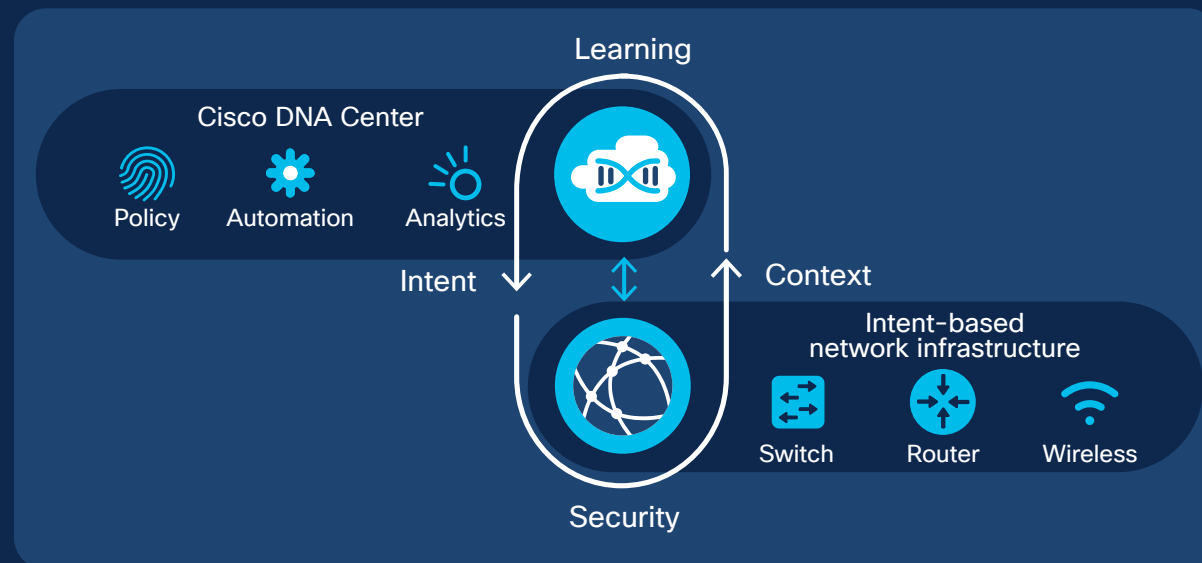


Cisco Digital Network Architecture

Unlock your network's full potential. Drive IT and business innovation.

Intent-based networking, ushering in a new network era. Built on Cisco Digital Network Architecture (Cisco DNA).

Increasingly, the agility of an organization's network determines the agility of the business. All too often, a rigid network holds back the organization's ability to flourish in an era of change. Cisco DNA provides a complete intent-based networking system that is constantly learning, adapting, and using contextual insights to make sure the network continuously responds to dynamic IT and business needs. Cisco DNA is the open, software-driven architecture that turns vision into reality.



Cisco DNA is a controller-based architecture. Having Cisco DNA Center at its core, Cisco DNA provides the policy, automation, and analytics required to adapt to change, simplify and scale operations, and protect against degradation and threats. It provides 360-degree open platform extensibility to vastly increase the network's value by opening the way for new and innovative applications, processes, and solutions that are required today, and those that will be needed in the future.

Guiding principles

- **Security** everywhere, turning the network into a sensor and enforcement system that identifies and contains risk and threats, even in encrypted traffic
- **Centralized**, cloud-enabled management to design, provision, enable policy, and assure network services
- **Open** platform capabilities that allow the network to understand the needs of the business and integrate the network into IT and business processes
- **Automation** to simplify operations and accelerate policy enforcement consistently and reliably across all devices in access, campus, and WAN networks
- **Assurance** to proactively predict performance and remediate problems through machine learning and correlations for business insights and operational efficiencies
- **Intent-ready** physical and virtual infrastructure to make sure all your switches, routers, and access points can support the latest software innovations, today and into the future

Solutions and products

Cisco DNA Center

An intuitive command and control center acts as the core of an intent-based network, providing a centralized management dashboard for controller-based automation, networkwide assurance, and open platform extensibility.

- **Policy:** Express business intent through network policies that govern the functioning of the network and continuously align it to fulfill the intent
- **Automation:** Simplify the design, provisioning, and configuration management of your entire network from a centralized policy-based dashboard
- **Analytics:** Improve network assurance with rich contextual visibility and monitoring, networkwide. Make sure the network is performing at its optimal level and in accordance with business goals
- **Security:** Segment your network to reduce risk, contain threats, prevent lateral movement of malware, and isolate infected endpoints. Gain deep visibility into network usage to quickly identify and eliminate potential vulnerabilities
- **Open Platform:** Deliver 360-degree extensibility with an open, intent-based networking platform that enables easy data and intelligence exchange with external applications and systems. Benefit from the resulting streamlined operations and unlimited IT and business innovation

Cisco DNA Automation solution

Cisco DNA network automation capabilities automate previously manual network device onboarding, configuration, provisioning, and maintenance processes to simplify and scale network operations and drastically reduce configuration errors.

- **Discovery and inventory:** Automatically find out devices on the network, arrange them in a logical hierarchy, and apply site-specific network settings
- **Device onboarding and lifecycle management:** Simplify new device deployment through plug-and-play and zero-touch provisioning functions
- **Software image management:** Automatically monitor and manage software updates and patches to help ensure end-to-end consistency across the network

Cisco Services

We help organizations accelerate the journey to digitization by unlocking the network's full potential. With proven experience, best practices, and innovative tools, we help you confidently move to a secure, automated, intent-based network. Manage, scale, and secure your Cisco DNA solutions with our comprehensive lifecycle of advisory, implementation, software integration, optimization, technical, and IT training services. [View all services.](#)

Cisco Software-Defined Access (SD-Access) solution

Enable network access in minutes for any user or device to any application without compromising security.

- **End-to-end segmentation:** Secure users, devices, and applications with identity-based policy, regardless of location
- **User policy workflows:** Use Cisco DNA Center to design, provision, and manage your wired and wireless networks
- **Intelligent network fabric:** Enable a consistent user experience anywhere with insights and analytics into user and application behavior

Software-Defined WAN (Cisco SD-WAN) solution

Accelerate digital and cloud transformation at your remote sites with a cloud-delivered overlay WAN architecture

- **Better user experience:** Deploy applications in minutes on any platform. Deliver a consistent user experience and predictable performance
- **Greater agility:** Get faster, easier deployment and operation of your WAN, and faster performance using less bandwidth
- **Advanced threat protection:** Securely connect users to applications. Multilayer security encrypts all data for protection, from the WAN edge to the cloud

Cisco DNA security solution

Turn your whole network into a powerful security sensor and enforcer that integrates with security operations to detect and contain growing threats.

- **Encrypted Traffic Analytics (ETA):** Enables the network to serve as an even more advanced security sensor capable of detecting threats even in encrypted traffic
- **Cisco Stealthwatch®:** Provides network visibility and security analytics to rapidly detect and contain threats
- **Cisco TrustSec® and Cisco Identity Services Engine (ISE):** Enable fast and simple segmentation as part of the SD-Access solution to control networkwide access, enforce security policies, and help meet compliance requirements

Next steps

For more information about Cisco DNA, read the [solution overview](#) or visit cisco.com/go/ciscodna.

Get started with programming to take full advantage of Cisco DNA capabilities. Learn more at Cisco DevNet: <https://developer.cisco.com/dnacenter/> and <https://developer.cisco.com/sdwan/>.

Cisco DNA digital-ready Infrastructure

Cisco DNA-ready infrastructure products include a portfolio of routing, switching, and wireless products, including the Cisco® Catalyst® 9000 family of switches, wireless access points, and wireless controllers. [Cisco DNA digital-ready products](#).

Cisco DNA software

Start your journey today to an intent-based network using your current portfolio of Cisco network equipment and then continue to adopt network innovations in the months and years ahead through the power of Cisco DNA software. IT teams can take advantage of software subscriptions for Cisco DNA to increase business flexibility, reduce TCO, accelerate innovation, and simplify software management. [Get software details](#).

And no matter where you are in your journey, Cisco and our partners offer services expertise to help you accelerate your network transformation.

Cisco DNA integrations with networking domains

To realize the full potential of intent-based networking, a common set of policies must tie each of the separate networking domains together within the enterprise. Cisco DNA exchanges policy elements for consistency with other domains:

- **With Cisco ACI®:** A single policy governing both network access (by SD-Access) and application access (by Cisco ACI) provides end-to-end user-to-application control
- **With Cisco SD-WAN:** Network segmentation for access control extends over Cisco SD-WAN, which provides continuity on the policy, control, and data plane levels