

# OpnSense Notes

Here's a collection of notes and details for the house router setup.

## Build

Software: OpnSense 24.7.4\_1

Hardware: Gigabyte H97N-Wifi motherboard

Processor: Intel i5-4460

## Setup

Base setup was done following this article: <https://homenetworkguy.com/how-to/set-up-a-fully-functioning-home-network-using-opnsense/#unbound-dns-general>

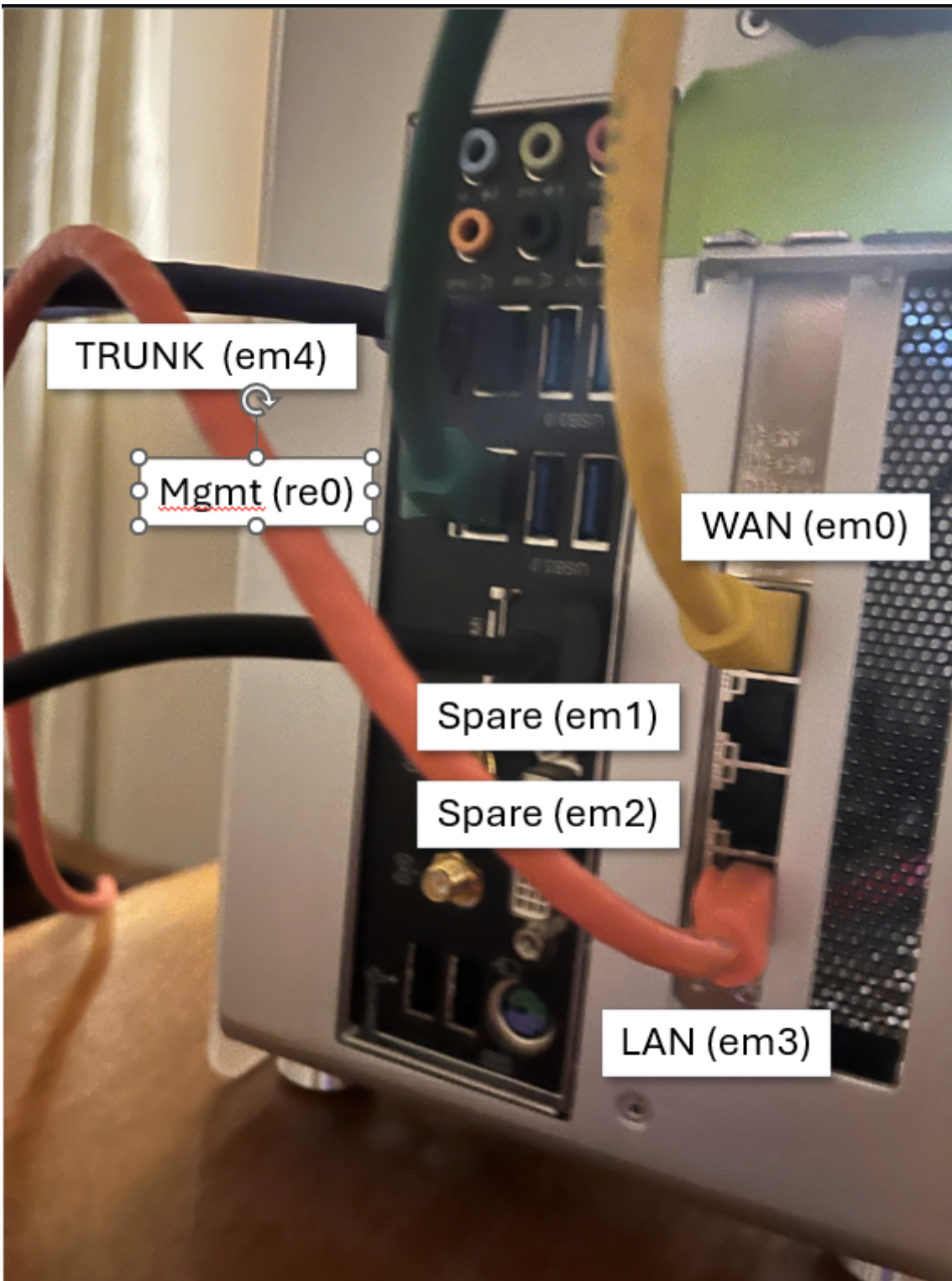
Dynamic DNS Setup is here:

<https://oga.atlassian.net/wiki/spaces/~311198967/pages/234848257/OpnSense+DynDNS+Setup>

It's a good guide on how to add a new VLAN and associated interface.

## Network Ports

Here's a picture of the backside of the router, showing ports and connections:



Here's the list of used connections:

Logical	Service	Connection
WAN (em0)	Incoming internet connection.	Connects directly to fiber transceiver
Spare (em1)	Spare port	NA

Spare (em2)	Spare port	NA
LAN (em3)	Untagged LAN traffic.	Connects to switch, SW20, port 8.
Trunk (em4)	VLAN tagged traffic from main switch.	Connects to switch, SW20, port 1.
Mgmt (re0)	Management access from VLAN60.	Connects to switch, SW20, port 16.

## Web UI Access

The UI is available on the LAN interface at: <https://192.168.1.1>

The LAN interface is LAN3 (em3), which is the bottom port on the 4-port NIC.

## Locked out of Web GUI

If you ever get locked out of the web interface, open an ssh session to the router, and issue this:

```
configctl webgui restart renew
```

Taken from here: <https://docs.opnsense.org/troubleshooting/webgui.html>

## Speed Test

Installed speed test plugin from here: <https://github.com/mimugmail/opn-repo>

This requires opening an SSH session to the router, and running this line (taken from the GitHub page):

```
fetch -o /usr/local/etc/pkg/repos/mimugmail.conf https://www.routerperformance.net/mimugmail.conf  
pkg update
```

Once installed, open OpnSense and navigate to available plugins.

Locate the added plugin called: os-speedtest-community, and install it.

Once installed, you can open it from here:

Not secure https://192.168.1.1/ui/speedtest/#

OPNsense

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### Reporting: Speedtest

#### Statistics

Speedtest probes:	undefined
Average Download speed:	0 Mbps (min: 0 Mbps, max: 0 Mbps)
Average Upload speed:	0 Mbps (min: 0 Mbps, max: 0 Mbps)
Average Latency:	0.00 ms (min: 0.00 ms, max: 0.00 ms)

#### Run speedtest

(39263) FiberLync, Orange, VA run speedtest

Download speed	866.46 Mbps
Upload speed	618.76 Mbps
Latency (ping)	11 ms
Speedtest server	id: 39263 FiberLync, Orange, VA United States
Client IP:	136.56.10.22
Result id	<a href="http://www.speedtest.net/result/17748311270">http://www.speedtest.net/result/17748311270</a>

speedtest-cli 2.1.3 Python 3.11.12 (main, May 6 2025, 23:03:49) [Clang 18.1.6 (https://github.com/lvm/lvm-project.git llvmorg-18.1.6-0-g1118c2)]

schedule in cron switch to http speedtest switch to socket speedtest

show log

Export log Clear log

Timestamp (GMT)	Server id	Server name
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