

Configure Failover/Floating IPs in vRack

Overview

If you are building a **high-availability** network, you may also need to use **public IPv4 addresses**. This is often required for applications such as **cPanel**, which depend on publicly routed IPs to remain reachable during failover events. You cannot configure fixed IP blocks directly inside the vRack. When you purchase a **failover IP block**, the first address, the second-to-last address, and the final address in the block are reserved for network functions.

For example, if your failover block is **54.34.12.0/29**, the reserved and usable addresses are:

```
54.34.12.0 <--- RESERVED / Network Address
54.34.12.1
54.34.12.2
54.34.12.3
54.34.12.4
54.34.12.5
54.34.12.6 <---- RESERVED / Gateway
54.34.12.7 <---- RESERVED / Broadcast
```

Server Configuration

Download `iproute2`. It might already be installed.

Debian / Ubuntu

```
apt-get install iproute2
```

Red Hat / AlmaLinux / RockyLinux

```
dnf install iproute
```

Within your server, create the following file. If it already exists, edit the file.

```
nano /etc/iproute2/rt_tables
```

Within the file, add the following vRack line.

```
#
# reserved values
#
255    local
254    main
253    default
0      unsec
#
# local
#
#1     inr.ruhep
1     vrack
```

Save and close the file. The next steps depend on your distribution.

Debian 12 / Ubuntu 24

Open up the Cloudinit file and specify your failover IP block.

```
nano /etc/netplan/50-cloud-init.yaml
```

Remember to add your own Gateway and IP block.

```
eno2:
  dhcp4: false
  addresses:
  - FIRST_USABLE_IP/29
  routes:
  - to: FULL_FAILOVER_BLOCK/29
    via: BLOCK_GATEWAY (2nd to last IP)
```

Debian 11 / Ubuntu 22

Open up the Cloudinit configuration file.

```
/etc/network/interfaces.d/50-cloud-init
```

Inside the file, add your IP block and define the routing for the gateway. You'll find these details in your failover IP block information, as shown in the example above.

```
auto eth1
iface eth1 inet static
```

```
address 54.34.12.1
netmask 255.255.255.240
broadcast 54.34.12.7
post-up ip route add 54.34.12.0/29 dev eth1 table vrack
post-up ip route add default via 54.34.12.6 dev eth1 table vrack
post-up ip rule add from 54.34.12.0/29 table vrack
post-up ip rule add to 54.34.12.0/29 table vrack
```

RHEL / AlmaLinux / RockyLinux 8 + 9

Copy the current interfaces file.

```
cp /etc/sysconfig/network-scripts/ifcfg-eth0 /etc/sysconfig/network-scripts/ifcfg-eth1
```

Now, inside the copied file, define your failover IP block. Begin by declaring the **first usable IP address** from the block.

```
DEVICE=eth1
BOOTPROTO=static
ONBOOT=yes
USERCTL=no
IPV6INIT=no
PEERDNS=yes
TYPE=Ethernet
NETMASK=255.255.255.240
IPADDR=54.34.12.1
ARP=yes
```

Now create a rule file to route traffic for your failover IP block through the vRack interface.

```
/etc/sysconfig/network-scripts/rule-eth1
```

Inside the file, add the rule.

```
from 54.34.12.0/29 table vrack
to 54.34.12.0/29 table vrack
```

Finally, add a static route.

```
/etc/sysconfig/network-scripts/route-eth1
```

Define the route in this file, making sure to specify the correct gateway for the block. The gateway is **always the second-to-last IP address** in your failover range.

```
54.34.12.0/29 dev eth1 table vrack
default via 54.34.12.6 dev eth1 table vrack
```

Reboot the server to apply the new configuration or, bring the new link up

```
ip link set eth1 up
```

RHEL / AlmaLinux / RockyLinux 10+

Gather your connection name from the system connections folder.

```
cd /etc/NetworkManager/system-connections
```

Next, using the connection name, add the IP block to the interface. In our example, our connection name is `Private_Network`.

```
nmcli connection modify Private_Network IPv4.address 54.34.12.0/29
```

Now, add the Gateway for your failover IP Block

```
nmcli connection modify Private_Network IPv4.gateway 54.34.12.6
```

Change the configuration from **auto** to **manual**:

```
nmcli connection modify Private_Network IPv4.method manual
```

Make the configuration persistent.

```
nmcli con mod 'Private_Network' connection.autoconnect true
```

Finally, add the static route.

```
ip route add 54.34.12.0/29 via 54.34.12.6 dev eno2
```

To Finish

You must repeat this process on every server that needs to use your failover IP block.

