

Cisco Digital Network Architecture



The Next Era of Networking Has Arrived

Digitization is fueled by major technology trends: mobility, the Internet of Things, and cloud computing. Businesses seeking to digitize need to evolve to a digital-ready network with real-time insights and personalized experiences, automation and assurance, and security and compliance.

What Is Cisco Digital Network Architecture?

Cisco® Digital Network Architecture (DNA) provides an open, software-driven platform that integrates critical innovations in networking software, such as virtualization, automation, analytics, and cloud, into one architecture. It gives you a roadmap to a digital-ready network and helps enable business and IT to innovate faster, reduce costs, and lower risk with services that are easy to consume.

Network Requirements for the Digital Organization



Insights and Experiences
New Business Models | Faster Innovation



Security and Compliance
Real-Time and Dynamic Threat Defense | Lower Risk



Automation and Assurance
Speed, Simplicity, Visibility | Reduced Cost and Complexity

Business Benefits of Cisco DNA



Efficiency



Speed



Financial Value



More Efficient Networking Staff

28%



Faster Delivery of New Applications

17%



Faster WAN Branch Deployments

42%



Average Annual Benefit

\$48K

Per 100 Employees



5 year ROI

402%

Source: IDC The Business Value of Creating Digital-Ready Networks with Cisco DNA Solutions, Jan 2017. Figures refer to business value achieved by customers adopting Cisco DNA solutions.

Cisco DNA Guiding Principles:

- **Cloud managed** to unify policy orchestration across the network
- **Designed for automation** to make networks and services easy to deploy, manage, and maintain
- **Pervasive analytics** to provide insights into network operations, IT infrastructure, and the business
- **Virtualization** to run services anywhere, independent of the underlying platform: physical, virtual, on premises, or in the cloud
- **Open, extensible, and programmable at every layer**, integrating Cisco and third-party technology, open APIs, and a developer platform

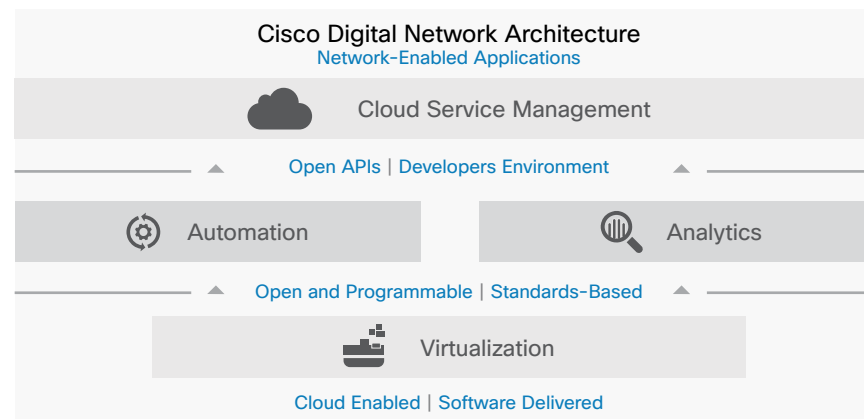
Cisco DNA Innovations

Automation

- **Cisco Application Policy Infrastructure Controller Enterprise Module (APIC-EM):** Serves as the Cisco DNA controller and supports a range of automation services
 - **Cisco Plug and Play:** Reduces deployment time from four weeks to days and decreases day-zero deployment costs by up to 79 percent compared to traditional methods
 - **Cisco Easy Quality of Service (EasyQoS):** Enables the network to dynamically update networkwide QoS settings based on application policy
 - **Cisco Intelligent WAN (IWAN):** Allows IT to deploy a software-defined WAN (SD-WAN) for branch offices with just 10 clicks

Virtualization

- **Cisco IOS® XE Software:** Provides open, model-based APIs for third-party application development, software-defined management, application hosting, and edge computing
- **Cisco Enterprise Network Functions Virtualization (NFV):** Decouples hardware from software and provides flexible deployment options, including a customized Cisco platform, or Cisco Unified Computing System™ E-Series and Cisco 5400 Series Enterprise Network Compute System (ENCS)



Analytics

- **Cisco Connected Mobile Experiences (CMX) Cloud:** Provides you with valuable insights and allows personalized engagement using location and presence information

Security

These innovations enable you to use your network as a powerful security sensor and enforcer:

- **Cisco Stealthwatch®:** Provides network visibility and security analytics to rapidly detect and contain threats
- **Cisco TrustSec® and Cisco Identity Services Engine (ISE):** Use software-defined segmentation to control network access, enforce security policies, and help meet compliance requirements
- **Cisco Umbrella:** Cloud security platform that provides the first line of defense against threats on the Internet, wherever users go

Next Steps

For more information about Cisco Digital Network Architecture (DNA), visit [cisco.com/go/dna](https://www.cisco.com/go/dna).