Cisco Catalyst and Nexus Switching Solutions

Enterprise Networks Switching

Supporting your digital organization will require your network to move beyond just connectivity to be a platform for insights, automation, and security. This is the power of the Cisco® Digital Network Architecture (Cisco DNA™).

Cisco DNA is revolutionizing how you design, build, and manage enterprise networks. It helps you drive business value and provides:

- Insights and actions to help you innovate faster
- Automation and assurance to reduce cost and complexity
- Embedded security throughout the network to lower risk

Explore our Cisco Catalyst® switches for your core and edge to help build your digital-ready network foundation.

Digital Network Readiness

The promise of digital for your business is all about innovating faster while reducing risk, cost, and complexity. Your network forms the foundation of your transformation to a digital organization.

We are transforming your network with new switching products and systems that enable time-saving automation, greater scale with virtualization, and valuable analytics that directly address your evolving business needs and lower your costs.

Whether you need converged wired and wireless, core switches, or solutions that meet the stringent requirements of the next-generation data center, Cisco has a switch to fit your business needs.

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Cisco Catalyst 9000 Series Switches: Switching for a new era of networking

Cisco Catalyst 9000 Series Switches are next-generation enterprise switches purpose-built for full fabric control with Cisco DNA and Software-Defined Access (SD-Access).

These switches deliver the industry’s highest performance and functionality, up to a 10x performance upgrade with similar prices. Built around the completely programmable Cisco Unified Access™ Data Plane (UADP) 2.0 Application Specific Integrated Circuit (ASIC), and running the newest converged operating system, open Cisco IOS® XE, these switches showcase significant Cisco innovations in advanced security, mobility, Internet of Things (IoT), and the cloud.

The Catalyst 9000 Series also offers the new Cisco ONE™ subscription-based software licenses, allowing customers to purchase the features and capabilities they need.

All Cisco Catalyst 9000 Series Switches:
- Reduce cost and complexity with Cisco SD-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 applications.
- Deliver advanced end-to-end security to handle threats before, during, and after attacks.

These switches form the foundational building block for Cisco DNA and an entirely new era of networking.
The **Cisco Catalyst 9500 Series** is our lead fixed core/aggregation enterprise switching platform built for security, mobility, IoT and cloud. The 9500 Series is the industry’s first purpose-built 40-Gbps switch targeted for the enterprise campus, delivering unmatched table scales (MAC/route/ACL) and buffering for enterprise applications.

The platform offers nonblocking 40-Gbps (Quad Small Form-Factor Pluggable [QSFP]) and 10-Gbps (SFP+) switches with granular port densities that fit diverse campus needs. The Catalyst 9500 Series supports advanced routing and infrastructure services (Multiprotocol Label Switching [MPLS] Layer 2/Layer 3 VPNs, Multicast VPN [MVPN], Network Address Translation [NAT]), SD-Access border capabilities, and network system virtualization with Stackwise® virtual technology that are critical for its placement in the campus core.

The Catalyst 9500 Series also supports all the foundational High Availability capabilities such as patching, Graceful Insertion and Removal (GIR), Nonstop Forwarding with Stateful Switchover (NSF/SSO), redundant platinum-rated power supplies, and fans.

The **Cisco Catalyst 9400 Series** is Cisco’s lead modular enterprise switching access platform built for security, mobility, IoT and cloud. These switches form the foundational building block for DNA and Software-Defined Access - Cisco’s lead enterprise architecture.

The platform provides unparalleled investment protection with a chassis architecture that is capable of supporting up to 9 Tbps system bandwidth and unmatched power delivery for high density IEEE 802.3BT (60W PoE).

Redundancy now table-stake across the portfolio, the Catalyst 9400 delivers state of the art HA with ISSU, NSF/SSO, uplink resiliency, N+1/N+N redundancy for power supplies and perpetual PoE.

The platform is enterprise optimized with innovative dual serviceable fan-tray design, side to side airflow and is crammed closet friendly with ~16” depth. A single system can scale up to 384 access ports with choice of Multigigabit, 1G copper, 10G SFP+, UPOE and PoE+ options.

The **Cisco Catalyst 9300 Series** is Cisco’s lead stackable enterprise switching platform built for security, mobility, IoT and cloud and is the next generation of the industry’s most widely deployed switching platform.

The Catalyst 9300 Series is the industry’s first optimized platform for 802.11ac Wave 2, with support for 2.5-Gbps Multigigabit downlinks, Cisco Universal Power Over Ethernet (Cisco UPOE®) and Power over Ethernet Plus (PoE+). It provides support for the highest density of 802.11ac Wave 2 Access Points. The Catalyst 9300 Series has the most flexible uplink architecture with support for 1 Gbps, Multigigabit, 10 Gbps, and 40 Gbps, and it is 25 Gbps ready.

The platform offers a choice of Multigigabit, 2.5-Gbps, and 1-Gbps copper Ethernet switches with 80-Gbps uplink bandwidth and the industry’s highest 480-Gbps stacking bandwidth solution. Stackwise Virtual technology provides flexibility of deployment for the platform, with support for the best NSF/SSO resiliency architecture for a stackable solution (sub-50 ms).

The Catalyst 9300 Series is the only switching platform in the industry with support for front- and back-panel stacking, optimizing it for a variety of deployments.
Cisco Catalyst 6800 Series Switches: Now supporting high density 40 G Ethernet

The Cisco Catalyst 6800 Series Switches are powerful campus switches that are the backbone of the digital enterprise. Integrated service modules support wireless, network analysis, and pervasive security. Highly scalable, the 6800 Series switches are optimized for secure 1, 10 and 40 Gbps services.

- New 8x 40 Gbps line cards
- Compatible with the Cisco Catalyst 6500-E Series Chassis and existing line cards
- Fully supports Cisco DNA and SD-Access

Cisco Catalyst 6500 Series Switches: Ideal for converged enterprise WAN

The Cisco Catalyst 6500 Series Switches have long formed the foundation of enterprise WAN architectures by providing leading IP routing with hardware-enabled IPv4, IPv6, MPLS, and high performance integrated in a single platform. The 6500 Series is a Layer 3 switching platform for the enterprise WAN, access, aggregation, and core edge of the enterprise.

- High-performance CPU for Layer 3 protocol convergence and stability
- Scalable IP routing and MPLS functions accelerated in hardware, without performance impact
- Fully supports Cisco DNA and SD-Access

Cisco Catalyst 3650 and 3850 Series Switches: Cisco DNA Ready

Cisco Catalyst 3650 and 3850 Series Switches are enterprise-class, stackable access switches that provide the foundation for full wired and wireless convergence on a single platform. This series is for voice, data, video, mobility, and IoT and includes:

- Integrated wireless controller
- Layer 2/Layer 3 access
- Cisco StackWise 160 Gbps/480 Gbps
- 10-Gbps/40-Gbps SFP+ uplinks
- Multigigabit technology
- Network as a Sensor/Enforcer support
- LAN Base, IP Base, IP Services
- Fully supports Cisco DNA, SD-Access and programmability (NETCONF/YANG)

Cisco Catalyst 2960-X Series Switches

Cisco Catalyst 2960-X Series Switches are the next generation of Catalyst 2960 access switches, helping provide smart, simple, scalable, and secure services for enterprise-class access switching networks. This series is for voice, data, and video. Features include:

- Layer 2/Layer 3 access
- 80-Gbps stacking
- 10-Gbps SFP+ uplinks
- Network as a Service (NaaS) with Cisco ONE Foundation Lite
- LAN Lite, LAN Base, IP Lite

Cisco Catalyst 4500 Series Switches: Ideal for converged enterprise WAN

The Cisco Catalyst 4500 Series Switches are enterprise-class, modular access and fixed core switches that provide the foundation for digital ready enterprise network. Highly scalable, the 4500 Series switches are optimized for secure 1 and 10 Gbps services.

- Highly available modular and stackable design
- High-performance CPU for Layer 3 protocol convergence and stability
- Scalable IP routing and MPLS functions accelerated in hardware, without performance impact
- Fully supports Cisco DNA and SD-Access

Cisco Catalyst 3560-CX and 2960-CX Series Switches

The Cisco Catalyst 3560-CX and 2960-CX Series Switches are stackable fixed-configuration Gigabit Ethernet (10/100/1000) switches offering network connectivity for enterprise, midmarket, and branch locations. They enable reliable and secure business operations with innovative features, including Cisco FlexStack-Plus, Application Visibility and Control, PoE+, innovative power management, and Smart Operations.

- 8 and 12 Gbps
- 6 Gigabit Ethernet plus 2 Multigigabit Ethernet
- PoE+, 240W total
- IP Base, LAN Base
- Fanless design and silent operation

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Data Center Switching
Data center networks have been rapidly evolving in recent years to address the changing nature of data center workloads. The modern data center workload must excel in server-to-server traffic with intensive communication across hundreds and even thousands of servers. Cisco recognized that building the next-generation data center switch requires a next-generation ASIC, because the ASIC is the single largest factor influencing switch performance, capabilities, power profiles, and cost. To meet the new data center demands, Cisco developed the Cisco Cloud Scale ASIC technology for next-generation data center switches.

Cisco Nexus 9000 Series Data Center Switches
The Cisco Nexus® 9000 Series delivers proven high performance and density, low latency, and exceptional power efficiency in a range of form factors. The switches operate in Cisco NX-OS Software or Application Centric Infrastructure (Cisco ACI™) modes with groundbreaking Cloud Scale ASIC technology. Cisco ACI makes the application the focal point of infrastructure. It enables an agile, open, and secure architecture, reducing TCO, automating IT tasks, and accelerating data center application deployments.

Cisco Nexus 9200 Data Center Switches
Built on the latest Cisco Cloud Scale technology, the Cisco Nexus 9200 platform consists of industry-leading ultra-high-density fixed configuration data center switches with line-rate Layer 2 and 3 features that support enterprise and commercial applications, service provider hosting, and cloud computing environments. These switches support a wide range of port speeds with flexible combinations of 1-, 10-, 25-, 40-, 50-, and 100-Gbps connectivity in compact form factors. Using the widely deployed industry-leading Cisco NX-OS Software operating system, the Cisco Nexus 9200 platform delivers a programmable fabric that offers flexibility, mobility, and scale for service providers, for Infrastructure-as-a-Service (IaaS) and cloud providers, and for DevOps operation models and tool sets.

Cisco Nexus 9300 and 9300-EX Data Center Switches
The Cisco Nexus® 9300 platform is the next generation of fixed Cisco Nexus 9000 Series Switches. Based on Cisco’s Cloud Scale ASIC, the 9300 platform supports cost-effective cloud-scale deployments, an increased number of endpoints, and cloud services with wire-rate security and telemetry. The 9300-EX platform offers a variety of interface options that transparently migrate existing data centers from 100-Mbps, 1-Gbps, and 10-Gbps speeds to 25 Gbps at the server, and from 10- and 40-Gbps speeds to 50 and 100 Gbps at the aggregation layer. The Cisco Nexus 9300 and 9300-EX platforms support both Cisco ACI and Cisco NX-OS.

Cisco Nexus 9500 Data Center Switches
The Cisco Nexus 9500 platform offers three modular options designed to scale as your network requirements grow: the Cisco Nexus 9504 Switch with 4 slots, the Cisco Nexus 9508 Switch with 8 slots, and the Cisco Nexus 9516 Switch with 16 slots. The Cisco Nexus 9500 platform consists of Layer 2 and 3 nonblocking Ethernet switches with backplane bandwidth of up to 172.8 Tbps. The 9504, 9508, and 9516 switches support 1, 10, 25, 40, 50, and 100 Gigabit Ethernet interfaces through a comprehensive selection of modular line cards. Configurable with up to 2304x 10 Gigabit Ethernet ports, 2048x 25 Gigabit Ethernet ports, 576x 40 Gigabit Ethernet ports, 1024x 50 Gigabit Ethernet ports, or 512x 100 Gigabit Ethernet ports, they provide ample capacity for both access- and aggregation-layer deployments. The 9500 platform supports both Cisco ACI and Cisco NX-OS.

Summary
Our network switches give you a digital-ready network foundation that is simple, automated, and secure. Let Cisco help you find the right switching solution for your business needs. Explore our switches for your data center, core, and edge.

- Cisco Switch Selector Tool
- Cisco Switching Portfolio
- Cisco Digital Network Architecture

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