



OpenShift Enterprise 2 2.0 Release Notes

Release Notes for OpenShift Enterprise

Red Hat OpenShift Documentation
Team

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Abstract

The OpenShift Enterprise 2.0 Release Notes summarize all new features, major corrections from the previous version, and any known bugs upon general availability. Instructions are also included to help OpenShift Enterprise administrators to install and configure asynchronous updates to existing installations.

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Chapter 1. Introduction to OpenShift Enterprise

OpenShift Enterprise by Red Hat is a Platform as a Service (PaaS) that provides developers and IT organizations with an auto-scaling, cloud application platform for deploying new applications on secure, scalable resources with minimal configuration and management overhead. OpenShift Enterprise supports a wide selection of programming languages and frameworks, such as Java, Ruby, and PHP. Integrated developer tools, such as Eclipse integration, JBoss Developer Studio, and Jenkins, support the application life cycle.

Built on Red Hat Enterprise Linux, OpenShift Enterprise provides a secure and scalable multi-tenant operating system for today's enterprise-class applications while providing integrated application runtimes and libraries.

OpenShift Enterprise brings the OpenShift PaaS platform to customer data centers, enabling organizations to implement a private PaaS that meets security, privacy, compliance, and governance requirements.

1.1. Installing OpenShift Enterprise 2.0

See the current version of the *OpenShift Enterprise Deployment Guide* at <http://access.redhat.com/site/documentation> for instructions on how to deploy OpenShift Enterprise for the first time.

1.2. Upgrading to OpenShift Enterprise 2.0

If you have a previous version of an OpenShift Enterprise instance currently installed and would like to upgrade to OpenShift Enterprise 2.0, see the current edition of the *OpenShift Enterprise Deployment Guide* at <https://access.redhat.com/site/documentation>.

Chapter 2. New Features

2.1. What's New in OpenShift Enterprise 2.0

This section provides information on the new features available in OpenShift Enterprise 2.0.

New Cartridge Support

OpenShift Enterprise now supports the following new or updated cartridges:

- Node.js 0.10
- Python 2.7
- PostgreSQL 9.2
- Ruby 1.9 (now supported through the use of Software Collections)

Custom Environment Variables

Users can now set one or more custom environment variables for their applications. Set, view, and remove environment variables with the **rhc env** commands. See the *OpenShift Enterprise User Guide* for more information on using environment variables.

Administration Console

OpenShift Enterprise now features an optional Administration Console, providing administrators with a read-only view of their deployment data. Administrators can view gear profiles and resource management, and can receive suggestions on how to improve performance. See the *OpenShift Enterprise Deployment Guide* for the installation procedure, and the *OpenShift Enterprise Administration Guide* for usage instructions.

Multiple Domains

Users can now create multiple domains. See the *OpenShift Enterprise User Guide* for information on using domains, including creating and maintaining domains, and the *OpenShift Enterprise Administration Guide* for information on administering domains for users, such as configuring domain settings.

Members

Users can now work collaboratively on applications within a domain. Add another user to your domain with view, edit, or administer access. See the *OpenShift Enterprise User Guide* for more information on members.

Deployment Configuration and Rollback to Previous Deployments

Users can now configure an application's deployment process. Use the **rhc configure-app** command to enable or disable automatic deployments, deploy from different Git branches, keep deployment metadata, and switch between Git and binary deployments. These new features also enable users to rollback an application to a previous deployment, or deploy using a binary snapshot. See the *OpenShift Enterprise User Guide* for more information on deployments.

External Load Balancing

OpenShift Enterprise 2.0 allows external load balancing by introducing pluggable web routing for high-availability instances. See the *OpenShift Enterprise Deployment Guide* for a more information on external load balancing.

2.2. Notable Technical Changes

New OpenShift Enterprise 2.0 Channels

OpenShift Enterprise 2.0 has new channels in both RHN Classic and Red Hat Subscription Management. See the *OpenShift Enterprise Deployment Guide* for an updated list of channel names and for more information on available repositories.

iptables Port Proxy Solution

OpenShift Enterprise now uses **iptables** instead of HAProxy as the port proxy solution. See the *OpenShift Enterprise Deployment Guide* for details on configuring the port proxy.

MCollective Utilizes Software Collection Library

OpenShift Enterprise's MCollective infrastructure now utilizes the Software Collection Library (SCL). This includes the MCollective agent on node hosts and the MCollective client on broker hosts. MCollective packages and services now use a **ruby193-mcollective** prefix, which results in changes to relevant commands and file locations. See the *OpenShift Enterprise Deployment Guide* for more information on MCollective updates.

Front-end Server Plug-ins

Previously, all deployed applications used a single front-end HTTP service. Now, administrators can configure their front-end server through a set of available plug-ins. See the *OpenShift Enterprise Deployment Guide* for more information on changing the front-end server plug-ins.

Minimized and Zero Downtime

OpenShift Enterprise 2.0 introduces enhancements which minimize downtime for scaled applications during deployments and restarts. Scaled web cartridge restarts experience zero downtime. Application deployments experience minimized downtime when using a single HAProxy cartridge, and zero downtime when using multiple HAProxy cartridges.

Chapter 3. Known Issues

This chapter highlights known issues in the OpenShift Enterprise 2.0 release.

[BZ 871569](#)

IPv6 is not supported for the 2.0 release, and OpenShift Enterprise has not been tested using IPv6. Some components that may be affected are listed in the bug report.

[BZ 1029173](#)

If you delete the Jenkins builder gear (from JBoss Developer Studio) and try to rebuild an application, the build fails because the build can not be found. This seems to be caused because Jenkins keeps a list of builders, and upon builder deletion (using REST calls), Jenkins does not get cleaned up.

[BZ 1029174](#)

Jenkins Server fails to build a re-created application that uses the same name as a previously deleted application. To workaroud this issue, delete the Jenkins job before creating an application using the same name as a deleted application.

Chapter 4. Asynchronous Errata Updates

Security, bug fix, and enhancement updates for OpenShift Enterprise 2.0 are released as asynchronous errata through the Red Hat Network. All OpenShift Enterprise 2 errata is available on the Red Hat Customer Portal at <https://rhn.redhat.com/errata/rhel6-rhose2-errata.html>. See <https://access.redhat.com/site/support/policy/updates/openshift/> for more information about asynchronous errata.

Red Hat Customer Portal users can enable errata notifications in the account settings for Red Hat Subscription Management (RHSM) or Red Hat Network (RHN) Classic. When errata notifications are enabled, users are notified via email whenever new errata relevant to their registered systems are released.



Note

Red Hat Customer Portal user accounts must have systems registered and consuming OpenShift Enterprise entitlements for OpenShift Enterprise errata notification emails to generate.

Additional Update Instructions per Release

The latest *OpenShift Enterprise Deployment Guide* provides general instructions on how to apply asynchronous errata updates within a minor release:

https://access.redhat.com/documentation/en-US/OpenShift_Enterprise/2/html-single/Deployment_Guide/index.html#Applying_Asynchronous_Errata_Updates

Some errata have additional instructions specific to that release that must be performed to fully apply the update to a host. The general instructions provided in the above [OpenShift Enterprise Deployment Guide](#) section reference [Table 4.1, “Additional Update Instructions per Release”](#) in this section, which details the releases that require additional steps.

Running the **yum update** command on a host installs packages for all pending updates at once. If you are applying multiple asynchronous errata updates at once, any additional update instructions for all releases being installed must be performed. However, the steps can be aggregated in this situation when commands would be unnecessarily repeated. When evaluating which additional steps must be performed for multiple pending asynchronous errata updates, consider the following general workflow:

1. Run the **yum update** command on each host.
2. Restart relevant services.
3. Clear the broker and console cache on the broker host, if relevant.
4. Run the **oo-admin-upgrade** command on the broker host to upgrade existing gears, if relevant.

[Table 4.1, “Additional Update Instructions per Release”](#) details whether certain parts of the above workflow are relevant to the errata updates you are applying.

Example 4.1. Applying Multiple Asynchronous Errata Updates at Once

For example, if you are updating an OpenShift Enterprise 2.0.2 deployment to release 2.0.7, see [Table 4.1, “Additional Update Instructions per Release”](#) and read through any additional instructions for all advisories listed for releases 2.0.3 through 2.0.7. The instructions listed for these releases can be aggregated into the following steps:

1. After running the **yum update** command on each host, run the following on each node host:

```
# service ruby193-mcollective restart
```

2. Run the following on the broker host:

```
# service openshift-broker restart
# service openshift-console restart
# oo-admin-broker-cache --console
# oo-admin-upgrade archive
# oo-admin-upgrade upgrade-node --version=2.0.7
```

Note that the **oo-admin-upgrade upgrade-node** command is only run once, using the version for the latest release being applied.

Table 4.1. Additional Update Instructions per Release

| Release | Advisory | Additional Instructions |
|---------|--------------------------------|--|
| 2.0.1 | RHBA-2014:0020 | <p>After running the yum update command on each host and ensuring all packages have been updated, restart the ruby193-mcollective service on each node host:</p> <pre># service ruby193-mcollective restart</pre> |
| 2.0.2 | RHBA-2014:0102 | <p>After running the yum update command and ensuring all packages have been updated, restart the ruby193-mcollective service on each node host:</p> <pre># service ruby193-mcollective restart</pre> <p>On the broker host, restart the broker service and, if installed, the console service:</p> <pre># service openshift-broker restart # service openshift-console restart</pre> |
| | RHBA-2014:0117 | <p>After running the yum update command and ensuring all packages have been updated, restart the broker service on the broker host:</p> <pre># service openshift-broker restart</pre> |

| Release | Advisory | Additional Instructions |
|---------|--------------------------------|--|
| 2.0.3 | RHBA-2014:0209 | <p>After running the yum update command on each host and ensuring all packages have been updated, restart the ruby193-mcollective service on each node host:</p> <pre># service ruby193-mcollective restart</pre> <p>On the broker host, upgrade all nodes using the following commands. Alternatively, to only upgrade a single node or gear, see the OpenShift Enterprise Deployment Guide for alternate oo-admin-upgrade command usage and use 2.0.3 as the target --version.</p> <pre># rm -rf /tmp/oo-upgrade # oo-admin-upgrade upgrade-node -- version=2.0.3</pre> |
| | RHBA-2014:0210 | <p>After running the yum update command on each host and ensuring all packages have been updated, restart the ruby193-mcollective service on each node host:</p> <pre># service ruby193-mcollective restart</pre> <p>On the broker host, upgrade all nodes using the following commands. Alternatively, to only upgrade a single node or gear, see the OpenShift Enterprise Deployment Guide for alternate oo-admin-upgrade command usage and use 2.0.3 as the target --version.</p> <pre># rm -rf /tmp/oo-upgrade # oo-admin-upgrade upgrade-node -- version=2.0.3</pre> |
| 2.0.4 | RHBA-2014:0309 | <p>After running the yum update command on each host and ensuring all packages have been updated, restart the ruby193-mcollective service on each node host:</p> <pre># service ruby193-mcollective restart</pre> <p>On the broker host, restart the broker service:</p> <pre># service openshift-broker restart</pre> |
| 2.0.5 | RHBA-2014:0417 | <p>After running the yum update command on each host and ensuring all packages have been updated, restart the ruby193-mcollective service on each node host:</p> <pre># service ruby193-mcollective restart</pre> |

| Release | Advisory | Additional Instructions |
|---------|--------------------------------|--|
| 2.0.6 | RHEA-2014:0599 | <p>After running the yum update command on each host and ensuring all packages have been updated, restart the ruby193-mcollective service on each node host:</p> <pre># service ruby193-mcollective restart</pre> <p>On the broker host, restart the broker service and, if installed, the console service:</p> <pre># service openshift-broker restart # service openshift-console restart</pre> <p>Clear the broker cache and, if installed, the console cache:</p> <pre># oo-admin-broker-cache --console</pre> <p>On the broker host, archive previous upgrade data and upgrade all nodes using the following commands. Alternatively, to only upgrade a single node or gear, see the OpenShift Enterprise Deployment Guide for alternate oo-admin-upgrade command usage and use 2.0.6 as the target --version.</p> <pre># oo-admin-upgrade archive # oo-admin-upgrade upgrade-node --version=2.0.6</pre> |
| 2.0.7 | RHBA-2014:1097 | After running the yum update command on each host and ensuring all packages have been updated, there are no additional update instructions for this release. |
| 2.0.8 | RHBA-2015:0053 | After running the yum update command on each host and ensuring all packages have been updated, there are no additional update instructions for this release. |
| 2.0.9 | RHBA-2015:1588 | <p>After running the yum update command on each host and ensuring all packages have been updated, restart the ruby193-mcollective service on each node host:</p> <pre># service ruby193-mcollective restart</pre> <p>Clear the broker cache and, if installed, the console cache:</p> <pre># oo-admin-broker-cache --console</pre> |
| 2.0.10 | RHEA-2015:1587 | After running the yum update command on each host and ensuring all packages have been updated, there are no additional update instructions for this release. |

Chapter 5. Product Support and Documentation

Product Support

Product support is available at <http://www.redhat.com/support>.

Product Documentation

Product documentation for OpenShift Enterprise is available at https://access.redhat.com/knowledge/docs/OpenShift_Enterprise/.

Appendix A. Revision History

| | | |
|---|------------------------|-----------------------------|
| Revision 2.0-11 | Wed Aug 12 2015 | Alex Dellapenta |
| Updated Chapter 4, Asynchronous Errata Updates with minor edit to RHBA-2015:1588 instructions. | | |
| Revision 2.0-10 | Tue Aug 11 2015 | Alex Dellapenta |
| Updated Chapter 4, Asynchronous Errata Updates with instructions for RHBA-2015:0053 , RHBA-2015:1588 and RHEA-2015:1587 . | | |
| Revision 2.0-9 | Fri Sep 12 2014 | Alex Dellapenta |
| BZ 1133628: Updated Chapter 4, Asynchronous Errata Updates with information on applying multiple updates at once. | | |
| Updated Chapter 4, Asynchronous Errata Updates with instructions for RHBA-2014:1097 . | | |
| Revision 2.0-8 | Fri Jun 6 2014 | Alex Dellapenta |
| OpenShift Enterprise 2.0.6 release. | | |
| Updated Chapter 4, Asynchronous Errata Updates with instructions for RHEA-2014:0599 . | | |
| Revision 2.0-7 | Mon Apr 21 2014 | Alex Dellapenta |
| OpenShift Enterprise 2.0.5 release. | | |
| Updated Chapter 4, Asynchronous Errata Updates with instructions for RHBA-2014:0417 . | | |
| Revision 2.0-6 | Fri Mar 28 2014 | Alex Dellapenta |
| BZ 1081237 : Updated Chapter 3, Known Issues to include BZ 871569 . | | |
| Revision 2.0-5 | Tue Mar 18 2014 | Alex Dellapenta |
| OpenShift Enterprise 2.0.4 release. | | |
| Updated Chapter 4, Asynchronous Errata Updates with instructions for RHBA-2014:0309 . | | |
| Revision 2.0-4 | Tue Feb 25 2014 | Alex Dellapenta |
| OpenShift Enterprise 2.0.3 release. | | |
| Updated Chapter 4, Asynchronous Errata Updates with instructions for RHBA-2014:0209 and RHBA-2014:0210 . | | |
| Revision 2.0-3 | Thu Jan 30 2014 | Alex Dellapenta |
| Updated Chapter 4, Asynchronous Errata Updates with instructions for RHBA-2014:0117 . | | |
| Revision 2.0-2 | Tue Jan 28 2014 | Alex Dellapenta |
| OpenShift Enterprise 2.0.2 release. | | |
| Updated Chapter 4, Asynchronous Errata Updates . | | |
| Revision 2.0-1 | Tue Jan 14 2014 | Brice Fallon-Freeman |
| OpenShift Enterprise 2.0.1 release. | | |
| Updated Section 1.2, "Upgrading to OpenShift Enterprise 2.0" . | | |
| Added Chapter 4, Asynchronous Errata Updates . | | |
| Revision 2.0-0 | Mon Dec 9 2013 | Bilhar Aulakh |
| OpenShift Enterprise 2.0 release. | | |