

Cisco OpenStack Installer provides automated deployment of OpenStack core components, as well as monitoring, storage, and high availability components.

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## Installed Components

### Core OpenStack Components

Cisco OpenStack Installer generally provides unmodified OpenStack code. Cisco generally follows the latest community stable releases, but may opt to provide more recent patches that have been accepted into the OpenStack stable branches but have not yet become part of an OpenStack stable release. Cisco OpenStack Installer provides all OpenStack core components.

### OpenStack Client Libraries

Cisco OpenStack Installer generally provides the most recent release of each OpenStack client library (e.g. python-quantumclient, python-novaclient, etc) unless doing so causes testing to fail. In such cases, we will generally back down to the latest release that doesn't cause problems in testing.

### Open Source Monitoring Tools

In order to provide a system that can be managed once installed, Cisco OpenStack Installer provides simple open source monitoring tools as a reference monitoring system. These include Collectd and Graphite. Each tool provides simple health monitoring or trending information on the physical nodes and important software services in the OpenStack cloud.

## Storage Systems

Users can choose to have Cisco OpenStack Installer deploy the [Ceph](#) storage system. Ceph can be used as a backend for Glance, a backend for Cinder, or as a standalone storage service. Ceph support was initially introduced in Cisco OpenStack Installer g.1 and was improved in g.2. Swift object storage is also available.

## High Availability tools

Users can choose to have Cisco OpenStack Installer deploy their OpenStack cloud with active/active HA for all major functions and important underpinning components. When deploying the high availability reference architecture, Cisco OpenStack Installer provides additional components such as MySQL [WSREP](#) and [Galera](#), [HAProxy](#), and [Keepalived](#).

## System Requirements

The Cisco OpenStack Installer has been tested on the following hardware and software platforms:

- **Ubuntu 14.04 LTS** (for Icehouse) or **Ubuntu 12.04 LTS** (for Havana) serves as a base operating system.
- **KVM** serves as the hypervisor.
- **Cisco UCS C-Series and B-series Servers** serve as physical compute/storage hardware.
- **Cisco Nexus Switches** provide physical networking.
- **OpenStack Neutron** provides the network services for the OpenStack Havana cloud. Users may select a variety of Neutron setup options, including support for OVS in GRE tunneling mode, OVS in VLAN mode, the Cisco Nexus plugin, and provider networks. Previous to the Havana release of OpenStack, the network services module was called Quantum.

## Install Tools

### Cobbler

Cisco OpenStack Installer installs and sets up [Cobbler](#) in order to provide baremetal provisioning of physical servers in the OpenStack cloud.

### Puppet Modules

Cisco OpenStack Installer uses Puppet for deployment and configuration management. Cisco OpenStack Installer installs and configures OpenStack components and their related underpinnings via Puppet. Our core OpenStack Puppet modules are generally point-in-time versions of those found on [StackForge](#), where Cisco actively contributes code and reviews. Our policy is to contribute code upstream to StackForge first and absorb patches into Cisco OpenStack Installer after they have been accepted upstream. We generally deviate from this policy only when patches are unlikely to be reviewed and accepted upstream in time for a release or for a customer deadline (in such cases we apply the patches to our repositories, submit them upstream, and back the local change out in favor of the upstream version when it becomes accepted). We also use and contribute to modules from other upstream sources including [Puppet Labs](#).

## Support and Documentation

Cisco OpenStack Installer is a community project and is supported on a best-effort basis by Cisco engineers. The Cisco OpenStack Installer **best-effort support mailer** is [openstack-support@cisco.com](mailto:openstack-support@cisco.com).

Additional resources can be found at the following locations:

### **Release information**

Information about release versions and dates can be found in Launchpad at <https://launchpad.net/openstack-cisco/>. Click on a release in the "Series and milestones" section to find information about individual releases, including projected release dates, targeted blueprints and bug lists, release notes, and change logs.

### **Bug Tracking**

Our **bug tracker** is in Launchpad at <https://bugs.launchpad.net/openstack-cisco> Please contribute bug reports if your run into problems. You can find a guide to filing bug reports [here](#).

### **Community OpenStack**

For general OpenStack questions, you may also wish to visit <http://ask.openstack.org> and the [OpenStack Wiki](#).