



Using Chef Client with Cisco NX-OS

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Feature History for Chef Client with Cisco NS-OS

This table lists the release history for this feature.

Table 1: Feature History for Chef Support

Feature Name	Releases	Feature Information
Chef Client with Cisco NX-OS	7.3(0)D1(1)	This feature was introduced in Cisco Nexus 7000 and Cisco Nexus 7700 switches.

Information About Chef

Chef is an open-source software package developed by Chef Software, Inc. It is a systems and cloud infrastructure automation framework that deploys servers and applications to any physical, virtual, or cloud location, no matter the size of the infrastructure. Each organization comprises one or more workstations, a single server, and every node that will be configured and maintained by the chef client. Cookbooks and recipes are used to tell the chef client how each node should be configured. The chef client, which is installed on every node, performs the actual configuration.

A Chef cookbook is the fundamental unit of configuration and policy distribution. A cookbook defines a scenario and contains everything that is required to support that scenario, including libraries, recipes, files, and more. A Chef recipe is a collection of property definitions for setting a state on the device. The details for checking and setting these property states are abstracted away so that a recipe can be used for more than one operating system or platform. While recipes are commonly used for defining configuration settings, they can also be used to install software packages, copy files, start services, and more.

The following references provide more information from Chef:

Table 2: More Information on chef

Topic	Link
Chef home	https://www.chef.io
Chef overview	https://docs.chef.io/chef_overview.html
Chef documentation (all)	https://docs.chef.io/

Prerequisites

The following are the prerequisites for Chef client:

- You must have a Cisco device and operating system software release that supports the installation:
 - Cisco Nexus 7000 Series Switch
 - Cisco Nexus 7700 Series Switch
 - Cisco NX-OS Release 7.3(0)D1(1) or later for Cisco Nexus 7000 Series and Cisco Nexus 7700 series switches.
- Chef agents cannot run natively on Cisco Nexus 7000 and Cisco Nexus 7700 switches. Instead, they run in a special environment called the Open Agent Container (OAC). For information on how to install OAC on your switch, refer to the chapter [Open Agent Container \(OAC\)](#).
- You need a Chef server with Chef 12.4.1 or later.
- You need Chef Client 12.4.1 or later.
- You need Cisco Chef Cookbook Version 1.0.0. or later.

Chef Client in Cisco NX-OS Environment

The chef-client software must be installed in a Linux environment provided by the Cisco Nexus platforms.

Open Agent Container (OAC) is a 32-bit CentOS 6.6-based container that is targeted to specifically allow Chef agents on Cisco Nexus platforms. Although the container will have the ability to provide a Bash shell, it will restrict the applications that can be installed in the container.

Download and install OAC on your device before you install Chef on your device. For information about how to download and install OAC, refer to the chapter [Open Agent Container \(OAC\)](#).

The following table provides information about agent software download, installation, and setup:

Table 3: Chef Agent Download, Installation and Setup Information

Topic	Link
Chef Client (OAC, 32-bit CentOS6 root file system)	For latest information on client RPM, go to: https://packagecloud.io/chef/stable/packages/el/6/chef-12.5.1-1.el6.i386.rpm .

Topic	Link
Chef Client: Installation and setup on Cisco Nexus platform (manual setup)	cisco-cookbook::README-install-agent.md
Chef Client: Installation and setup on Cisco Nexus platform (automated installation using the Chef provisioner)	cisco-cookbook::README-chef-provisioning.md

Cisco Cookbook

Cisco Cookbook is a Cisco-developed open-source interface between the abstract resources configuration in a Chef recipe and the specific implementation details of the Cisco Nexus operating system and platforms. This cookbook is installed on the Chef server and is required for effective Chef client operation on Cisco Nexus devices.

Cisco Cookbook can be found on Chef Supermarket. For information about Cisco Cookbook location and setup instructions, see:

<https://supermarket.chef.io/cookbooks/cisco-cookbook>

The following table contains links to documents that provide additional information about Cisco Cookbook:

Table 4: Cisco Cookbook Additional Information

Topic	Link
Cisco Cookbook: Setup and usage	cisco-cookbook::README.md
Cisco Cookbook: Source Code Repository	https://github.com/cisco/cisco-network-chef-cookbook/tree/master
Resource Type Catalog	https://github.com/cisco/cisco-network-chef-cookbook/tree/master#resource-reference
Chef Supermarket	https://supermarket.chef.io

