Red Hat OpenShift Local 2.5

Release Notes and Known Issues

Highlighted features and identified problems in Red Hat OpenShift Local 2.5

Last Updated: 2022-06-28
Red Hat OpenShift Local 2.5 Release Notes and Known Issues

Highlighted features and identified problems in Red Hat OpenShift Local 2.5

Kevin Owen
kowen@redhat.com
Legal Notice

Copyright © 2022 Red Hat, Inc.

The text of and illustrations in this document are licensed by Red Hat under a Creative Commons Attribution–Share Alike 3.0 Unported license ("CC-BY-SA"). An explanation of CC-BY-SA is available at http://creativecommons.org/licenses/by-sa/3.0/ . In accordance with CC-BY-SA, if you distribute this document or an adaptation of it, you must provide the URL for the original version.

Red Hat, as the licensor of this document, waives the right to enforce, and agrees not to assert, Section 4d of CC-BY-SA to the fullest extent permitted by applicable law.

Red Hat, Red Hat Enterprise Linux, the Shadowman logo, the Red Hat logo, JBoss, OpenShift, Fedora, the Infinity logo, and RHCE are trademarks of Red Hat, Inc., registered in the United States and other countries.

Linux ® is the registered trademark of Linus Torvalds in the United States and other countries.

Java ® is a registered trademark of Oracle and/or its affiliates.

XFS ® is a trademark of Silicon Graphics International Corp. or its subsidiaries in the United States and/or other countries.

MySQL ® is a registered trademark of MySQL AB in the United States, the European Union and other countries.

Node.js ® is an official trademark of Joyent. Red Hat is not formally related to or endorsed by the official Joyent Node.js open source or commercial project.

The OpenStack ® Word Mark and OpenStack logo are either registered trademarks/service marks or trademarks/service marks of the OpenStack Foundation, in the United States and other countries and are used with the OpenStack Foundation’s permission. We are not affiliated with, endorsed or sponsored by the OpenStack Foundation, or the OpenStack community.

All other trademarks are the property of their respective owners.

Abstract

This document lists and briefly describes new and improved features of Red Hat OpenShift Local 2.5. It also contains information about potential problems you may encounter while using the software. Where possible, workarounds are described for identified issues.
# Table of Contents

MAKING OPEN SOURCE MORE INCLUSIVE .................................................. 3

PART I. RELEASE NOTES ......................................................................... 4

CHAPTER 1. COMPONENT VERSIONS ...................................................... 5

CHAPTER 2. MINIMUM SYSTEM REQUIREMENTS .................................... 6
  2.1. HARDWARE REQUIREMENTS ..................................................... 6
  2.1.1. For OpenShift Container Platform .......................................... 6
  2.1.2. For the Podman container runtime ......................................... 6
  2.2. OPERATING SYSTEM REQUIREMENTS ..................................... 6
  2.2.1. Microsoft Windows ............................................................... 6
  2.2.2. macOS .............................................................................. 6
  2.2.3. Linux .................................................................................. 6

CHAPTER 3. CHANGES AND IMPROVEMENTS ....................................... 8
  3.1. NEW FEATURES ......................................................................... 8
  3.1.1. Technology Previews ............................................................ 8
  3.2. NOTABLE CHANGES ................................................................. 8

PART II. KNOWN ISSUES ....................................................................... 9

CHAPTER 4. GENERAL ISSUES ............................................................ 10
  4.1. PROXY SETTINGS ARE IMPROPERLY APPLIED TO THE PODMAN PRESET 10
  4.2. METRICS ARE DISABLED BY DEFAULT ...................................... 10
  4.3. ENABLING MULTIPLE OPERATORS REQUIRES MORE MEMORY THAN THE DEFAULT 10
  4.4. RED HAT OPENSShift LOCAL DOES NOT WORK WHEN THE FIRST NAMESERVER IS IPV6 10

CHAPTER 5. ISSUES ON MACOS .......................................................... 11
  5.1. HIBERNATION CAUSES VM TIME TO DESYNCHRONIZE ................. 11

CHAPTER 6. ISSUES ON MICROSOFT WINDOWS ................................... 12
  6.1. THE CRC SETUP COMMAND MUST BE RUN FOLLOWING INSTALLATION WITH THE MSI INSTALLER 12
  6.2. THE CRC CLEANUP COMMAND MAY FAIL WITH A PERMISSION ERROR 12
  6.3. UNEXPECTED BEHAVIOR WHEN RUN OUTSIDE OF %WINDRIVE% 12
  6.4. RED HAT OPENSShift LOCAL EXPECTS FULL LANGUAGE SUPPORT IN POWERSHELL 12
  6.5. THE CRC OC-ENV COMMAND DOES NOT WORK WITH SPECIAL CHARACTERS IN %PATH% 12

ADDITIONAL RESOURCES ................................................................... 12
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.
PART I. RELEASE NOTES
This section documents the most important features and bug fixes in the Red Hat OpenShift Local 2.5 product.
CHAPTER 1. COMPONENT VERSIONS

Red Hat OpenShift Local 2.5 is shipped with the following versions of the main components:

Table 1.1. Red Hat OpenShift Local, Component versions

<table>
<thead>
<tr>
<th>Component</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>OpenShift Container Platform</td>
<td>4.10.18</td>
</tr>
<tr>
<td>OpenShift client binary (oc)</td>
<td>v4.10.18</td>
</tr>
<tr>
<td>Podman binary</td>
<td>4.1.0</td>
</tr>
</tbody>
</table>
CHAPTER 2. MINIMUM SYSTEM REQUIREMENTS

Red Hat OpenShift Local has the following minimum hardware and operating system requirements.

2.1. HARDWARE REQUIREMENTS

Red Hat OpenShift Local is supported on AMD64 and Intel 64 processor architectures. The Podman container runtime preset is supported on the ARM-based M1 architecture. The OpenShift Container Platform preset is not supported on the M1 architecture. Red Hat OpenShift Local does not support nested virtualization.

Depending on the desired container runtime, Red Hat OpenShift Local requires the following system resources:

2.1.1. For OpenShift Container Platform

- 4 physical CPU cores
- 9 GB of free memory
- 35 GB of storage space

**NOTE**

The OpenShift Container Platform cluster requires these minimum resources to run in the Red Hat OpenShift Local instance. Some workloads may require more resources. To assign more resources to the Red Hat OpenShift Local instance, see Configuring the instance.

2.1.2. For the Podman container runtime

- 2 physical CPU cores
- 2 GB of free memory
- 35 GB of storage space

2.2. OPERATING SYSTEM REQUIREMENTS

Red Hat OpenShift Local requires the following minimum version of a supported operating system:

2.2.1. Microsoft Windows

- On Microsoft Windows, Red Hat OpenShift Local requires the Windows 10 Fall Creators Update (version 1709) or later. Red Hat OpenShift Local does not work on earlier versions of Microsoft Windows. Microsoft Windows 10 Home Edition is not supported.

2.2.2. macOS

- On macOS, Red Hat OpenShift Local requires macOS 11 Big Sur or later. Red Hat OpenShift Local does not work on earlier versions of macOS.

2.2.3. Linux
On Linux, Red Hat OpenShift Local is supported only on the latest two Red Hat Enterprise Linux/CentOS 7, 8 and 9 minor releases and on the latest two stable Fedora releases.

When using Red Hat Enterprise Linux, the machine running Red Hat OpenShift Local must be registered with the Red Hat Customer Portal.

Ubuntu 18.04 LTS or later and Debian 10 or later are not supported and may require manual setup of the host machine.

See Required software packages to install the required packages for your Linux distribution.
CHAPTER 3. CHANGES AND IMPROVEMENTS

This section highlights some of the notable changes introduced in Red Hat OpenShift Local 2.5.

3.1. NEW FEATURES

- Red Hat OpenShift Local brings a minimal, preconfigured OpenShift Container Platform 4 cluster or Podman container runtime to your local laptop or desktop computer for development and testing purposes. Red Hat OpenShift Local is delivered as a Red Hat Enterprise Linux virtual machine that supports native hypervisors for Linux, macOS, and Microsoft Windows 10.

  - Red Hat OpenShift Local is designed for local development and testing on an OpenShift 4 cluster or Podman container runtime. To run an OpenShift 3 cluster locally, see Red Hat Container Development Kit.

3.1.1. Technology Previews

Support for these features falls under the Technology Preview Features Support Scope.

- Red Hat OpenShift Local 2.5 includes the ability to create a custom bundle based on the currently running cluster with the `crc bundle generate` command. This command, its parameters, and behavior may change in incompatible ways in future releases.

3.2. NOTABLE CHANGES

- Red Hat OpenShift Local 2.5 provides OpenShift Container Platform 4.10.18 as the embedded OpenShift version.

- The Podman container runtime preset is now supported on the ARM-based M1 architecture. On macOS, ensure that you delete an existing Red Hat OpenShift Local instance before running the `crc start` command when upgrading from a previous version of Red Hat OpenShift Local.
PART II. KNOWN ISSUES

This section describes issues that users of Red Hat OpenShift Local 2.5 may encounter, as well as possible workarounds for these issues.
CHAPTER 4. GENERAL ISSUES

Issues affecting all supported platforms.

4.1. PROXY SETTINGS ARE IMPROPERLY APPLIED TO THE PODMAN PRESET

Proxy settings configured using the `crc config set` command are not used by the `podman-remote` binary embedded in Red Hat OpenShift Local when the Podman preset is in use.

4.2. METRICS ARE DISABLED BY DEFAULT

To ensure Red Hat OpenShift Local can run on a typical laptop, some resource-heavy services are disabled by default. One of these services is Prometheus and all of the related monitoring, alerting, and telemetry functionality.

Enabling these features will require more resources than the Red Hat OpenShift Local virtual machine uses by default.

**NOTE**

Monitoring cannot be disabled after enabling these features. To disable monitoring again, delete the virtual machine with `crc delete` and recreate a new one with `crc start`.


4.3. ENABLING MULTIPLE OPERATORS REQUIRES MORE MEMORY THAN THE DEFAULT

The `crc start` command assigns 9 GiB of memory to the Red Hat OpenShift Local virtual machine by default. Enabling multiple Operators may increase memory requirements.

See Configuring the virtual machine in the Red Hat OpenShift Local Getting Started Guide to assign additional memory.

4.4. RED HAT OPENSHIFT LOCAL DOES NOT WORK WHEN THE FIRST NAMESERVER IS IPV6

DNS resolution to the Red Hat OpenShift Local virtual machine can be disrupted if the first nameserver is IPv6.

To work around this issue, specify an IPv4 nameserver when starting the Red Hat OpenShift Local virtual machine using the `-n` flag:

```
$ crc start -n 8.8.8.8
```
CHAPTER 5. ISSUES ON MACOS

This section describes Red Hat OpenShift Local issues that affect users on a macOS host.

5.1. HIBERNATION CAUSES VM TIME TO DESYNCHRONIZE

Time in the Red Hat OpenShift Local virtual machine can become desynchronized with the time on your host machine. This issue occurs if the Red Hat OpenShift Local virtual machine is running when the host machine enters hibernation. To resolve this issue, stop the Red Hat OpenShift Local virtual machine and restart it:

$ crc stop
$ crc start
CHAPTER 6. ISSUES ON MICROSOFT WINDOWS

This section describes Red Hat OpenShift Local issues that affect users on a Microsoft Windows host.

6.1. THE crc setup COMMAND MUST BE RUN FOLLOWING INSTALLATION WITH THE MSI INSTALLER

After installing Red Hat OpenShift Local with the MSI installer and rebooting your computer, ensure you run the `crc setup` command in Command Prompt or PowerShell to complete the installation.

6.2. THE crc cleanup COMMAND MAY FAIL WITH A PERMISSION ERROR

Running `crc setup` followed by `crc cleanup` without restarting your host machine between commands will cause `crc cleanup` to report the following error:

```
Post “http://unix/clean”: open \\pipe\crc-admin-helper: Access is denied.
```

To complete the `crc cleanup` command, restart your host machine and run the command again.

6.3. UNEXPECTED BEHAVIOR WHEN RUN OUTSIDE OF %WINDRIVE%

The Hyper-V driver will fail when the `crc` binary is executed from a network drive. The `crc` binary must be placed in a location on `%WINDRIVE%`. `%WINDRIVE%` is normally set to `C:\`

6.4. RED HAT OPENSIFHT LOCAL EXPECTS FULL LANGUAGE SUPPORT IN POWERSHELL

The `ConstrainedLanguage` PowerShell mode is supported with exceptions determined by your system administrator.

6.5. THE crc oc-env COMMAND DOES NOT WORK WITH SPECIAL CHARACTERS IN %PATH%

On Microsoft Windows, PowerShell and Command Prompt do not use the UTF-8 encoding. As a result, running the `crc oc-env` command with special characters present in the `%PATH%` will not accurately encode UTF-8 characters. There is no known workaround for this issue.

ADDITIONAL RESOURCES

- See the Red Hat OpenShift Local Getting Started Guide for an overview of Red Hat OpenShift Local features and an introduction to the use of OpenShift Container Platform.
- Report issues with Red Hat OpenShift Local or request new features using the OpenShift Container Platform product with the `crc` component on Red Hat BugZilla.