



# Red Hat CodeReady Workspaces 2.15

## Release Notes and Known Issues

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Robert Kratky

rkratky@redhat.com

Fabrice Flore-Thébault

ffloreth@redhat.com

Jana Vrbkova

jvrbkova@redhat.com

Max Leonov

mleonov@redhat.com

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## Abstract

Information about new and noteworthy features as well as known issues in Red Hat CodeReady Workspaces 2.15.

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## MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see [our CTO Chris Wright's message](#).

# CHAPTER 1. ABOUT RED HAT CODEREADY WORKSPACES

Red Hat CodeReady Workspaces is a web-based integrated development environment (IDE). CodeReady Workspaces runs in OpenShift and is well-suited for container-based development.

CodeReady Workspaces provides:

- an enterprise-level cloud developer workspace server
- a browser-based IDE
- ready-to-use developer stacks for popular programming languages, frameworks, and Red Hat technologies

Red Hat CodeReady Workspaces 2.15 is based on Eclipse Che 7.42.

## 1.1. SUPPORTED DEPLOYMENT ENVIRONMENTS

This section describes the availability and the supported installation methods of CodeReady Workspaces 2.15 on OpenShift Container Platform 4.10 4.8, 3.11, and OpenShift Dedicated.

**Table 1.1. Supported deployment environments for CodeReady Workspaces 2.15 on OpenShift Container Platform and OpenShift Dedicated**

Platform	Architecture	Deployment method
OpenShift Container Platform 3.11	AMD64 and Intel 64 (x86_64)	<b>crwctl</b>
OpenShift Container Platform 4.8 to 4.10	AMD64 and Intel 64 (x86_64)	OperatorHub, <b>crwctl</b>
OpenShift Container Platform 4.8 to 4.10	IBM Z (s390x)	OperatorHub, <b>crwctl</b>
OpenShift Container Platform 4.8 to 4.10	IBM Power (ppc64le)	OperatorHub, <b>crwctl</b>
OpenShift Dedicated 4.10	AMD64 and Intel 64 (x86_64)	<a href="#">Add-on service</a>
Red Hat OpenShift Service on AWS (ROSA)	AMD64 and Intel 64 (x86_64)	<a href="#">Add-on service</a>

### Additional resources

- [Installing CodeReady Workspaces from Operator Hub on OpenShift 4.10](#) .
- [Installing CodeReady Workspaces on OpenShift Container Platform 3.11](#) .

## 1.2. SUPPORT POLICY



For Red Hat CodeReady Workspaces 2.15, Red Hat will provide support for deployment, configuration, and use of the product.

CodeReady Workspaces 2.15 has been tested on Chrome version 94.0.4606.81 (Official Build) (64-bit).

#### Additional resources

- [CodeReady Workspaces life-cycle and support policy](#).

### 1.3. DIFFERENCES BETWEEN ECLIPSE CHE AND RED HAT CODEREADY WORKSPACES

The main differences between CodeReady Workspaces and Eclipse Che are:

- CodeReady Workspaces is built on RHEL8 to ensure the latest security fixes are included, compared to Alpine distributions that take a longer time to update.
- CodeReady Workspaces uses Red Hat Single Sign-On (RH-SSO) rather than the upstream project Keycloak.
- CodeReady Workspaces provides a smaller supported subset of plug-ins compared to Che.
- CodeReady Workspaces provides devfiles for working with other Red Hat technologies such as EAP and Fuse.
- CodeReady Workspaces is supported on OpenShift Container Platform and OpenShift Dedicated; Eclipse Che can run on other Kubernetes clusters.

Red Hat provides licensing, packaging, and support. Therefore, CodeReady Workspaces is considered a more stable product than the upstream Eclipse Che project.

## CHAPTER 2. NOTABLE ENHANCEMENTS

### 2.1. CODEREADY WORKSPACES 2.15.1 UPDATES TO RH-SSO 7.5.1

CodeReady Workspaces 2.15.1 has been updated from including [Red Hat Single Sign-On 7.4](#) to [Red Hat Single Sign-On 7.5.1](#) for two reasons: \* The latest update includes all the most recent bug fixes and security updates. \* The latest update replaces the deprecated [OpenJ9](#) images with [Red Hat build of OpenJDK](#) based images for use with all three supported architectures: AMD64, IBM Z, and IBM Power.

#### Additional resources

- [CRW-2265](#)

### 2.2. INTELLIJ IDEA COMMUNITY EDITION SAMPLE

With this update, a sample is available in the CodeReady Workspaces dashboard for starting a new workspace with [IntelliJ IDEA Community Edition](#) in it.



#### IMPORTANT

The IntelliJ IDEA Community Edition sample is a Technology Preview feature only. Technology Preview features are not supported with Red Hat production service level agreements (SLAs) and might not be functionally complete. Red Hat does not recommend using them in production. These features provide early access to upcoming product features, enabling customers to test functionality and provide feedback during the development process. For more information about the support scope of Red Hat Technology Preview features, see <https://access.redhat.com/support/offerings/techpreview/>.

#### Additional resources

- [CRW-2276](#)

### 2.3. PLANNED REMOVAL OF SUPPORT FOR THE CODEREADY WORKSPACES DEPLOYMENT ENVIRONMENTS

In Red Hat OpenShift Dev Spaces 3.0 (formerly CodeReady Workspaces), support for the following deployment environments is planned for removal due to the switch to the DevWorkspace Operator:

- OpenShift Container Platform 3.11
- OpenShift Container Platform 4.8
- OpenShift Container Platform 4.9
- Red Hat OpenShift Dedicated 4.8
- Red Hat OpenShift Dedicated 4.9
- Red Hat OpenShift Service on AWS 4.8
- Red Hat OpenShift Service on AWS 4.9

Bug fixes and support are planned through the end of the 2.15.z life cycle. After which, no new feature enhancements are made.

With Red Hat OpenShift Dev Spaces 3.0 (formerly CodeReady Workspaces), the supported deployment environments will be the following: \* OpenShift Container Platform 4.10 \* Red Hat OpenShift Dedicated 4.10 \* Red Hat OpenShift Service on AWS 4.10

#### Additional resources

- [CRW-2343](#)

## 2.4. CODEREADY WORKSPACES WITH THE DEVWORKSPACE OPERATOR SUPPORTS GIT LFS

With this update, [Git Large File Storage \(LFS\)](#) is enabled with the DevWorkspace Operator 0.12 or later. The LFS is enabled when you create the workspace by using a devfile to point to a Git repository or when you manually clone a Git repository inside the workspace. To install a CodeReady Workspaces instance with the DevWorkspace Operator, use the **Red Hat CodeReady Workspaces - Technical Preview** Operator in the OperatorHub.

#### Additional resources

- [CRW-2377](#)

## 2.5. CODE SAMPLES IMPLEMENT THE DEVFILE V2 SPECIFICATION

Before this update, code samples implemented the devfile v1 specification. With this update, code samples are implementing the devfile v2 specification.

#### Additional resources

- [CRW-2539](#)

## 2.6. UPGRADE OF THE LANGUAGE SUPPORT FOR APACHE CAMEL EXTENSION FOR VISUAL STUDIO CODE

[Language Support for Apache Camel by Red Hat](#), the Visual Studio Code extension that adds Apache Camel language support for XML DSL and Java DSL code, is upgraded to 0.1.3.

#### Additional resources

- [CRW-2588](#)

## 2.7. IMPROVED PERFORMANCE OF THE JAVA AND QUARKUS EXTENSIONS FOR VISUAL STUDIO CODE

This enhancement improves the startup and runtime performance of the Java and Quarkus extensions for Visual Studio Code in workspaces that load Che-Theia with these extensions. The improved performance is achieved by increasing the CPU limit from 500 MB to 800 MB.

#### Additional resources

- [CRW-2589](#)

## 2.8. TECH-PREVIEW SAMPLES IN THE DASHBOARD

With this update, Technology Preview samples in the dashboard are now labelled with **Tech-Preview** to differentiate them from the samples that have full Red Hat support.



### IMPORTANT

**Tech-Preview** samples are Technology Preview features only. Technology Preview features are not supported with Red Hat production service level agreements (SLAs) and might not be functionally complete. Red Hat does not recommend using them in production. These features provide early access to upcoming product features, enabling customers to test functionality and provide feedback during the development process. For more information about the support scope of Red Hat Technology Preview features, see <https://access.redhat.com/support/offerings/techpreview/>.

#### Additional resources

- [CRW-2634](#)

## 2.9. REMOVAL OF THE CRWCTL WORKSPACE: AND CRWCTL AUTH: COMMANDS

In CodeReady Workspaces 2.15, the **crwctl workspace:** and **crwctl auth:** commands are removed. You can use the CodeReady Workspaces dashboard instead. Bug fixes and support are provided through the end of the CodeReady Workspaces 2.14 life cycle. After which, no new feature enhancements are made.

#### Additional resources

- [CRW-2719](#)

## 2.10. OPENJDK REPLACES JVM ON IBM POWER AND IBM Z

Before this update, Eclipse OpenJ9 was the Java SE implementation for containers targeting IBM Power (ppc64le) and IBM Z (s390x) OpenShift clusters. With this update, the OpenJ9 JVM in the OpenShift containers for IBM Power (ppc64le) and IBM Z (s390x) is replaced by the Red Hat build of OpenJDK. Existing CodeReady Workspaces installations, on update to 2.15.1, switch over to use OpenJDK in the Java 8 and 11 sidecar images rather than the OpenJ9 ones. Customers whose devfiles reference the OpenJ9-based containers must edit their devfiles and replace "-openj9-rhel8" with "-rhel8" to continue to receive security updates. See also [CRW-2785](#).

#### Additional resources

- [CRW-2750](#)

## 2.11. CODEREADY WORKSPACES 2.15.1 AVAILABILITY ON OPENSIFT CONTAINER PLATFORM 4.10

With this update, CodeReady Workspaces 2.15.1 will be available through OperatorHub on OpenShift Container Platform 4.10.

**Additional resources**

- [CRW-2797](#)

## CHAPTER 3. BUG FIXES

### 3.1. CODEREADY WORKSPACES WITH THE CODEREADY WORKSPACES SERVER ENGINE AND GITHUB OAUTH SUCCESSFULLY STARTS DEVFILE V2 WORKSPACES

Before this update, when a CodeReady Workspaces instance was configured with the CodeReady Workspaces server engine and GitHub OAuth, CodeReady Workspaces failed to start a workspace using the devfile v2 specification. With this update, a CodeReady Workspaces instance configured with the CodeReady Workspaces server engine and GitHub OAuth successfully starts a workspace using the devfile v2 specification.

#### Additional resources

- [CRW-2705](#)

## CHAPTER 4. KNOWN ISSUES

### 4.1. DEBUGGING CANNOT BE ACTIVATED IN GO WORKSPACES ON IBM Z AND IBM POWER

On IBM Z and IBM Power, the debugging features cannot be activated in the Go workspace in CodeReady Workspaces 2.15. Delve, the required debugger for the Go programming language, is not available for these platforms. An attempt to activate this feature results in the **Failed to continue** error message. This issue has no workaround.

#### Additional resources

- [CRW-1349](#)

### 4.2. LANGUAGE SERVER FEATURES ARE NOT PREINSTALLED IN GO WORKSPACES

Golang based workspaces do not include basic language server features such as code autocompletion.

#### Workaround

1. Run the CodeReady Workspaces instance in a non-restricted environment.
2. Install the required module by using the **Install** button in the IDE dialog box.

#### Additional resources

- [CRW-1521](#)

### 4.3. ATTEMPTS TO CLONE A WORKSPACE FROM A QUICK ADD SAMPLE RESULT IN AN ERROR UNDER THE SINGLE-HOST STRATEGY

When using the **single-host** strategy for workspace exposure, attempting to clone a workspace from a **Quick Add** sample results in an error. There is currently no workaround for this issue.

#### Additional resources

- [CRW-1851](#)

### 4.4. WORKSPACE CREATION FAILS ON UNSTABLE NETWORKS

CodeReady Workspaces might fail to create a workspace when the network is unstable. CodeReady Workspaces displays an error such as the following: **Failed to run the workspace: "Waiting for pod 'workspace9fbid1gnx7273d47.maven-545f8c9cf4-hw79f' was interrupted."** This issue has no workaround.

#### Additional resources

- [CRW-1888](#)

## 4.5. UNSUPPORTED DEVFILES ON IBM Z AND IBM POWER

The following devfiles are not supported on IBM Z and IBM Power:

- EAP for OpenJDK 8
- .Net
- Fuse
- Apache Camel K by Red Hat

### Workaround

- Do not use unsupported languages on IBM Z and IBM Power.

### Additional resources

- [CRW-1896](#)

## 4.6. NO DELEGATECOMMANDHANDLER ERROR FOR JAVA WITH THE JBOSS EAP 7.3 DEVFILE

A workspace using Java with the JBoss EAP 7.3 devfile fails with the following error message: **No delegateCommandHandler for `vscode.java.startDebugSession`**. There is no workaround for this issue.

### Additional resources

- [CRW-2067](#)

## 4.7. NO DISPLAY FOR A TASK AFTER A NETWORKING ISSUE

When a task is running and there is some networking issue, the terminal window is cleared and contains no text. Even when the connection is restored, the terminal remains empty and loading. There is no workaround for this issue.

### Additional resources

- [CRW-2070](#)

## 4.8. THE OPENSIFT CONNECTOR PLUG-IN FAILS TO DEPLOY AN APPLICATION IN A RESTRICTED ENVIRONMENT

The OpenShift Connector plug-in fails to deploy because of the inability to access the **odo** image in the disconnected environment. There is no workaround for this issue.

### Additional resources

- [CRW-2071](#)

## 4.9. THE DEBUG CONFIGURATION IS MISSING



The **DEBUG** panel displays **No Configurations** in the drop-down list because no configurations are loaded.

#### Workaround

- Refresh the page to display the debug configurations.

#### Additional resources

- [CRW-2078](#)

## 4.10. NAMESPACE RESTRICTION FOR OPENSIFT DEDICATED AND ROSA

Currently, there is a restriction for OpenShift Dedicated and ROSA: CodeReady Workspaces must not be deployed to the **openshift-workspaces** namespace.

#### Workaround

- Use another namespace when deploying CodeReady Workspaces on OpenShift Dedicated and ROSA.

#### Additional resources

- [CRW-2235](#)

## 4.11. THE OPENSIFT CONNECTOR PLUG-IN DOES NOT ALLOW THE CREATION OF A NEW COMPONENT ON IBM POWER

On IBM Power, the list of supported image streams is missing, which causes component creation to fail. There is currently no workaround for this issue.

#### Additional resources

- [CRW-2255](#)

## 4.12. UPGRADING A CODEREADY WORKSPACES INSTANCE WITH THE DEV WORKSPACE ENGINE ENABLED REQUIRES MANUAL STEPS

Currently, upgrading a CodeReady Workspaces instance with the Dev Workspace engine enabled requires the following manual steps as a workaround:

#### Workaround

1. Unsubscribe the CodeReady Workspaces Operator from the **latest** channel.
2. Remove the **Dev Workspace Controller** namespace.
3. Subscribe the CodeReady Workspaces Operator to the **tech-preview-latest-all-namespaces** channel.

Support for deploying CodeReady Workspaces 2.15 with the Dev Workspace engine is available as a

[Technology Preview](#) feature for OpenShift Container Platform 4.8. Technology Preview features are not supported with Red Hat production service level agreements (SLAs) and might not fully function. Red Hat does not suggest using them in production. These features provide early access to upcoming product features, enabling customers to test functionality and provide feedback during the development process.

#### Additional resources

- [CRW-2357](#)

### 4.13. THE IMAGE PULLER DOES NOT WORK WITH THE `tech-preview-latest-all-namespaces` CHANNEL

Currently, when using OperatorHub to install CodeReady Workspaces with the Dev Workspace engine, you cannot enable the Image Puller. The Image Puller currently does not work with the **tech-preview-latest-all-namespaces** channel.

#### Workaround

- Fetch the standalone CodeReady Workspaces **imagepuller-rhel8** image and use it manually to perform image pulls across the cluster.

#### Additional resources

- [CRW-2441](#)

### 4.14. THE COMMAND `CONFIGURE APACHE WEB SERVER DOCUMENTROOT` DOES NOT WORK IN THE `cake-php` SAMPLE PROJECT ON IBM POWER

When using the **Cake-php** sample, the **Configure Apache Web Server DocumentRoots** task fails with the following error:

```
error sed: couldn't open temporary file /etc/httpd/conf/sedSgv1Z4: Permission denied
```

There is currently no workaround for this issue.

#### Additional resources

- [CRW-2452](#)

### 4.15. EMPTY PAGE AFTER THE USER SESSION EXPIRES

Currently, a CodeReady Workspaces instance might display an empty page after the user session expires. There is currently no workaround for this issue.

#### Additional resources

- [CRW-2690](#)

### 4.16. EMPTY DASHBOARD AFTER A SERVER ERROR

Currently, the dashboard of a CodeReady Workspaces instance might display an empty page after a server error. There is currently no workaround for this issue.

**Additional resources**

- [CRW-2727](#)

## CHAPTER 5. FREQUENTLY ASKED QUESTIONS

**Is it possible to deploy applications to an OpenShift cluster from CodeReady Workspaces?**

Yes. The user must log in to the OpenShift cluster from their running workspace using **oc login**.

**For best performance, what is the recommended storage to use for Persistent Volumes used with CodeReady Workspaces?**

Use block storage.

**Is it possible to deploy more than one CodeReady Workspaces instance on the same cluster?**

It is not recommended. This feature is subject to removal in a future release.

**Is it possible to install CodeReady Workspaces offline (that is, disconnected from the internet)?**

Yes. See [Installing CodeReady Workspaces in restricted environments](#) .

**Is it possible to use non-default certificates with CodeReady Workspaces?**

Yes, you can use self-signed or public certificates. See [Importing untrusted TLS certificates](#).

**Is it possible to run multiple workspaces simultaneously?**

Yes. See [Configuring the number of workspaces that a user can run](#) .

**What specific changes have been implemented for IBM Power Systems?**

The memory limit for some plug-ins has been increased, to give Pods sufficient RAM to run.

**Table 5.1. Example memory limits differences between IBM Power System and other architectures**

Plug-in	IBM Power System	Other architectures
Che-Theia editor	2G	512M
OpenShift connector	2.5G	1.5G