Cisco Digital Network Architecture

The Next Era of Networking Has Arrived

Digitization is fueled by major technology trends: mobility, the Internet of Things, cloud computing, and analytics[1]. Businesses seeking to digitize need to evolve to a 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 digitization 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**

Automation and Assurance

Speed, Simplicity, Visibility | **Reduced Cost and Complexity**

Security and Compliance

Real-Time and Dynamic Threat Defense | **Lower Risk**

Cisco DNA Delivers Real Business Benefits

Greater Business Agility

85% faster network services provisioning[1]

Lower Costs

79% reduction in network installation costs[2]

Investment Protection

2X software value than with individual components with license portability[3]

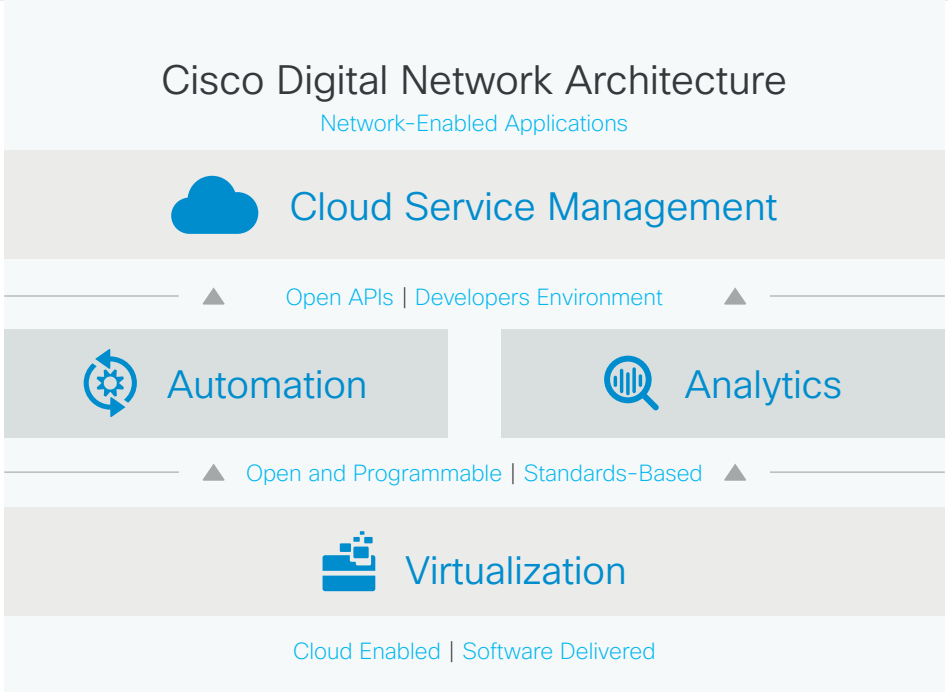
Reduced Risk

100X faster threat detection[4]

Resource Optimization

80% more energy savings and reduced maintenance costs[5]

[1]Based on Cisco APIC-EM with IWAN–Estimate based on workflow changing from 900 CLI lines to 10 GUI clicks. [2]Cisco APIC-EM with PnP–Based on average installation cost for customer deployments.
[3]Cisco ONE Software Buying Model for Access and WAN. [4]*Cisco 2016 Annual Security Report*. [5]*Cisco Energy Management Solution with Philips LED Systems*.



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 network-wide QoS settings based on application policy
  - **Cisco Intelligent WAN (IWAN):** Allows IT to deploy a full-service branch office with just 10 clicks

Virtualization

- **Evolved 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 UCS E-Series and C-Series Servers

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

Next Steps

For more information about Cisco Digital Network Architecture (DNA), visit cisco.com/go/dna.