



# Cisco Catalyst 9000

## Solutions for a new era of intent-based networking.

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.

And there is more data coming. Every year more devices connect to your wireless network and more data is transmitted and that means that the demand for a network to be fast and secure never waivers.

The result: a network that constantly learns, constantly adapts, constantly protects powered by the Cisco Catalyst® 9000 portfolio.

## Benefits

- Twice the density at a lower cost. New features packed with Cisco IOS XE Software.
- End to end integrated security solution. Detect and stop threats, even with encrypted traffic.
- Simplified automation and assurance: goal-based policies are created once centrally, applied network-wide.
- Accelerate changes with programmability, supporting open standards and APIs.

## End-to-end security

With our integrated portfolio and industry-leading threat intelligence, Cisco gives you the scope, scale, and capabilities to keep up with the complexity and volume of threats. Putting security above everything helps you innovate while keeping your assets safe. Cisco prioritizes security in all that we do, and only with Cisco can you attain effective network security to face tomorrow's evolving threats.

## Automation and assurance

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

No more constant cutting, pasting and tweaking device by device. Create once, apply network-wide using cross domain policy enforcement and automation. The Catalyst 9000 family also offers multiple programmability options to further simplify configuration and adapt to changes.

Plus you can put your data to work. Get 360-degree 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.

## The mobility challenge

One network, one OS, wired and wireless. The convergence is seamless with the Cisco Catalyst 9000 portfolio. 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. Plus support the industry's highest density Wi-Fi 6 (802.11ax) deployments with Cisco Multigigabit Technology.

## The IoT challenge

The scale of IoT is expected to be three times the global population by 2021. Easy segmentation of your network through network virtualization will be the key to automate and secure the onboarding and access of IoT devices.

The Catalyst 9000 family also can literally power and manage your Digital Building. From the highest perpetual PoE/PoE+/Cisco UPOE®/Cisco UPOE+ density in the industry, to support for multicast, Audio Visual Bridging (AVB), Time Synch (IEEE 1588), and Cisco DNA Service for Bonjour service discovery.

## The multicloud challenge

Connecting to multiple cloud services exposes more challenges and threats than we have in the local networks. With Catalyst 9000 you can simplify, secure, and transform your network to include a cloud or hybrid cloud environment. 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.

## Top three reasons to upgrade to Catalyst 9000 family

### Secure

With access to Cisco's best in class security portfolio anchored by Talos, Encrypted Traffic Analytics, Trustworthy Solutions, MACsec encryption and segmentation, the product family provides advanced security features that protects the integrity of the hardware as well as the software and all data that flows through the switch and the network.

### Always on

The Catalyst 9000 family provides enterprise-level resiliency to keep your business up and running seamlessly. Options like FRU power supplies and fans, modular uplinks, modular patching, perpetual and fast PoE, and the industry's highest MTBF.

Catalyst 9800 wireless controllers can be deployed as redundant or cloud-based options for additional wireless control redundancy.

### IT Simplicity

Combine the application visibility of full flexible NetFlow with telemetry and the open APIs of Cisco IOS XE and on switches, the UADP ASIC programmability, and Catalyst 9000 portfolio gives you the best experience provisioning and managing your network now with investment protection on future innovations.

## The Cisco Catalyst 9000 portfolio



**Cisco Catalyst 9100**

**Cisco Catalyst 9100** access points are adaptive, fast, intelligent and secure. Not only do they adhere to the Wi-Fi 6 (802.11ax) standard but they go beyond.

These access points allow for more flexibility and scalability needed to handle the extra devices connected to the network and the data that they will generate.

The Catalyst 9100 APs deliver:

- Three to four times the performance than 802.11 ac.
- Reliable performance—always connected, always dependable—even in challenging environments.
- Up to 50% reduced latency to provide better performance for applications that use high voice and video.
- Increased density and connect more devices (especially IoT) at higher throughputs.



**Cisco Catalyst 9200 Series**

**Cisco Catalyst 9200 Series** switches are designed for simple branch/midmarket fixed enterprise access deployments.

With its family pedigree, Catalyst 9200 Series offers simplicity without compromise – it is secure, always on and provides a new level in IT simplicity.

- Delivers 160 Gbps stacking bandwidth.
- Flexible uplinks: 1 Gbps, 10 Gbps fixed and modular options.
- Downlinks: 1 Gbps copper, perpetual PoE+ options.
- Supports cold patching, MACsec-128 encryption, and FRU redundant platinum-rated power supplies and fans options.
- Supports Cisco DNA Center Cloud.



**Cisco Catalyst 9300 Series**

**Cisco Catalyst 9300 Series** switches are our leading fixed enterprise access switching platform.

Ideal access switch for business-critical branch and campus environments where scale and an extra degree of security, resiliency and programmability is needed.

- Delivers 480 Gbps stacking bandwidth capacity.
- Flexible uplinks: Cisco Multigigabit, 1 Gbps, 10 Gbps, 25 Gbps, and 40 Gbps.
- Flexible downlinks: multigigabit, 5 Gbps, 2.5 Gbps, or 1 Gbps copper, or 1 Gbps fiber. Perpetual Cisco UPOE+, Cisco UPOE and PoE+ options.
- Supports ETA, AVB, Cisco Umbrella cloud security, MACsec-256 encryption, MACsec encryption over EoMPLS, embedded wireless controller and wire sensor, application hosting including Docker containers, hot patching, NFS/SSO, redundant power and fans.



**Cisco Catalyst 9400 Series**

### Cisco Catalyst 9400 Series

switches are our leading modular enterprise access/aggregation switching platform. Ideal for business critical Enterprise campus access and distribution.

- Delivers up to 480 Gbps/slot, 9 Tbps/chassis.
- Flexible uplinks: 1, 10, 25, and 40 Gbps.
- Flexible downlinks: Multigigabit, 1 Gbps copper, 1 Gbps (SFP), 10 Gbps (SFP+), Cisco UPOE+, Cisco UPOE and PoE+.
- Supports ETA, AVB, MACsec-128 encryption, MACsec encryption over EoMPLS, application hosting including Docker containers, StackWise® Virtual for core/aggregation placement, ISSU, NSF/SSO, hot patching, uplink resiliency, N+1/ perpetual and fast PoE.



**Cisco Catalyst 9500 Series**

### Cisco Catalyst 9500 Series

switches are our leading fixed core/aggregation enterprise switching platform.

Industry leading 100G/40G density in a 1RU form factor.

- Delivers up to 6.4 Tbps per 1 RU.
- 100 Gbps (QSFP28), 40 Gbps (QSFP), 25 Gbps (SFP28), 10 Gbps (SFP +), and 1Gbps (SFP) switches with granular port densities.
- StackWise® Virtual for core/aggregation placement, ISSU, NSF/SSO, hot patching, FRU redundant platinum-rated power supplies and fans.
- Supports MACsec-256 encryption, MACsec encryption over EoMPLS, advanced routing and infrastructure services.



**Cisco Catalyst 9600 Series**

### Cisco Catalyst 9600 Series

switches are our leading modular core/ aggregation enterprise switching platform.

Industry leading 100G/40G/25G density for business critical Enterprise campus core.

- Delivers up to 25.6 Tbps/chassis.
- 100 Gbps (QSFP28), 40 Gbps (QSFP), 25 Gbps (SFP28), 10 Gbps (SFP+), 1 Gbps (SFP) and Multigigabit switches with granular port densities. (50G/400G ready).
- StackWise® Virtual for core/aggregation placement, ISSU, NSF/ SSO, hot patching, FRU N+N/N+1 redundant supervisors, platinum-rated power supplies and fans.
- Supports MACsec-256 encryption, MACsec encryption over EoMPLS, advanced routing and infrastructure services.



**Cisco Catalyst 9800 Series**

### Cisco Catalyst 9800 Series

wireless controllers come with built-in security: secure boot, runtime defenses, image signing, integrity verification and hardware authenticity that detect any threat and defends again any compromised infrastructure.

Three deployments options, Appliance-based controllers, public and private cloud-based controllers and an embedded controller on either Catalyst 9100 access points or Catalyst 9000 family of switches.

## Stay ahead of change

- [Cisco Catalyst 9000 Family](#)
- [Cisco DNA](#)
- [Cisco SD-Access](#)
- [Cisco DNA Subscriptions](#)

## Cisco services

Successfully deploy, manage, and support Cisco Catalyst 9000 family products with a full life cycle of services including implementation, optimization, technical, managed and training services. Our team of experts can help you speed deployment, reduce costs and minimize risk as you introduce new hardware, software and protocols into the network. [Learn more.](#)

## How to buy

To view buying options and speak with a Cisco sales representative, visit [www.cisco.com/c/en/us/buy](http://www.cisco.com/c/en/us/buy).

## Intent-based networking

Networks are at the heart of the unstoppable evolution to a digital economy. Digitalization is changing the way businesses, partners, employees, and consumers interact at an unprecedented pace. Products and services can be customized, ordered and delivered at the click of a button using web-based applications.

Business data can be acquired, analyzed and exchanged in near-real time. Geographic boundaries between businesses and consumers are diminishing. And the network is at the center of communication to and between the applications driving the digital economy.

As foundational building blocks for the intent-based Cisco Digital Network Architecture, the Catalyst 9000 family has been built with security, mobility, cloud and IoT at its core.

## Upgrade path

Like many of its predecessors, the Cisco Catalyst 9000 portfolio leverage the strengths of the Cisco Unified Access™ Data Plane (UADP) Application-Specific Circuit (ASIC). With the latest generation of the UADP ASIC, Catalyst 9000 products 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 DNA Premier, Advantage and Essentials subscription-based software licensing lets you purchase the features and capabilities you need.

Existing Cisco Catalyst Switches and WLC	New Cisco Catalyst 9000 family member
Catalyst 2960-X/XR	Catalyst 9200 (simple branch fixed, stackable, access)
Catalyst 3650, 3750-X, 3560-X, 3850	Catalyst 9300 (lead fixed, stackable, access)
Catalyst 4500-E, 6500	Catalyst 9400 (lead modular access/core)
Catalyst 4500X, 6840X, 6880X	Catalyst 9500 (lead fixed core)
Cisco Catalyst 6500/6800 modular	Catalyst 9600 (lead modular core)
Cisco 8540 wireless controller	Catalyst 9800-80 wireless controller
Cisco 8520 wireless controller	Catalyst 9800-40 wireless controller
Cisco Virtual wireless controller	Catalyst 9800-CL virtual wireless controller
Mobility Express	Catalyst 9800 Embedded Wireless for the 9100 AP
Cisco Aironet 1800 Series Access Points	Catalyst 9115 and 9117 Access Points
Cisco Aironet 2800 Series Access Points	Catalyst 9120 Access Point
Cisco Aironet 3800 Series Access Points	Catalyst 9130 Access Point