



Red Hat OpenShift Local 2.14

Release Notes and Known Issues

Highlighted features and identified problems in Red Hat OpenShift Local 2.14

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Abstract

This document lists and briefly describes new and improved features of Red Hat OpenShift Local 2.14. 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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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 2.14 product.

CHAPTER 1. COMPONENT VERSIONS

Red Hat OpenShift Local 2.14 has the following versions of the main components:

Table 1.1. Red Hat OpenShift Local, Component versions

Component	Version
OpenShift Container Platform	4.12.1
OpenShift client binary (oc)	v4.12.1
Podman binary	4.3.1

CHAPTER 2. MINIMUM SYSTEM REQUIREMENTS

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

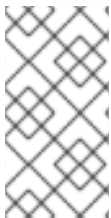
2.1. HARDWARE REQUIREMENTS

Red Hat OpenShift Local is supported on AMD64, Intel 64, and Apple Silicon architectures. 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

- Red Hat provides support for Red Hat OpenShift Local on the two latest minor releases of Red Hat Enterprise Linux and CentOS 8 or 9, and the two latest stable releases of Fedora.
- 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 set up of the host machine.
- See [Required software packages](#) to install the required packages for your Linux distribution.

CHAPTER 3. CHANGES AND IMPROVEMENTS

These are some notable changes introduced in Red Hat OpenShift Local 2.14.

3.1. NOTABLE ENHANCEMENTS

- Red Hat OpenShift Local brings a minimal, preconfigured OpenShift Container Platform 4 cluster or Podman container runtime to your local notebook or desktop computer for development and testing purposes. Red Hat OpenShift Local has 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](#).

3.2. TECHNOLOGY PREVIEW

Support for these features falls under the [Technology Preview Features Support Scope](#).

- Red Hat OpenShift Local 2.14 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 might change in incompatible ways in future releases.

3.3. NOTABLE CHANGES

- Red Hat OpenShift Local 2.14 provides OpenShift Container Platform 4.12.1 as the embedded OpenShift version.
- Red Hat OpenShift Local 2.14 provides Podman 4.3.1.
- The **crc oc-env** and **crc podman-env** commands work on [PowerShell Core](#). See [commit](#).
- The **crc podman-env --root** output adds the missing **--root** to the printed instructions. See [issue #3492](#).

PART II. KNOWN ISSUES

Issues that users of Red Hat OpenShift Local 2.14 might have, as well as possible workarounds for these issues.

CHAPTER 4. GENERAL ISSUES

Issues affecting all supported platforms.

4.1. SSH KEY MISMATCH ERROR

The **crc cleanup** command does not remove the Red Hat OpenShift Local instance SSH key from the user SSH known hosts.

Therefore, when attempting to access the Red Hat OpenShift Local instance with a command such as **podman-remote**, you might receive this error message:

```
Error: failed to connect: ssh: handshake failed: knownhosts: key mismatch
```

Workaround

- Remove the leftover SSH key from the SSH know hosts:

```
$ ssh-keygen -R $(crc ip)
```

Additional resources

- [Issue 3514](#)

4.2. PROXY SETTINGS ARE IMPROPERLY APPLIED TO THE PODMAN PRESET

Proxy settings configured by 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.

4.3. RED HAT OPENSIFT LOCAL DISABLES METRICS BY DEFAULT

To ensure Red Hat OpenShift Local can run on a typical notebook, Red Hat OpenShift Local disables some resource-heavy services, such as Prometheus and all the related monitoring, alerting, and telemetry functions. You can enable these features.

Procedure

1. See [Configuring the virtual machine](#) to assign more resources
2. See [Starting Monitoring, Alerting, and Telemetry](#)

You cannot disable Monitoring after enabling these features.

Workaround

To disable monitoring again:

1. Delete the virtual machine:

```
$ crc delete
```

2. Create a virtual machine:

```
$ crc start
```

4.4. ENABLING MANY 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 many Operators might increase memory requirements.

Workaround

- See [Configuring the virtual machine](#) to assign additional memory.

4.5. RED HAT OPENSIFT LOCAL DOES NOT WORK WHEN THE FIRST NAMESERVER IS IPV6

DNS resolution to the Red Hat OpenShift Local virtual machine might fail if the first **nameserver** is IPv6.

Workaround

- Specify an IPv4 **nameserver** when starting the Red Hat OpenShift Local virtual machine by 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.

Workaround

1. Stop the Red Hat OpenShift Local virtual machine:

```
$ crc stop
```

2. Restart the Red Hat OpenShift Local virtual machine:

```
$ 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. COMPLETING THE INSTALLATION AFTER INSTALLATION WITH THE MICROSOFT STANDARD INSTALLER (MSI)

Procedure

1. Install Red Hat OpenShift Local with the MSI installer
2. Reboot your computer
3. Run the command in Command Prompt or PowerShell:

```
$ crc setup
```

6.2. THE **CRC CLEANUP** COMMAND MIGHT FAIL WITH A PERMISSION ERROR

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

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

Workaround

1. Reboot your computer
2. Run the command:

```
$ crc cleanup
```

6.3. UNEXPECTED BEHAVIOR WHEN RUN OUTSIDE **%WINDRIVE%**

The Hyper-V driver will fail when you start the **crc** binary from a network drive.

Workaround

- Move the **crc** binary to a location on **%WINDRIVE%**.
%WINDRIVE% is usually set to **C:**.

6.4. RED HAT OPENSIFT LOCAL EXPECTS **FULLLANGUAGE** SUPPORT IN POWERSHELL

Red Hat OpenShift Local supports the **ConstrainedLanguage** PowerShell mode 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. Therefore, running the **crc oc-env** command with special characters present in the **%PATH%** will not accurately encode UTF-8 characters.

Workaround

- Move the **crc** binary to a location containing no special characters.

ADDITIONAL RESOURCES

- See the [Red Hat OpenShift Local Getting Started Guide](#) for an overview of Red Hat OpenShift Local features and an introduction to **OpenShift Container Platform**.
- Report issues with Red Hat OpenShift Local or request features by using the [OpenShift Container Platform](#) product with the **crc** component on [Red Hat Bugzilla](#).