

# Cisco Enterprise Network Functions Virtualization

## Deploy network services in minutes, on any platform

Your network infrastructure is the enabler for digital transformation. So the need for deployment speed, on-demand orchestration, and central management of network services has never been greater. Routing, firewall, intrusion detection and prevention, wireless LAN control, and WAN acceleration services have traditionally required separate pieces of equipment. And they often require truck rolls that are time-intensive and costly.

Network Functions Virtualization (NFV) solves these challenges by abstracting the network services from their underlying hardware. With NFV, infrastructure functions can quickly be deployed in software as needed.

However, not all NFV solutions are created equal. The right one should provide you not only with deployment choices, flexibility, and agility, but also with peace of mind regarding the performance throughput of its software-based network services.

Cisco® Enterprise Network Functions Virtualization (Enterprise NFV) delivers exactly that and more. It enables an agile, simple, and open network infrastructure that provides faster service delivery at lower costs. With it, you can now turn up a network service in minutes instead of months.

## Benefits

- **Reduces CapEx:** Decreases the number of network appliances you need to buy, house, and operate.
- **Lowers OpEx:** Eliminates truck rolls and lets you get new network services up in minutes, not months.
- **Gives you choices:** Lets you deploy Cisco and non-Cisco network services on physical and virtual platforms.
- **Simplifies site provisioning:** Provides standardized templates for zero-touch deployment.
- **Increases network uptime:** Real-time health monitoring and centralized management of network functions shrink maintenance windows.
- **Protects your investment:** Cisco ONE™ Software license portability covers you for future upgrades and provides twice the value of a la carte licensing.

“IT and business leaders must make the deployment of enterprise network functions a priority because it can align the network with business goals.”

– Zeus Kerravala  
ZK Research

## Next steps

To get more information on how Cisco Enterprise NFV can accelerate your path to virtualization, visit [cisco.com/go/enfv](https://cisco.com/go/enfv).

The solution works with your existing physical and virtual network devices and with Cisco or non-Cisco network services. Get the agility you need to move at the speed of the digital business and the freedom to choose the deployment option that fits your business demands.

## Redefine your network with software

Cisco Enterprise NFV offers the following:

- **Centralized management and orchestration:** Enterprise Service Automation (ESA) lets you create template designs and policy definitions, execute zero-touch deployment, and automatically monitor the health of physical and virtual network services. Enterprise NFV can also be deployed with Cisco Network Services Orchestrator (NSO) for Virtualized Branch orchestration by managed service providers as well as large enterprises.
- **Virtual Network Functions (VNFs):** You get virtual instances of Cisco’s rich network services, such as routing, security, wireless LAN controllers, and WAN acceleration, based on proven Cisco physical equipment. Cisco Enterprise NFV also supports third-party VNFs.
- **Enterprise NFV Infrastructure Software (NFVIS):** To enable independent management and dynamic provisioning of Cisco and non-Cisco VNFs, NFVIS, a virtualization layer, decouples network functions from their underlying hardware so functions can run as virtual services. NFVIS supports service chaining, zero-touch deployment, lifecycle management, and programmable open APIs.
- **Hardware:** Cisco Enterprise NFV is supported on the Cisco Unified Computing System™ (Cisco UCS®) E-Series server blade in the Cisco 4000 Series Integrated Services Routers (ISRs) and the Cisco 5000 Enterprise Network Compute System.