

Mobius Terraform WSL

Version º.  
Last updated: October 28, 2025

Installation

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# Introduction

The scripts should be executed in sequence, from 00\*.cmd to 06\*.sh

C:\git\kubeterraform>**dir**

Volume in drive C is Windows

Volume Serial Number is B2D3-AE1A

Directory of C:\git\kubeterraform

10/28/2025 07:34 AM <DIR> .

10/27/2025 05:57 PM <DIR> ..

10/20/2025 09:16 AM 1,556 00\_install\_wsl.cmd

10/28/2025 07:45 AM 6,919 01\_install\_docker\_wsl\_ubuntu.sh

10/28/2025 07:34 AM 902 02\_install\_helm\_kubectl.sh

10/28/2025 07:54 AM 8,922 03\_install\_k3s\_rancher\_terraform.sh

10/28/2025 07:33 AM 374 04\_configure\_env\_kubelocal.sh

10/28/2025 07:40 AM 319 05\_pullimages.sh

10/27/2025 05:08 PM 122 06\_terraform.sh

10/27/2025 05:45 PM <DIR> conf

10/27/2025 05:17 PM 612 env\_kubelocal.sh

10/28/2025 07:25 AM <DIR> lib

10/27/2025 05:51 PM <DIR> terraform

10/28/2025 07:46 AM 1,532 tools.sh

10/14/2025 03:51 PM 352,983,274 ubuntu22.04.tar.gz

10 File(s) 353,004,532 bytes

5 Dir(s) 1,701,527,334,912 bytes free

The script **00\_install\_wsl.cmd** will create the WSL distribution in **dirName,** change this folder by default in the script if needed.

@echo off

setlocal enabledelayedexpansion

set "**DEFAULT\_DISTNAME=mobius**"

set /p "DISTNAME=Enter WSL name (default: %DEFAULT\_DISTNAME%): "

if "%DISTNAME%"=="" set "DISTNAME=%DEFAULT\_DISTNAME%"

set "dirName=**C:\rocket\wsl\%DISTNAME%**"

set "CURR\_DIR=%~dp0"

# 00\_install\_wsl.cmd

Before running this script verify the existing WSL distributions to define a new one with another name.

C:\git\kubeterraform>**wsl -l -v**

NAME STATE VERSION

\* rdrs Stopped 2

This script will create an Ubuntu 22.04 WSL distribution with user “**rocket**”, password “rocket”

C:\git\kubeterraform>**00\_install\_wsl.cmd**

Enter WSL name (default: mobius): mobius

==== WSL Installation ====

Distribution Name: mobius

Directory: C:\rocket\wsl\mobius

Current Directory: C:\git\kubeterraform\

Checking if WSL distribution "mobius" exists...

Checking directory "C:\rocket\wsl\mobius"...

Directory created successfully.

Importing WSL distribution...

Command: wsl --import mobius "C:\rocket\wsl\mobius" "C:\git\kubeterraform\ubuntu22.04.tar.gz" --version 2

The operation completed successfully.

WSL import completed.

Initial User Credentials:

user=rocket password=rocket

To access the new distribution, run: wsl -d mobius

Verify the WSL distribution created, and access to it

C:\git\kubeterraform>**wsl -l -v**

NAME STATE VERSION

\* rdrs Stopped 2

mobius Stopped 2

C:\git\kubeterraform>**wsl -d mobius**

Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 6.6.87.2-microsoft-standard-WSL2 x86\_64)

\* Documentation: https://help.ubuntu.com

\* Management: https://landscape.canonical.com

\* Support: https://ubuntu.com/pro

System information as of Tue Oct 28 08:19:48 -03 2025

System load: 0.0 Processes: 80

Usage of /: 0.1% of 1006.85GB Users logged in: 0

Memory usage: 3% IPv4 address for eth0: 172.24.226.241

Swap usage: 0%

This message is shown once a day. To disable it please create the

/home/rocket/.hushlogin file.

rocket@RS-PF4XAR20:/mnt/c/git/kubeterra$

# 01\_install\_docker\_wsl\_ubuntu.sh

This script installs docker, at the end, execute “**newgrp docker**”

rocket@RS-PF4XAR20:/mnt/c/git/kubeterra$**./01\_install\_docker\_wsl\_ubuntu.sh**

2025-10-28 08:23:00 [INFO] --- Starting Docker and Docker Compose Installation Script ---

2025-10-28 08:23:00 [INFO] 1. Configuring sudo NOPASSWD for user: rocket

2025-10-28 08:23:00 [INFO] - 'NOPASSWD' configuration added to /etc/sudoers.d/99-rocket-nopasswd.

……

…….

2025-10-28 08:23:47 [INFO] --- Script execution finished ---

2025-10-28 08:23:47 [WARN] ATTENTION: To use 'docker' and 'docker-compose' commands without 'sudo' IMMEDIATELY,

2025-10-28 08:23:47 [WARN] !!!! =====>>>>>> YOU MUST RUN: newgrp docker

2025-10-28 08:23:47 [WARN] Otherwise, the group change will only take effect after you log out and log back in.

rocket@RS-PF4XAR20:/mnt/c/git/kubeterra$ **newgrp docker**

rocket@RS-PF4XAR20:/mnt/c/git/kubeterra$

# 02\_install\_helm\_kubectl.sh

Install **kubectl**, **helm**, and other tools

rocket@RS-PF4XAR20:/mnt/c/git/kubeterra$ **./02\_install\_helm\_kubectl.sh**

2025-10-28 08:37:30 [INFO] Installing kubectl

% Total % Received % Xferd Average Speed Time Time Time Current

Dload Upload Total Spent Left Speed

100 138 100 138 0 0 410 0 --:--:-- --:--:-- --:--:-- 411

100 57.3M 100 57.3M 0 0 2910k 0 0:00:20 0:00:20 --:--:-- 2571k

2025-10-28 08:37:50 [INFO] Starting Helm installation process...

2025-10-28 08:37:50 [INFO] Downloading the 'get-helm-3' script...

2025-10-28 08:37:50 [INFO] Making the script executable...

2025-10-28 08:37:50 [INFO] Executing the Helm installation. This might require 'sudo' permissions depending on the default install path.

Downloading https://get.helm.sh/helm-v3.19.0-linux-amd64.tar.gz

Verifying checksum... Done.

….

HTTP request sent, awaiting response... 200 OK

Length: 11485368 (11M) [application/octet-stream]

Saving to: ‘/usr/local/bin/yq’

/usr/local/bin/yq 100%[======================================================>] 10.95M 5.92MB/s in 1.8s

2025-10-28 08:38:05 (5.92 MB/s) - ‘/usr/local/bin/yq’ saved [11485368/11485368]

rocket@RS-PF4XAR20:/mnt/c/git/kubeterra$

Verify tools installed

rocket@RS-PF4XAR20:/mnt/c/git/kubeterra$ **ls -l /usr/local/bin**

total 128740

lrwxrwxrwx 1 root root 46 Oct 28 08:59 docker-compose -> /usr/libexec/docker/cli-plugins/docker-compose

-rwxr-xr-x 1 root root 60211384 Oct 28 09:04 helm

-rwxr-xr-x 1 root root 60121272 Oct 28 09:04 kubectl

-rwxr-xr-x 1 root root 11485368 Oct 12 00:35 yq

# 03\_install\_k3s\_rancher\_terraform.sh

This script installs:

* **K3s and Rancher:** Installs **K3s**. If a previous version exists, it is uninstalled first.
* **Local Docker Registry:** Sets up a **Docker Registry** on port **5000** (local IP) and adjusts Docker/K3s daemons.
* **NFS Server:** Installs and configures the **NFS Server**, exporting /home/rocket/mobius\_data.
* **Rancher WebUI:** Deploys the **Rancher WebUI** and outputs the command to get the initial password:

**kubectl get secret --namespace cattle-system bootstrap-secret -o go-template='{{.data.bootstrapPassword|base64decode}}{{n}}'**

rocket@RS-PF4XAR20:/mnt/c/git/kubeterra$ **./03\_install\_k3s\_rancher\_terraform.sh**

2025-10-28 08:43:40 [INFO] ✅ WSL IP obtained: 172.24.226.241

2025-10-28 08:43:40 [INFO] ✅ Rancher Hostname: RS-PF4XAR20

2025-10-28 08:43:40 [INFO]2025-10-28 08:43:40 [INFO] 🚀 1. Installing K3s...

[INFO] Using v1.33.5+k3s1 as release

….

[INFO] systemd: Enabling k3s unit

Created symlink /etc/systemd/system/multi-user.target.wants/k3s.service → /etc/systemd/system/k3s.service.

[INFO] systemd: Starting k3s

2025-10-28 09:20:26 [INFO] =================================================================

2025-10-28 09:20:26 [INFO] 🎉 INSTALLATION COMPLETE! 🎉

2025-10-28 09:20:26 [INFO] =================================================================

2025-10-28 09:20:26 [INFO] 🌐 WSL IP: 172.24.226.241

2025-10-28 09:46:35 [INFO] 🖥️ Rancher Manager is being installed. To access it, edit your Windows 'hosts' file

2025-10-28 09:46:35 [INFO] (C:\Windows\System32\driversc\hosts) and add the following line:

2025-10-28 09:46:35 [INFO] 172.24.226.241 rs-pf4xar20 rs-pf4xar20.rocketsoftware.com

2025-10-28 09:46:35 [INFO] Then, access https://rs-pf4xar20

2025-10-28 09:46:35 [INFO] 2025-10-28 09:46:35 [INFO]

2025-10-28 09:46:35 [INFO] ⚙️ Key Checks:

2025-10-28 09:46:35 [INFO] - Cert-Manager Pods: kubectl get pods -n cert-manager

2025-10-28 09:46:35 [INFO] - Rancher Pods: kubectl get pods -n cattle-system

2025-10-28 09:46:35 [INFO] - NFS Provisioner Pods: kubectl get pods -l app=nfs-client-provisioner

2025-10-28 09:46:35 [INFO] - Terraform: terraform -version

2025-10-28 09:46:35 [INFO] =================================================================

## Notes

* K3s Kubernetes can be restarted with:

**sudo systemctl restart k3s.service**

* Add to (C:\Windows\System32\driversc\hosts) your hostname, and your WSL IP:

**172.24.226.241 rs-pf4xar20 rs-pf4xar20.rocketsoftware.com**

## Access to Rancher Web UI (**https://rs-pf4xar20**)

A screenshot of a computer

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.

# 04\_configure\_env\_kubelocal.sh

* The environment variables **TF\_VAR\_\*** will overwrite the variables in **terra/kube/terraform.tfvars** if they are setup before running ‘**terraform apply**’
* The variables **var\_\*\_image** in **terra/kube/terraform.tfvars** must the coincident with **conf/images.csv** used in pull/push images.

A screenshot of a computer program

AI-generated content may be incorrect.

# 05\_pullimages.sh

This script pull the images form registry.rocketsoftware.com and push into the local docker registry.

The script uses the variables:

* **TF\_VAR\_var\_docker\_username**
* **DOCKER\_USERNAME**, and
* **KUBE\_SOURCE\_REGISTRY**

in ./**env\_kubelocal.sh**

rocket@RS-PF4XAR20:/mnt/c/git/kubeterra$ **source ./env\_kubelocal.sh**

rocket@RS-PF4XAR20:/mnt/c/git/kubeterra$ **./05\_pullimages.sh**

2025-10-28 10:21:09 [INFO] 🚀 Executing Pull, Tag, and Push...

Do you want to pull images? Y

2025-10-28 11:54:46 [INFO] User answered 'Y' to question: Do you want to pull images?

2025-10-28 11:54:46 [INFO] Pulling images from registry.rocketsoftware.com using /mnt/c/git/kubeterra/conf/images.csv

Docker password for gavendano@rs.com :

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

>>>>> Pulling registry.rocketsoftware.com/eventanalytics:2.0.4

>>>>> Pulling registry.rocketsoftware.com/mobius-server:12.5.0

….

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\* Using default file: /mnt/c/git/kubeterra/conf/images.csv

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

>>>>> Tagging registry.rocketsoftware.com/eventanalytics:2.0.4 to 172.24.226.241:5000/eventanalytics:2.0.4

>>>>> Tagging registry.rocketsoftware.com/mobius-server:12.5.0 to 172.24.226.241:5000/mobius-server:12.5.0

….

Do you want to push the images? y

Login Succeeded

>>>>> Pushing 172.24.226.241:5000/eventanalytics:2.0.4

>>>>> Pushing 172.24.226.241:5000/mobius-server:12.5.0

….

This script uses ./**tools.sh** explore the other options

# 06\_terraform.sh

* This script creates ‘mobius’ namespace, and deploy using terraform scripts in **terra/kube**
* **terra/kube/terraform.log** contains all the console messages and errors
* In a separate terminal it’s possible to check the status of the deployment using **kubectl** command.

rocket@RS-PF4XAR20:/mnt/c/git/kubeterra$ **./06\_terraform.sh**

[INFO] Creating namespace mobius...

namespace/mobius created

"opensearch" already exists with the same configuration, skipping

Hang tight while we grab the latest from your chart repositories...

...Successfully got an update from the "nfs-subdir-external-provisioner" chart repository

….

Update Complete. ⎈Happy Helming!⎈

2025-10-28 16:57:36 [INFO] Initializing Terraform...

Initializing the backend...

Initializing provider plugins...

- Reusing previous version of cyrilgdn/postgresql from the dependency lock file

…..

Terraform has been successfully initialized!

You have successfully deployed the Mobius Stack in Kube. Please use the below command to get Mobius View URL.

for pod in $(kubectl get pods -o name -n mobius | grep mobiusview); do NODE\_PORT=$(kubectl get -o jsonpath="{.spec.ports[0].nodePort}" services mobiusview -n mobius); NODE\_IP=$(kubectl describe $pod -n mobius | grep "Node:" | cut -d'/' -f2 | awk '{print $1}'); echo "http://$NODE\_IP:$NODE\_PORT/mobius/"; done

EOT

rocket@RS-PF4XAR20:/mnt/c/git/kubeterra$ **for pod in $(kubectl get pods -o name -n mobius | grep mobiusview); do NODE\_PORT=$(kubectl get -o jsonpath="{.spec.ports[0].nodePort}" services mobiusview -n mobius); NODE\_IP=$(kubectl describe $pod -n mobius | grep "Node:" | cut -d'/' -f2 | awk '{print $1}'); echo "http://$NODE\_IP:$NODE\_PORT/mobius/"; done**

http://172.24.226.241:31355/mobius/

mobius repository is not mapped by default.

A screenshot of a computer

AI-generated content may be incorrect.