

## OpenStack\_and\_Heartbleed

This page describes how the Heartbleed OpenSSL vulnerability affects OpenStack deployments made with the Cisco OpenStack Installer.

- Ubuntu uses OpenSSL. Distributions of Ubuntu that were available when Heartbleed was announced are vulnerable.
- OpenStack clouds running on Ubuntu (including those installed by Cisco OSI) are therefore vulnerable.
- Ubuntu has already been patched to close the vulnerability, and Cisco OpenStack Installer automatically updates to the newest patch when installed.

Therefore:

- **Deployments made on or after April 7, 2014 using Cisco OpenStack Installer are safe from the vulnerability.**
- **Deployments installed before April 7, 2014 are vulnerable.** For older deployments, Cisco recommends that administrators:
  1. Patch Ubuntu on all affected servers;
  2. Rekey their entire public-key infrastructure and create new certificates for all services that use OpenSSL (including Puppet); and
  3. Change all passwords.

The following links provide more information about Heartbleed and:

- [How to patch Ubuntu, including Ubuntu 12.04 LTS \(Precise\)](#)
- [Puppet certificates](#)
- [OpenStack](#)