



Red Hat Container Development Kit 3.12

Release Notes and Known Issues

Highlighted features and identified problems in Red Hat Container Development Kit
3.12

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Abstract

This document lists and briefly describes new and improved features of Red Hat Container Development Kit 3.12. It also contains information about potential problems you may encounter while using the software. Where possible, workarounds are described for identified issues.

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PART I. INTRODUCING RED HAT CONTAINER DEVELOPMENT KIT

Red Hat Container Development Kit provides a platform for developing containerized applications. It is a set of tools that enables developers to quickly and easily set up an environment for developing and testing containerized applications on the Red Hat Enterprise Linux platform.

- Container Development Kit provides a personal Container Development Environment you can install on your own laptop, desktop, or server system. The Container Development Environment is provided in the form of a Red Hat Enterprise Linux virtual machine.
- Container Development Kit is available for the Microsoft Windows, macOS, and Linux operating systems, thus allowing developers to use their preferred platform while producing applications ready to be deployed in the Red Hat Enterprise Linux ecosystem.

Container Development Kit is a part of the [Red Hat Developers](#) program, which provides tools, resources, and support for developers who wish to utilize Red Hat solutions and products to create applications, both locally and in the cloud. For additional information and to register to become a part of the program, visit developers.redhat.com.

CHAPTER 1. UNDERSTANDING CONTAINER DEVELOPMENT KIT DOCUMENTATION

- The [Red Hat Container Development Kit 3.12 Release Notes and Known Issues](#) contains information about the current release of the product as well as a list of known problems that users may encounter when using it.
- The [Container Development Kit Getting Started Guide](#) contains instructions on how to install and start using the Container Development Environment to develop Red Hat Enterprise Linux-based containers using tools and services such as **OpenShift Container Platform**, **Docker**, **Eclipse**, and various command line tools.
- Report issues with Red Hat Container Development Kit or request new features using the **CDK** project at <https://issues.jboss.org/projects/CDK>.
- Report issues with the Red Hat Container Development Kit 3.12 Release Notes and Known Issues and Container Development Kit Getting Started Guide using the **RHDEVDOCS** project at <https://issues.jboss.org/projects/RHDEVDOCS>.

PART II. RELEASE NOTES

This section documents the most important features and bug fixes in the Red Hat Container Development Kit 3.12 product.

CHAPTER 2. COMPONENT VERSIONS

Red Hat Container Development Kit 3.12 is shipped with the following versions of the main components:

Table 2.1. Container Development Kit, Component Versions

Component	Version
Docker	1.13.1
Docker API	1.26
Kubernetes	1.11.0
OpenShift Container Platform	3.11.170

CHAPTER 3. VIRTUALBOX COMPATIBILITY

Red Hat Container Development Kit 3.12 has been tested with **VirtualBox 5.2.12** and higher, but is known to not work correctly with **VirtualBox 5.1.11** or older. Ensure that you have **VirtualBox 5.1.12** or higher if you intend to use **VirtualBox** as your virtualization provider. **VirtualBox 5.2.12** is recommended.

CHAPTER 4. CHANGES AND IMPROVEMENTS

This section highlights some of the notable changes introduced in Red Hat Container Development Kit 3.12. Red Hat Container Development Kit 3.12 is a maintenance release and does not introduce any new features. This version contains updates to the default add-ons.

Red Hat Container Development Kit 3.12 contains the Minishift tool, a Red Hat Enterprise Linux 7 ISO, and the **oc** (OpenShift client) binary for interacting with OpenShift Container Platform.

4.1. MINISHIFT

Red Hat Container Development Kit 3.12 is based on Minishift, a command line tool to provision OpenShift locally for application developers. It supports all native hypervisors and some additional ones:

macOS

- [HyperKit](#) (default)
- [VirtualBox](#)

Linux

- [KVM](#) (default)
- [VirtualBox](#)

Windows

- [Hyper-V](#) (default)
- [VirtualBox](#)

4.2. NOTABLE CHANGES

- The xhyve driver plug-in for macOS has been removed. The HyperKit driver plug-in is now the default for macOS.
- The **xpaas** add-on has been updated with minor fixes and improvements.
- The default OpenShift Container Platform version is now 3.11.170.

PART III. KNOWN ISSUES

This section describes issues that users of Red Hat Container Development Kit 3.12 may encounter, as well as possible workarounds for these issues.

CHAPTER 5. GENERAL ISSUES

Issues affecting all supported platforms.

CHAPTER 6. CONTAINER DEVELOPMENT KIT DOES NOT START WITH VIRTUALBOX 6

When running Container Development Kit with VirtualBox 6, you may encounter the following error message:

```
Error starting the VM: Error creating the VM. Error with pre-create check: "Virtual Box version 4 or lower will cause a kernel panic if xhyve tries to run. You are running version: 6.0.4r128413\n\nPlease upgrade to version 5 at https://www.virtualbox.org/wiki/Downloads"
```

Workaround: run **minishift start** with the **--vm-driver virtualbox** option.

CHAPTER 7. OPENSIFT CONTAINER PLATFORM CLUSTER TIMES OUT WAITING FOR RESPONSE FROM API SERVER

When starting the cluster via **minishift start**, you may encounter the following error message:

```
Error: timed out waiting for the condition
```

Cause: This issue is caused by **oc cluster up**, which is used by Container Development Kit to start the OpenShift Container Platform cluster. The underlying cause of the timeout is unknown.

Workaround: Delete the existing Container Development Kit virtual machine, then retry starting the cluster using the following commands:

```
$ minishift delete  
$ minishift start
```



NOTE

This issue may be persistent on your hardware. In this case, the only known workaround is to use a more powerful host machine.

7.1. BUILDING FUSE TEMPLATES WITH REGISTRY.REDHAT.IO STREAMS FAILS

When you attempt to build a FUSE template, it fails because the template specifies that images are to be pulled from registry.redhat.io, and credentials for the registry are not included in the **myproject** OpenShift namespace used by Container Development Kit. This works as expected in the **openshift** namespace.

7.2. XPAAS ADDON CAUSES START FAILURE

When running **minishift start** and the xPaaS addon is applied before the API server becomes responsive, the process fails with the following error message:

```
Error during post cluster up configuration: Error executing command 'oc apply -f v#  
{OPENSIFT_VERSION}/xpaas-streams -n openshift'.
```

To work around this issue, re-apply the addon:

```
$ minishift addons apply xpaas
```


CHAPTER 8. ISSUES ON MACOS

This section describes CDK issues that affect users on a macOS host.

8.1. OPENSIFT WEB CONSOLE DOES NOT WORK WITH OLDER VERSIONS OF SAFARI

minishift console does not work on older versions of the Safari web browser such as version 10.1.2 (12603.3.8). Attempting to access the web console results in the following error:

Error unable to load details about the server

Retry after updating Safari to the latest version or use the Firefox or Chrome web browsers for this. Safari version 11.0.3 (13604.5.6) has been tested and works with the OpenShift web console. You can use **minishift console --url** to get the web console URL.

CHAPTER 9. ISSUES ON MICROSOFT WINDOWS

This section describes CDK issues that affect users on a Microsoft Windows host.

9.1. SYSTEM TRAY ICON DOES NOT REFLECT PROFILE STATUS

The system tray icon (introduced as a Technology Preview feature in Container Development Kit 3.7) does not show profile status. There is no workaround available.

9.2. DEFAULT SWITCH DOES NOT WORK AS EXPECTED WITH STATIC IP

The experimental [static IP](#) feature is not possible with the Default Switch provided by Windows. The **minishift** virtual machine will receive an IP address, but network traffic will not be able to pass through it.

See [Assign IP Address to Hyper-V](#) for more information about how to assign a static IP address to the **minishift** VM on Windows.

9.3. WINDOWS COMMAND PROMPT AND POWERSHELL IMPROPERLY PARSE JSON PATCHES FOR THE MINISHIFT OPENSIFT CONFIG SET COMMAND

Windows Command Prompt and PowerShell have problems with parsing JSON into the **minishift openshift config set** command. Special attention is required when using this command on Windows.

The workaround for Windows Command Prompt environments is to escape the quotes so that the JSON content is correctly parsed:

```
C:\Users\CDK> minishift.exe openshift config set --patch "{\"routingConfig\": {\"subdomain\": \"192.168.99.101.nip.io\"}}"
```

The workaround for Windows PowerShell environments is to use a variable to store the JSON content:

```
PS C:\Users\CDK> $json="{\"routingConfig\": {\"subdomain\": \"192.168.99.101.nip.io\"}}"
PS C:\Users\CDK> echo $json
{\"routingConfig\": {\"subdomain\": \"192.168.99.101.nip.io\"}}
PS C:\Users\CDK> minishift.exe openshift config set --patch $json
Patching OpenShift configuration /var/lib/origin/openshift.local.config/master/master-config.yaml with
{\"routingConfig\": {\"subdomain\": \"192.168.99.101.nip.io\"}}
```

9.4. MINISHIFT OPENSIFT CONFIG SET --PATCH MAY FAIL ON SOME WINDOWS 7 AND 10 HOSTS

The reason for this failure is currently unknown.

Workaround: Configure the OpenShift cluster from inside of the provisioned VM using **minishift ssh**:

```
C:\Users\CDK> minishift.exe ssh
[docker@minishift ~]$ docker exec -t origin /usr/bin/openshift ex config patch
/var/lib/origin/openshift.local.config/master/master-config.yaml --patch='<json-to-be-applied-to-the-
```

```
cluster>
```

ADDITIONAL RESOURCES

- See the [Container Development Kit Getting Started Guide](#) for an overview of Container Development Kit features and an introduction to the use of the **Docker** service and **OpenShift Container Platform**.
- Report issues with Red Hat Container Development Kit or request new features using the **CDK** project at <https://issues.jboss.org/projects/CDK>.