



Puppet Agent

This chapter includes the following sections:

- [About Puppet, page 1](#)
- [Prerequisites, page 2](#)
- [Puppet Agent NX-OS Environment, page 2](#)
- [ciscopuppet Module, page 2](#)

About Puppet

The Puppet software package, developed by Puppet Labs, is an open source automation toolset for managing servers and other resources by enforcing device states, such as configuration settings.

Puppet components include a puppet agent which runs on the managed device (node) and a puppet master (server) that typically runs on a separate dedicated server and serves multiple devices. The operation of the puppet agent involves periodically connecting to the puppet master; which in turn compiles and sends a configuration manifest to the agent; the agent reconciles this manifest with the current state of the node and updates state based on differences.

A puppet manifest is a collection of property definitions for setting the state on the device. The details for checking and setting these property states are abstracted so that a manifest can be used for more than one operating system or platform. Manifests are commonly used for defining configuration settings, but they can also be used to install software packages, copy files, and start services.

More information can be found from Puppet Labs:

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|---------------------------|---|
| Puppet Labs | https://puppetlabs.com |
| Puppet Labs FAQ | http://docs.puppetlabs.com/guides/faq.html |
| Puppet Labs Documentation | http://docs.puppetlabs.com/ |

Prerequisites

The following are prerequisites for the Puppet Agent:

- You must have a Cisco device and operating system software release that supports the installation.
 - Cisco Nexus 9300 Series switch.
 - Cisco Nexus 9500 Series switch.
 - Cisco NX-OS release 7.0(3)I2(1) or later.
- You must have the required disk storage available on the device for virtual services installation and deployment of Puppet Agent.
 - A minimum of 450MB free disk space on bootflash.
- You must have Puppet Master server with Puppet 4.0 or later.
- You must have Puppet Agent 4.0 or later.

Puppet Agent NX-OS Environment

The puppet agent software must be installed in one of the Linux environments on a Cisco Nexus platform:

- Bash-shell
The native WindRiver Linux environment underlying NX-OS.
- Guestshell
The secure Linux container environment running CentOS. It is a secure, open execution environment that is decoupled from the host.

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

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|---|--|
| Puppet Agent: Installation & Setup on Cisco Nexus switches (Manual Setup) | Cisco Puppet Module::README-agent-install.md |
|---|--|

ciscopeuppet Module

The **ciscopeuppet** module is a Cisco developed open-source interface between the abstract resources configuration in a puppet manifest and the specific implementation details of the Cisco Nexus NX-OS operating system and platform. This module is installed on the puppet master and is required for puppet agent operation on Cisco Nexus switches.

The **ciscopeuppet** module is available on Puppet Forge.

The following provide additional information about the **ciscopeuppet** module installation procedures:

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|--|---|
| ciscopuppet Module location (Puppet Forge) | https://forge.puppetlabs.com/puppetlabs/ciscopuppet |
| Resource Type Catalog | https://github.com/cisco/cisco-network-puppet-module/tree/master#resource-by-tech |
| ciscopuppet Module: Source Code Repository | https://github.com/cisco/cisco-network-puppet-module/tree/master |
| ciscopuppet Module: Setup & Usage | Cisco Puppet Module::README.md |
| Puppet Labs: Installing Modules | https://docs.puppetlabs.com/puppet/latest/reference/modules_installing.html |
| Puppet NX-OS Manifest Examples | https://github.com/cisco/cisco-network-puppet-module/tree/master/examples |
| NX-OS developer landing page. | Configuration Management Tools |

