



# Red Hat OpenShift Local 2.5

## Release Notes and Known Issues

Highlighted features and identified problems in Red Hat OpenShift Local 2.5



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## 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.

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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 2.5 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**

Component	Version
OpenShift Container Platform	4.10.18
OpenShift client binary ( <b>oc</b> )	v4.10.18
Podman binary	4.1.0

## 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 set up 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**.

See [Starting Monitoring, Alerting, and Telemetry](#) in the [Red Hat OpenShift Local Getting Started Guide](#) to enable monitoring.

### 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 OPENSIFT 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 OPENSIFT LOCAL EXPECTS `FULLLANGUAGE` 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](#).