

Benefits of Upgrading to Cisco Catalyst 9500 Switches

Why upgrade to the Cisco Catalyst 9500 Series Switches?

Reimagine, Reinforce, Redefine

Cisco® Catalyst® 9500 Series switches are Cisco's lead fixed enterprise core and aggregation switching platform and as part of the Catalyst 9000 family, are built to transform your network to handle a hybrid world where the workplace is anywhere, endpoints could be anything, and applications are hosted all over the place.

The Catalyst 9500 Series, including the new Catalyst 9500X models, continues to shape the future with continued innovation that helps you reimagine connections, reinforce security and redefine the experience for your hybrid workforce big and small.



Improve your results with our services

No matter where you are in your journey, Cisco and our partners offer services expertise to help you accelerate your digital network transformation – from upgrade and optimization services to award-winning support. We help you speed your upgrade deployments, reduce risk and complexity and provide business continuity as you refresh your network. To simplify and support your upgrade Cisco offers services to streamline the process and help you get the most out of your investment. The Upgrade Service helps control costs, improve operational excellence and mitigate risk during your refresh.

Learn more about all [Services for Switches](#).

Trends	Features	Previous fixed core switches		Latest fixed core switch	Benefits
		Cisco Catalyst 6880-X-LE	Cisco Catalyst 6880-X	Cisco Catalyst 9500X ² Models	
Speed and performance	Chassis Bandwidth	2 Tbps	2 Tbps	12 Tbps	Support core 10G, 25G, 40G, 50G, 100G and 400G
	10G	✓	✓	✓	
	100G/400G	N/A	N/A	✓	
	Max 1G Density	80 ports	80 ports	N/A	
	Max 10G Density	80 ports	80 ports	88 ports	
	Max 25G/50G	N/A	N/A	76 ports	
	Max 100G density	N/A	N/A	60 ports	
	Max 400G density	N/A	N/A	8 ports	
Advanced security	Cisco TrustSec/SGT ³	✓	✓	✓	Orchestrate role based access to corporate resources by any user, with any device, from any location at any time Cisco WAN MACsec provides a line-rate network encryption solution over Layer 2 Ethernet networks
	Trustworthy Solutions	✓	✓	✓	
	Native MACsec-256 encryption	128-bit	128-bit	✓	
	WAN MACsec encryption	N/A	N/A	✓	

Trends	Features	Previous fixed core switches		Latest fixed core switch	Benefits
		Cisco Catalyst 6880-X-LE	Cisco Catalyst 6880-X	Cisco Catalyst 9500X ² Models	
Scale	MAC Address (256k)	128k	128k	✓	Unmatched forwarding scale (MAC addresses, IP unicast and multicast routes, MPLS labels) and deep buffering for enterprise applications
	Routes (2M)	128k	✓	✓	
	Flexible NetFlow (2M)	N/A	✓	✓	
	High Bandwidth Memory (HBM)	N/A	N/A	✓	
Simplicity and business agility	Programmability (NETCONF with YANG)	N/A	N/A	✓	Simplicity and business agility
	Application Hosting	N/A	N/A	✓	
	GIR/Patching	N/A	N/A	✓	
	Cisco Catalyst Center/ SD-Access ⁴ programmability	Optional Subscription	Optional Subscription	✓	

¹G: Gigabit Ethernet | ²Q200: Silicon One ASIC | ³SGT: Security Group Tag | ⁴SD-Access: Software-Defined Access

Trends	Features	Previous fixed core switches		Latest fixed core switch	Benefits
		Cisco Catalyst 6840-X-LE-40G	Cisco Catalyst 6880-X-LE	Cisco Catalyst 9500 UADP ² 3.0	
Advanced security	Chassis Bandwidth	1.92 Tbps	2 Tbps	up to 6.4 Tbps	Support core 10G, 25G, 40G, and 100G
	10G	✓	✓	✓	
	40G	✓	N/A	✓	
	100G	N/A	N/A	✓	
	Max 10G Density	40 ports	80 ports	48 ports	
	Max 40G density	2	N/A	4 ports 40/100G	
BYOD/Mobility	Cisco TrustSec/SGT ³ for wired/wireless	✓	✓	✓	Orchestrate role based access to corporate resources by any user, with any device, from any location at any time
	Trustworthy Solutions	✓	✓	✓	
	Native MACsec-256 encryption	128-bit	128-bit	✓	
	Fabric-enabled Wireless	N/A	N/A	✓	Enable converged wired-wireless access for operational simplicity and scale
	Common wired-wireless features	N/A	N/A	✓	
	UADP ² ASIC for wired-wireless convergence	N/A	N/A	✓	
	Hierarchical wireless QoS	N/A	N/A	✓	

Trends	Features	Previous fixed core switches		Latest fixed core switch	Benefits
		Cisco Catalyst 6840-X-LE-40G	Cisco Catalyst 6880-X-LE	Cisco Catalyst 9500 UADP ² 3.0	
Simplicity and automation	Programmability (NETCONF with YANG)	N/A	N/A	✓	Simplicity and business agility
	Application Hosting	N/A	N/A	✓	
	GIR/Patching	N/A	N/A	✓	
	Cisco Catalyst Center/ SD-Access ⁴ programmability	Optional Subscription	Optional Subscription	✓	
	BGP EVPN with VXLAN	N/A	Optional Subscription	✓	
	Meraki cloud monitoring	-	-	✓	

¹G: Gigabit Ethernet | ²UADP ASIC: Unified Access Data Plane ASIC | ³SGT: Security Group Tag | ⁴SD-Access: Software-Defined Access

Trends	Features	Previous fixed core switches		Latest fixed core switch	Benefits
		Cisco Catalyst 4500-X (32x10)	Cisco Catalyst 3850 Fiber	Cisco Catalyst 9500 UADP ² 3.0	
Scale and performance	Chassis Bandwidth	800 Gbps	960 Gbps	up to 6.4 Tbps	Support core 10G and 40G with uplink modules
	10G	✓	✓	✓	
	40G	N/A	✓	✓	
	Max 10 G density	40 ports	48 ports	48 ports	
	Max 40 G density	N/A	4 ports	4 ports 40/100G	
Advanced security	Native Flexible NetFlow	N/A	✓	✓	Orchestrate role based access to corporate resources by any user, with any device, from any location at any time
	Cisco TrustSec/SGT ³ for wired/wireless	wired	✓	✓	
	Trustworthy Solutions	N/A	N/A	✓	
	Native MACsec-256 encryption	N/A	mGig/10G models	✓	

Trends	Features	Previous fixed core switches		Latest fixed core switch	Benefits
		Cisco Catalyst 4500-X (32x10)	Cisco Catalyst 3850 Fiber	Cisco Catalyst 9500 UADP ² 3.0	
BYOD/Mobility	Fabric-enabled Wireless	N/A	✓	✓	Enable converged wired-wireless access for operational simplicity and scale
	Common wired-wireless features	N/A	✓	✓	
	UADP ² ASIC for wired-wireless convergence	N/A	✓	✓	
	Hierarchical wireless QoS	N/A	✓	✓	
	Common features for wired-wireless	N/A	✓	✓	
Simplicity and automation	Programmability (NETCONF with YANG)	N/A	✓	✓	Simplicity and business agility
	Application Hosting	N/A	Guestshell	✓	
	GIR/Patching	N/A	N/A	✓	
	Cisco Catalyst Center/SD-Access ⁴ programmability	N/A	Optional Subscription	✓	
	Meraki cloud monitoring	-	-	✓	

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Finance your switching migration with Cisco Capital

Let financing from Cisco Capital make migrating your switches and accelerating your digital transformation even easier. Cisco Capital Easy Pay makes this transition as easy as possible with no upfront costs and predictable monthly payments. You pay 90% of the total over a three-year period that is completely interest free. At the end of the term, you have the following options to return and refresh the equipment, extend your lease or purchase the solution at 10% of original cost. Take advantage of this market leading interest rate and use your budget for other investments.

Take advantage of [Cisco Capital Easy Pay](#).

- Reduced cost and complexity with Cisco Software-Defined Access by automating policy, enabling fast service creation and providing complete visibility into the wired and wireless access networks.
- Create better customer and employee experiences through higher performance and improved support for mobility and new apps.
- Advanced end-to-end security to handle threats before, during and after attacks.

The Catalyst 9000 Family is also the first in the line to offer the Cisco IOS XE and Cisco Catalyst Software subscription-based licenses, allowing customers to purchase the features and capabilities they need.

See the benefits you could be receiving now by comparing the Cisco Catalyst 9500 Series to older switches (see table 1).