



Overview to Cisco NFVI Installation

This chapter describes the Cisco NFVI installation procedures.

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Cisco NFVI Installation Overview

Cisco NFVI installation is divided into two processes:

- **Preparation**—Preparing the Cisco NFVI pod hardware and configuring all supporting applications including Cisco Integrated Management Controller (IMC) and Cisco UCS Manager.
- **Installation**—Installing the Cisco NFVI component applications such as Cisco Virtual Infrastructure Manager (VIM), Cisco Insight (Unified Management), and Cisco Virtual Topology System (VTS) with Virtual Topology Forwarder (VTF) based on your Cisco NFVI package.

Cisco NFVI installation depends on the component applications that you install. For example, if you are installing Cisco VTS, install VTC before installing Cisco VIM or Cisco Unified Management (UM). When installing Cisco VIM UM, install the Cisco VIM management node and Insight in a sequence to complete the Cisco VIM installation through Cisco VIM UM. However, if you have Cisco VIM without other Cisco NFVI applications in your package, you can install the Cisco VIM alone in your system.

Consider the following factors before installing the Cisco NFVI components:

- **Internet Access**—Internet access is required to download the Cisco NFVI installation files from cvim-registry.com. If you do not have an Internet access to your management node, you need an alternate server with an Internet access to download the installation files to a USB stick. You can copy the installation files from USB stick to the management node.
- **Cisco NFVI Configurations**— Cisco NFVI configurations are included in the `setup_data.yaml` file. If you are installing Cisco VIM and not Cisco VIM Insight, you can enter the configurations directly into the `setup_data.yaml` file with a yaml editor. You can refer to the examples in `setup_data` file (for C and B-series) at the `openstack-configs` directory in the `target install` folder in the management node. For more information on Cisco NFVI data and OpenStack parameters, see [Setting Up Cisco VIM Data Configuration](#). If you are installing Cisco VIM Insight, run Cisco NFVI using Insight UI wizard. For more information, see [Installing Cisco VIM Unified Management](#).

Following are the license options for installing Cisco NFVI:

- Cisco NFVI Basic—Includes Cisco Virtual Infrastructure Manager (VIM), which is an OpenStack Queens release software solution used to enhance the functionality, scale, and performance of the node.
- Cisco NFVI Standard—Includes Cisco VIM and Cisco VIM Insight. Cisco VIM Insight deploys, provisions, and manages Cisco NFVI on Cisco UCS servers.
- Cisco NFVI with third-party monitoring - Includes Cisco VIM with or without Cisco VIM Insight based on the license option chosen, with monitoring of the pod through Zenoss.
- Optional Cisco NFVI Applications—Cisco Virtual Topology System (VTS) is an optional application that can be installed with both Cisco VIM and Cisco VIM Insight. Cisco VTS is a standard-based, open software-overlay management and provisioning system. It automates the data center network fabric provisioning, for virtual and physical infrastructure.

You must perform extra manual installation procedures while installing Cisco VIM. If your package includes Cisco VIM and UM, you must do Cisco VIM manual setup and configuration procedures through the Unified management system (VIM UM). You can manage cloud in Cisco VIM through Cisco VIM UM. Once you start managing the cloud, Cisco recommends you to continue using Cisco VIM UM for future use as well.

The following table helps you to understand the installation sequence.

#	Chapter Title	Audience	Notes
1	Overview to Cisco Network Function Virtualization Infrastructure	Pod Administrator	Understanding the Cisco NFVI architecture and networking ensures a successful installation.
2	Overview to Cisco NFVI Installation, on page 1	Pod Administrator	Describes the Cisco NFVI installation procedures.
3	Preparing for Installation on Servers Without Internet Access	Pod Administrator	Provides information on the hardware and application preparation procedures, before installing and configuring Cisco NFVI.
4	Preparing for Cisco NFVI Installation	Users	Refer to this section, if your management node does not have Internet access.
5	Installing Cisco VTS	Users	Refer to this section, if your package includes Cisco Virtual Topology System.. You must install Cisco VTS before you install other Cisco NFVI applications.
6	Installing Cisco VIM	Pod Administrator	Describes how to configure and install Cisco VIM. Users with Cisco VIM UM can proceed with the Cisco VIM Insight installation, while users with only Cisco VIM have to complete the full procedure.
7	Installing Cisco VIM Unified Management	Users	Refer to this section, if your package includes Cisco VIM UM.
8	Installing Cisco VIM through Cisco VIM Unified Management	Users	Describes Cisco VIM UM installation and configuration procedures.
9	Verifying the Cisco NFVI Installation	Pod Administrator	Provides methods to verify the Cisco NFVI installation.