To download the latest Minishift release and view any release notes, visit the

Minishift releases page. If using macOS, you can also install Minishift using Homebrew.

Before using Minishift, ensure you check out the installation instructions for

any prerequisites your system must satisfy.

**Minishift on Windows (additional)**

Setting Up the Hyper-V Driver

To use Minishift with Hyper-V:

1. Install [Hyper-V](https://docs.microsoft.com/en-us/virtualization/hyper-v-on-windows/quick-start/enable-hyper-v).
2. Add the user to the local Hyper-V Administrators group.

|  |  |
| --- | --- |
|  | This is required to allow the user to create and delete virtual machines with the Hyper-V Management API. For more information, see [Hyper-V commands must be run as an Administrator](https://docs.okd.io/latest/minishift/troubleshooting/troubleshooting-driver-plugins.html#insufficient-privileges). |

1. Add an [External Virtual Switch](https://docs.microsoft.com/en-us/virtualization/hyper-v-on-windows/quick-start/connect-to-network).
2. Verify that you pair the virtual switch with a network card (wired or wireless) that is connected to the network.
3. Use the configuration option **hyperv-virtual-switch** or startup flag **--hyperv-virtual-switch** to set the name of the external virtual switch you want to use for Minishift.

For example, on PowerShell use

PS> minishift config set hyperv-virtual-switch "External (Wireless)"

or

PS> minishift start --hyperv-virtual-switch "External (Wireless)"

|  |  |
| --- | --- |
|  | * + The name of the virtual switch is case sensitive.   + The use of the environment variable **HYPERV\_VIRTUAL\_SWITCH** has been deprecated. Instead **MINISHIFT\_HYPERV\_VIRTUAL\_SWITCH** can be used as a configuration option, although this is not recommended as environment variables on Windows do not support non-ASCII characters. |

NEXT STEPS

Proceed to [Installing Minishift](https://docs.okd.io/latest/minishift/getting-started/installing.html) once your hypervisor has been installed and configured.

Setting Up Minishift to Use VirtualBox

VirtualBox must be manually installed in order to use the embedded VirtualBox drivers. VirtualBox version 5.1.12 or later is required. Ensure that you [download and install VirtualBox](https://www.virtualbox.org/wiki/Downloads) before using the embedded drivers.

VirtualBox must be identified to Minishift through either the **--vm-driver virtualbox** flag or persistant configuration options.

Use VirtualBox Temporarily

The **--vm-driver virtualbox** flag will need to be given on the command line each time the **minishift start** command is run. For example:

$ minishift start --vm-driver virtualbox

Use VirtualBox Permanently

Setting the **vm-driver** option as a persistent configuration option allows you to run **minishift start** without explicitly passing the **--vm-driver virtualbox** flag each time. You may set the **vm-driver** persistent configuration option as follows:

$ minishift config set vm-driver virtualbox

|  |  |
| --- | --- |
|  | The **vm-driver** persistent configuration option must be supplied before **minishift start** has been run. If you have already run **minishift start**, ensure that you run **minishift delete**, set the configuration with **minishift config set vm-driver virtualbox**, then run **minishift start** in order to make use of the VirtualBox driver. |

NEXT STEPS

Proceed to [Installing Minishift](https://docs.okd.io/latest/minishift/getting-started/installing.html) once your hypervisor has been installed and configured.

With the Minishift program installed, you can begin installation and start up the OpenShift cluster by running the minishift start command:

**$ minishift start**

Starting local OpenShift cluster using 'kvm' hypervisor...

OpenShift server started.

The server is accessible via web console at:

https://192.168.99.128:8443

You are logged in as:

User: developer

Password: developer

To login as administrator:

oc login -u system:admin

By default Minishift attempts to use the virtualization driver native to the operating

system. To use a different driver, set the --vm-driver flag when running this command.

For example, to use VirtualBox,

run minishift start --vmdriver=virtualbox.

For more information about the available options, run

minishift start --help.

When Minishift is first run, it will automatically download and install the OpenShift

oc client binary specific to your operating system. This will be installed in a *cache*

directory in your home directory, keyed by the version of OpenShift being run. Run

the command minishift oc-env to output instructions on how to set up your shell

environment so it can find the oc program:

**$ minishift oc-env**

export PATH="/Users/graham/.minishift/cache/oc/v1.5.0:$PATH"

**#** Run this command to configure your shell:

**#** eval **$(**minishift oc-env**)**

To access the web console for OpenShift, run the command minishift console.

This will open up a browser client for you in the web console.

To determine the URL for the OpenShift cluster, for use when logging in from the

command line or accessing the web console from a browser, run the command

minishift console --url.

The login credentials you should use with the OpenShift

cluster created by Minishift are:

• Username: developer

• Password: developer

To shut down the OpenShift cluster, run the command minishift stop. You can

restart it again using minishift start. All your work will be restored on a restart. To

delete the OpenShift cluster, run the command minishift delete.

When Minishift creates a cluster, it will use default settings for the number of CPUs,

memory available, and the size of the VM disk. It is recommended you override these

with values that better match what resources you have available, or need. This can be

done using options to minishift start the first time it is used to create the OpenShift cluster. You can override the default values for these resources, as well as the VM driver used, using the minishift config command.

**Minishift uses OpenShift Origin. For a version of Minishift that uses OpenShift Container Platform from Red Hat, see the Red Hat Container Development Kit.**

Running oc cluster up

The main feature that Minishift provides is the creation of a virtual machine. For the

setup and starting of the OpenShift cluster within that VM, Minishift delegates control

to the command oc cluster up.

The oc program is the standard command-line client for OpenShift.

You can download an archive file containing the oc program for your operating system

from the releases page for OpenShift Origin.

Before running oc cluster up, ensure you check the installation instructions as

there are a number of prerequisite steps you must perform to configure your local

system.

When you’re ready, to start OpenShift, run the command:

**$ oc cluster up**

-- Checking OpenShift client ... OK

-- Checking Docker client ... OK

-- Checking Docker version ... OK

-- Checking for existing OpenShift container ... OK

-- Checking for openshift/origin:v1.5.0 image ...

Pulling image openshift/origin:v1.5.0

....

-- Server Information ...

OpenShift server started.

The server is accessible via web console at:

https://127.0.0.1:8443

You are logged in as:

User: developer

Password: developer

To login as administrator:

oc login -u system:admin

To find the URL for the OpenShift web console, you can run oc whoami --showserver.

To shut down the OpenShift cluster, run oc cluster down.

The oc cluster up command is intended for local development

and testing, not for production use.

By default, when you run oc cluster up, anything you do within

the OpenShift cluster is not persistent. That is, when you run oc

cluster down, you will lose all your work.

In order for your work to be saved, you must supply additional

command-line options to oc cluster up. The same options must

be supplied when restarting it after a shutdown:

**$ oc cluster up --use-existing-config \**

**--host-config-dir $HOME/.oc-cluster-up/config \**

**--host-data-dir $HOME/.oc-cluster-up/data**

Run oc cluster up --help to find out what options are available,