Red Hat CodeReady Workspaces 2.5

Release Notes and Known Issues

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Abstract

Information about new and noteworthy features as well as known issues in Red Hat CodeReady Workspaces 2.5.

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CHAPTER 1. RELEASE NOTES

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.

This section documents the most important features and bug fixes in Red Hat CodeReady Workspaces. For the list of CodeReady Workspaces 2.5 release issues, see the Chapter 3, *Known issues* section.

- To deploy applications to an OpenShift cluster from CodeReady Workspaces, users must log in to the OpenShift cluster from their running workspace using **oc login**.

- Having multiple CodeReady Workspaces deployments on the same cluster is not recommended, and the ability to do so may be removed in a future release.

- For best performance, use block storage for Persistent Volumes used with CodeReady Workspaces.

1.1. ABOUT RED HAT CODEREADY WORKSPACES

Red Hat CodeReady Workspaces 2.5 provides an enterprise-level cloud developer workspace server and browser-based IDE. CodeReady Workspaces includes ready-to-use developer stacks for some of the most popular programming languages, frameworks, and Red Hat technologies.

This minor release of Red Hat CodeReady Workspaces is based on Eclipse Che 7.20.1 and offers a number of enhancements and new features, including:

- **Improvements to workspace start and overall performance**

- **Bug fixes**

  - A failing debugging session for the JavaSpringBoot devfile has been fixed. CRW-1234

  - A note about refreshing the browser after installing PHP dependencies has been added to the user interface. CRW-981

- **Languages updates**

  - OpenShift Connector plug-in 0.2.0

  - vscode-yaml plug-in 0.11.1

CodeReady Workspaces 2.5 is available in the Red Hat Container Catalog . Install it on OpenShift Container Platform, starting at version 3.11, by following the instructions in the Installing CodeReady Workspaces on OpenShift Container Platform 3.11 chapter of the Installation Guide.

CodeReady Workspaces 2.5 is available from the OperatorHub in OpenShift 4.4 and beyond. CodeReady Workspaces 2.5 is based on a new Operator that uses the Operator Lifecycle Manager. This makes the CodeReady Workspaces installation flow simpler and doable without leaving the OpenShift Console.

To install CodeReady Workspaces for OpenShift 4.4 or later, get CodeReady Workspaces from the OperatorHub and follow the Installing CodeReady Workspaces on OpenShift 4 from OperatorHub chapter of the Installation Guide.

1.2. NOTABLE ENHANCEMENTS

1.2.1. Support for IBM Power Systems [Technology Preview]

CodeReady Workspaces can now be deployed as an Operator on OpenShift running on IBM Power Systems using OperatorHub.

- IBM Power Systems is supported on:

  - OpenShift Container Platform 4.5

  - OpenShift Container Platform 4.6

- IBM Power Systems supports restricted environment installations on OpenShift Container Platform 4.6.

1.2.2. Avoid the need to create wildcard certificates

This update brings support for workspaces running on OpenShift that were not allowed to use wildcard TLS certificates.

- CRW-832

1.2.3. Support for single-host mode

Single-host mode activates an exposure strategy with a subtype named **gateway** that uses a special Pod with reverse-proxy running inside to route requests.

When the single-host strategy is used, all workspaces are deployed to sub-paths of the main CodeReady Workspaces server domain.

In single-host mode, users are not required to use wildcard TLS certificates.

1.2.4. Support for the new OpenShift Container Platform 4.6 Operator index image bundles

OpenShift Container Platform 4.6 introduces a way of installing Operators from an image index bundle. This way of installing Operators is incompatible with OpenShift Container Platform 4.5, which requires the metadata to be formatted and published differently.

CodeReady Workspaces 2.5 on OpenShift Container Platform 4.5 is left available in the older format, known from the previous version of CodeReady Workspaces.

1.3. OTHER ENHANCEMENTS

1.3.1. OpenShift Connector 0.2.0 update

The 0.2.0 version of OpenShift Connector provides support to **odo** CLI 2.0 devfiles.

1.3.2. Node 12 update

- **plugin-java8-rhel8** and **plugin-java8-openj9-rhel8** images updated from Node 10 to Node 12.

1.4. SUPPORT TERMINATIONS AND DEPRECATIONS

1.4.1. End of Thorntail support and its replacement by Quarkus

As Thorntail is no longer supported, the associated devfile has been removed from CodeReady Workspaces 2.5. Users can use the Quarkus devfile instead to experience performance-tuned Java applications.

- Issue 17961

CHAPTER 2. INSTALLING AND DEPLOYING CODEREADY WORKSPACES

For OpenShift 3.11, see the Installing CodeReady Workspaces on OpenShift Container Platform 3.11 chapter of the Administrator Guide.

For OpenShift 4.6, see the Installing CodeReady Workspaces from Operator Hub chapter of the Installation Guide.

2.1. SUPPORTED DEPLOYMENT ENVIRONMENTS

This section describes the availability and the supported installation methods of CodeReady Workspaces 2.5 on OpenShift Container Platform.

The minimal OpenShift Container Platform version supporting Red Hat CodeReady Workspaces is OpenShift Container Platform 3.11.

Table 2.1. Supported deployment environments for CodeReady Workspaces 2.5 on OpenShift Container Platform

Platform	Architecture	Deployment method
OpenShift Container Platform 3.11	AMD64 and Intel 64 (x86_64)	**crwctl**
OpenShift Container Platform 4.5	AMD64 and Intel 64 (x86_64)	OperatorHub
OpenShift Container Platform 4.5	IBM Z (s390x)	OperatorHub
OpenShift Container Platform 4.5	IBM Power Systems (ppc64le)	OperatorHub
OpenShift Container Platform 4.6	AMD64 and Intel 64 (x86_64)	OperatorHub
OpenShift Container Platform 4.6	IBM Power Systems (ppc64le)	OperatorHub

NOTE

- On OpenShift Container Platform 4.5 and 4.6, when the OperatorHub installation method is not available, consider using **crwctl** as an unofficial backup installation method.

NOTE

Support for deploying CodeReady Workspaces on OpenShift Container Platform on IBM Power Systems (ppc64le) and IBM Z (s390x) is currently only available as a Technology Preview feature. 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 details about the level of support for Technology Preview features, see Technology Preview Features Support Scope .

2.2. SUPPORT POLICY

For Red Hat CodeReady Workspaces 2.5, Red Hat will provide support for deployment, configuration, and use of the product.

CodeReady Workspaces 2.5 has been tested on Chrome version 83.0.4103.97 (Official Build) (64-bit).

For more information, see CodeReady Workspaces life-cycle and support policy .

2.3. DIFFERENCE 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, vs. Alpine distributions that take a longer time to update.

- CodeReady Workspaces uses Red Hat Single Sign-On (SSO) instead of 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; Che can also run on other Kubernetes clusters.

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

CHAPTER 3. KNOWN ISSUES

This section lists known issues with Red Hat CodeReady Workspaces 2.5. Where available, workaround suggestions are provided.

3.1. WRONG DEFAULT VALUE FOR A QUARKUS PROJECT DEFAULT FOLDER

Instead of suggesting '/projects/' as the default target folder of the Quarkus sample project, the **Create Quarkus project** button of the Quarkus wizard suggests the root folder **(/)** instead, which is not visible from the IDE.

To work around this issue, reject the suggested destination and use **/projects**.

- Issue 18006

3.2. CODEREADY WORKSPACES 2.4 JAVA JBOSS FUSE WORKSPACES FAIL TO START AFTER MIGRATION TO 2.5

CodeReady Workspaces 2.4 Java JBoss Fuse workspaces deployed on OpenShift with enabled OpenShift OAuth support fail to start after updating to 2.5.

- CRW-1322

3.3. THE INSTALL DEPENDENCIES COMMAND FAILS IN PHP-DI-BASED WORKSPACES

After opening **php-di/console.php** file in a workspace build using the PHP-DI default YAML file, the predefined command for installing dependencies fails to run.

- CRW-1335

3.4. WORKSPACE WELCOME PAGE FAILS TO LOAD IN SINGLE-HOST MODE

Workspaces of the CodeReady Workspaces deployed in Single-host mode fail to load the welcome page, displaying the following error message:

> Cannot GET /serverj4587ysj-jwtproxy/server-4402/webview/index.html.

- CRW-1336

- Issue 17694

3.5. DEBUG SESSION FOR PYTHON DEVFILE FAILS TO START

CodeReady Workspaces 2.5 instances do not support running a debug session for workspaces created from a Python devfile.

- CRW-1235

3.6. MANUALLY ADDED REGISTRIES USING THEIA PLUGIN VIEW ARE NOT REFLECTED IN THE VIEW AUTOMATICALLY

To work around this issue, refresh the page by pressing **F5** or **Comd**+**r** if using macOS.

- Issue 17263

3.7. INSTALLING CODEREADY WORKSPACES USING CRWCTL SERVER:START FAILS IN CLUSTERS WITH MULTIPLE CODEREADY WORKSPACES DEPLOYMENTS

Installation of CodeReady Workspaces, using the **crwctl server:start** with OpenShift OAuth, fails or does not deploy resources if existing resources from another crwctl installation exist in the cluster.

To workaround this issue, delete old resources and perform a fresh installation. For instructions, see Installing CodeReady Workspaces on OpenShift Container Platform 3.11 .

Having multiple CodeReady Workspaces deployments on the same cluster is not recommended, and the ability to do so may be removed in a future release.

- Issue 17187

3.8. SOME RUN AND BUILD COMMANDS OF THE THE GETTING STARTED EXAMPLES MAY FAIL IN THE AIRGAP INSTALLATIONS

Some of the sample projects included in the Getting Started devfiles are not designed for offline or airgapped use, so some commands may not work. To resolve this, user may have to talk to a organization's administrator to get access to internal mirrors, such as NMP, Maven, and PIP.

The base functions of the **Getting started** ZIP-archived samples embedded in the offline devfile registry do not work.

Commands that require internet access to run: **Run**, **Simple build `, `Outline**

- CRW-1059

3.9. THE WORKSPACE SHARING DOES NOT WORK

The **File > Share** IDE command currently launches the **Workspace** tab, but the **Share** tab is missing.

- CRW-1041

3.10. THE CRWCTL SERVER:DELETE COMMAND BREAKS EXISTING CODEREADY WORKSPACES DEPLOYMENTS ON THE SAME OPENSHIFT CLUSTER

The **crwctl server:delete** command removes certain cluster-scoped objects, which causes all other CodeReady Workspaces deployments to terminate unexpectedly.

To work around the issue, patch the Custom Resource Definition:

```
$ oc patch customresourcedefinition/checlusters.org.eclipse.che -p \
'{ "metadata": { "finalizers": null }}' --type merge
```

Having multiple CodeReady Workspaces deployments on the same cluster is not recommended, and the ability to do so may be removed in a future release.

- Issue 17187

3.11. DELETING A checluster CUSTOM RESOURCE CAUSES CODEREADY WORKSPACES OPERATOR ERRORS

Uninstalling the CodeReady Workspaces manually by deleting the **checluster** custom resource in the OperatorHub causes errors in the CodeReady Workspaces Operator. As a consequence, attempting to re-install CodeReady Workspaces in OperatorHub fails.

- CRW-763

3.12. CODEREADY WORKSPACES DEPLOYED WITHOUT TLS SUPPORT CAUSES SOME FEATURES TO NOT WORK PROPERLY

In CodeReady Workspaces 2.1 and later, secure HTTPS is required to use the most recent Theia IDE, and therefore TLS mode is enabled by default. Disabling the TLS support will cause user experience to suffer and some UI will not work as expected or at all.

For example, the welcome page may be blank or broken, images may be missing, and other functionality may not work properly.

- Issue 17012

CHAPTER 4. KNOWN ISSUES FOR CODEREADY WORKSPACES ON IBM Z AND IBM POWER SYSTEMS

4.1. IBM Z [TECHNOLOGY PREVIEW]

Support for deploying CodeReady Workspaces on OpenShift Container Platform on IBM Z is currently only available as a Technology Preview feature. 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 details about the level of support for Technology Preview features, see Technology Preview Features Support Scope.

4.1.1. Installations in restricted environments are not supported on IBM Z

Advanced features like, for example, restricted environment installation, while possible, are unsupported.

4.1.2. Unsupported devfiles on IBM Z

- EAP for OpenJDK 8

- .Net

4.1.3. Debugging cannot be activated in Go workspaces

Debugging feature cannot be activated in Go workspace in CodeReady Workspaces 2.5. An attempt to activate this feature results in the **Failed to continue** error message.

- CRW-1349

4.1.4. Deployment of Red Hat Fuse sample project to an OpenShift 4.5 cluster running on IBM Z (s390x) fails

CodeReady Workspaces 2.5 workspaces created from the Fuse devfile fail to log-in into the target cluster on OpenShift Container Platform 4.5.

- CRW-1350

4.2. IBM POWER SYSTEMS [TECHNOLOGY PREVIEW]

Support for deploying CodeReady Workspaces on OpenShift Container Platform on IBM Power Systems is currently only available as a Technology Preview feature. 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 details about the level of support for Technology Preview features, see Technology Preview Features Support Scope .

4.2.1. Unsupported devfiles on IBM Power Systems

- EAP for OpenJDK 8

- .Net

4.2.2. Debugging cannot be activated in Go workspaces

Debugging feature cannot be activated in Go workspace in CodeReady Workspaces 2.5. An attempt to activate this feature results in the **Failed to continue** error message.

- CRW-1349

4.2.3. Deployment of Red Hat Fuse sample project to an OpenShift cluster running on IBM Power Systems (ppc64le) fails

CodeReady Workspaces 2.5 workspaces created from the Fuse devfile fail to log-in into the target cluster on OpenShift Container Platform .

- CRW-1350

CHAPTER 5. FAQ

1. Can I install CodeReady Workspaces **offline** (that is, disconnected from the internet)?
   Yes, you can. For detailed instructions, see Installing CodeReady Workspaces in restricted environments chapter of the *Installation Guide*.

2. Can I use non-default certificates with CodeReady Workspaces?
   Yes, you can use self-signed or public certificates. See Installing CodeReady Workspaces on OpenShift Container Platform 3.11 chapter of the *Installation Guide*.

3. Can I run multiple workspaces simultaneously?
   Yes. The following two conditions must be met to run multiple workspaces simultaneously:

   - CodeReady Workspaces must use the **per-workspace** Persistent Volume Claim (PVC) strategy (default), and

   - Persistent volumes (PVs) must use **ReadWriteMany** (RWX) access mode.
     Thus to run multiple workspaces simultaneously, ensure the following configuration is set:

   - Set **ReadWriteMany** (RWX) access mode for PVs.

   - Use the **per-workspace** PVC strategy (default in CodeReady Workspaces), or optionally, the **unique** strategy.