



Red Hat OpenShift Dev Spaces 3.12

Release notes and known issues

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Abstract

Information about new and noteworthy features as well as known issues in Red Hat OpenShift Dev Spaces 3.12.

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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 3.12 is based on Eclipse Che 7.80.

1.1. SUPPORTED PLATFORMS

OpenShift Dev Spaces runs on OpenShift 4.12–4.15 on the following CPU architectures:

- AMD64 and Intel 64 (**x86_64**)
- IBM Power (**ppc64le**) and IBM Z (**s390x**)

Additional resources

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

1.2. SUPPORT POLICY

For Red Hat OpenShift Dev Spaces 3.12, 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 devfiles for working with languages and technologies such as Quarkus, Lombok, NodeJS, Python, DotNet, Golang, C/C++, and PHP. You can find the latest sample projects in the [devspaces-devfileregistry container image sources](#).

- 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. REPLICATION OF SECRETS, CONFIGMAPS, AND PERSISTENTVOLUMESCLAIMS IN ALL USER NAMESPACES

With this release, the administrator can configure Secrets, ConfigMaps, and PersistentVolumesClaims that will be replicated in the namespaces of all users. You can therefore share certificates, secrets, and configuration files across all the users.

For example, creating the following ConfigMap makes `Mavensettings.xml` file available in the Container Development Environment (CDE) of all the users:

```
kind: ConfigMap
apiVersion: v1
metadata:
  name: user-settings-xml
  namespace: {prod-namespace}
  labels:
    app.kubernetes.io/part-of: che.eclipse.org
    app.kubernetes.io/component: workspaces-config
  annotations:
    controller.devfile.io/mount-as: subpath
    controller.devfile.io/mount-path: /home/user/.m2
data:
  settings.xml: |
    <settings xmlns="http://maven.apache.org/SETTINGS/1.0.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://maven.apache.org/SETTINGS/1.0.0
    https://maven.apache.org/xsd/settings-1.0.0.xsd">
      <localRepository>/home/user/.m2/repository</localRepository>
      <interactiveMode>true</interactiveMode>
      <offline>false</offline>
    </settings>
```

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

Additional resources

- [CRW-5955](#)

2.2. ALLOW POD-OVERRIDES FOR VOLUMES AND CONTAINER-OVERRIDES FOR VOLUMEMOUNTS IN DEVFILES

With this release, you can use pod and container overrides for volumes and volumeMounts in the Devfile definition.

For example, you can add a CSI volume with the `SharedSecret` to a pod or container in the Container Development Environment (CDE):

```
schemaVersion: 2.2.2
attributes:
  controller.devfile.io/storage-type: per-workspace
metadata:
```

```

name: pod-overrides-example
attributes:
  pod-overrides:
    spec:
      volumes:
        - csi:
            driver: csi.sharedresource.openshift.io
            readOnly: true
            volumeAttributes:
              sharedSecret: my-share
            name: my-csi-volume
  components:
    - name: workspace
      attributes:
        container-overrides:
          volumeMounts:
            - mountPath: /etc/my-csi-volume
              name: my-csi-volume
              readOnly: true
        container:
          ...

```

Additional resources

- [CRW-5956](#)

2.3. PREVENT STARTING WORKSPACES BASED ON SSH URLS IF NO SSH KEYS ARE CONFIGURED

With this release, you can not start workspace based on SSH URLs until you configure the SSH keys in the User Dashboard:

<https://github.com/eclipse/che/assets/1461122/6b0f1eba-8184-49fc-8411-9810d762d62b>

Additional resources

- [CRW-5957](#)

2.4. SUPPORT FOR RUNNING CHE-CODE IN CONTAINERS BASED ON RED HAT UNIVERSAL BASE IMAGE 9

Previously, the **Che-Code** editor failed to start in the [Red Hat Universal Base Image 9](#). With this release, this issue is fixed and you can now explicitly reference those images in the **components** section of a devfile:

```

schemaVersion: 2.2.2
metadata:
  name: ubi9-minimal-demo
components:
  - name: tools
    container:
      image: registry.access.redhat.com/ubi9-minimal:9.3-1552@sha256:582e18f13291d7c686ec4e6e92d20b24c62ae0fc72767c46f30a69b1a6198055

```

```

args: ['tail', '-f', '/dev/null']
endpoints:
  - exposure: public
    name: nodejs
    protocol: http
    targetPort: 3000
memoryLimit: 2Gi
memoryRequest: 256Mi
mountSources: true
attributes:
  controller.devfile.io/merge-contribution: true

```

Additional resources

- [CRW-5963](#)

2.5. CONFIGURING THE NUMBER OF REPLICAS FOR OPERAND DEPLOYMENTS USING HORIZONTALPODAUTOSCALER (HPA)

Starting from this release, you can configure the number of replicas for operands using [HorizontalPodAutoscaler](#) (HPA):

```

apiVersion: autoscaling/v2
kind: HorizontalPodAutoscaler
metadata:
  name: scaler
  namespace: {operator-namespace}
spec:
  scaleTargetRef:
    apiVersion: apps/v1
    kind: Deployment
    name: __<deployment_name>__
...

```

The **<deployment_name>** in the snippet above corresponds to one of the following deployments: * **che-server** * **che-gateway** * **dashboard** * **plugin-registry** * **devfile-registry**

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

Additional resources

- [CRW-5964](#)

2.6. ENABLING FUSE-OVERLAYFS FOR PODMAN IN THE CLOUD DEVELOPMENT ENVIRONMENT

By default, the Universal Developer Image (UDI) contains Podman and Buildah which you can use to build and push container images within a Cloud Development Environment (CDE). However, Podman and Buildah in the UDI are configured to use the **vfs** storage driver which does not provide copy-on-write support. For more efficient image management, you can use the **fuse-overlayfs** storage driver which supports copy-on-write in rootless environments.

Find more details about **fuse-overlayfs** configuration in the official [documentation](#).

Additional resources

- [CRW-5965](#)

2.7. ALLOW OVERRIDING THE EDITOR'S IMAGE THROUGH THE URL PARAMETER

With this release, you can override the editor's image using a dedicated URL parameter when starting a Cloud Development Environment. Here are some examples:

- **editor-image=registry.redhat.io/devspaces/code-rhel8**
- **che-editor=che-incubator/che-code/latest&editor-image=registry.redhat.io/devspaces/code-rhel8**

Find more details about the **editor-image** URL parameter in the [official documentation](#).

Additional resources

- [CRW-5967](#)

CHAPTER 3. BUG FIXES

3.1. BITBUCKET INTEGRATION ISSUES WITH 'HTTPS://XX.XX.XX/BITBUCKET/SCM/XXX/XXXX.GIT' URLS

Before this release, creating a workspace with an 'https://xx.xx.xx/bitbucket/scm/xxx/xxxx.git' URL caused the following error message to appear: "Cannot build factory with any of the provided parameter. Please check parameters correctness and resend query". With this release, the workspace is created correctly.

Additional resources

- [CRW-5762](#)

3.2. "CONFLICT DETECTED" ERROR DURING GITCONFIG NAME AND EMAIL UPDATE

Before this release, updating the name and email in the Gitconfig could result in the **Conflict detected** error. The UX defect has been fixed in this release, and you can update the name and email without errors.

Additional resources

- [CRW-5958](#)

3.3. "ROUTE AND PATH MATCHES, BUT ALL PODS ARE DOWN" ERROR DURING WORKSPACE STARTUP

A sporadic defect resulting in the "Route and path matches, but all pods are down" error during workspace startup has been fixed in this release.

Additional resources

- [CRW-5959](#)

3.4. OPERATOR GETS STUCK UPDATING ENDPOINT URLS WHOSE HOSTNAMES ARE TOO LONG

Before this release, there was a defect related to the update of endpoint URLs whose hostnames were too long. This resulted in the operator getting stuck in a loop. With this release, the issue is fixed.

Additional resources

- [CRW-5960](#)

3.5. ERROR IS NOT MEANINGFUL WHEN WORKSPACE STARTUP FAILS BECAUSE OF AN EXCEEDED ROUTE QUOTA

Before this release, when a workspace failed to start due to a quota issue, no meaningful error was displayed, and the startup failed with a timeout. Now there is an explicit error when workspace startup is forbidden due to an exceeded quota:

Failed to set up networking for workspace: services "workspace82736d3c797e4150-service" is forbidden: exceeded quota: resource-quota-services, requested: count/services=1, used: count/services=1, limited: count/services=1

Additional resources

- [CRW-5969](#)

3.6. DOCUMENTATION CONTAINS OUTDATED INSTRUCTIONS FOR "CONFIGURING WORKSPACES NODESELECTOR"

Outdated procedures for the `nodeSelector` and tolerations configuration have been fixed in this release and the updated instructions are now available in the [official documentation](#).

Additional resources

- [CRW-5970](#)

3.7. UNEXPECTED WORKSPACE RESTART DUE TO SCALE DOWN OF A REPLICASET

The issue related to an unexpected workspace restart due to the scale down of a replicaset has been fixed in this release.

Additional resources

- [CRW-5971](#)

3.8. CANNOT REVOKE AUTHORIZATION - OAUTH TOKEN FOR THE USER WAS NOT FOUND

The bug related to revoking the GitHub Authorization has been fixed in this release. Now all the OAuth tokens are retrieved from the Kubernetes secrets explicitly and not from memory as it used to be beforehand.

Additional resources

- [CRW-5972](#)

3.9. DEVFILE ERROR ON STARTING A WORKSPACE FROM A REPOSITORY HOSTED ON BITBUCKET SERVER

Before this release, workspace startup from a private repository hosted on Bitbucket Server with a manually added Personal Access Token (PAT) failed with the following error: **Failed to create the workspace: Cannot build factory with any of the provided parameters. Please check parameters correctness, and resend query.** With this release, the issue is fixed.

Additional resources

- [CRW-5973](#)

3.10. OPENING A WORKSPACE FROM A REPOSITORY HOSTED ON BITBUCKET SERVER INTEGRATED WITH OAUTH2 LEADS TO AN ERROR WHEN CREDENTIALS ARE NOT AVAILABLE

Previously, some SCM providers like BitBucket Server decode the callback URL in the response, which resulted in an `IllegalArgumentException` error. With this release, the issue is fixed.

Additional resources

- [CRW-5974](#)

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

None.

CHAPTER 7. KNOWN ISSUES

7.1. ANSIBLE LIGHTSPEED NOT CONNECTING TO ANSIBLE SERVER

There is a known issue with Ansible Lightspeed and connection to the Ansible server. If the OpenShift Dev Spaces environment is not under *.openshiftapps.com domain, Ansible Lightspeed can not connect to the Ansible server.

There is no workaround available.

Additional resources

- [CRW-5691](#)

7.2. 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](#)

7.3. 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?

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 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](#) .