



# Cisco Catalyst 9000 Switches

## Switching for an entirely new era of networking. The Network. Intuitive.

Business today needs a network that constantly learns, constantly adapts and constantly protects. A network that understands the world it is connecting. Some switches are not designed to handle the demand of new security threats, evolving IoT 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 switches. The result: the new Cisco Catalyst® switches.

## Benefits

- **Build a digital-ready network** with switches designed for security, mobility, IoT and the cloud
- **Centrally manage policy** for simpler control
- **Simplify operations** by automating IT tasks
- **Handle threats** before, during and after attacks with built-in end-to-end security
- **Gain extraordinary visibility** into wired and wireless access networks

### Sophisticated automation

Catalyst 9000 switches are designed to do more tasks in less time. With Cisco DNA and Software Defined Access (SD-Access), these switches can be part of a network that brings together and learns from information across the network to create a simpler, more fluid experience. By automating mundane day-to-day operations you can shift IT time and money to focus on creativity and design.

### Transformational magic

The Cisco Catalyst 9000 family switches are based on the Cisco UADP ASIC, which continually evolves to anticipate customer needs with exponential results, driving new industries and fostering innovations that have yet to be envisioned.

### Expansive security and intelligence

Cisco DNA casts a wide net. It gathers information from a constellation of data points, connecting more devices and device types, making correlations and applying insights. It sees invisible threats and automates security responses. And it constantly adapts and protects by learning about threats across the world to stay ahead of the threats you face.

## Security, automation and programmability

Catalyst 9000 switches also combine a new onboard x86-based CPU (which has container-based app hosting) with the open Cisco IOS® XE 16, a converged operating system. Together they deliver advanced programmability, stronger security, greater wireless access point densities, support for higher bandwidth uplinks and a more advanced operating system than either the competition or our current Cisco Catalyst product line offers.

The network edge is the first line of defense—where policy is applied to determine who or what has access to your network and to sense suspicious activity—even for encrypted traffic. It takes only one data breach to affect your organization. With so much potential for infiltration, it's critical to have a trusted solution to identify and control what gets on the network.

With that in mind, Catalyst 9000 switches support Trustworthy Systems and advanced security capabilities that help enable segmentation and micro-segmentation. Encrypted Traffic Analytics (ETA) help you detect malware and other threats on encrypted traffic.

When your network is ready, Cisco Catalyst 9000 switches can leverage SD-Access and the Cisco DNA Center Appliance to give you policy-based automation and network assurance from edge

to cloud. These turn your wired and wireless networks into a single fabric by decoupling network functions from hardware. The time it takes to deploy, secure and adapt network services and user access is reduced from months to minutes. And you can easily customize the network for user groups as needed.

## A family of powerhouse switches

All the switches in our new series:

- Support advanced security capabilities like Encrypted Traffic Analytics (ETA), AES256/MACSEC256 and Trustworthy Systems
- Deliver IoT convergence with industry-leading scale and hardware-ready capabilities like perpetual UPOE/PoE Audio Visual Bridging (AVB)/IEEE 1588 and service discovery
- Run the open Cisco IOS XE, a modern operating system that supports model-driven programmability, streaming telemetry, and patching
- Use x86-based CPUs and pluggable local storage for third-party container-based app hosting
- Provide outstanding application visibility and control with NBAR2, or Next-Generation Network-Based Application Recognition



**Cisco Catalyst 9300 Series**

The **Cisco Catalyst 9300 Series** is our leading fixed enterprise switching access platform built for security, mobility, IoT and the cloud. It is the next generation of the industry's most widely deployed switching platform.

Catalyst 9300 Series switches are the industry's first platforms optimized for 802.11ac Wave 2 with support for 2.5-Gbps/multigigabit downlinks and for Cisco perpetual UPOE and PoE+. It provides support for connecting a high density of 802.11ac Wave 2 access points (48) in a single RU box.

The Cisco Catalyst 9300 has the most flexible uplink architecture, with support for 1 Gbps, multigigabit, 10 Gbps and 40 Gbps. The platform offers a choice of multigigabit, 2.5-Gbps, or 1-Gbps copper Ethernet switches with uplink bandwidth of 80 Gbps and a 480-Gbps stacking bandwidth solution.



**Cisco Catalyst 9400 Series**

The **Cisco Catalyst 9400 Series** is Cisco's leading modular enterprise switching access platform built for security, mobility, IoT and the cloud.

The platform gives you investment protection with a chassis architecture that is capable of supporting up to 9 Tbps of system bandwidth. It provides exceptional power delivery scale the with the industry's highest density of UPOE ports.

Catalyst 9400 switches deliver state-of-the-art High Availability capabilities including uplink resiliency, N+1/N+N redundancy for power supplies and resilient fan design. The platform is designed for the enterprise with an innovative dual serviceable fan-tray design and side-to-side airflow. It's even crammed-closet friendly with a depth of about 16 inches. A single system can scale up to 384 access ports with a choice of 1-Gbps copper, Cisco UPOE, and PoE+ options.



**Cisco Catalyst 9500 Series**

The **Cisco Catalyst 9500 Series** is our leading purpose-built fixed-core/aggregate enterprise switching platform built for security, mobility, IoT and the cloud. Cisco Catalyst 9500 Series switches are the industry's first purpose-built 40-Gbps switches targeted for the enterprise campus, delivering exceptional table scales and buffering for enterprise applications.

The platform offers non-blocking 40-Gbps Quad Small Form-Factor Pluggable (QSFP) and 10-Gbps (SFP+) switches with granular port densities that meet diverse campus needs. The Cisco Catalyst 9500 supports advanced routing and infrastructure services, SD-Access border capabilities and network system virtualization with StackWise® virtual technology, which are critical for its placement in the campus core.

The platform also supports all the foundational high-availability capabilities like patching, Graceful Insertion and Removal (GIR), Nonstop Forwarding with Stateful Switchover (NSF/SSO), redundant platinum-rated power supplies and fans.

## Help your customers stay ahead of change

- [Cisco Catalyst 9300 switches](#)
- [Cisco Catalyst 9400 switches](#)
- [Cisco Catalyst 9500 switches](#)
- [Cisco DNA](#)
- [Cisco SD-Access](#)

## What's new

Our new Cisco Catalyst line comprises the Cisco Catalyst 9300, 9400 and 9500 Series switches. They are the next generation in the legendary Cisco Catalyst family of enterprise LAN access, aggregation and core switches. Designed for an entirely new era in networking, the Catalyst 9000 family delivers high performance and functionality and extends Cisco's networking leadership with breakthrough innovations in security, mobility, 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, the Cisco Catalyst 9000 switches deliver twice the performance with comparable pricing while adding a host of new features and functionality.

The new Cisco Catalyst switches are also the first in the line to offer more flexible licensing options. New subscription-based software licenses allow customers to purchase the features and capabilities they need.

## Migration path

Existing Cisco Catalyst Switches	New Cisco Catalyst Switches
Catalyst 3560-X, 3759-X, 3850	Catalyst 9300 (lead fixed, stackable, access)
Catalyst 4500E	Catalyst 9400 (lead modular access)
Catalyst 4500X, 3850 Fiber	Catalyst 9500 (lead fixed core)