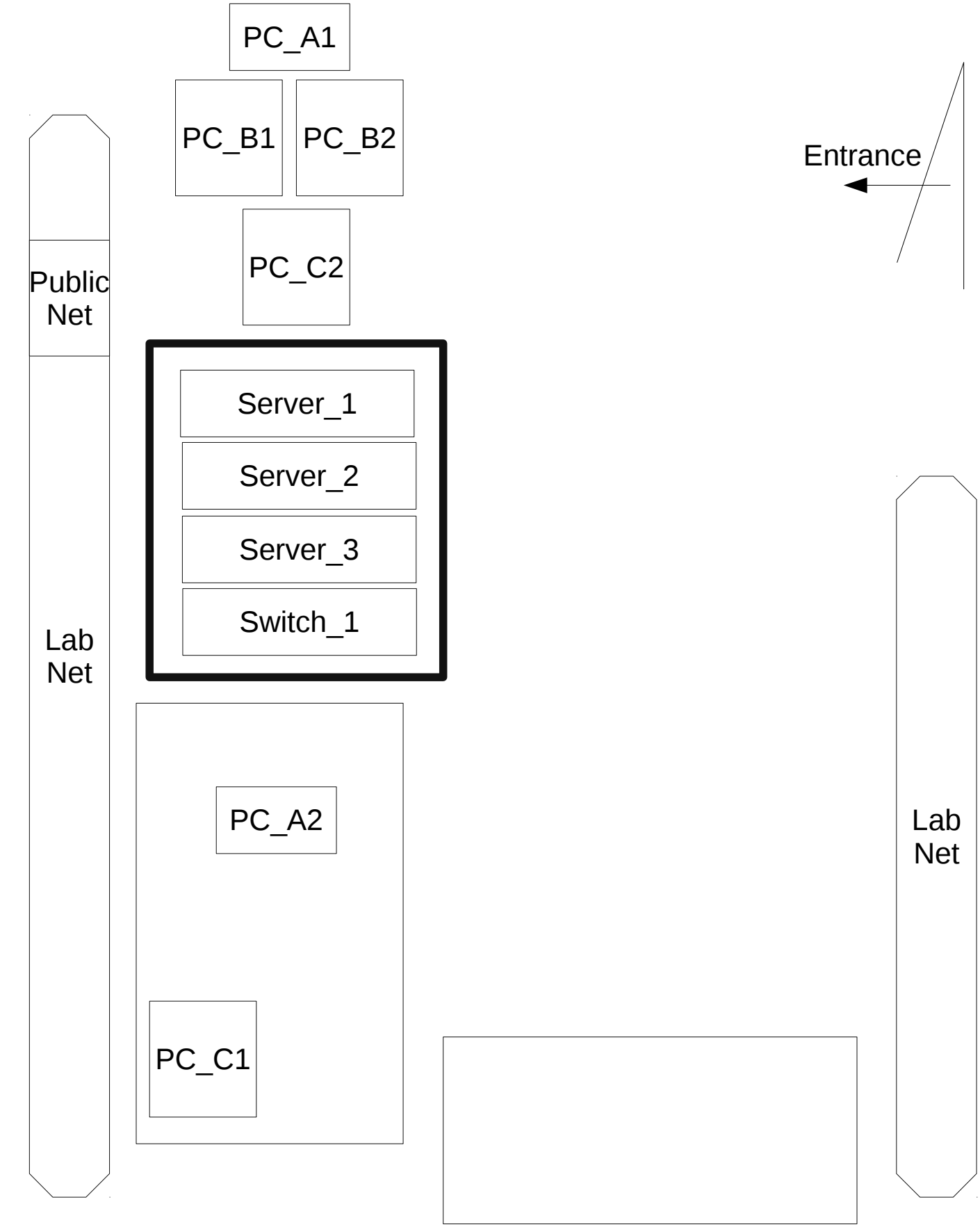
SEIP Lab Setup Description

Lab layout


PC_A1
PC_B1
PC_B2
PC_C2
Entrance
Public Net
Server_1
Server_2
Server_3
Switch_1
Lab Net
PC_A2
PC_C1
Lab Net

Machine descriptions

Machine responsibilities:

OpenStack nodes: Server_1, Server_2, Server_3, PC_B1, PC_B2
Fuel manager: PC_A1
Lab terminal: PC_C1
Public access firewall: PC_C2
OpenStack infrastructure switch: Switch_1
Miscellaneous: PC_A2

Set machine network addresses:

Switch_1: 10.30.0.2
PC_A1: 10.20.0.2, 10.30.0.3
PC_C1: 10.20.0.6, 10.30.0.4
PC_C2: 10.30.0.1

Fuel and OpenStack access

All laborathory acces is conducted from PC_C1 terminal

Access fuel over ssh trough terminal with command:
ssh root@10.20.0.2

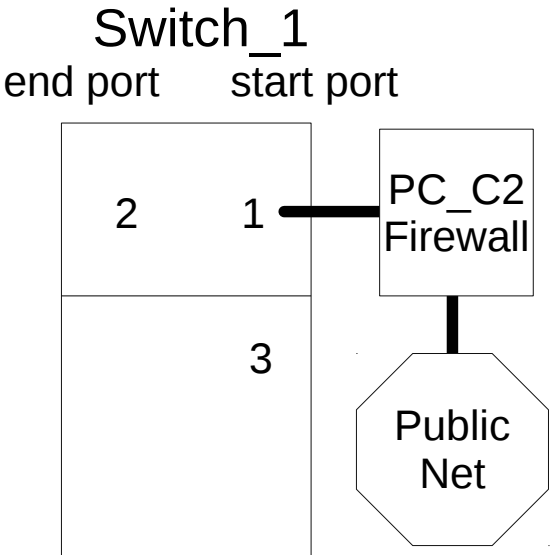
Access fuel web GUI over browser trough address: 10.20.0.2

Fuel ssh password is r00tme
Fuel web credentials are: username: admin password: AkX3UrB9!

OpenStack Horizon access over browser using controller IP address, can be found in fuel web GUI. The standard public ip address is 161.53.40.188

SSH access to OpenStack nodes over fuel manager. SSH to fuel than from there ssh to wanted OpenStack node

Network descriptions



Networks / ports :

OpenStack Net / 1-2 11-24
Fuel Net / 3-10

Reserved ports:

1 – Connects to Firewall

Network descriptions:

Public Net:
Accessible trough the 15205-x1 ethernet socket on the laboratory wall. The available public IP addresses are 161.53.40.188 and 161.53.40.189
Additional information:
Subnet mask: 255.255.255.0
Gateway: 161.53.40.8

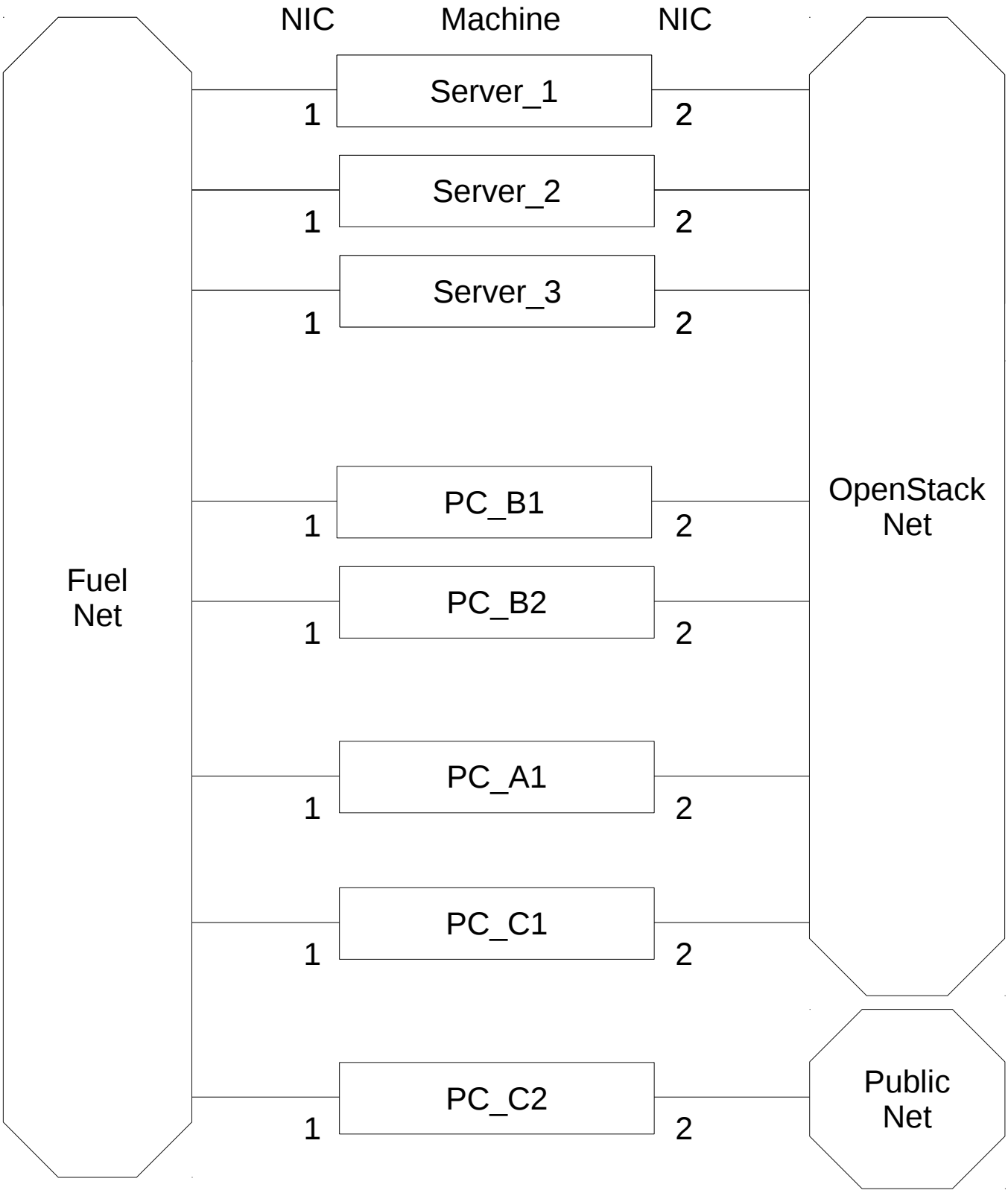
Fuel Net:
Used for Mirantis OpenStack Deployment and Management

OpenStack Net:
Used for OpenStack infrastructure (multiple VLANs)
Has access to the public network over the firewall/gateway computer PC_C2

Subnet addresses:

Lab Net: 10.30.0.0/16
Fuel Net: 10.20.0.0/24

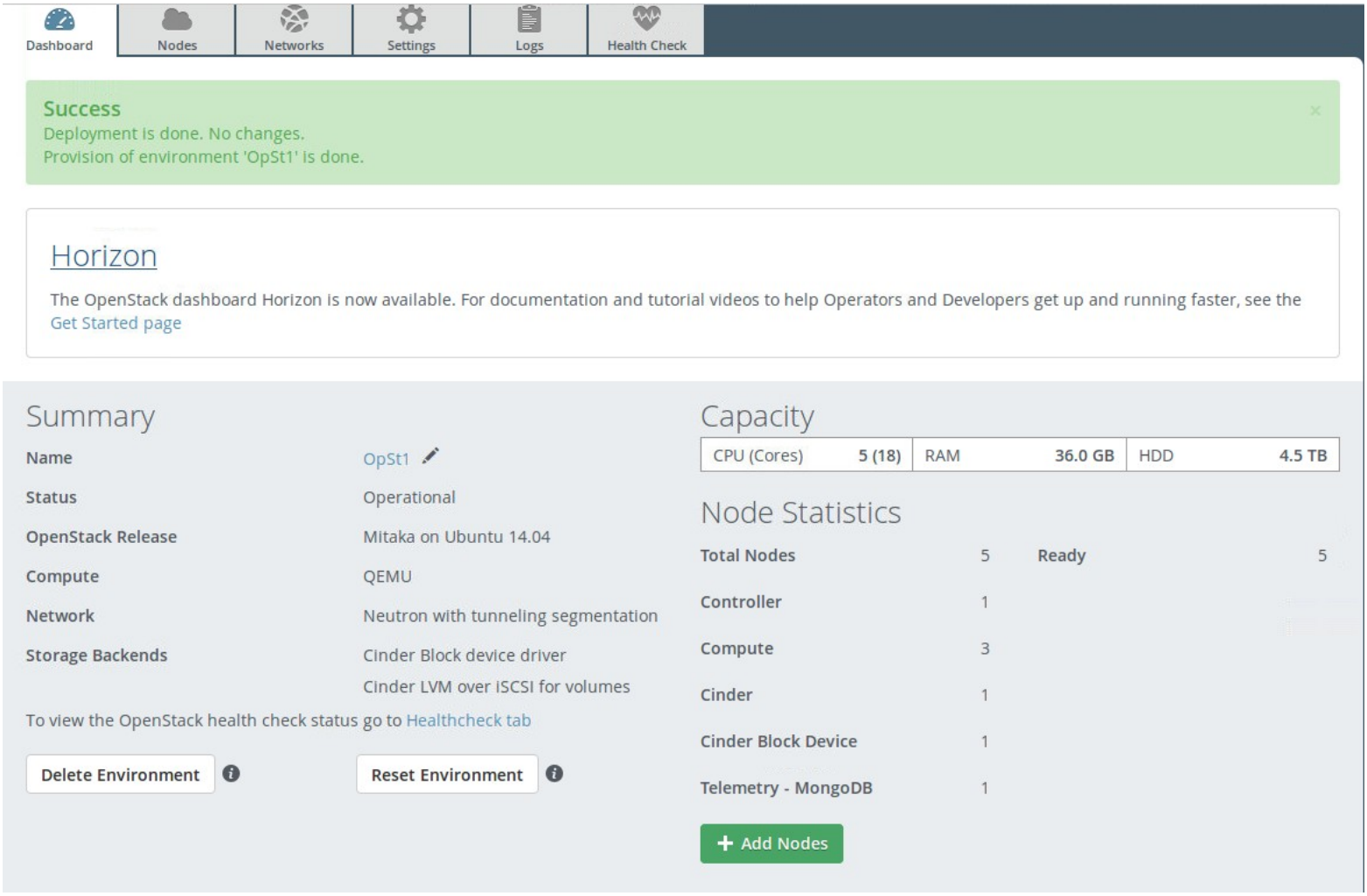
Machine network connections



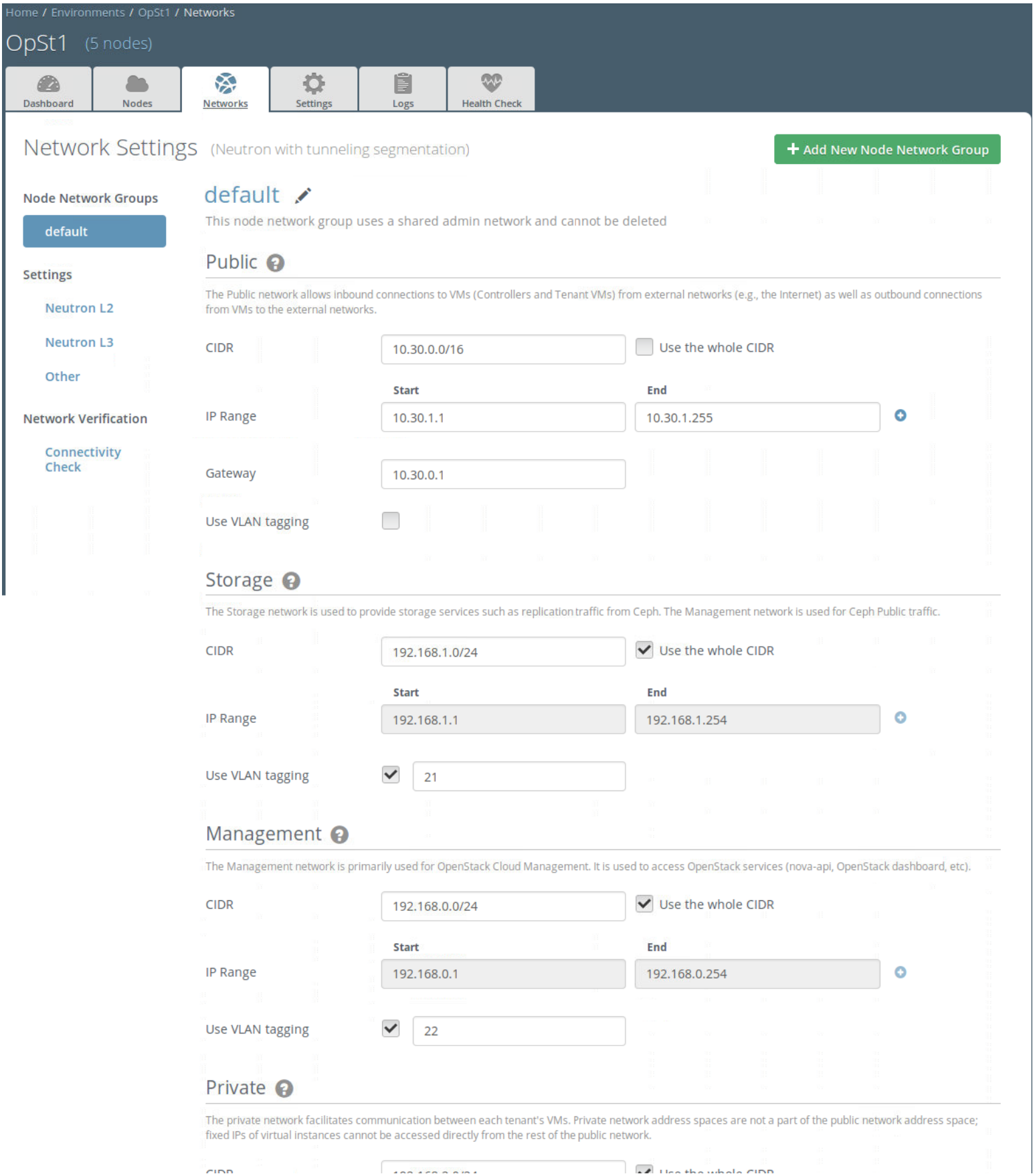
How to know NIC (network interface controller) number on hardware:

Server NIC labled on the servers itself
PC NIC 1 – PCI express NIC
PC NIC 2 – Motherboard NIC

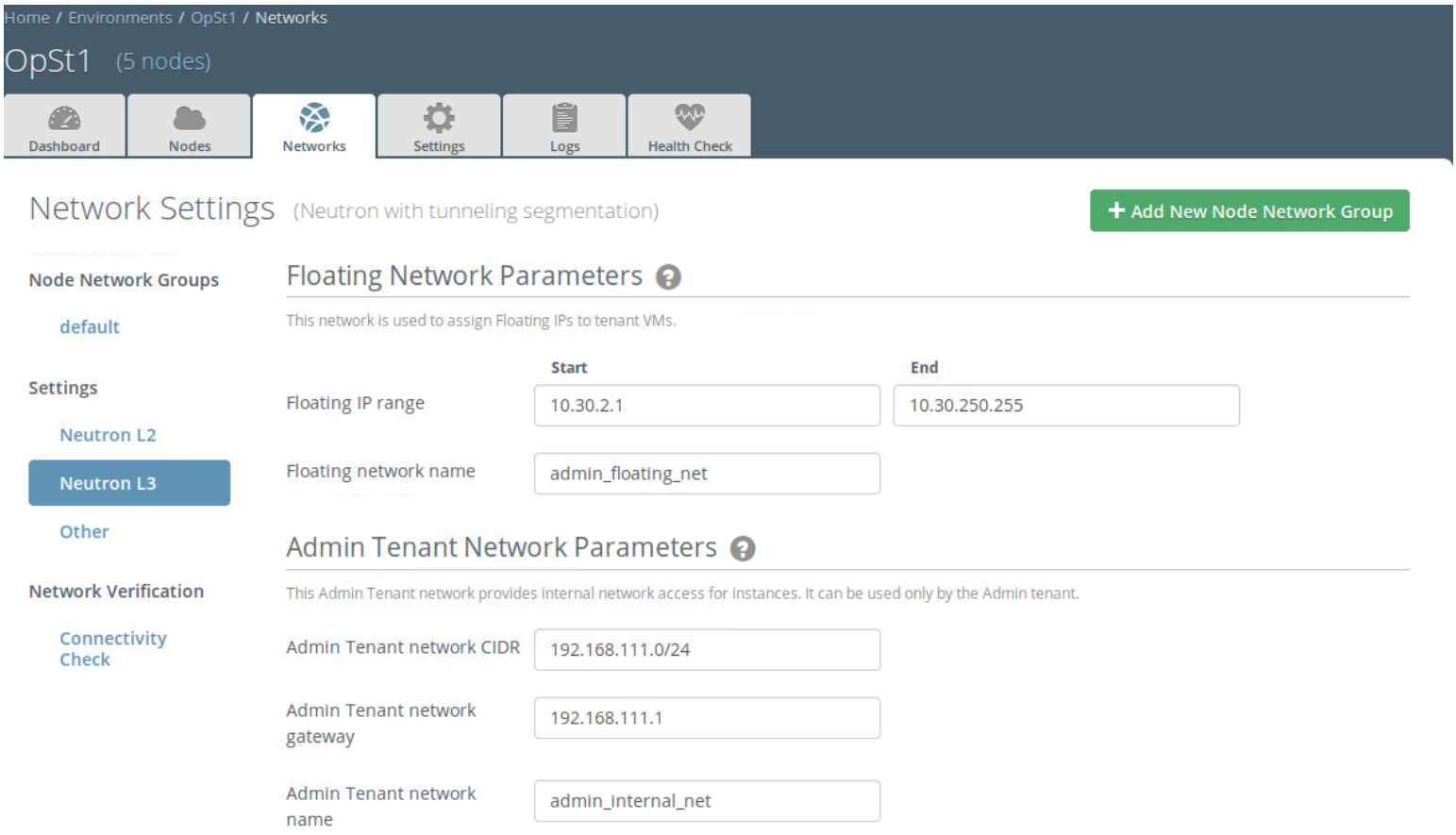
Proper Fuel settings



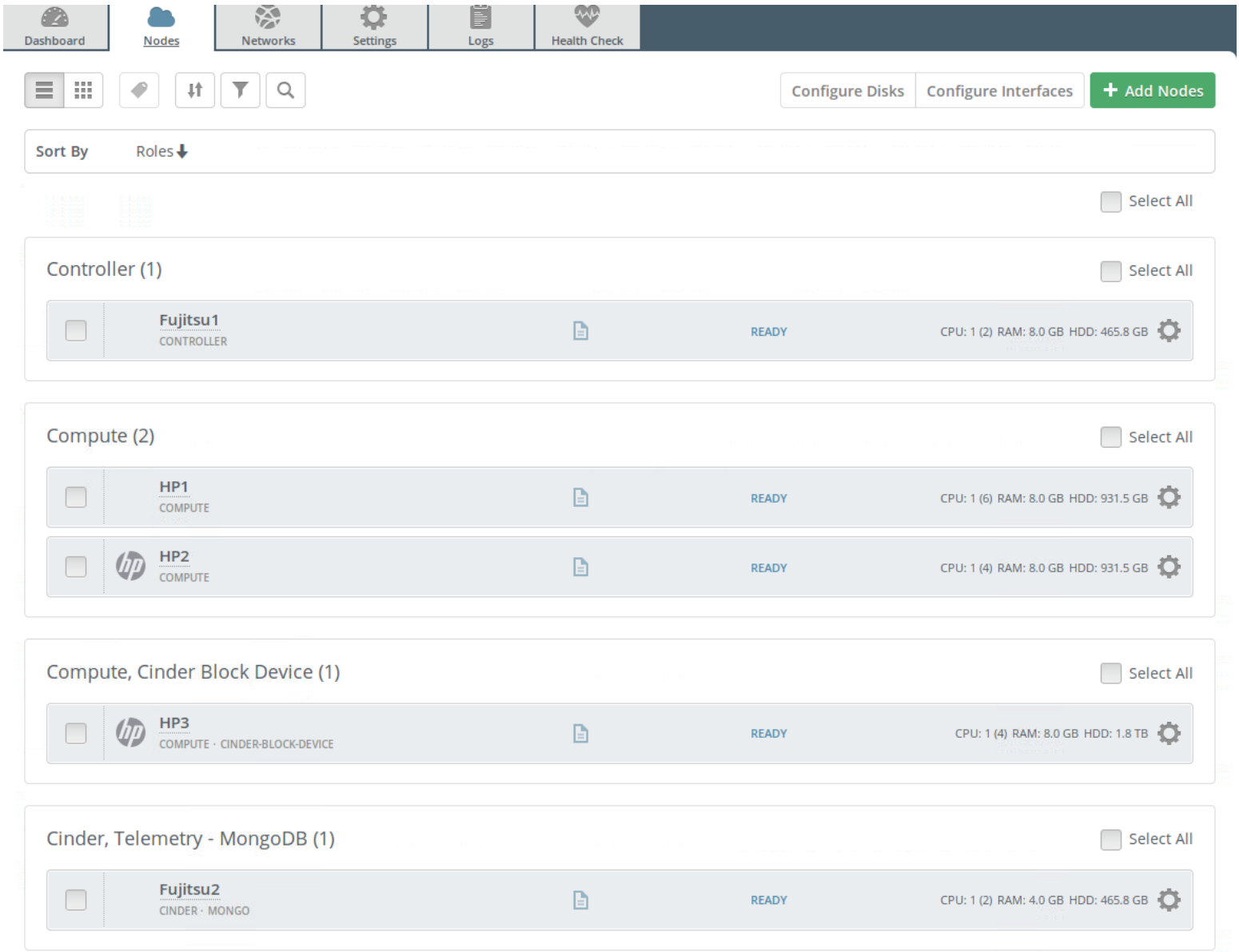
Proper Fuel settings



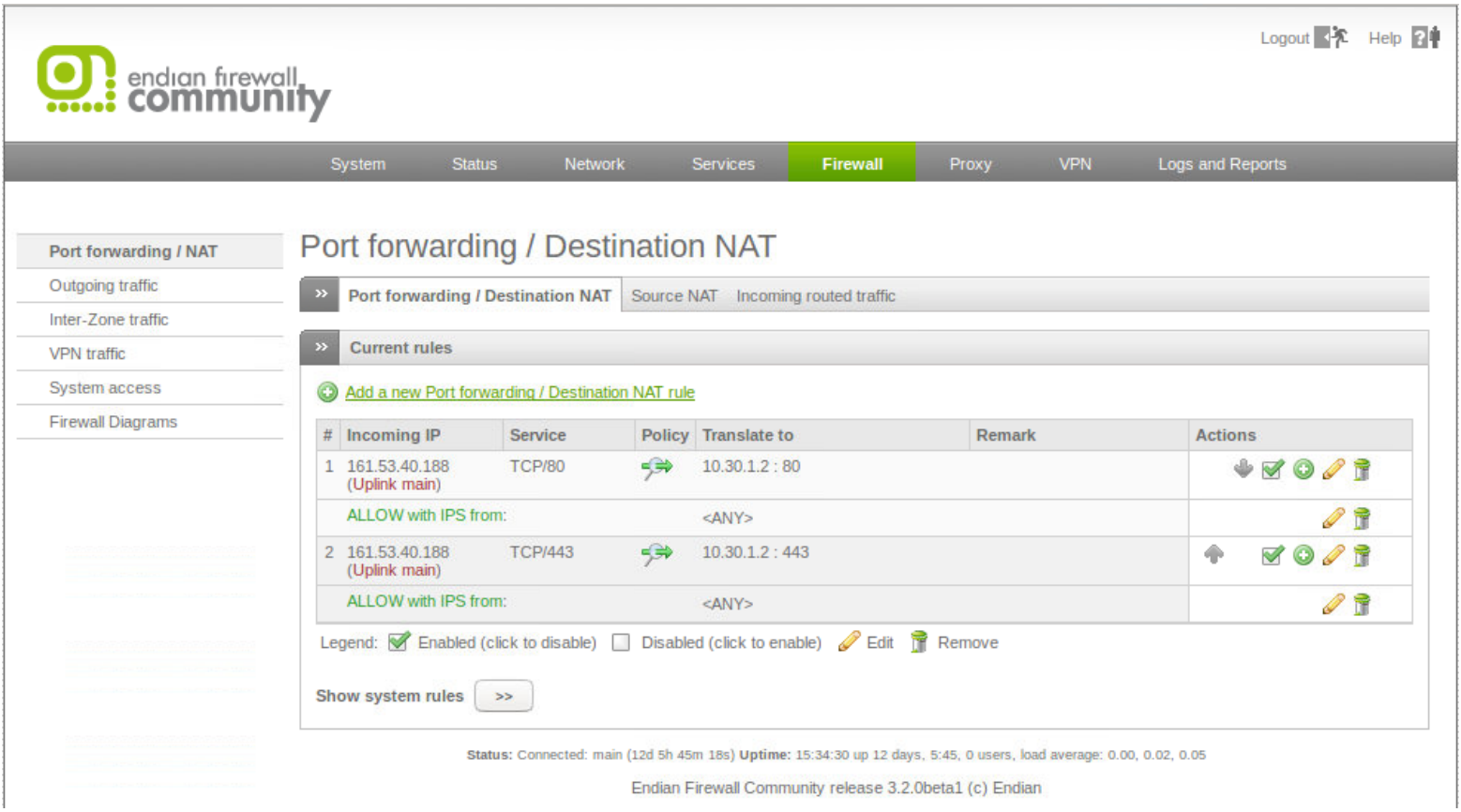
Proper Fuel settings



Proper Fuel settings



Connecting a public IP to a local IP



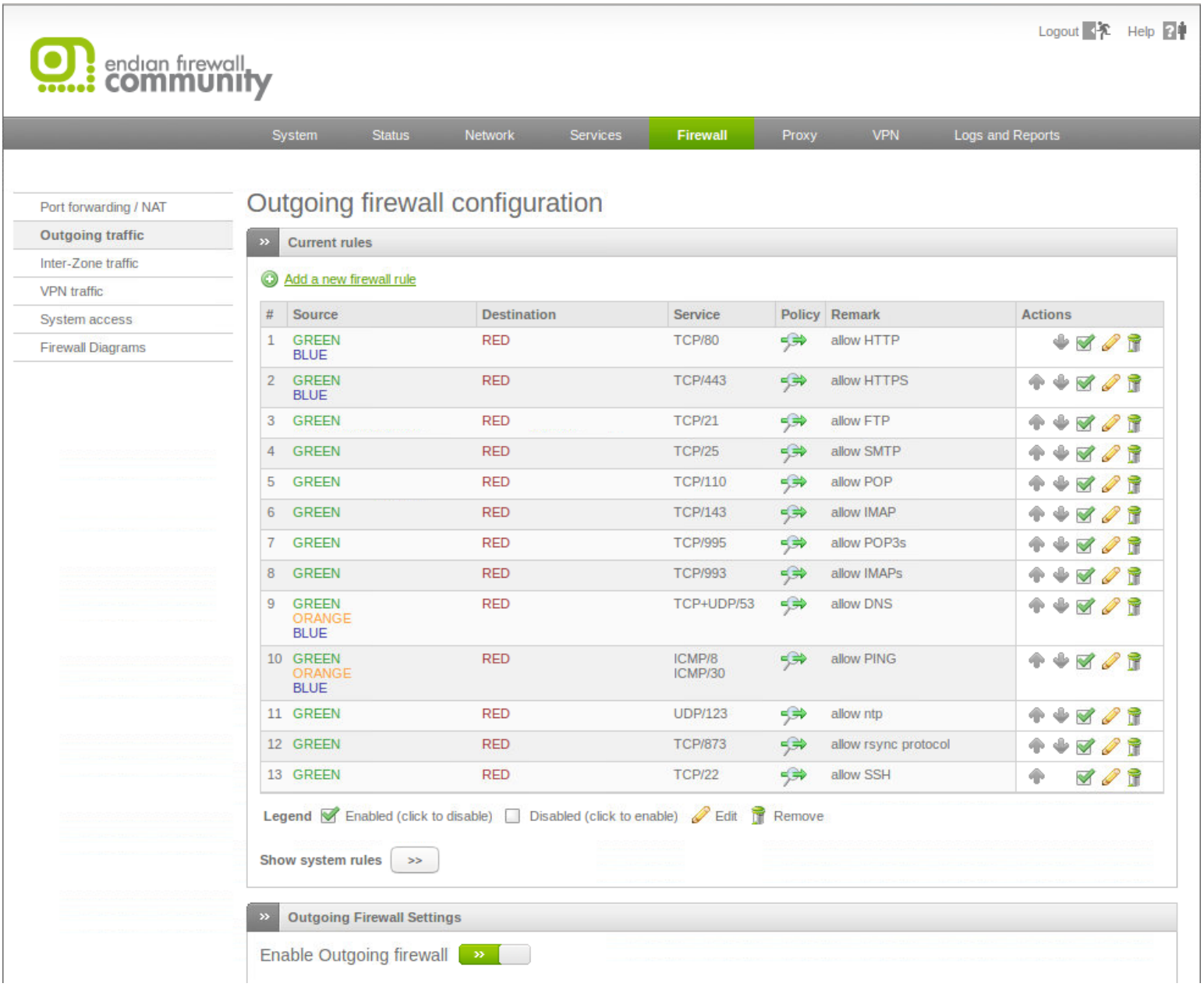
The firewall/gateway can be configured to forward trafic over specific ports To specific ip/port destinations that are within the OpenStack Net range.

A new forwarding rule is added with the “Add a new Port forwarding /Destination NAT rule” link

The available public IP addresses are 161.53.40.188 and 161.53.40.189

The picture above contains two rules that forward HTTP and HTTPS traffic from the 161.53.49.188 public ip to the 10.30.1.2 local ip that is the Horizon web GUI. Those rules grant as access to the web GUI from any device connected to the internet.

Adding firewall rules



To allow new types of trafic between the Public net and the OpenStack Net One must add a new firewall rule to the Firewall over the interface shown above. This is needed if an application is using ports not currently allowed.

Note that if one wishes to forward a port as described on the previous page, that port needs to be allowed by a firewall rule.