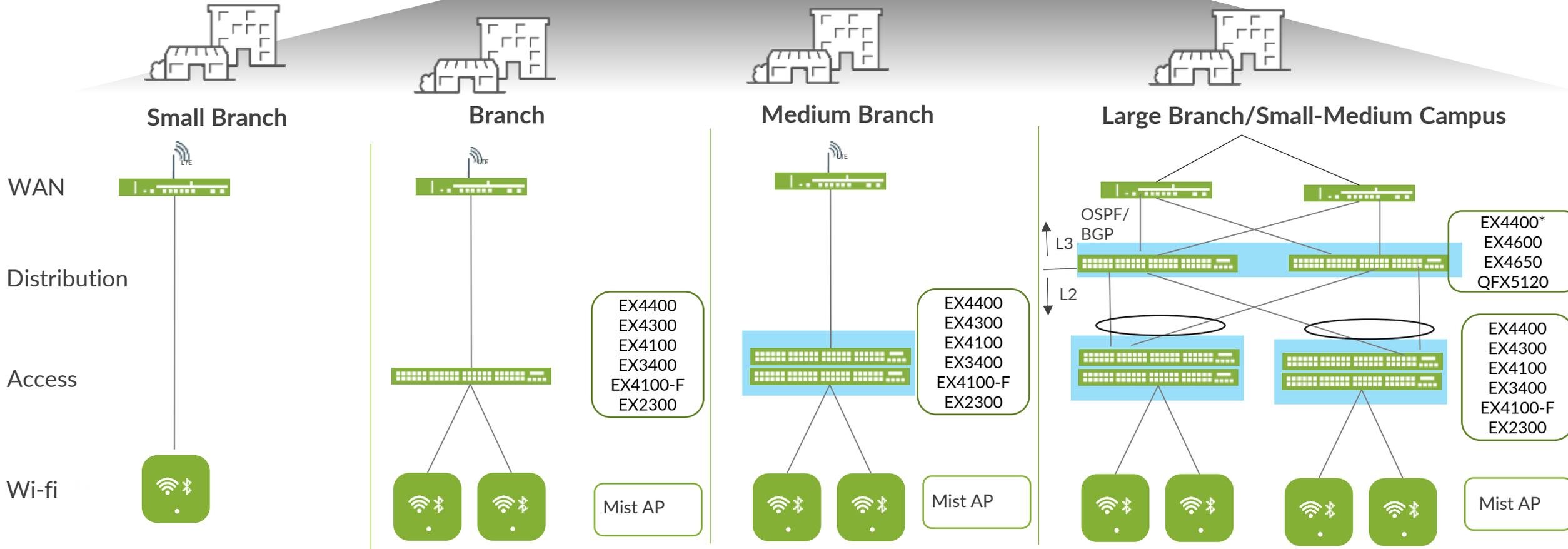
Campus & Branch Architecture

Branch Architectures



 Virtual Chassis

* EX4400-24X or EX4400-48F only and for distribution only

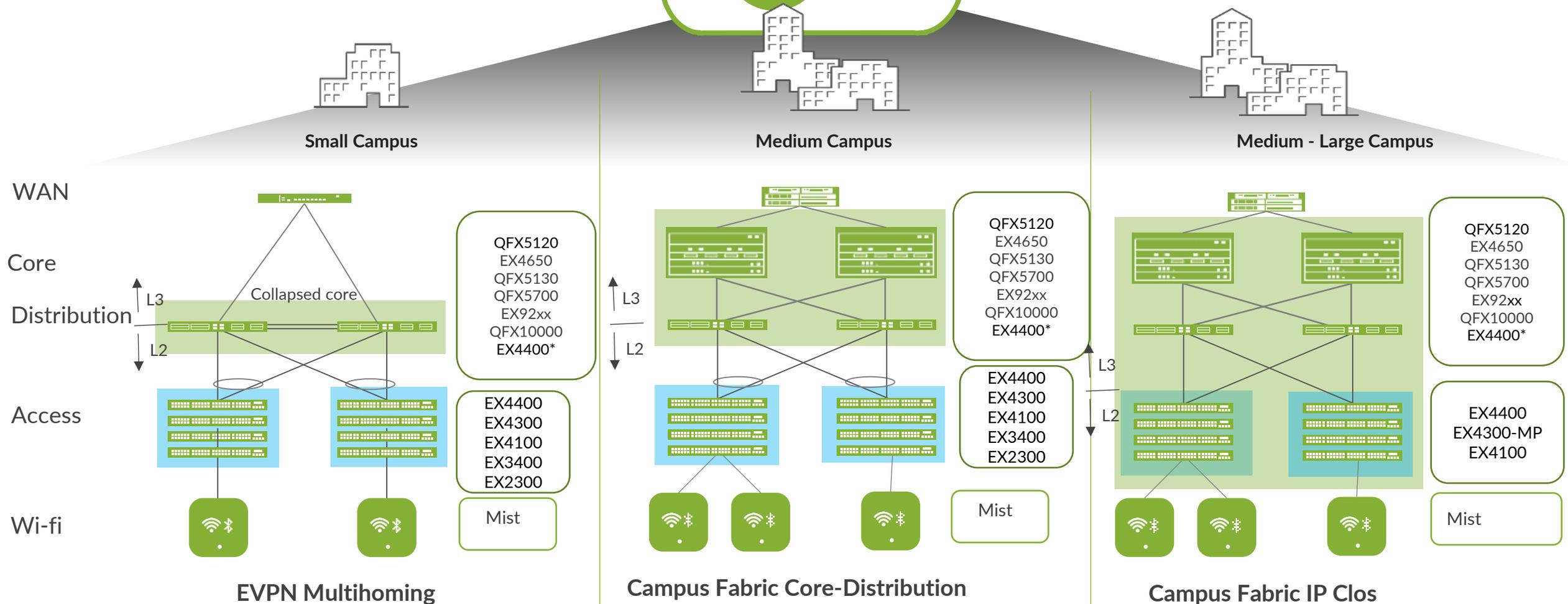


Campus Fabric Architectures



- EVPN-VXLAN/ESI-LAG
- Virtual Chassis

* EX4400-24X or EX4400-48F only and for distribution only





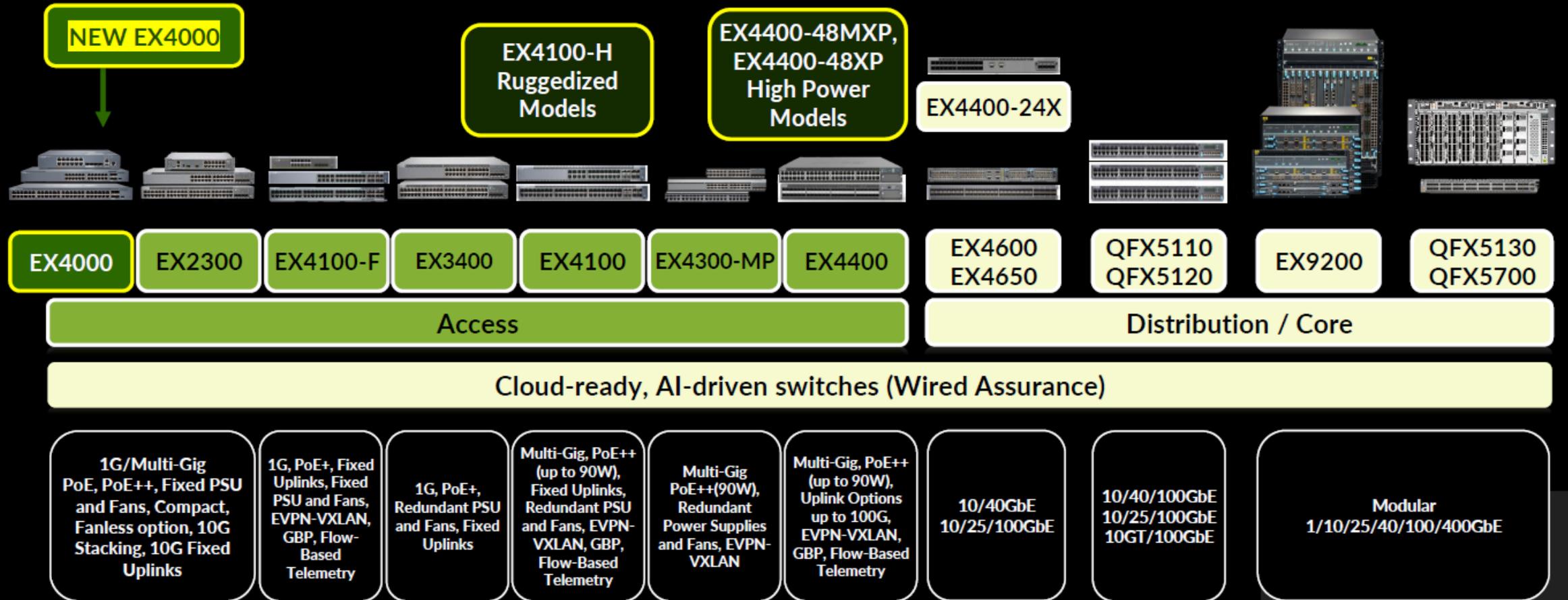
Enterprise Switching Portfolio

EX4000 switch family



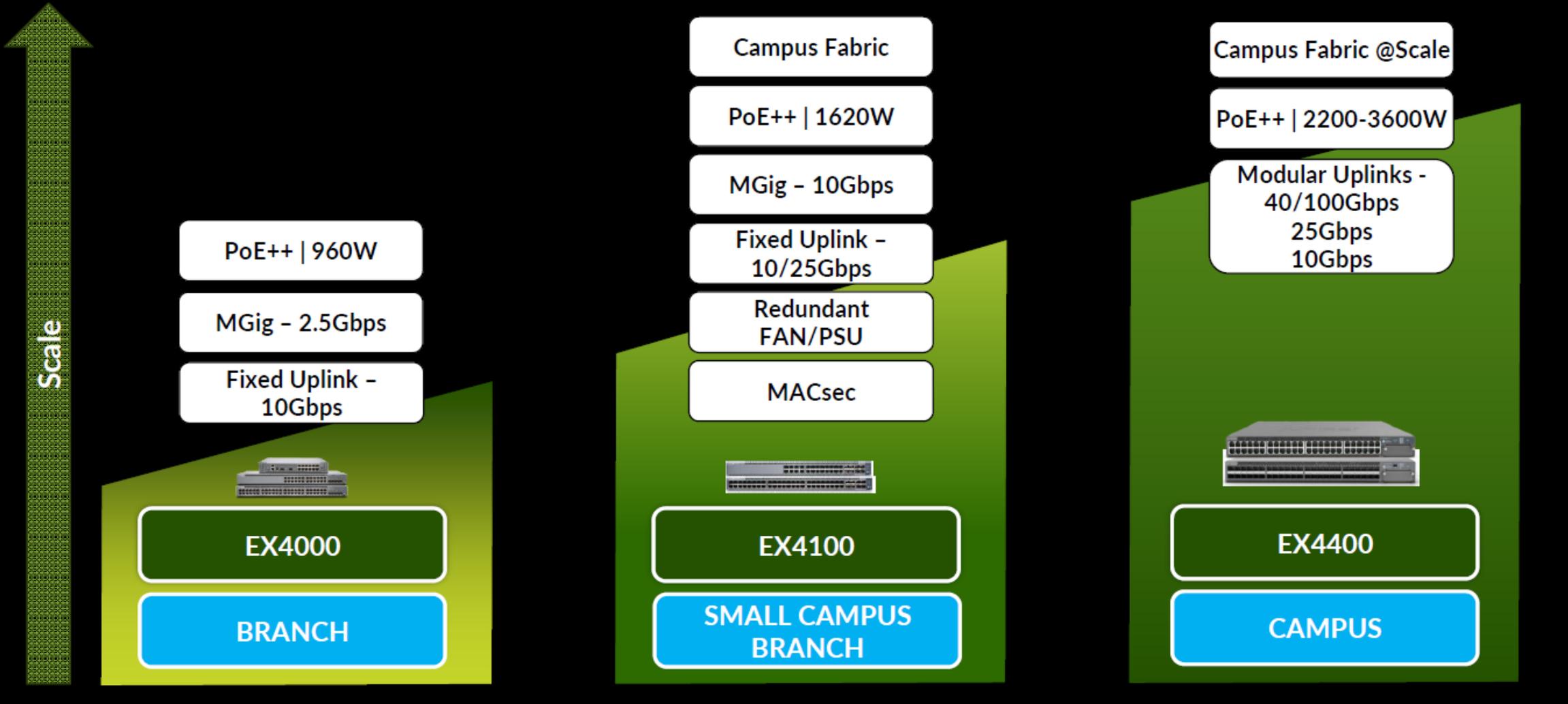
EX CAMPUS & BRANCH SWITCH PORTFOLIO

Cloud Native, AI Native Switching



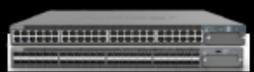
EX Access Switch – Use Cases

Cloud-Native, AI-Native Access Switching for Campus and Branch



EX4000 / EX4100-F / EX4100 / EX4400 Positioning

Cloud-Native, AI-Native Access Switching for Campus and Branch

													
Switch Family	EX4000			EX4100-F		EX4100			EX4400				
C & B Positioning	BRANCH			BRANCH		SMALL CAMPUS BRANCH			CAMPUS				
Form Factor	Fixed FANs, Fixed PSUs, Fixed Uplinks			Fixed FANs, Fixed PSUs, Fixed Uplinks		Redundant FRU PSUs and FANs, Fixed Uplinks			Redundant FRU PSUs and FANs, Flexible Modular Uplinks Options				
L2/L3/Campus Fabric	L2/L3			L2/L3		CAMPUS FABRIC	GBP	L2/L3	CAMPUS FABRIC	GBP	L2/L3	CAMPUS FABRIC	GBP
Feeds and Speeds	MGig 2.5G	Stacking 2x10G	Uplink 2x10G	1G	Stacking 4x10G	Uplinks 4x10G	MGig 10G	Stacking 4x25G	Uplink 4x10G	MGig 10G	Stacking 2x100G	Uplinks 1x 100G 4x 25G 4x 10G	
Maximum Switching Capacity	200 Gbps			256 Gbps		424 Gbps			1020 Gbps				
Virtual Chassis Members and BW	6 Members	40G		10 Members	80G	10 Members	200G		10 Members	400G			
MACsec	Not Supported			Not Supported		AES 256			AES 256				
PoE	802.3bt 60W	Max PoE Budget 960W		802.3at 30W	Max PoE Budget 740W	802.3bt 90W	Max PoE Budget 1620W		802.3bt 90W	Max PoE Budget 2200W	Max PoE Budget 3600W		

Juniper EX4000 Access Switch

Model/Product SKU	Access Port Configuration	PoE/PoE+ Ports	POE++ (60W)	PoE Power Budget	10GbE Ports (Uplinks)	10GbE Ports (Stacking/Uplinks)	Cooling
EX4000-8P	10-port 10/100/1000BASE-T	8	0	120 W	2	0	Fanless
EX4000-12T	12-port 10/100/1000BASE-T	0	N/A	N/A	2	2	Fanless
EX4000-12P	12-port 10/100/1000BASE-T	12	0	240 W	2	2	Fanless
EX4000-12MP	4x 100 MB/1GbE/2.5GbE + 8x 10 MB/100 MB/1GbE	0	12	240 W	2	2	Fanless
EX4000-24T	24-port 10/100/1000BASE-T	0	N/A	N/A	2	2	AFO (front-to-back airflow)
EX4000-24P	24-port 10/100/1000BASE-T	24	0	370 W	2	2	AFO (front-to-back airflow)

Model/Product SKU	Access Port Configuration	PoE/PoE+ Ports	POE++ (60W)	PoE Power Budget	10GbE Ports (Uplinks)	10GbE Ports (Stacking/Uplinks)	Cooling
EX4000-24MP	4x 100 MB/1GbE/2.5GbE + 20x 10 MB/100 MB/1GbE	24	24	480 W	2	2	AFO (front-to-back airflow)
EX4000-48T	48-port 10/100/1000BASE-T	0	N/A	N/A	2	2	AFO (front-to-back airflow)
EX4000-48P	48-port 10/100/1000BASE-T	48	0	740 W	2	2	AFO (front-to-back airflow)
EX4000-48MP	8x 100 MB/1GbE/2.5GbE + 40x 10 MB/100 MB/1GbE	0	48	960 W	2	2	AFO (front-to-back airflow)



The EX4000 line includes the following models:

EX4000-8P	Compact, fanless switch offering 8 x 1GbE, PoE+ (30W) access ports, 2 x 1GBaseT, and 2 x 1/10G SFP+ uplink ports with a total PoE budget of 120W
EX4000-12T	Compact, fanless switch offering 12 x 1GbE non-PoE access ports, 2 x 1/10G SFP+ uplink ports, and 2 x 10G SFP+ Virtual Chassis (VC) ports
EX4000-12P	Compact, fanless switch offering 12 x 1GbE, PoE+ (30W) access ports, 2 x 1/10G SFP+ uplink ports, and 2 x 10G SFP+ VC ports with a total PoE budget of 240W
EX4000-12MP	Compact, fanless switch offering 4 x 2.5 MGig access ports, 8 x 1GbE PoE++ (60W) access ports, 2 x 1/10G SFP+ uplink ports, and 2 x 10G SFP+ VC ports with a total PoE budget of 240W
EX4000-24T	Offers 24 x 1GbE non-PoE access ports, 2 x 1/10G SFP+ uplink ports, and 2 x 10G SFP+ VC ports
EX4000-24P	Offers 24 x 1GbE, PoE+ (30W) access ports, 2 x 1/10G SFP+ uplink ports, and 2 x 10G SFP+ VC ports with a total PoE budget of 370W
EX4000-24MP	Offers 4 x 2.5 MGig access ports, 20 x 1GbE, PoE++ (60W) access ports, 2 x 1/10G SFP+ uplink ports, and 2 x 10G SFP+ VC ports with a total PoE budget of 480W
EX4000-48T	Offers 48 x 1GbE, non-PoE access ports, 2 x 1/10G SFP+ uplink ports, and 2 x 10G SFP+ VC ports
EX4000-48P	Offers 48 x 1GbE, PoE+ (30W) access ports, 2 x 1/10G SFP+ uplink ports, and 2 x 10G SFP+ VC ports with a total PoE budget of 740W
EX4000-48MP	Offers 8 x 2.5 MGig, 40 x 1GbE, PoE++ (60W) access ports, 2 x 1/10G SFP+ uplink Ports and 2 x 10G SFP+ VC ports with a total PoE budget of 960W.

Packet Switching Capacities (Maximum with 64 Byte Packets)

- Non-blocking EX4000-8P: 30 Gbps (unidirectional)/60 Gbps (bidirectional)
- Non-blocking EX4000-12P/12T: 52 Gbps (unidirectional)/104 Gbps (bidirectional)
- Non-blocking EX4000-12MP: 58 Gbps (unidirectional)/116 Gbps (bidirectional)
- Non-blocking EX4000-24P/24T: 64 Gbps (unidirectional)/128 Gbps (bidirectional)
- Non-blocking EX4000-24MP: 70 Gbps (unidirectional)/140 Gbps (bidirectional)
- Non-blocking EX4000-48P/48T: 88 Gbps (unidirectional)/176 Gbps (bidirectional)
- Non-blocking EX4000-48MP: 100 Gbps (unidirectional) /200 Gbps (bidirectional)

Table 2. EX4000 Switch Power Options

Model Number	Max System Power Consumption (Input Power without PoE)	Total PoE Power Budget
EX4000-8P	30W	120W
EX4000-12T	34 W	0
EX4000-12P	34 W	240 W
EX4000-12MP	40 W	240 W
EX4000-24T	43 W	0
EX4000-24P	51 W	370 W
EX4000-24MP	57 W	480 W
EX4000-48T	63 W	0
EX4000-48P	71 W	740 W
EX4000-48MP	92 W	960 W

Software Specifications [Under Test]

Layer 2/Layer 3 Throughput (Mpps) (Maximum with 64 Byte Packets)

- EX4000-8P - 44Mpps
- EX4000-12P/T - 77Mpps
- EX4000-12MP - 86Mpps
- EX4000-24P/T - 95Mpps
- EX4000-24MP - 104Mpps
- EX4000-48P/T - 130Mpps
- EX4000-48MP - 148Mpps

Juniper EX4000 Access Switch

User and sustainability both benefit from EX4000's fanless operation



Juniper EX4100 Access Switch



High Performance & Built-in Redundancy

- 1GbE/Multigigabit density
- 10GbE, 25GbE VC/uplinks in 1RU
- Dual redundant power supplies and fans

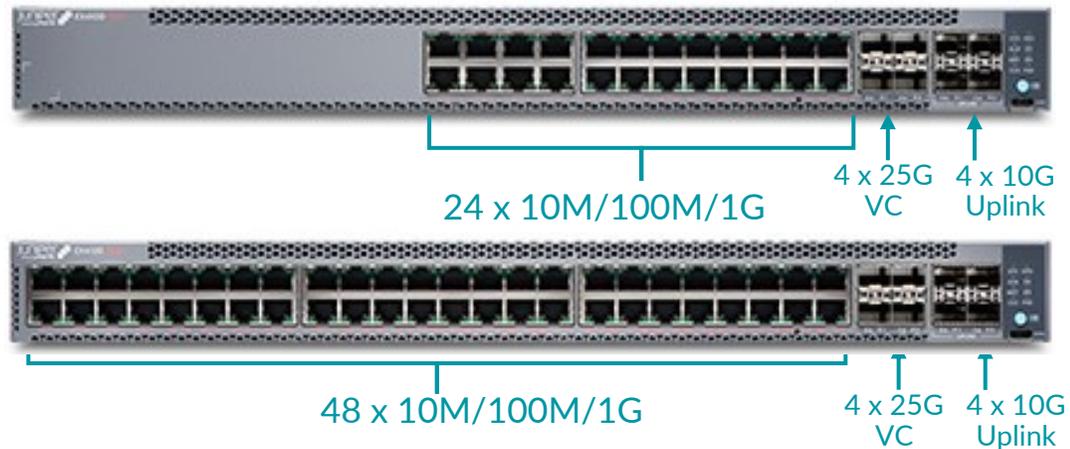
Standard Compliance

- Full PoE (15.4W) support with a single PSU
- Full PoE+ (30W) support with dual PSU
- PoE++ (90W) support

Simplification

- Juniper Virtual Chassis (10 devices)
- EVPN VXLAN Campus Fabric
- Micro segmentation with GBP, Flow based telemetry
- MACsec AES 256 on Uplink interfaces

EX4100 1G Overview

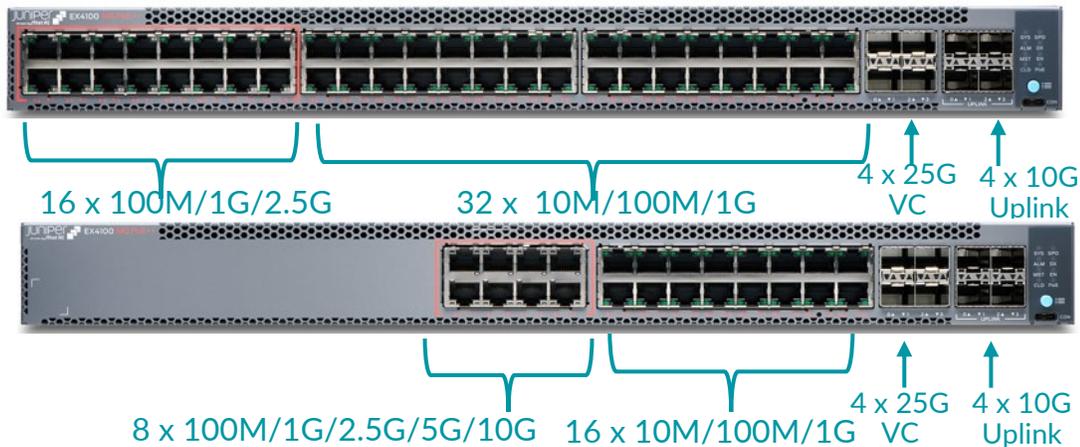


- PoE / non-PoE options
- 10M/100M/1G copper ports
- 4 x 1/10/25 GbE SFP28 fixed Virtual Chassis / Uplink ports*
- 4 x 1/10 GbE SFP+ fixed Uplinks
- 802.3af/at on all access ports
- MACsec AES 256

SKUs	10M/100M/1G BASE-T ports	10/100/1000/2.5GBASE-T ports	100M/1G/2.5/5/10 GBASE-T ports	1/10GbE SFP+ Uplink ports	10G/25G fixed VCP ports	PoE (30W capable) Ports	PoE Power Budget	Cooling	AC/DC	PS Rating
EX4100-24P/T	24	N/A	N/A	4	4	24/NA	1440 W/ NA	2x FRU, AFO	2x FRU AC	2 X 920 W 2 X 150 W
EX4100-48P/T	48	N/A	N/A	4	4	48/NA	1440 W/ NA	2x FRU, AFO	2x FRU AC	2 X 920 W 2 X 150 W
EX4100-24T/48T-DC	48	N/A	N/A	4	4	NA/NA	NA/NA	2x FRU, AFO	2x FRU DC	2 X 150 W
EX4100-48T-AFI	48	N/A	N/A	4	4	NA	NA	2x FRU, AFI	2x FRU AC	2 X 150 W

* 1GbE speed supported only when VC ports converted to uplink ports

EX4100 MULTI-GIG Overview



- 100M/1G/2.5/5/10GbE-T on MGE copper ports
- 10M/100M/1G on 1 GE copper ports
- 4 x 1/10/25 GbE SFP28 fixed Virtual Chassis / Uplink ports*
- 4 x 100M/1/10 GbE SFP+ fixed Uplinks
- 802.3af/at/bt on all access ports
- MACsec AES 256

SKUs	10M/100M/1G BASE-T ports	100M/1G/2.5G BASE-T ports	100M/1G/2.5G/5G/10G BASE-T ports	1G/10GbE SFP+ module ports	10G/25G fixed VCP ports	PoE++ (90W capable) Ports	PoE Power Budget	Cooling	AC/DC	PS Rating
EX4100-48MP	32	16	N/A	4	4	48	1620 W	2x FRU, AFO	2x FRU AC	2 X 920 W
EX4100-24MP	16	N/A	8	4	4	24	1620 W	2x FRU, AFO	2x FRU AC	2 X 920 W

* 1GbE speed supported only when VC ports converted to uplink ports

EX4100-F [-12 -24 and -48] Port Access Switches



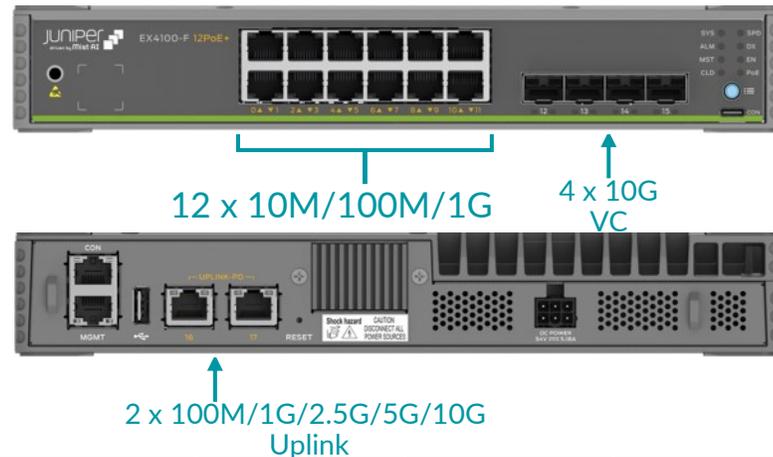
Key Benefits

- 1GbE density, Compact-Fan less -12 Port option
- EVPN-VXLAN Campus Fabric
- Standards-based micro segmentation using group-based policies
- Flow based telemetry
- PoE+ (30W) support, Fast and Perpetual PoE
- Support for PoE powered and PoE Passthrough on EX4100-F-12P with up to 300W PoE budget
- Juniper Virtual Chassis (10 switches in a Virtual Chassis)

Switch Type	SKUs	Interfaces	Stacking/Uplink	POE Budget
48 Port POE/Non-POE	EX4100-F-48P/T	48x1G Copper	4x 10G (Default VC) +	740W (PoE+)
24 Port POE/Non-POE	EX4100-F-24P/T	24x1G Copper	4x 10G (Default Uplinks)	370W (PoE+)
12 Port POE/Non-POE	EX4100-F-12P/T	12x1G Copper	4x 10G (Default VC) +	180W (PoE+) with Power adapter; upto 300W with external PSE and Power adapter
			2x 10G (Default Uplinks)	

EX4100-F-12 Port Overview

EX4100-F-12P/T



- PoE / non-PoE options
- 10M/100M/1G copper ports
- 4 x 1/10 GbE SFP+ fixed Virtual Chassis / Uplink ports*
- 2x 100M/1G/2.5G/5G/10G BASE-T fixed copper Uplinks
- 802.3af/at on all access ports
- Energy Efficient Ethernet
- PoE Powered EX4100-F-12P compact switch

SKUs	10M/100M/1G BASE-T ports	10/100/1000/2.5GBASE-T ports	100M/1G/2.5/5/10 GBASE-T ports	100M/1G/2.5G/5G/10G BASE-T uplink ports	1G/10G fixed VCP ports	PoE (30W capable) Ports	PoE Power Budget	Cooling	AC	PS Rating
EX4100-F-12P/T	12	N/A	N/A	2	4	12/NA	180 W**/ NA	N/A***	External Adapter AC	280 W / 75W

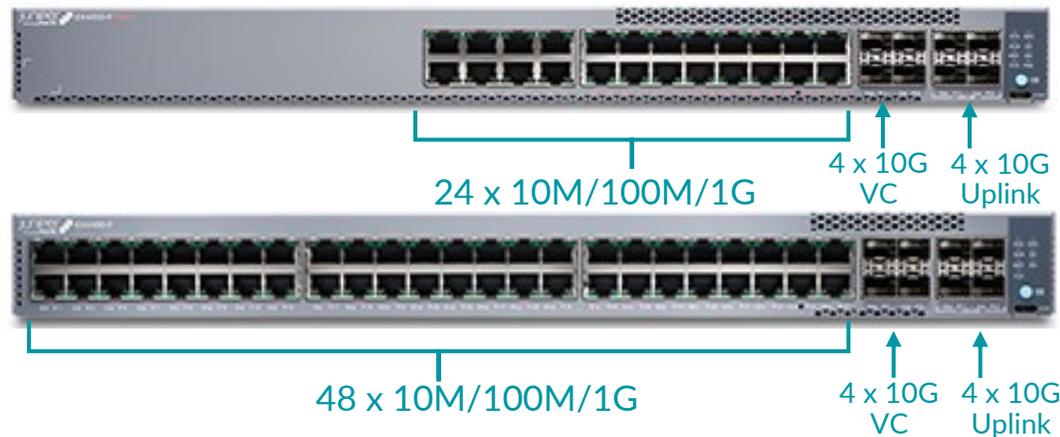
* 1GbE speed supported only when VC ports converted to uplink ports

** EX4100-F-12P: 180W PoE budget with AC adapter, up to 300W PoE budget with AC adapter and Uplink PD ports

*** - Natural Convection cooling

EX4100-F 1G Overview

EX4100-F- 48P/T & EX4100-F-24P/T



- PoE / non-PoE options
- 10M/100M/1G copper ports
- 4 x 1/10 GbE SFP28 fixed Virtual Chassis / Uplink ports*
- 4 x 1/10 GbE SFP+ fixed Uplinks
- 802.3af/at on all access ports
- Energy Efficient Ethernet

SKUs	10M/100M/1G BASE-T ports	10/100/1000/2.5GBASE-T ports	100M/1G/2.5/5/10 GBASE-T ports	10GbE SFP+ fixed uplink ports	10G fixed VCP ports	PoE (30W capable) Ports	PoE Power Budget	Cooling	AC	PS Rating(Built-In)
EX4100-F-24P/T	24	N/A	N/A	4	4	24/NA	370 W/NA	2x Built-In/1x Built-In, AFO	Built-In AC	Built-In 450 W Built-In 65W
EX4100-F-48P/T	48	N/A	N/A	4	4	48/NA	740 W/NA	2x Built-In/1x Built-In, AFO	Built-In AC	Built-In 850 W Built-In 90 W

* 1GbE speed supported only when VC ports converted to uplink ports

New EX4100-H Ruggedized Switching

Extending Cloud Native, AI Native Switching to the *Outdoors & Harsh Conditions*

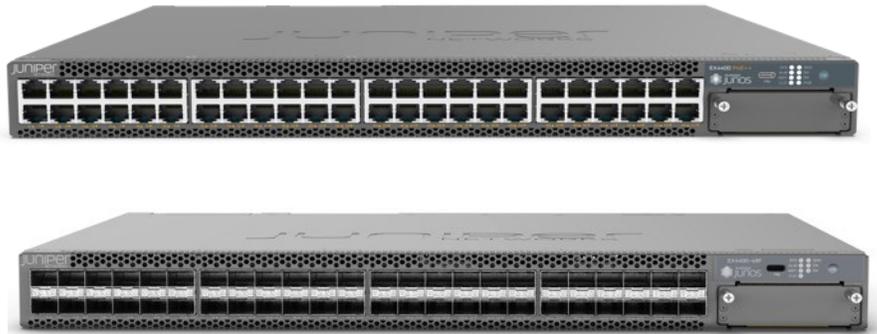


Key Benefits

- 12 Port, 24 Port Copper and 24 Port Fiber **Ruggedized** switches
- Dual redundant PSUs (AC and DC PoE options); fanless with extended temp. -40C to +75C
- MGig (up to 2.5G) and PoE++(90W) & Fiber port capability
- Dry Contact Alarms: 2 in & 1 Out | **AES256 MACsec capability**
- Junos feature parity with existing EX4100 switches | Juniper Mist **Wired Assurance Day0-2+**
- **Use Cases:** Smart Cities (lighting/traffic signals), EV Charging stations, petrol/gas stations, industrial automation and manufacturing, remote surveillance, transportation (rail, marine, automotive), outdoor campus deployments, and more.

SKU	Interfaces	Stacking/Uplink	MACsec(AES256)	POE Budget [1-2PSU]
EX4100-H-12MP EX4100-H-12MP-DC	4x100MB/1G/2.5G RJ45 + 8x10MB/100MB/1G RJ45	2x 10G (Default VC) + 2x 10G (Uplinks)	Uplinks (2) + MGig (4)	240W - 360W (PoE++)
EX4100-H-24MP EX4100-H-24MP-DC	8x100MB/1G/2.5G RJ45 + 16x10MB/100MB/1G RJ45	4x 10G (Default VC) + 4x 10G (Uplinks)	Uplinks (4) + MGig (4)	240W - 370W (PoE++)
EX4100-H-24F EX4100-H-24F-DC	24x1G SFP	4x 10G (Default VC) + 4x 10G (Uplinks)	Uplinks (4) + All Access Ports(24)	NA

Juniper EX4400 Access Switch



High Performance & Built-in Redundancy

- 1GbE/Multigigabit density
- 10GbE, 25GbE and 100GbE uplinks in 1RU
- Fiber option available
- Dual redundant power supplies and fans

Standard Compliance

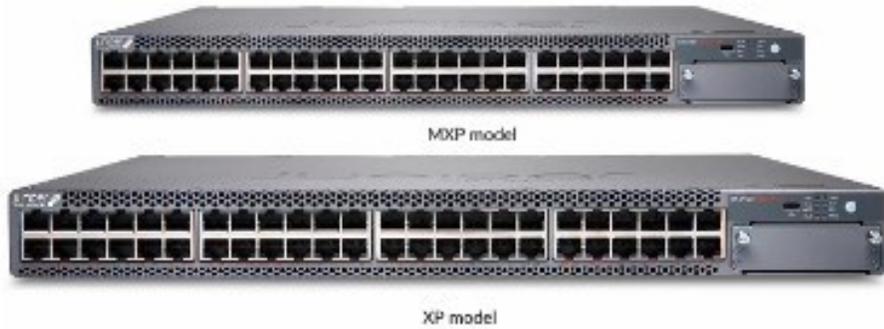
- Full PoE (15.4W) support with a single PSU
- Full PoE+ (30W) support with dual PSU
- PoE++ (90W) support

Simplification

- Juniper Virtual Chassis (10 devices)
- EVPN VXLAN Campus Fabric
- Microsegmentation with GBP, Flow based telemetry
- MACsec AES 256 on 100G & 25G uplink and all downlink interfaces

NEW EX4400-48MXP, EX4400-48XP

Extending Juniper's existing EX4400 for Scaling Power into the Future || Enhance Smart Buildings like never before



Key Benefits

- Competitive increase PoE power budget
- Redundant 2000W AC AFO new PSU
- Higher POE budget – 3600W (est.) vs. 2200W (current EX4400)
- Software feature parity with current EX4400 switches | Wired Assurance
- **Use case: [WiFi 6E/7 APs, Smart Buildings/Building Lighting, Power hungry end points](#)**

Switch Type	SKU	Interfaces	Extension Modules	Stacking/ Uplink	POE Budget (2 PSU)
48 Port Gigabit	EX4400-48XP	48x1G		2x100G QSFP28 (built-in)	3600W
48 Port Multi-Gigabit	EX4400-48MXP	12x1/2.5/5/10G + 36x1/2.5G Copper	1x100G QSFP28 4x25G SFP28 4x10G SFP+	4x25G (extension module ports in HGoE mode)	3600W

Comparison

SKU	Positioning	Max. Ports @ 90W/Port	Max Ports @ 60W/Port
EX4400-48XP (new)	1G Access, POE++	40	48
EX4400-48MXP (new)	Multi-gig Access, POE++	40	48
EX4400-48P (existing)	1G Access, POE++	24	36
EX4400-48MP (existing)	Multi-gig Access, POE++	24	36

EX4400 Overview

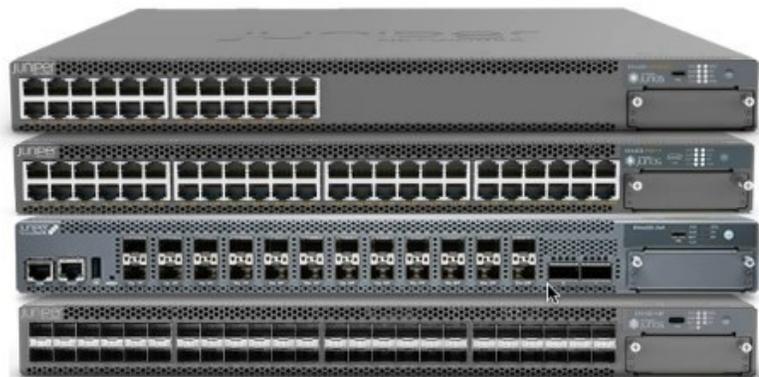


Premium 1GbE/Multigigabit Access Switch

- 24, 48x10/100/1000BASE-T or Multigigabit ports
- 4 x 1/10GbE SFP+, 4 x 25GbE SFP28 or 1x100G QSFP28 uplink modules
- 2 x 100GbE fixed QSFP28 ports (VC or uplink)
- Scalable & flexible standards-based EVPN-VXLAN Campus fabric
- Microsegmentation using Group based policies and rich telemetry
- Monitor real time traffic flows to protect against security threats
- End-to-end line-rate traffic encryption with MACsec AES256
- Power digital buildings with PoE++ based lighting solutions
- 10-member Virtual Chassis with 400G full-duplex stacking

EX4400 SKUs	10/100/1000BASE-T access ports	1/2.5G Multigigabit access ports	100M/1/2.5/5/10G	1G Fiber access ports	10G Fiber access ports	10GbE SFP+ (module)	25GbE SFP28 (module)	QSFP28	PoE Ports	PoE Power Budget	Cooling	AC/DC
EX4400-48F	0	0	0	36	12	4	4	2	0	0	AFO	AC
EX4400-48F-AFI	0	0	0	36	12	4	4	2	0	0	AFI	AC
EX4400-48F-DC	0	0	0	36	12	4	4	2	0	0	AFO	DC
EX4400-48F-DC-AFI	0	0	0	36	12	4	4	2	0	0	AFI	DC
EX4400-24P	24	0	0	0	0	4	4	2	24	1440W (2160W w/1600W PSU)*	AFO	AC
EX4400-48P	48	0	0	0	0	4	4	2	48	2200W*	AFO	AC
EX4400-24T	24	0	0	0	0	4	4	2	0	0	AFO	AC
EX4400-24T-AFI	24	0	0	0	0	4	4	2	0	0	AFI	AC
EX4400-24T-DC	24	0	0	0	0	4	4	2	0	0	AFO	DC
EX4400-24T-DC-AFI	24	0	0	0	0	4	4	2	0	0	AFI	DC
EX4400-48T	48	0	0	0	0	4	4	2	0	0	AFO	AC
EX4400-48T-AFI	48	0	0	0	0	4	4	2	0	0	AFI	AC
EX4400-48T-DC	48	0	0	0	0	4	4	2	0	0	AFO	DC
EX4400-48T-DC-AFI	48	0	0	0	0	4	4	2	0	0	AFI	DC
EX4400-24MP	0	0	24	0	0	4	4	2	24	1800W (2160W w/1600W PSU)*	AFO	AC
EX4400-48MP	0	36	12	32	0	4	4	2	48	2200W	AFO	AC

EX4400 Differentiated HW Performance



Key Benefits

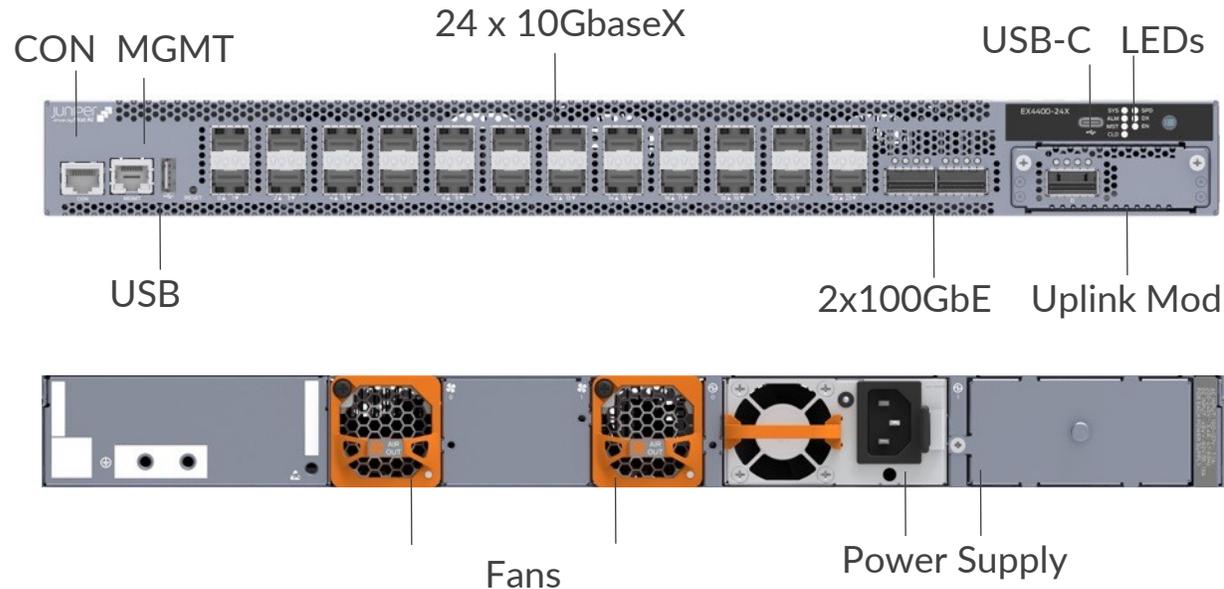
- Scalable & flexible **standards-based** EVPN-VXLAN Campus fabric
- End-to-end **line-rate traffic encryption** with MACsec AES256 (except 4X10G uplink)
- Power digital buildings with **PoE++ based lighting solutions**
- Monitor real time traffic flows to **protect against security threats**
- 10-member Virtual Chassis with **400G full-duplex stacking**

SKU	SKU	Interfaces	Extension	Stacking/ Uplink	POE Budget (2 PSU)
48 Port Fiber	EX4400-48F	12x10G + 36x1G	4x25G 4x10G	2x100G	NA
24 Port Fiber	EX4400-24X	24x10G			NA
48 Port POE/Non-POE	EX4400-48P/XP/T	48x1G			1800W / 3600W / NA
24 Port POE/Non-POE	EX4400-24P/T	24x1G			1440W / NA
48 Port Multi-Gigabit	EX4400-48MP/MXP	12x1/2.5/5/10G + 36x1/2.5G			2200W /3600W
24 Port Multi-Gigabit	EX4400-24MP	24x1/2.5/5/10G			1800W



Distribution / Core Switching Portfolio

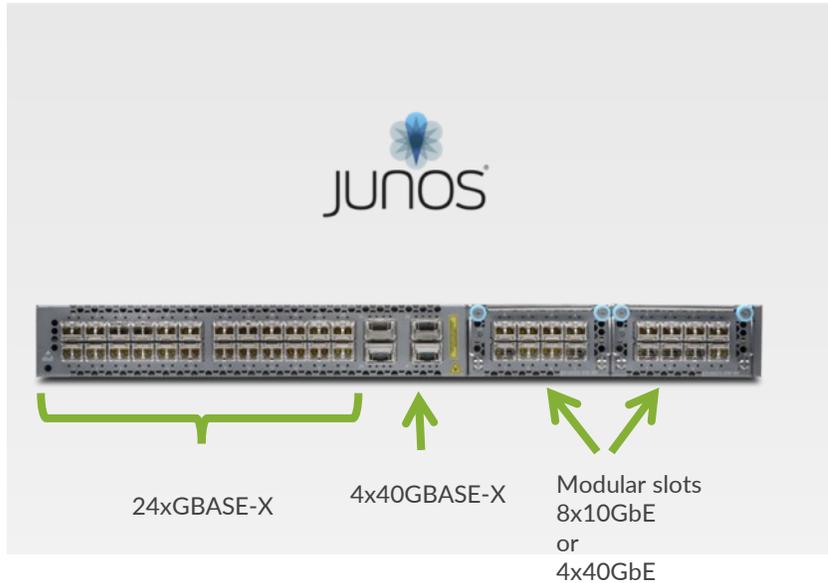
EX4400-24X Distribution Switch -overview



- 24x1/10GbaseX
- 2x100GbE/40GbE uplinks/virtual chassis (HGoE)
- Common EX4400 uplink modules
 - 4x25G MACsec AES256
 - 4x10G non-MACsec
 - 1x100G MACsec AES256 (Roadmap Q1-2023)
- 10-member virtual chassis (needs HGOE enabled)
 - Virtual Chassis with EX4400 (HGOE)
- MACsec AES256 on all ports
- Campus Fabric EVPN-VXLAN
- Micro-segmentation with GBP
- Flow based Telemetry
- Cloud LED & PHC

SKU	Description
EX4400-24X	24X10GbaseX switch with 2X100G
EX4400-24X-AFI	24X10GbaseX switch, 2X100G, AFI
EX4400-24X-DC	24X10GbaseX switch, 2X100G, DC, AFO
EX4400-24X-DC-AFI	24X10GbaseX switch, 2X100G, DC, AFI

EX4600 Compact Distribution Switch



- 10GBASE-X platform for distribution
 - 24x10GBASE-X SFP+ ports
 - 4x40GbE fixed QSFP+ ports
- 10-member Virtual Chassis platform

EX4600 SKUs	10GBASE-X ports	40 GBASE-X ports	Total 10GBASE-X ports	Cooling	AC/DC
EX4600-40F-AFO	24	4	40	AFO	AC
EX4600-40F-AFI	24	4	40	AFI	AC
EX4600-40F-DC-AFO	24	4	40	AFO	DC
EX4600-40F-DC-AFI	24	4	40	AFI	DC

EX4650 Compact 25/100Gbe Distribution Switch



High Speed Core and Distribution Switch

Highlights

- Enterprise 25GbE optimized aggregation and core switch
- EVPN-VXLAN L2 and L3 Gateway
- Port flexibility: 1/10/25GbE & 25/40/100GbE

Target customer

- Small and medium enterprises
- Smaller locations for large enterprises

EX4600 SKUs	10GBASE-X/ 25GBASE-X ports	40GBASE-X/ 100GBASE-X ports	Cooling	AC/DC
EX4650-48Y-AFO	48	8	AFO	AC
EX4600-40F-AFI	48	8	AFI	AC
EX4650-48Y-DC-AFO	48	8	AFO	DC
EX4650-48Y-DC-AFI	48	8	AFI	DC

Benefits: Enables new architectures

- Scalable Layer 3 core
- EVPN based segmentation from campus to data center
- Easy transition to 25GbE/100GbE

Data Center switching portfolio



QFX5110-48S QFX5110-32Q	QFX5120-48Y QFX5120-48YM QFX5120-48T QFX5120-32C	QFX5130-32CD QFX5700	QFX5200-32C	QFX5210-64C	QFX5220-32CD QFX5220-128C	ACX7100-48L ACX7100-32C	QFX10002-36Q QFX10002-72Q QFX10002-60C	PTX10003-160C PTX10001-36MR PTX10002	QFX10008 QFX10016	PTX10004 PTX10008 PTX10016
Trident 2+	Trident 3	Trident 4	Tomahawk	Tomahawk 2	Tomahawk 3	Jericho	Juniper Custom Silicon			
48x10GbE and 4x40/100GbE 32x40GbE 20x40GbE and 4x100GbE	48x10/25GbE and 8x40/100GbE 48x1/10GbE and 6x40/100GbE 32x40/100GbE	32x40/100/400GbE and 2x10GbE 32x400GbE 128x40/100GbE 64x40/100GbE and 16x400GbE	32x40/100GbE	64x100GbE and 2x10GbE	32x400GbE 128x100GbE	48x50GbE and 6x400GbE 32x100GbE and 4x400GbE	36x40GbE or 12x100GbE 72x40GbE or 24x100GbE 60x100GbE	160x100GbE 32x400GbE 96x100GbE 24x400GbE 60x100G	1152/2304 x10GbE 288/576 x40GbE 240/480 x100GbE	576/1152 x100GbE 144/288/576 x400GbE
Junos OS with EVPN-VXLAN, IP Fabric and MC-LAG										

QFX5110 Switch

The QFX5110 switches include 10GbE (fiber) and 40GbE or 100GbE fixed-configuration options with rich Layer 2, Layer 3, and MPLS features. The QFX5110 switches run the same reliable, high-performance Juniper Networks Junos operating system that is used by the Juniper Networks QFX5100 family of products, EX Series Ethernet Switches, Juniper Networks routers, and Juniper Networks SRX Series Services Gateways, ensuring a consistent implementation and operation of control plane features across the entire Juniper infrastructure.

The QFX5110 switches feature the following highlights:

- Support high-density, multi-speed configurations for 10/40/100GbE access and aggregation, with up to 64 or 96 10GbE ports, up to four 100GbE uplink ports, and up to 32 40GbE ports in a 1 U platform
- Deliver up to 2.56 Tbps Layer 2 and Layer 3 performance, with latency as low as 550 nanoseconds
- Include a 1.8 GHz quad-core Intel CPU with 16 GB memory and 64 GB SSD storage
- Feature rich automation capabilities with support for Python and zero touch provisioning (ZTP)
- Support virtualization protocols such as Virtual Extensible LAN (VXLAN) and Open vSwitch Database (OVSDB) protocol as L2 Gateway or L3 Gateway
- Offer advanced Junos OS features such as BGP add-path, MPLS, L3 VPN, and IPv6 6PE

32-port Switches:

- QFX5110-32Q-AFO2 28 QSFP+ ports, 4 QSFP28 ports; Front-to-back airflow, includes 2x 650W FB AC PS [QFX5110-32Q-AFO2]
- QFX5110-32Q-AFO-T2 28 QSFP+ ports, 4 QSFP28 ports; Front-to-back airflow, TAA-compliant, includes 2x 650W FB AC PS [QFX5110-32Q-AFO-T2]
- QFX5110-32Q-AFI2 28 QSFP+ ports, 4 QSFP28 ports; Back-to-front airflow, includes 2x 650W BF AC PS [QFX5110-32Q-AFI2]
- QFX5110-32Q-AFI-T2 28 QSFP+ ports, 4 QSFP28 ports; Back-to-front airflow, TAA-compliant, includes 2x 650W BF AC PS [QFX5110-32Q-AFI-T2]
- QFX5110-32Q-D-AFO2 28 QSFP+ ports, 4 QSFP28 ports; Front-to-back airflow, includes 2x 650W FB DC PS [QFX5110-32Q-D-AFO2]
- QFX5110-32Q-D-AFI2 28 QSFP+ ports, 4 QSFP28 ports; Back-to-front airflow, includes 2x 650W BF DC PS [QFX5110-32Q-D-AFI2]

48-port Switches:

- QFX5110-48S-AFO2 48 SFP+ ports, 4 QSFP28 ports; Front-to-back airflow, includes 2x 650W FB AC PS [QFX5110-48S-AFO2]
- QFX5110-48S-AFO-T2 48 SFP+ ports, 4 QSFP28 ports; Front-to-back airflow, TAA-compliant, includes 2x 650W FB AC PS [QFX5110-48S-AFO-T2]
- QFX5110-48S-AFI2 48 SFP+ ports, 4 QSFP28 ports; Back-to-front airflow, includes 2x 650W BF AC PS [QFX5110-48S-AFI2]
- QFX5110-48S-AFI-T2 48 SFP+ ports, 4 QSFP28 ports; Back-to-front airflow, TAA-compliant, includes 2x 650W BF AC PS [QFX5110-48S-AFI-T2]
- QFX5110-48S-D-AFO2 48 SFP+ ports, 4 QSFP28 ports; Front-to-back airflow, includes 2x 650W FB DC PS [QFX5110-48S-D-AFO2]



Front View



Back View

QFX5120 Switch

32-port Switches:

- QFX5120-32C-AFO 32 QSFP28 ports; Front-to-back airflow, includes 2x 650W FB AC PS [QFX5120-32C-AFO]
- QFX5120-32C-AFO-T 32 QSFP28 ports; Front-to-back airflow, TAA-compliant, includes 2x 650W FB AC PS [QFX5120-32C-AFO-T]
- QFX5120-32C-AFI 32 QSFP28 ports; Back-to-front airflow, includes 2x 650W BF AC PS [QFX5120-32C-AFI]
- QFX5120-32C-AFI-T 32 QSFP28 ports; Back-to-front airflow, TAA-compliant, includes 2x 650W BF AC PS [QFX5120-32C-AFI-T]
- QFX5120-32C-DC-AFO 32 QSFP28 ports; Front-to-back airflow, includes 2x 650W FB DC PS [QFX5120-32C-DC-AFO]
- QFX5120-32C-DC-AFI 32 QSFP28 ports; Back-to-front airflow, includes 2x 650W BF DC PS [QFX5120-32C-DC-AFI]

48-port Switches:

- QFX5120-48T-AFO 48 100M/1G/10G ports, 6 QSFP28 ports; Front-to-back airflow, includes 2x 650W FB AC PS [QFX5120-48T-AFO]
- QFX5120-48T-AFO-T 48 100M/1G/10G ports, 6 QSFP28 ports; Front-to-back airflow, TAA-compliant, includes 2x 650W FB AC PS [QFX5120-48T-AFO-T]
- QFX5120-48T-AFI 48 100M/1G/10G ports, 6 QSFP28 ports; Back-to-front airflow, includes 2x 650W BF AC PS [QFX5120-48T-AFI]
- QFX5120-48T-AFI-T 48 100M/1G/10G ports, 6 QSFP28 ports; Back-to-front airflow, TAA-compliant, includes 2x 650W BF AC PS [QFX5120-48T-AFI-T]
- QFX5120-48T-DC-AFO 48 100M/1G/10G ports, 6 QSFP28 ports; Front-to-back airflow, includes 2x 650W FB DC PS [QFX5120-48T-DC-AFO]
- QFX5120-48T-DC-AFI 48 100M/1G/10G ports, 6 QSFP28 ports; Back-to-front airflow, includes 2x 650W BF DC PS [QFX5120-48T-DC-AFI]
- QFX5120-48Y-AFO2 48 SFP28 ports, 8 QSFP28 ports; Front-to-back airflow, includes 2x 650W FB

The Juniper Networks QFX5120 Switch delivers high scale, high availability, and high performance for data center and campus deployments. The QFX5120 Switch is a versatile routing and switching platform addressing higher server access speed and campus distribution use cases while offering high-density 1GbE/10GbE/25GbE and 100GbE uplinks for collapsed spine data center or campus distribution deployments.

The QFX5120-48Y is a 25GbE/100GbE data center leaf and campus distribution switch featuring:

- 48 25GbE (SFP28)/10GbE (SFP+)/1GbE (SFP) downlink ports
- Eight 100GbE (QSFP28)/40GbE (QSFP+) uplink ports
- Up to 4 Tbps L2 and L3 performance (bidirectional), with latency as low as 800 nanoseconds
- A 2.2 GHz quad-core Intel CPU with 16 GB memory and 50 GB SSD storage

Using breakout cables, each of the eight 100GbE QSFP28 ports can be broken into four 25GbE SFP28 ports, while each 40GbE quad small form-factor pluggable plus (QSFP+) transceiver ports can be broken into four 10GbE small form-factor pluggable plus (SFP+) transceiver ports, increasing the total number of supported 25GbE and 10GbE ports per switch to 80.



Front View



Back View