



# Benefits of Upgrading to Cisco Catalyst 9600 Series Switches





## Why upgrade to the Cisco Catalyst 9600 Series Switches?

### Reimagine, Reinforce, Redefine your campus core

Cisco® Catalyst® 9600 Series switches are Cisco's lead modular enterprise core 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 9600 Series 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.

The new Catalyst 9600 SUP-2 supervisor is based on Cisco Silicon One Q200 Application-Specific Integrated Circuit (ASIC), which is purpose built for the next generation core

with a programmable pipeline (P4) and is the first network silicon to offer switching capacity upto 25.6 Tbps (12.8 Tbps full-duplex) in the enterprise. The Q200 ASIC offers high-performance along with full routing and switching capabilities without external memories. This is enabled by a multiple slice (discreet processing pipeline) internal architecture that includes an on-chip 2.5D High Bandwidth Memory (HBM). The Catalyst 9600 Series leverages a high-performance multiple core x86 CPU, and is Cisco's leading purpose-built modular core and WAN edge services enterprise switching platform, built for security, IoT, and cloud.



Table 1. Upgrade Benefits Comparison

Trends	Features	Previous Modular Core Switches		Latest modular	Benefits	
		Cisco Catalyst 6500 Series	Cisco Catalyst 6500/6800 Series	Cisco Catalyst 9600 Series		
Scale and performance versatility	Chassis bandwidth	720 Gbps	up to 2 Tbps	up to 6 Tbps	up to 25.6 Tbps	Better mix and variety of higher speeds with longevity of future upgrades without replacing switch. Line rate 400G, 200G, 100G, 50G, 40G, 25G, 10G
	Throughput	450 Mpps	720 Mpps	780 Mpps	8 Bpps	
	400 Gbps (QSFP-DD) 200 Gbps (QSFP56)	N/A	N/A	N/A	✓	
	100 Gbps (QSFP28) 40 Gbps (QSFP+)	N/A	40 G only	40 G only	✓	
	50 Gbps (SFP56) 25 Gbps (SFP28)	N/A	N/A	N/A	✓	
Functionality	Simplified Campus Automation	N/A	N/A	N/A	✓	Optimized discovery and configuration of network devices
	SD-Access <sup>2</sup>	N/A	Limited	Limited	✓	Next generation overlay support for segmentation and policy based management with integrated threat detection and mitigation. Advanced L2+L3 functionality for aggregation and border nodes with open programmable interfaces
	MPLS-VPN	✓	✓	✓	✓	
	Programmability	N/A	Limited	Limited	✓	
	Application hosting/ containers	N/A	N/A	N/A	✓	

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High availability	Stackwise virtual	N/A	✓	✓	Higher reliability by way of link, component and switch redundancy.  Better manageability via hitless software upgrades.	
	ISSU	N/A	Limited	Limited		✓
	GIR/NSF	N/A	N/A	N/A		✓
	Hot patching	N/A	N/A	N/A		✓
Security	Macro and micro segmentation	N/A	✓	✓	Enable converged wired-wireless access for operational simplicity and scale.	
	MACsec-256 bit encryption	128 bit	128 bit	128 bit		✓
	TrustSec end-point security	N/A	✓	✓		✓
	Trustworthy solutions	N/A	N/A	N/A		N/A

- Reduced cost, complexity and downtime with Cisco Software-Defined Access. Automate policy, enable fast service creation and get 360-degree

<sup>1</sup> mGig: Cisco Multigigabit technology

<sup>2</sup> SD-Access: Software-Defined Access

<sup>3</sup> Hardware ready

## 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.

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contextual insights across users, devices, and applications. Assure network performance with real-time and historical data analytics, to learn, adapt, and even detect problems before they happen.

- Create better customer and employee experiences through higher performance and improved support for mobility and new apps.
- Advanced end-to-end security designed to work together to detect and stop threats, simplify security complexity, keep your business more secure and make your IT more productive.

The Catalyst 9000 family is also the first in the line to offer the Cisco IOS XE and Cisco Catalyst subscription-based software licenses, allowing customers to purchase the features and capabilities they need. See the benefits you could be receiving now by comparing the Cisco Catalyst 9600 Series to older switches (see table 1).

## 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](#)