

# Containerized Applications on RHEL 8 with Podman & CRI-O

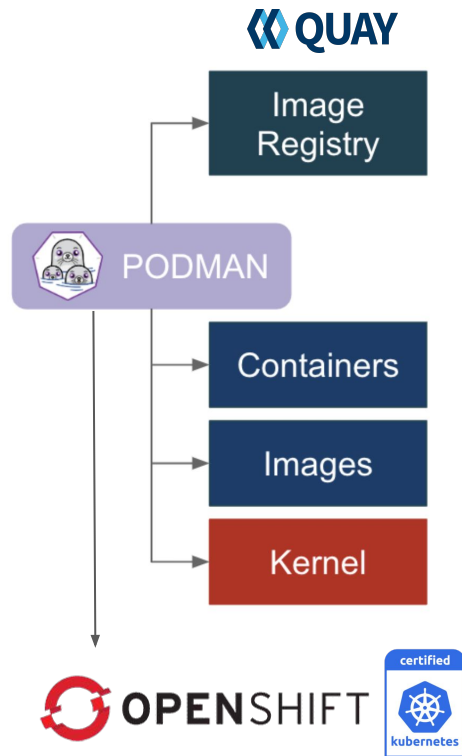
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# Contents

- Disclaimer: The publicly available Minecraft container contains some vulnerabilities. I illustrated this in the following youtube video:
  - <https://www.youtube.com/watch?v=URh3bYS8vyM>

# Podman & CRI-O

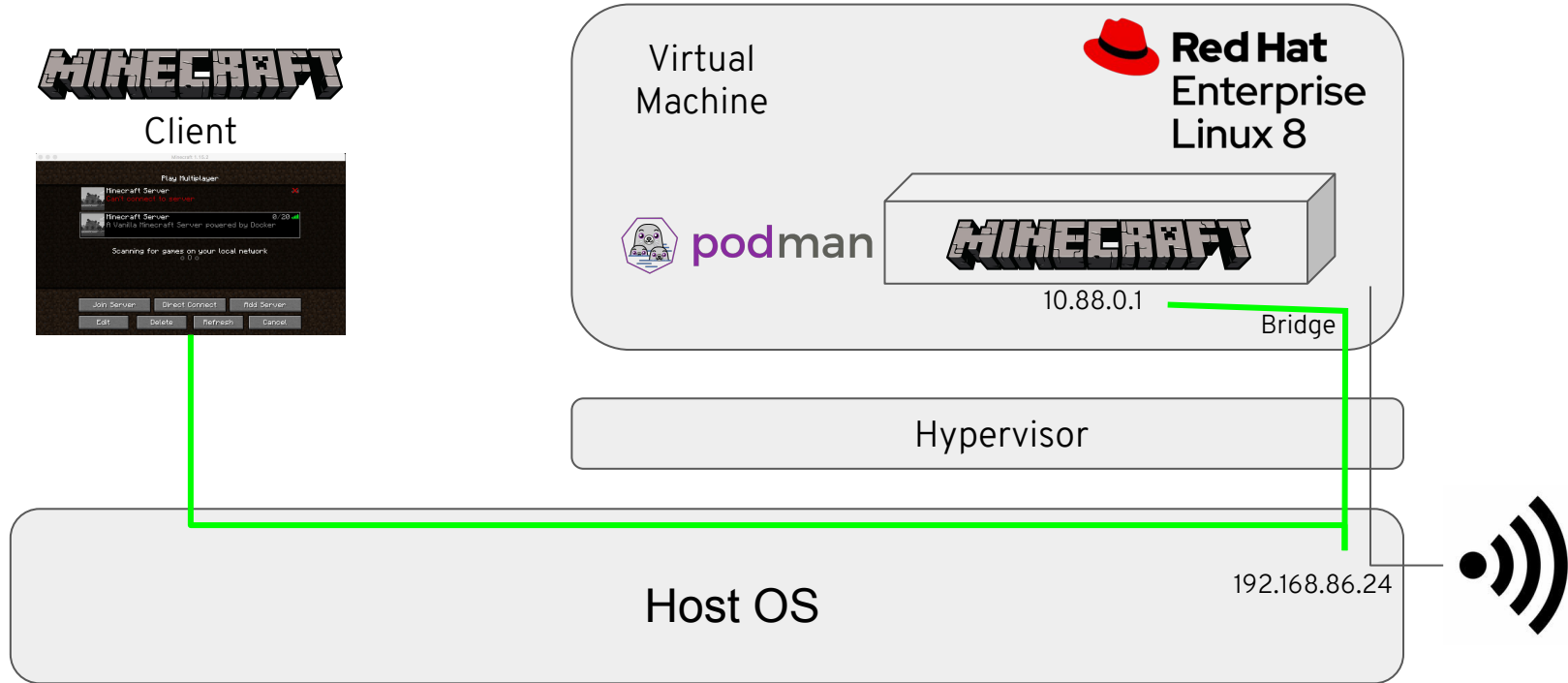


- Daemon-less
- Docker-like CLI
- Rootless
- Shared State
- CRI-O run-time
- Default in RHEL 8
- OpenShift/K8s

# Contents

- Via Git:
  - \$ git clone [https://github.com/steveok67/RHEL8\\_Podman\\_MC.git](https://github.com/steveok67/RHEL8_Podman_MC.git)
- Youtube Video:
  - <https://www.youtube.com/watch?v=bYZKtIXLiY0>

# Topology



# 1 - Create a VM with RHEL 8.1

- I used Parallels on my Red Hat Macbook Pro
- RHEL 8.1 downloaded DVD image (no desktop), install from image
- vCPUs = 3, 8G RAM
- Network: Wi-Fi, Custom NIC: Intel ® Pro/1000 MT, DHCP Auto
  - It was necessary to set the NIC to Wi-Fi so it resided on my main WiFi network. Otherwise, I had connectivity issues.
- Hard disk 64GB

## 2 - Install RHEL Podman RPM

- `$ sudo dnf install podman`
- If you need to restore the network bridge interface:
  - `$ sudo ip link add cni-podman0 type bridge`
  - `$ sudo ip addr add 10.88.0.1/24 dev cni-podman0`

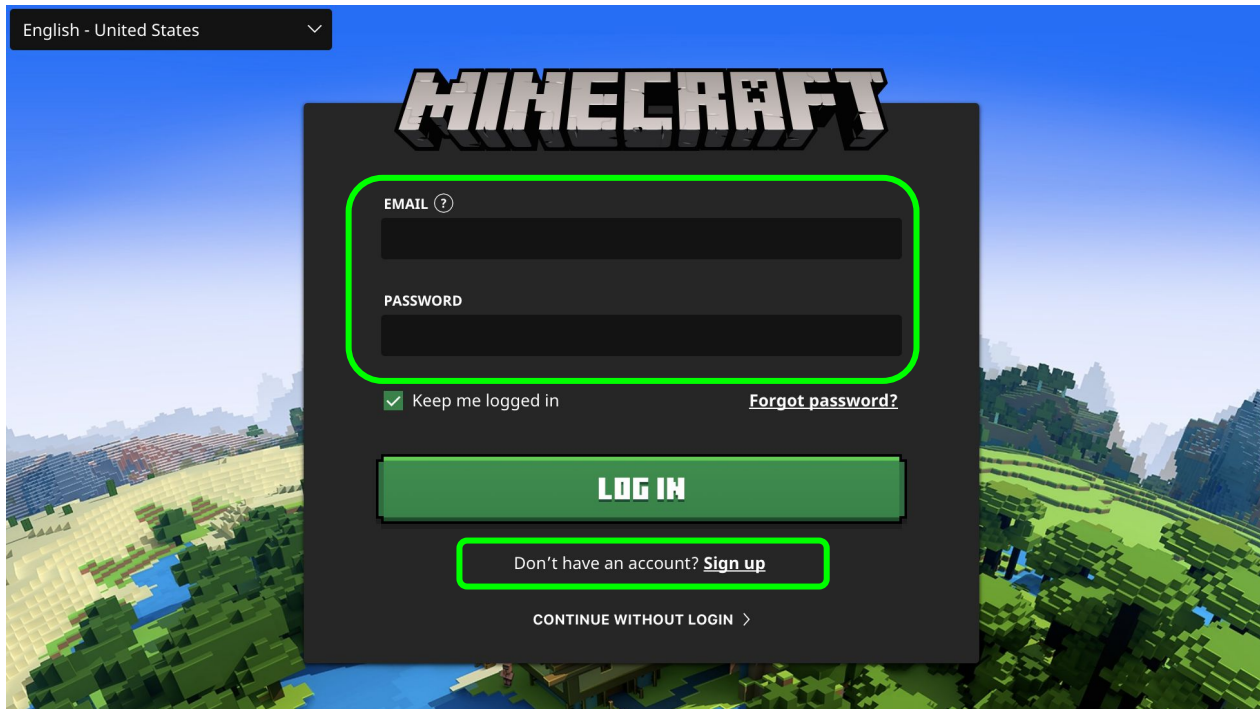
## 3 - Add a host route

- Inside the RHEL 8.1 VM type: `$ ip a`
  - Note the 2 IP addresses
    - Example: 10.88.0.1 (bridge), and 192.168.86.33 (vm)
- On MacOS:
  - `$ sudo route add <Podman Net>/24 <VM IP Address>`
  - Example:
    - `$ sudo route add 10.88.0.0/24 192.168.86.33`
  - Ping the bridge interface in the VM:
    - `$ ping 10.88.0.1`
      - If you can't ping, stop here & resolve network issues



# Launching Minecraft

Create a  
Minecraft  
account.  
Costs  
~\$25



The image shows the Minecraft login interface. At the top left, there is a language dropdown menu set to "English - United States". The background is a pixelated Minecraft landscape with green hills, a blue river, and a small wooden house. In the center, there is a dark grey login box. At the top of this box is the "MINECRAFT" logo in a 3D, blocky font. Below the logo are two input fields: "EMAIL" with a question mark icon and "PASSWORD". Both fields are highlighted with a green border. Below the password field is a checkbox labeled "Keep me logged in" which is checked, and a link "Forgot password?". A large green "LOG IN" button is positioned below these options. At the bottom of the login box, there is a link "Don't have an account? Sign up" which is also highlighted with a green border. Below the login box, there is a link "CONTINUE WITHOUT LOGIN" with a right-pointing arrow.

English - United States

# MINECRAFT

EMAIL ?

PASSWORD

☒ Keep me logged in [Forgot password?](#)

**LOG IN**

Don't have an account? [Sign up](#)

[CONTINUE WITHOUT LOGIN](#) >

## 4 - Download and Run Minecraft Container with a Spigot Server

```
$ ./0_minecraft_start_container.sh
```

Give it time to complete...

```
$ ./1_minecraft_automation_script.sh <minecraft_user_name>
```

# Launching Minecraft



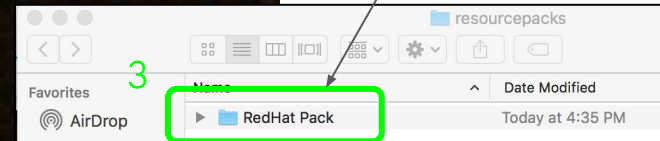
# Add Resource Pack



# Add Resource Pack (for Red Hats)



# Add Resource Pack (for Red Hats)



2 unzip RedHat Pack.zip  
Then select folder here.

# Add Resource Pack (for Red Hats)



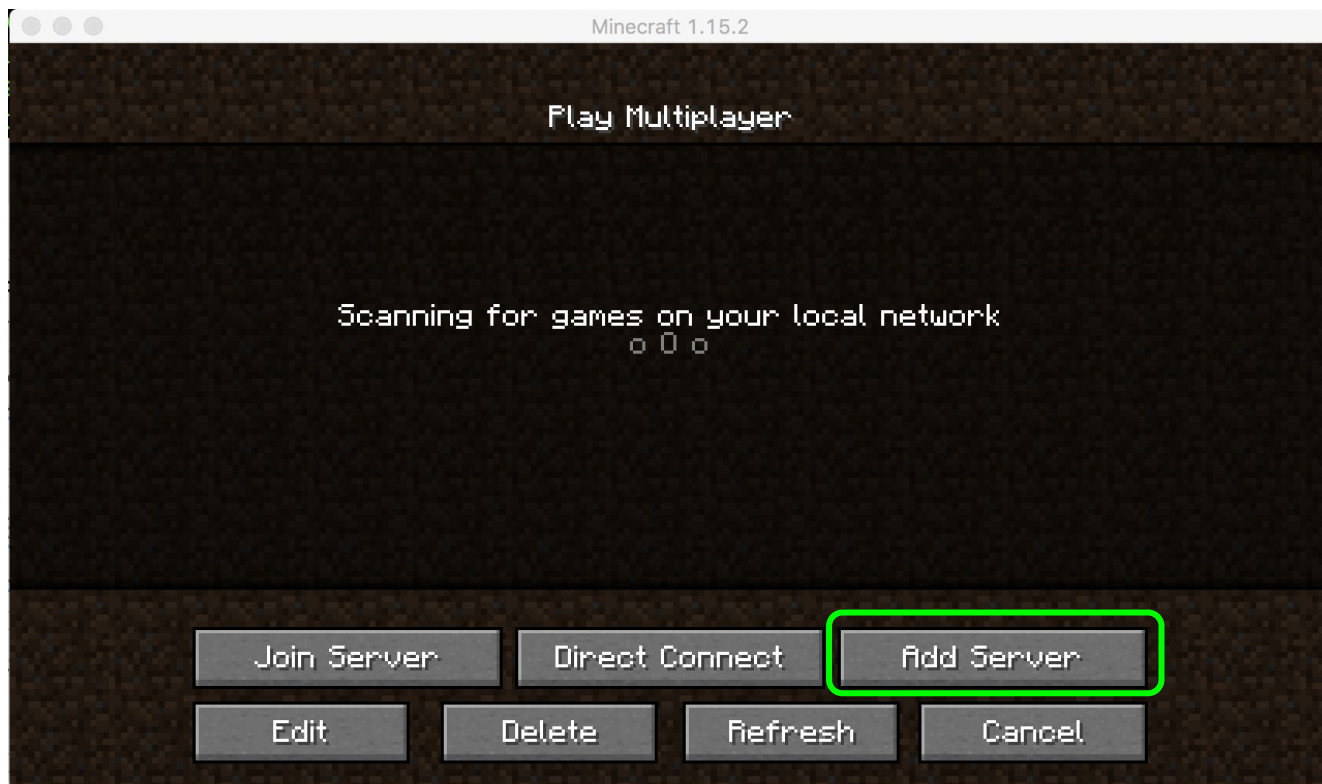


# Launching Minecraft





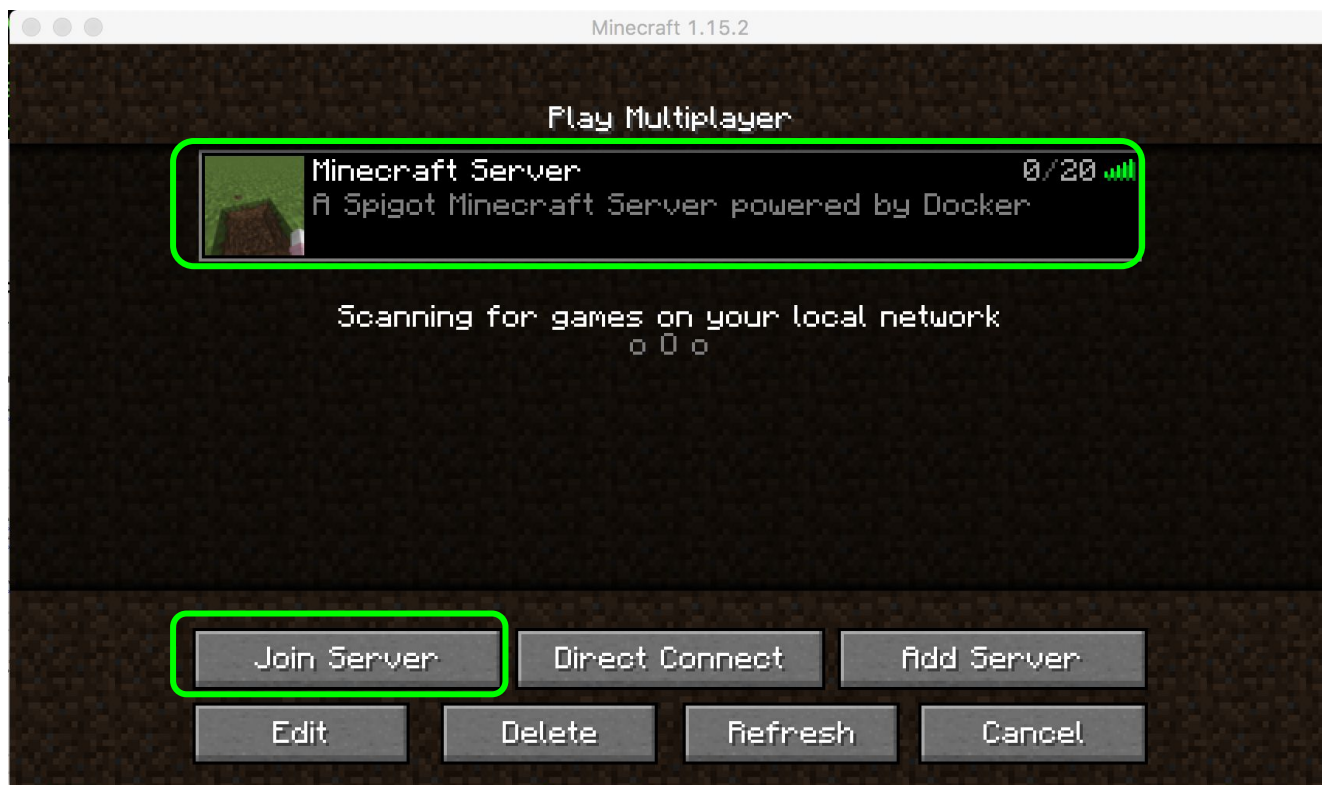
# Launching Minecraft



# Launching Minecraft



# Launching Minecraft



# Load Red Hat Schematic



//paste

# Launching Minecraft

Press Control-click, to press the button, to populate the building with employees



# Launching Minecraft

Press and hold **w** to walk into the building, **s** to walk backwards





# Voila!



Enjoy