

Building the Cluster

Setting IP Address

I did my best to simplify the network design:

There are 3 PVE hosts with corresponding management IP's:

- prox1 – 192.168.0.201
- prox2 – 192.168.0.202
- prox3 – 192.168.0.203

Each PVE host has 3 network adapters:

- Adapter 1: A Bridged Adapter that connects to the [physical] internal network.
- Adapter 2: Host only Adapter #2 that will serve as the [virtual] isolated cluster network.
- Adapter 3: Host only Adapter #3 that will serve as the [virtual] dedicated migration network.

Each network adapter plugs into a different [virtual] network segment with a different ip range:

- Adapter 1 (vbr0) (nic0) – 192.168.0.0/24
- Adapter 2 (nic1) – 192.168.101.0/24
- Adapter 3 (nic2) – 192.168.102.0/24

Each PVE hosts' IP on each network roughly corresponds to its hostname:

- prox1 – 192.168.0.201, 192.168.101.1, 192.168.102.1
- prox2 – 192.168.0.202, 192.168.101.2, 192.168.102.2
- rox3 – 192.168.0.203, 192.168.101.3, 192.168.102.3

Prox 1 Example

```
auto lo
iface lo inet loopback

iface nic0 inet manual

auto vbr0
iface vbr0 inet static
    address 192.168.0.201/24
    gateway 192.168.0.1
    bridge-ports nic0
    bridge-stp off
    bridge-fd 0

# cluster network
auto nic1
iface nic1 inet manual
    address 192.168.101.1/24

# migration network
auto nic2
iface nic2 inet manual
    address 192.168.102.1/24

source /etc/network/interfaces.d/*
```

The screenshot displays the Proxmox Virtual Environment 9.1.6 web interface. The browser address bar shows the URL `192.168.0.201:8006/#v:1:0:18:4:5`. The interface includes a search bar, navigation links for Documentation, Create VM, Create CT, and a user profile for root@pam. The main content area is divided into several sections:

- Health:** Shows a green checkmark icon indicating the cluster is healthy. The status is "Cluster: TestCluster, Quorate: Yes".
- Nodes:** A table showing the status of nodes in the cluster:

Status	Count
Online	3
Offline	0
- Guests:** A section for monitoring virtual machines and LXC containers:

Virtual Machines		LXC Container	
Running	0	Running	0
Stopped	0	Stopped	0

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