



# Cisco Catalyst 9000 Switches

## Switching for the New Era – The Network. Intuitive.

The world is fast changing. Your network needs to keep up with it – the demand of fast advancing security threats, evolving IoT, Cloud and mobility integration.

Cisco® networks have moved data for 80 percent of the Internet for the last three decades. And we don't just move data. We study it. We work continually to understand it. We apply that knowledge when we design our next generation switches.

The result: a network that constantly learns, constantly adapts, constantly protects and the new Cisco Catalyst® 9000 switches.

## Benefits

- Twice the density at a lower cost. New Features packed with Cisco One Software.
- End to end integrated security solution. Handle threats before, during and after attacks, even for encrypted traffic.
- Simplify and Automate – goal-based policies are created once centrally, applied network-wide.
- Accelerate changes with programmability, supporting open standards and APIs.

## End-to-end security

Get state-of-the-art malware detection with Cisco Encrypted Traffic Analytics (ETA). Use behavioral and pattern-based analytics on encrypted traffic to thread the needle between privacy and security.

The end-to-end security provides a reduced attack surface securing your network before an attack, active analytics to detect malware and threats during an attack, and rapid automated threat response and containment after an attack.

## Automation

Now you can do more in less time. With Cisco DNA Center and Software-Defined Access, the Cisco Catalyst 9000 switches can operate as part of one fabric, for faster, more secure network access.

No more constant cutting, pasting and tweaking switch by switch. Create once, apply network-wide using cross domain policy enforcement and automation.

The Catalyst 9000 family of switches also offers multiple programmability options to further simplify configuration and adapt to changes.

## The mobility challenge

One network, wired and wireless. The convergence is seamless with the Cisco Catalyst 9000 switches.

Across the network, wired or wireless, the policies are applied consistently for security, automation, and assurance, while segmentation separates devices and users to help reduce the attack surface. This delivers the best mobility experience for employees and guests.

Catalyst 9000 switches has also been optimized to support the industry's highest density 802.11ac Wave 2 deployments with Catalyst Multigigabit Technology, which extends the life of your existing cabling at 1-10Gpbs capable.

## The IoT challenge

The scale of IoT is expected to be three times the global population by 2021 – Easily segment your network through network virtualization is key for IoT automation.

Catalyst 9000 switches also supports a broad array of standards and features that can literally

power your Digital Building. These range from the highest perpetual PoE/PoE+/UPOE density in the industry, to support for multicast, Audio Visual Bridging (AVB), Time Synch (IEEE 1588), and Bonjour service discovery. The Catalyst 9000 Series also extend network securely identify and onboard device to IoT devices using centrally defined policies.

## The cloud challenge

Connecting to Cloud services exposes more challenges and threats than we have in the local networks.

With Catalyst 9000 switches you can simplify, secure, and transform your network to include a cloud or hybrid cloud environment. Equipped with a DevOps toolkit, you have the ability use open APIs and model-driven programmability to customize your network. Provisioning, automation, and monitoring can be done with off the shelf applications or can be locally hosted on the switch in a container-based hosting environment.



**Cisco Catalyst 9300 Series**

The **Cisco Catalyst 9300 Series** is our leading fixed enterprise switching access platform.

- One RU, delivering 480 Gbps stacking switching capacity with added Local Storage, App Hosting.
- Replaces Catalyst 3850 Copper: 480 Gbps stacking capacity.
- Scale up to 48 wireless access points in 1RU.
- Flexible uplinks: 1 Gbps, multigigabit, 10 Gbps, 25 Gbps, and 40 Gbps.
- Flexible downlinks: multigigabit, 5-Gbps, 2.5-Gbps, or 1-Gbps copper. Cisco UPOE and PoE+ options.
- Supports high-availability capabilities like patching, Fast Software Upgrade, Nonstop Forwarding with Stateful Switchover (NSF/SSO), Stackpower, redundant platinum-rated power supplies and fans.



**Cisco Catalyst 9400 Series**

The **Cisco Catalyst 9400 Series** is our leading modular enterprise switching access platform.

- Delivers 480 Gbps/slot, 9Tbps/Chassis.
- Replaces 4500-E: 48 Gbps/slot, 928 Gbps/Chassis.
- Scale up to 384 wireless access ports or 200 10-Gbps ports.
- Flexible uplinks: 1 Gbps, 10 Gbps, 40 Gbps
- Flexible downlinks: Multigigabit, 1-Gbps copper, 1-Gbps SFP, 10-Gbps SFP+, Cisco UPOE and PoE+ options.
- Supports high availability capabilities: In-Service Software Upgrade (ISSU), NSF/SSO, uplink resiliency, N+1/N+N redundancy for power supplies and Power over Ethernet (PoE).
- Dual serviceable fan-tray design and side-to-side airflow.



**Cisco Catalyst 9500 Series**

The **Cisco Catalyst 9500 Series** is our leading fixed-core/aggregate enterprise switching platform.

- One RU, delivering 6.4Tbps switching capacity.
- Replaces Catalyst 6880-X: 2 Tbps; Catalyst 6840-X: 240 Gbps; Catalyst 4500-X: 800 Gbps; Catalyst 3850 Fiber: 480 Gbps.
- Flexible downlinks: 100-Gbps Quad Small Form-Factor Pluggable (QSFP28), 40-Gbps (QSFP), 25-Gbps (SFP28) and 10-Gbps (SFP+) switches with granular port densities.
- Supports high-availability capabilities like patching, Graceful Insertion and Removal (GIR), Nonstop Forwarding with Stateful Switchover (NSF/SSO), redundant platinum-rated power supplies and fans.
- Supports Network system virtualization with StackWise® virtual technology, which are critical for its placement in the campus core.
- Supports advanced routing and infrastructure services.

## Stay ahead of change

- [Cisco Catalyst 9000 Family Switches](#)
- [Cisco DNA](#)
- [Cisco SD-Access](#)
- [Cisco ONE™](#)

## The Network. Intuitive.

Our new Cisco Catalyst 9000 switches are the next generation in the legendary Cisco Catalyst family of enterprise LAN access, aggregation and core switches.

These are the first purpose-built platforms designed to take advantage of Cisco Digital Network Architecture (Cisco DNA™) and Cisco Software-Defined Access (SD-Access).

These switches extend our networking leadership with breakthrough innovations in security, mobility, the Internet of Things (IoT) and the cloud.

Like its predecessor, Cisco Catalyst 9000 switches leverage the strengths of the Cisco Unified Access™ Data Plane (UADP) Application-Specific Circuit (ASIC). With the new UADP 2.0, Catalyst 9000 switches deliver twice the performance with comparable pricing while adding a host of new features and functionality.

The Catalyst 9000 family is also the first in the line to offer more flexible licensing options. Cisco ONE™ is the new subscription-based software licensing scheme to let you purchase the features and capabilities you need.

## Migration path

Existing Cisco Catalyst Switches	New Cisco Catalyst Switches
Catalyst 3560-X, 3750-X, 3850	Catalyst 9300 (lead fixed, stackable, access)
Catalyst 4500E	Catalyst 9400 (lead modular access)
Catalyst 4500X, 3850 Fiber	
Catalyst 6840X, 6880X	Catalyst 9500 (lead fixed core)