



Cisco NFVI Installation Overview

The Cisco NFVI installation overview topic provides an installation map to guide you to the procedures you need to complete for your particular Cisco NFVI installation.

- [Overview to Cisco NFVI Installation, on page 1](#)

Overview to Cisco NFVI Installation

Cisco NFVI installation is divided into two processes:

- **Preparation**—Preparing the Cisco NFVI pod hardware and configuring all supporting applications including the Cisco Integrated Management Controller (IMC) and the Cisco UCS Manager.
- **Installation**—Installing the Cisco NFVI component applications includes: Cisco Virtual Infrastructure Manager (VIM), Cisco Insight (Unified Management) and Cisco Virtual Topology System (VTS) including Virtual Topology Forwarder (VTF). The applications that you install depend on your Cisco NFVI package.

The sequence in which you perform Cisco NFVI installations depends on the component applications that you install. For example, if you are installing Cisco VTS, install VTC, before you install Cisco VIM or Cisco Unified Management (UM). If you are installing Cisco VIM UM, begin the Cisco VIM Management Node installation, then install Insight and complete the Cisco VIM installation through Cisco VIM UM. If you have Cisco VIM without other Cisco NFVI applications, complete the Cisco VIM installation procedure.

In addition to the sequence of Cisco NFVI component installations, two other considerations are important:

- **Internet Access**—Internet access is required to download the Cisco NFVI installation files from the Cisco NFVI download site (cvim-registry.com). If your management node has an Internet access, you can download the files directly to it. If you do not have Internet access, you need an alternate server with an internet access so that you can download the installation files to a USB stick. You can now use the USB stick to copy the installation files to the management node.
- **Cisco NFVI Configurations**—Before you begin the Cisco NFVI installation, take time to familiarize yourself with the parameters you provision either during or immediately following Cisco NFVI installation. Configurations are provided in the `setup_data.yaml` file. If you are installing Cisco VIM and not Cisco VIM Insight, you enter the configurations directly into the `setup_data.yaml` file with a yaml editor. Examples of `setup_data` file (for C and B-series) are available at the `openstack-configs` directory in the target install folder in the management node. To see the Cisco NFVI data and OpenStack parameters run [Setting Up the Cisco VIM Data Configurations](#). If you are installing Cisco VIM Insight, run Cisco NFVI using Insight UI wizard. For information, see [Installing Cisco VIM Unified Management](#).

Installation procedures in this guide are designed for one of several Cisco NFVI license options:

- Cisco NFVI Basic—Includes Cisco Virtual Infrastructure Manager (VIM). Cisco VIM is an OpenStack Newton release software solution with more features and usability enhancements that are tested for functionality, scale, and performance.
- 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 that are based on the preceding choice 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 Cisco VIM by itself and with Cisco VIM Insight. Cisco VTS is a standards-based, open software-overlay management and provisioning system. It automates the data center network fabric provisioning, for virtual and physical infrastructure.

The following table lists the procedures for each option. If you have purchased Cisco VIM, you have to perform extra manual installation procedures. If you purchased Cisco VIM and UM, you have to perform many of the Cisco VIM manual setup and configuration procedures through the Unified management system also called VIM UM. Cloud that is installed through Cisco VIM from CLI, can be managed through Cisco VIM UM later in the lifecycle. However, once the VIM UM starts managing a cloud, we recommend you to continue using it to manage the cloud later.

The following table helps you to understand the installation sequence.

#	Chapter Title	Audience	Notes
1	Overview to Cisco NFVI	Pod Administrator	Understanding the Cisco NFVI architecture and networking helps ensure a successful installation.
2	Cisco NFVI Installation Overview, on page 1	Pod Administrator	Provides a map through the Installation Guide chapters.
3	Preparing for Installation on Servers Without Internet Access	Pod Administrator	Complete the procedures in this chapter before starting Cisco NFVI installation.
4	Preparing for Cisco NFVI Installation	Users	Complete this chapter only if your management node does not have Internet access.
5	Installing Cisco VTS	Users	Complete only if your implementation includes Cisco Virtual Topology System. If yes, you install Cisco VTS before you install other Cisco NFVI applications.
6	Installing Cisco VIM	Pod Administrator	All users have to complete a portion of the Installing Cisco VIM procedure. Users with Cisco VIM UM can proceed to the Cisco VIM Insight installation, while users with only Cisco VIM have to complete the full procedure.
7	Installing Cisco VIM Unified Management	Users	Complete only if your implementation includes Cisco VIM UM.

#	Chapter Title	Audience	Notes
8	Installing Cisco VIM through Cisco VIM Unified Management	Users	Complete only if you have Cisco VIM UM. In this procedure, you have to install and configure Cisco VIM.
9	Verifying the Cisco NFVI Installation	Pod Administrator	Provides methods that you can use to verify the Cisco NFVI installation.

