



## About Cisco Enterprise NFVIS

Cisco Enterprise Network Function Virtualization Infrastructure Software (Cisco Enterprise NFVIS) is a Linux-based infrastructure software designed to help service providers and enterprises dynamically deploy virtualized network functions, such as a virtual router, firewall, and WAN acceleration, on a supported Cisco device. There is no need to add a physical device for every network function, and you can use automated provisioning and centralized management to eliminate costly truck rolls.

Cisco Enterprise NFVIS provides a Linux-based virtualization layer to the Cisco Enterprise Network Functions Virtualization (ENFV) solution.

### Cisco ENFV Solution Overview

Cisco ENFV solution helps you convert your critical network functions into software, making it possible to deploy network services in minutes across dispersed locations. It provides a fully integrated platform that can run on top of a diverse network of both virtual and physical devices with the following primary components:

- Cisco Enterprise NFVIS
- Cisco Enterprise Service Automation (ESA)
- VNFs
- Unified Computing System (UCS) and Enterprise Network Compute System (ENCS) hardware platforms
- Cisco Application Policy Infrastructure Controller Enterprise Module (APIC-EM)
- Cisco Prime Infrastructure

For more details on the Cisco ENFV solution, see the [Cisco Enterprise Network Functions Virtualization Solution Overview](#).

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## Benefits of Cisco Enterprise NFVIS

- Cost effective solution to consolidate multiple physical network appliances into a single server running multiple virtual network functions.
- Flexibility in deploying services quickly and in a timely manner.

- Cloud based VM life cycle management and provisioning.
- In-box life cycle management software to deploy and chain VMs dynamically on the platform.
- Programmable APIs.

## Supported Hardware Platforms

Depending on your requirement, you can install Cisco Enterprise NFVIS on the following Cisco hardware platforms:

- Cisco 5400 Series Enterprise Network Compute System (Cisco ENCS)
- Cisco UCS C220 M4 Rack Server
- Cisco ISR4331 with UCS-E140S-M2/K9
- Cisco ISR4351 with UCS-E160D-M2/K9
- Cisco ISR4451-X with UCS-E180D-M2/K9

### Cisco ENCS

The Cisco 5400 Series Enterprise Network Compute System combines routing, switching, storage, processing, and a host of other computing and networking activities into a compact one Rack Unit (RU) box. This high-performance unit achieves this goal by providing the infrastructure to deploy virtualized network functions and acting as a server that addresses processing, workload, and storage challenges.

### Cisco UCS C220 M4 Rack Server

The Cisco UCS C220 M4 Rack Server is the high-density, general-purpose enterprise infrastructure and application server that delivers world class performance for a wide range of enterprise workloads, including virtualization, collaboration, and bare-metal applications.

### Cisco UCS E-Series Server Modules

The Cisco UCS E-Series Servers (E-Series Servers) are the next generation of Cisco UCS Express servers. E-Series Servers are a family of size, weight, and power efficient blade servers that are housed within the Generation 2 Cisco Integrated Services Routers (ISR G2), Cisco 4400, and Cisco 4300 Series Integrated Services Routers. These servers provide a general-purpose compute platform for branch office applications deployed either as bare metal on operating systems, such as Microsoft Windows or Linux; or as virtual machines on hypervisors.

### Supported VMs

Currently, the following Cisco supplied VMs and third party VMs are supported:

- Cisco ISRV
- Cisco Adaptive Security Virtual Appliance (ASAv)
- Cisco Virtual Wide Area Application Services (vWAAS)
- Linux Server VM

- Windows Server 2012 VM

## Key Tasks You can Perform Using Cisco Enterprise NFVIS

- Perform VM image registration and deployment
- Create new networks and bridges, and assign ports to bridges
- Create custom flavors—a flavor is the customized profile of the VM image
- Perform service chaining of VMs
- Perform VM operations
- Verify system information including CPU, port, memory, and disk statistics

The APIs for performing these tasks are explained in the API Reference for Cisco Enterprise NFVIS.



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**Note** From a Cisco Enterprise NFVIS command-line interface, you can connect to another server and VMs remotely using the SSH client.

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