

README

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1 toddwint/bhrtr

1.1 Info

bhrtr docker image for simple lab testing applications.

Docker Hub: <https://hub.docker.com/r/toddwint/bhrtr>

GitHub: <https://github.com/toddwint/bhrtr>

1.2 Overview

Docker image for a quick single physical interface router which will create /32 routes IPs specified.

Pull the docker image from Docker Hub or, optionally, build the docker image from the source files in the build directory.

Create and run the container using `docker run` commands, `docker compose` commands, or by downloading and using the files here on github in the directories `run` or `compose`.

NOTE: A volume named `upload` is created the first time the container is started. Modify the file in that directory. Add a name for the peer device, the IP of the peer device, the gateway of the peer device (bhrtr's IP), and the network subnet mask. Then restart the container.

Manage the container using a web browser. Navigate to the IP address of the container and one of the HTTPPORTs.

NOTE: Network interface must be UP i.e. a cable plugged in.

Example `docker run` and `docker compose` commands as well as sample commands to create the macvlan are below.

1.3 Features

- Ubuntu base image
- Plus:
 - fzf
 - iproute2
 - iputils-arping
 - iputils-ping
 - python3-minimal
 - tmux
 - tzdata
 - [ttyd](#)
 - View the terminal in your browser
 - [frontail](#)
 - View logs in your browser
 - Mark/Highlight logs
 - Pause logs
 - Filter logs
 - [tailon](#)
 - View multiple logs and files in your browser
 - User selectable tail, grep, sed, and awk commands
 - Filter logs and files
 - Download logs to your computer

1.4 Sample commands to create the macvlan

Create the docker macvlan interface.

```
docker network create -d macvlan --subnet=169.254.255.240/28 --  
gateway=169.254.255.241 \  
    --aux-address="mgmt_ip=169.254.255.253" -o parent="eth0" \  
    --attachable "bhrtr01"
```

Create a management macvlan interface.

```
sudo ip link add "bhrtr01" link "eth0" type macvlan mode bridge  
sudo ip link set "bhrtr01" up
```

Assign an IP on the management macvlan interface plus add routes to the docker container.

```
sudo ip addr add "169.254.255.253/32" dev "bhrtr01"  
sudo ip route add "169.254.255.240/28" dev "bhrtr01"
```

1.5 Sample docker run command

```
docker run -dit \  
    --name "bhrtr01" \  
    --network "bhrtr01" \  
    --ip "169.254.255.254" \  
    --
```

```

-h "bhrtr01" \
-v "${PWD}/upload:/opt/bhrtr/upload" \
-p "169.254.255.254:8080:8080" \
-p "169.254.255.254:8081:8081" \
-p "169.254.255.254:8082:8082" \
-p "169.254.255.254:8083:8083" \
-e TZ="UTC" \
-e MGMTIP="169.254.255.253" \
-e GATEWAY="169.254.255.241" \
-e HUID="1000" \
-e HGID="1000" \
-e HTTPPORT1="8080" \
-e HTTPPORT2="8081" \
-e HTTPPORT3="8082" \
-e HTTPPORT4="8083" \
-e HOSTNAME="bhrtr01" \
-e APPNAME="bhrtr" \
--cap-add=NET_ADMIN \
"toddwint/bhrtr"

```

1.6 Sample docker compose (compose.yaml) file

```

name: bhrtr01

services:
  bhrtr:
    image: toddwint/bhrtr
    hostname: bhrtr01
    ports:
      - "169.254.255.254:8080:8080"
      - "169.254.255.254:8081:8081"
      - "169.254.255.254:8082:8082"
      - "169.254.255.254:8083:8083"
    networks:
      default:
        ipv4_address: 169.254.255.254
    environment:
      - MGMTIP=169.254.255.253
      - GATEWAY=169.254.255.241
      - HUID=1000
      - HGID=1000
      - HOSTNAME=bhrtr01
      - TZ=UTC
      - HTTPPORT1=8080
      - HTTPPORT2=8081

```

```
- HTTPPORT3=8082
- HTTPPORT4=8083
- APPNAME=bhrtr
privileged: true
cap_add:
  - NET_ADMIN
volumes:
  - "${PWD}/upload:/opt/bhrtr/upload"
tty: true

networks:
  default:
    name: "bhrtr01"
    external: true
```