



Red Hat OpenShift Dev Spaces 3.16

3.16.0 Release notes and known issues

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Jana Vrbkova
jvrbkova@redhat.com

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Abstract

Information about new and noteworthy features as well as known issues in Red Hat OpenShift Dev Spaces 3.16.

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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 OPENSIFT DEV SPACES

Red Hat OpenShift Dev Spaces provides web-based development environments on Red Hat OpenShift with an enterprise-level setup:

- Cloud Development Environments (CDE) server
- IDEs such as Microsoft Visual Studio Code - Open Source and JetBrains IntelliJ IDEA Community ([Technology Preview](#))
- Containerized environments with popular programming languages, frameworks, and Red Hat technologies

Red Hat OpenShift Dev Spaces is well-suited for container-based development.

Red Hat OpenShift Dev Spaces 3.16 is based on Eclipse Che 7.90.

1.1. SUPPORTED PLATFORMS

OpenShift Dev Spaces runs on OpenShift 4.12–4.16 on the following CPU architectures:

- AMD64 and Intel 64 (**x86_64**)
- IBM Z (**s390x**)

The following CPU architecture requires OpenShift 4.13–4.16 to run OpenShift Dev Spaces:

- IBM Power (**ppc64le**)

Additional resources

- [OpenShift Documentation](#)
- [Red Hat OpenShift Dev Spaces administration guide](#)

1.2. SUPPORT POLICY

For Red Hat OpenShift Dev Spaces 3.16, Red Hat will provide support for deployment, configuration, and use of the product.

Additional resources

- [OpenShift Dev Spaces life-cycle and support policy](#) .

1.3. DIFFERENCES BETWEEN RED HAT OPENSIFT DEV SPACES AND ECLIPSE CHE

There are some differences between Red Hat OpenShift Dev Spaces and the upstream project on which it is based, Eclipse Che:

- OpenShift Dev Spaces is supported only on Red Hat OpenShift.
- OpenShift Dev Spaces is based on Red Hat Enterprise Linux and is regularly updated to include the latest security fixes.

- OpenShift Dev Spaces provides getting-started samples supported in the air-gap mode with languages and technologies such as Quarkus, Lombok, NodeJS, Python, DotNet, Golang, and C/C++. Community samples are available at the [Devfile registry page](#).
- OpenShift Dev Spaces uses OpenShift OAuth for user login and management.

Red Hat provides licensing and packaging to ensure enterprise-level support for OpenShift Dev Spaces.

CHAPTER 2. NEW FEATURES AND ENHANCEMENTS

2.1. ADD POD PLACEMENT CAPABILITIES FOR DEVWORKSPACE-WEBHOOK-SERVER AND MAKE IT MORE ROBUST

With this release, the `devworkspace-webhook-server` deployment options are available in the global `DevWorkspaceOperatorConfig` (DWOC) including: [replicas](#), [pod tolerations](#) and [nodeSelector](#).

These configuration options exist in the global DWOC's `config.webhook` field:

```
apiVersion: controller.devfile.io/v1alpha1
kind: DevWorkspaceOperatorConfig
metadata:
  name: devworkspace-operator-config
  namespace: $OPERATOR_INSTALL_NAMESPACE
config:
  routing:
    clusterHostSuffix: 192.168.49.2.nip.io
    defaultRoutingClass: basic
  webhook:
    nodeSelector: <string, string>
    tolerations: <[]tolerations>
    replicas: <int32>
```

NOTE

In order for the `devworkspace-webhook-server` configuration options to take effect:

- You must place them in the [global DWOC](#), which has the name **devworkspace-operator-config** and exists in the namespace where the `DevWorkspaceOperator` is installed. If it does not already exist on the cluster, you must create it.
- You must terminate the `devworkspace-controller-manager` pod and restart it so that the `devworkspace-webhook-server` deployment can be adjusted accordingly.

Additionally, the default replica count for the `devworkspace-webhook-server` deployment has been increased to 2 to increase availability.

Additional resources

- [CRW-6232](#)

2.2. WARNING USERS THAT CREATING A CDE FROM AN UNKNOWN SOURCE COULD BE DANGEROUS

With this release, when you start a cloud development environment (CDE) from a URL, you are asked if you trust the authors of the repository since creating a workspace from unknown or untrusted sources could be dangerous.

Additional resources

- [CRW-7120](#)

2.3. ADVANCED CONFIGURATION OPTIONS FOR THE 'IMPORT FROM GIT' FLOW

Starting from this release, it is possible to configure the container image, temporary storage, memory and CPU limits when starting a CDE using the "Import from Git" flow.

Additional resources

- [CRW-7121](#)

2.4. GIT CONFIGURATION FROM THE USER DASHBOARD

With this release, you can not only set the **name** and **email** for the Git Configuration but also to upload and edit the entire **.gitconfig** file from the User Dashboard.

Additional resources

- [CRW-7122](#)

2.5. SUPPORT DEVWORKSPACE.IGNOREDUNRECOVERABLEEVENTS IN THE CHECLUSTER CUSTOMRESOURCE

Starting from this release, you can set **ignoredUnrecoverableEvents** explicitly on the CheCluster CustomResource level:

```
apiVersion: org.eclipse.che/v2
kind: CheCluster
spec:
  devEnvironments:
    ignoredUnrecoverableEvents:
      - FailedScheduling
      - FailedMount
```

More details about configuring **ignoredUnrecoverableEvents** can be found in the [official documentation](#).

Additional resources

- [CRW-7123](#)

2.6. ADD DISABLEINITCONTAINER FIELD IN THE CUSTOM RESOURCE

The **DisableInitContainer** field has been added to the **CheCluster** CR. This field sets the **config.workspaces.persistUserHome.disableInitContainer** field in the operator-owned **DWOC**. This field whether the init container that initializes the persistent home directory should be disabled.

When the **/home/user** directory is persisted, the init container is used to initialize the directory before the workspace starts. If set to true, the init container will not be created, delegating the home persistence setup to the CDE's first container component's entrypoint. This field is not used if the **devEnvironments.persistUserHome.enabled** field is set to false.

The init container is enabled by default.

Additional resources

- [CRW-7129](#)

CHAPTER 3. BUG FIXES

3.1. ALLOW PORTS IN GIT PROVIDER ENDPOINT FOR PERSONAL ACCESS TOKENS

With this release, you can provide ports in the URL for **Git Provider Endpoint** when adding Personal Access Tokens on the User Dashboard. Previously, it was not possible due to strict validation.

Additional resources

- [CRW-7125](#)

3.2. IF PERSISTHOME IS ENABLED, THE TOKEN IN .KUBE/CONFIG ISN'T RENEWED

Before this release, when the **spec.devEnvironments.persistUserHome** option was enabled, the token in **.kube/config** was not renewed automatically during a workspace restart.

You can find more details about automatic token injection in the [official documentation](#).

Additional resources

- [CRW-7126](#)

3.3. KEEP PROJECTS WHEN RESTARTING A WORKSPACE FROM LOCAL DEVFILE

Previously, **PROJECTS_ROOT** and **PROJECT_SOURCE** environment variables were not correctly set after using the **Restart Workspace from Local Devfile** functionality. The defect has been fixed in this release.

Additional resources

- [CRW-7127](#)

3.4. INCONSISTENCY IN THE BEHAVIOUR OF THE \$PATH ENVIRONMENT VARIABLE WITHIN DEVFILE

Previously, when commands were executed using the command definition in the devfile, they had a different **\$PATH** compared to commands launched in containers defined within the components section. The defect has been fixed in this release.

Additional resources

- [CRW-7130](#)

3.5. USER-PROVIDED ENVIRONMENT VARIABLES CAN'T REFERENCE \$PROJECT_ROOT OR \$PROJECT_SOURCE

Previously, users were not able to reference the `$PROJECT_ROOT` or `$PROJECT_SOURCE` environment variables in their [devfile environment variables](#). This issue has now been fixed in this release.

Additional resources

- [CRW-7131](#)

3.6. WORKSPACE STATUS FLICKERING DURING STARTUP

Previously, during a workspace startup, the status could have been unexpectedly changed to 'Stopped' even though the workspace started successfully. The defect has been fixed in this release, and the status changes are ignored during workspace startup.

Additional resources

- [CRW-7132](#)

3.7. STARTING A NEW WORKSPACE WITH A CLONE OF THE SPECIFIED BRANCH DOESN'T WORK CORRECTLY IF THE REPOSITORY HAS NO `DEVFILE.YAML`

Previously, starting a new workspace with a clone of a specified branch didn't work correctly if the repository didn't have `devfile.yaml`. Instead, the default branch was always cloned after the cloud development environment (CDE) startup. The defect has been fixed in this release.

Additional resources

- [CRW-7133](#)

3.8. BRANCH DETECTION FOR MICROSOFT AZURE DOES NOT WORK ON THE USER DASHBOARD

Before this release, branch detection for Microsoft Azure repositories was not working on the User Dashboard. The defect has been fixed in this release.

Additional resources

- [CRW-7134](#)

3.9. WORKSPACE START PAGE GOES TO CYCLIC RELOAD IF REFRESH TOKEN MODE IS APPLIED

Previously, using the experimental `CHE_FORCE_REFRESH_PERSONAL_ACCESS_TOKEN` feature could result in the cyclic reload sequence during cloud development environment (CDE) startup. The defect has been fixed in this release.

Learn more about the `CHE_FORCE_REFRESH_PERSONAL_ACCESS_TOKEN` feature in the [official documentation](#).

Additional resources

- [CRW-7137](#)

3.10. SSH KEY ADDED BY PASTING THE KEY STRINGS IN THE DASHBOARD IS INVALID

Before this release, there was an issue with adding an SSH key by manually pasting the key strings in the dashboard. After saving the SSH key and starting the workspace, the project would not be cloned with the following error message: "Could not read from remote repository. Please make sure you have the correct access rights and the repository exists." With this release, the issue has been fixed.

Additional resources

- [CRW-7153](#)

3.11. EXTENSION 'MS-PYTHON.PYTHON' CANNOT USE API PROPOSAL: TERMINALSHELLINTEGRATION

Before this release, installing the latest Python extension (v2024.14.0) would result in the following would fail with the following error message: "Extension 'ms-python.python' CANNOT use API proposal: terminalShellIntegration". With this release, the issue is fixed

Additional resources

- [CRW-7201](#)

3.12. OPENING LINKS NOT POSSIBLE IN THE VISUAL STUDIO CODE - OPEN SOURCE ("CODE - OSS")

Before this release, it was not possible to open links in Visual Studio Code - Open Source ("Code - OSS"). With this release, the issue has been fixed.

Additional resources

- [CRW-7247](#)

CHAPTER 4. TECHNOLOGY PREVIEW

Technology Preview features provide early access to upcoming product innovations, enabling you to test functionality and provide feedback during the development process. However, these features are not fully supported under Red Hat Subscription Level Agreements, may not be functionally complete, and are not intended for production use. As Red Hat considers making future iterations of Technology Preview features generally available, we will attempt to resolve any issues that customers experience when using these features. See: [Technology Preview support scope](#).

None.

CHAPTER 5. DEPRECATED FUNCTIONALITIES

None.

CHAPTER 6. REMOVED FUNCTIONALITIES

6.1. REMOVED CHE-DEVFILE-REGISTRY

In this release, the Dev Spaces-specific devfile-registry operand has been removed. For configuring the custom Getting-Started samples, the admin should leverage the dedicated Kubernetes **ConfigMap**.

Find more details in the [official documentation](#).

Additional resources

- [CRW-7152](#)

CHAPTER 7. KNOWN ISSUES

7.1. DASHBOARD IS NOT AVAILABLE WHEN USING THE `CHE_FORCE_REFRESH_PERSONAL_ACCESS_TOKEN` PROPERTY

There is a known issue affecting workspaces using Microsoft Azure DevOps/Bitbucket/GitHub git providers in connection with the `CHE_FORCE_REFRESH_PERSONAL_ACCESS_TOKEN` property. Every time you start a workspace, a new personal access token (PAT) is added to the previous PATs which are [not removed](#). When the number of existing PATs exceeds five, you can not run the workspace, and the Dashboard is not available.

Additional resources

- [CRW-7185](#)

7.2. PREVIOUS PERSONAL TOKENS NOT REMOVED AFTER USING THE `CHE_FORCE_REFRESH_PERSONAL_ACCESS_TOKEN` PROPERTY

There is a known issue with using the `CHE_FORCE_REFRESH_PERSONAL_ACCESS_TOKEN` property. After using the property, the previous Microsoft Azure DevOps/Bitbucket/GitHub personal tokens are not removed. This can also cause issues with [accessing the Dashboard](#).

Additional resources

- [CRW-7184](#)

7.3. "UNTRUSTED REPOSITORY" POP-UP RE-APPEARS AFTER APPLYING REFUSED OAUTH AUTHORIZATION.

There is currently a known issue with applying Refused OAuth authorization. When you launch a factory with OAuth setup and if and apply the Refused OAuth authorization, the "Untrusted Repository" pop-up appears again.

Additional resources

- [CRW-7179](#)

7.4. ISSUES WITH STARTING A NEW WORKSPACE FROM A URL THAT POINTS TO A BRANCH OF A REPOSITORY THAT DOESN'T HAVE A DEVFILE

There is a known issue affecting repositories without a `devfile.yaml` file. If you start a new workspace from a branch of such repository, the default branch (e.g. 'main') is used for project cloning instead of the expected branch.

Additional resources

- [CRW-6860](#)

7.5. REFRESH TOKEN MODE CAUSES CYCLIC RELOAD OF THE WORKSPACE START PAGE

There is a known issue when experimental refresh token mode is applied using the **CHE_FORCE_REFRESH_PERSONAL_ACCESS_TOKEN** property for the GitHub and Microsoft Azure DevOps OAuth providers. This causes the workspace starts to reload the dashboard cyclically, creating a new personal access token on each page restart. The refresh token mode works correctly for 'GitLab' and 'BitBucket' OAuth providers.

Additional resources

- [CRW-6859](#)

7.6. FIPS COMPLIANCE UPDATE

There's a known issue with FIPS compliance that results in certain cryptographic modules not being FIPS-validated. Below is a list of requirements and limitations for using FIPS with OpenShift Dev Spaces:

Required cluster and operator updates

Update your Red Hat OpenShift Container Platform installation to the latest z-stream update for 4.11, 4.12, or 4.13 as appropriate. If you do not already have FIPS enabled, you will need to uninstall and reinstall.

Once the cluster is up and running, install OpenShift Dev Spaces 3.7.1 (3.7-264) and verify that the latest DevWorkspace operator bundle 0.21.2 (0.21-7) or newer is also installed and updated. See <https://catalog.redhat.com/software/containers/devworkspace/devworkspace-operator-bundle/60ec9f48744684587e2186a3>

Golang compiler in UDI image

The Universal Developer Image (UDI) container includes a golang compiler, which was built without the **CGO_ENABLED=1** flag. The check-payload scanner (<https://github.com/openshift/check-payload>) will throw an error, but this can be safely ignored provided that anything you build with this compiler sets the correct flag **CGO_ENABLED=1** and does NOT use **extldflags -static** or **-tags no_openssl**.

The resulting binaries can be scanned and should pass without error.

Statically linked binaries

You can find statically linked binaries not related to cryptography in these two containers:

- code-rhel8
- idea-rhel8.

As they are not related to cryptography, they do not affect FIPS compliance.

Helm support for FIPS

The UDI container includes the **helm** binary, which was not compiled with FIPS support. If you are in a FIPS environment do not use **helm**.

Additional resources

- [CRW-4598](#)

7.7. DEBUGGER DOES NOT WORK IN THE .NET SAMPLE

Currently, the debugger in Microsoft Visual Studio Code - Open Source does not work in the .NET sample.

Workaround

- Use a different image from the following sources:
 - [Custom UBI-9 based Dockerfile](#)
 - [devfile.yaml](#)

Additional resources

- [CRW-3563](#)

CHAPTER 8. FREQUENTLY ASKED QUESTIONS

Is it possible to deploy applications from OpenShift Dev Spaces to an OpenShift cluster?

OpenShift user token is [automatically injected](#) into workspace containers which makes it possible to run oc CLI commands against OpenShift cluster.

For best performance, what is the recommended storage to use for Persistent Volumes used with OpenShift Dev Spaces?

Use block storage.

Is it possible to deploy more than one OpenShift Dev Spaces instance on the same cluster?

Only one OpenShift Dev Spaces instance can be deployed per cluster.

Is it possible to install OpenShift Dev Spaces offline (that is, disconnected from the internet)?

See [Installing Red Hat OpenShift Dev Spaces in restricted environments on OpenShift](#) .

Is it possible to use non-default certificates with OpenShift Dev Spaces?

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

Is it possible to run multiple workspaces simultaneously?

See [Enabling users to run multiple workspaces simultaneously](#) .