

Initial Configurations

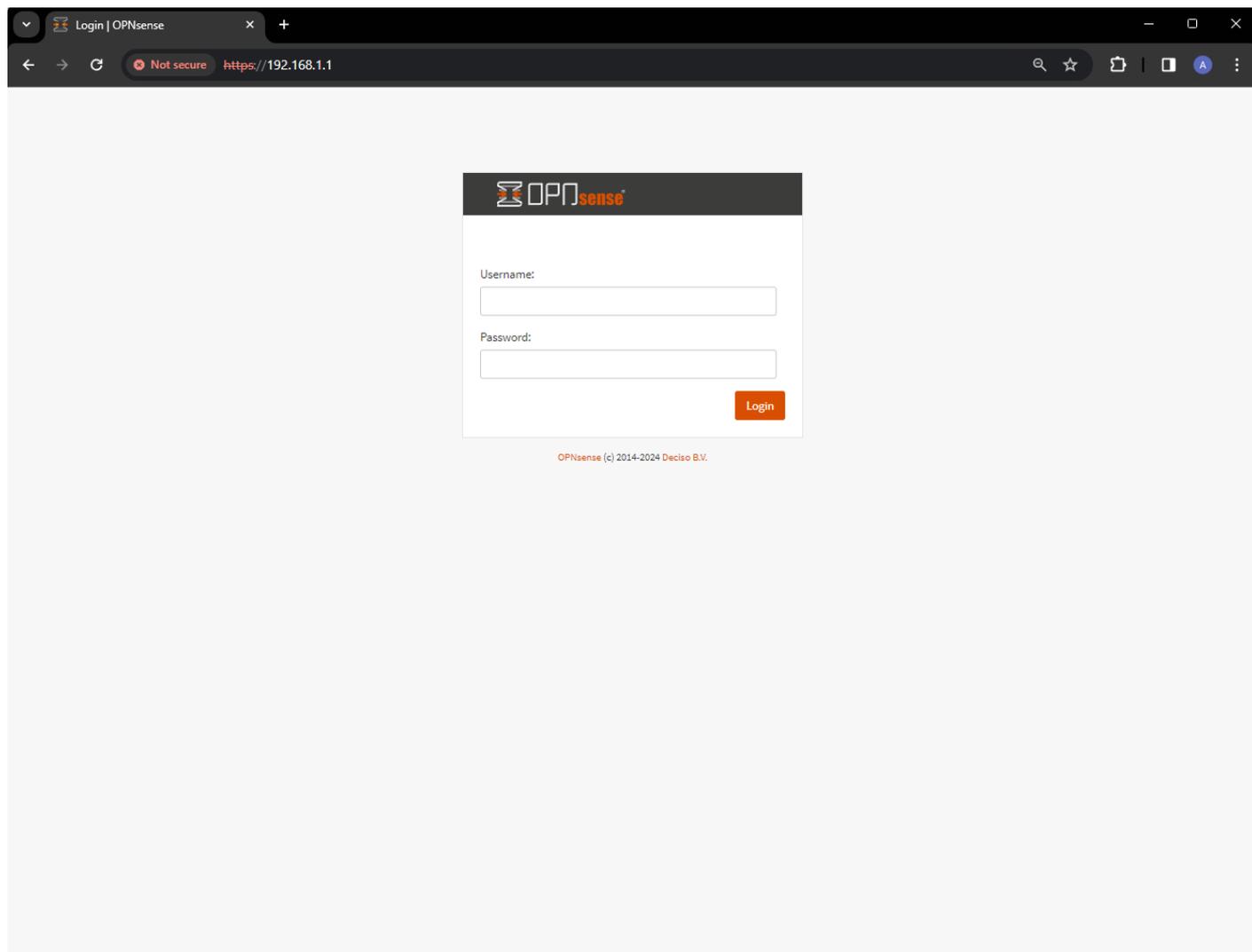
- [Web GUI](#)
- [Interfaces](#)

Web GUI

After installation, a message will appear stating the Web GUI is available at XXXX.XXXX.XXXX.XXXX

My web GUI is @ 192.168.1.1

Login Page



Login as root, with the password you set up during installation. Once you go through the initial set up wizard, your dashboard will show up. You can configure widgets on your dashboard however you'd like to view your most important network statistics!

I currently have both OPNsense's IDS/IPS running alongside ZenArmor's NGFW which shows me utilizing 72% of my 8gb ram. Without these 2 services, your RAM usage, if 8 GB, should be less than 30%

Telemetry status

proofpoint. ☑

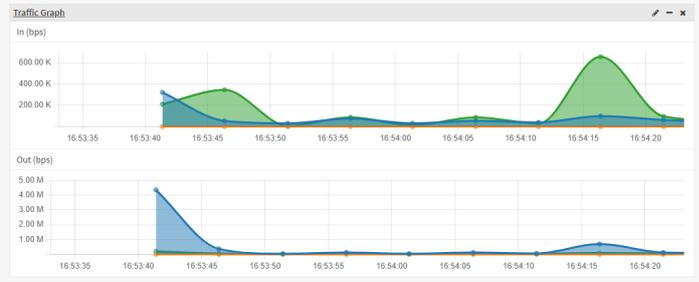
Status	ACTIVE
Last event	Sun Mar 17 01:05:07 -0500 2024
Last rule download	Sun Mar 17 01:07:18 -0500 2024
Last heartbeat	Tue Mar 19 16:25:44 -0500 2024

For more information, please visit docs.opnsense.org

System Information

Name	OPNsense.localdomain
Versions	OPNsense 24.1.3_1-amd64 FreeBSD 13.2-RELEASE-p10 OpenSSL 3.0.13
Updates	Click to check for updates.
CPU type	Intel(R) Core(TM) i5-7600 CPU @ 3.50GHz (4 cores, 4 threads)
CPU usage	
Load average	0.34, 0.43, 0.41
Uptime	5 days 22:54:00
Current date/time	Tue Mar 19 16:54:25 CDT 2024
Last config change	Mon Mar 18 0:40:56 CDT 2024

CPU usage	1%
State table size	0% (852/801000)
MBUF usage	4% (20158/496494)
Memory usage	72.1% (1770/6018 MB)
SWAP usage	21% (1768/8191 MB)
Disk usage	1% / [ufs] (5.5G/454G)



Zenarmor

Zenarmor Packet Engine:	Running	MongoDB:	Running				
Top Blocks:	Ads category access, Malware/Virus access, Advertisements site access, DNS over HTTPS access, Ad Tracker category access						
Top Apps:	Domain Name Resolution, NordVPN, Amazon Ad Service, Quic UDP Connection, Google Services						
Top Web Categories:	Infrastructure Services, Technology and Computer, Games, Software Downloads, OTHERS						
Top Auth Users:	BLANK						
Top Local Hosts:	192.168.1.198, 192.168.1.195, 192.168.1.100, 192.168.1.197, 10.0.0.10						
Active Users:	0	Unique Local Devices:	18	Unique Local Ip Address:	4	Unique Remote Ip Address:	1056

Tue Mar 19 2024 16:53:41 GMT-0500 (Central Daylight Time)

Interfaces

LAN	↑ 1000baseT <-full-duplex>	192.168.1.1
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Interfaces

OPNsense allows you to set up Interfaces, which can be used to set up separate networks. I set up 2 interfaces to allow my homelab to operate on 1, and all other devices (including my roommates) to operate on the other. The Interface assignments are as follows:

Interface	Identifier 	Device
[LAN]	lan	 igb0 (a0:36:9f:2f:85:b0) 
[WAN]	wan	 igb2 (a0:36:9f:2f:85:b2) 
[homeLAB]	opt1	 igb1 (a0:36:9f:2f:85:b1) 
		
 Assign a new interface		
Device	 igb3 (a0:36:9f:2f:85:b3) 	
Description	<input type="text"/>	
		

Here, you can see the devices (ports) and the interfaces you've assigned.

- igb0 = Port 1 of my NIC, which is connected directly to my Eero Mesh Router
- igb1 = Port 2 of my NIC, which connected to an 8-port gigabit switch, for my homelab
- igb2 = Port 3 of my NIC, which is my WAN connection from my modem to my OPNsense machine
- igb3 = Port 4 of my NIC, which is currently open and not connected to anything.

You can reassign these ports in the Interfaces --> Assignments tab, should you happen to change anything in the future.

Interface Configurations

After hardwire connections and assigning interfaces to each port, you'll have to enable the interface. Navigate in the sidebar to Interfaces ---> OPT1. Enable the interface and give it a name in the description section.

Basic configuration

i Enable

Enable Interface

i Lock

Prevent interface removal

i Identifier

opt1

i Device

igb1

i Description

homeLAB

Next, assign your Interface a Static IPv4 address, and select "24" to give that IP the full range of associates IPs. I've given my homeLAB interface a static IP of 192.168.2.1/24

Static IPv4 configuration

i IPv4 address

192.168.2.1

24 ▲

i IPv4 Upstream Gateway

Auto-detect ▼

After saving changes, you'll need to first apply the changes and then adjust your DHCP server range. To do this, navigate to Services --> ISC DHCPv4 --> homeLAB (or whatever you name your new LAN). Enable DHCP server on the interface, and then designate a range of addresses in between the available range.

i Enable

Enable DHCP server on the homeLAB interface

i Deny unknown clients

i Ignore Client UIDs

i Subnet

192.168.2.0

i Subnet mask

255.255.255.0

i Available range

192.168.2.1 - 192.168.2.254

i Range

from

192.168.2.10

to

192.168.2.240

Save your changes and apply if needed. To confirm you've configured everything properly, navigate to Services --> ISC DHCPv4 --> Leases and filter for your interface, in my case, homeLAB. Here, you'll find active devices on your interface. In my case, I have my homeLAB interface going through a NETGEAR switch which is connected to my Dell PowerEdge server:

Services: ISC DHCPv4: Leases

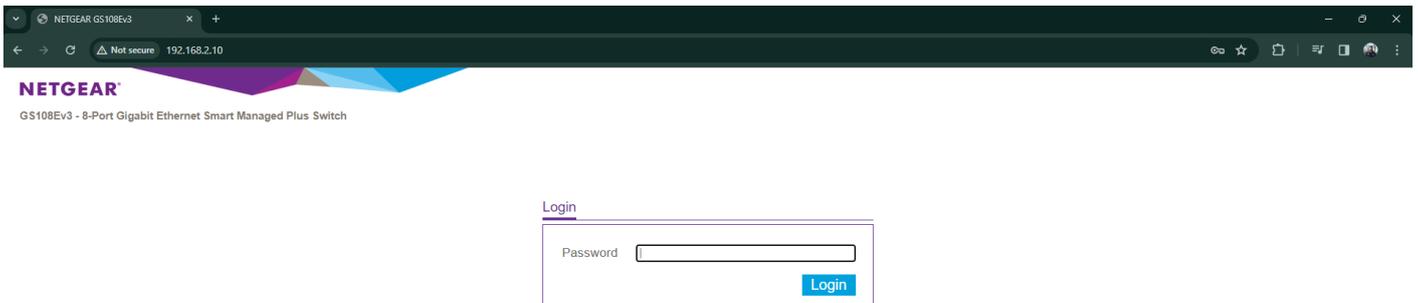
Show inactive

Search homeLAB All

Interface	IP Address	MAC Address	Hostname	Description	Start	End	Status	State	Lease Type
homeLAB	192.168.2.10	e0:46:ee:20:e5:93 NETGEAR			2024/03/19 22:48:43	2024/03/20 00:48:43	✔	active	dynamic
homeLAB	192.168.2.11	c8:1f:66:ea:96:96 Dell Inc.			2024/03/19 23:15:54	2024/03/20 01:15:54	✘	active	dynamic

Showing 1 to 2 of 2 entries

To further test it, I'll check if I can access my switch's Web GUI:



You can view all of Interface information in the Overview tab under the relevant Interfaces Section. With everything configured, it should look somewhat similar to what's below:

Status	Interface	Device	VLAN	Link Type	IPv4	IPv6	Gateway	Routes	Commands
✔	LAN (lan)	igb0		static	192.168.1.1/24	fe80::a236:9fff:fe2f:85b0/64		192.168.1.0/24 fe80::%igb0/64	⚙️ 📄 🔍
✔	homeLAB (opt1)	igb1		static	192.168.2.1/24			192.168.2.0/24	⚙️ 📄 🔍
✔	WAN (wan)	igb2		dhcp		fe80::a236:9fff:fe2f:85b2/64		default [REDACTED] Expand	🔄 ⚙️ 📄 🔍
✘	Unassigned Interface	igb3							🔍
✔	Loopback (lo0)	lo0		static	127.0.0.1/8	::1/128 fe80::1/64		[REDACTED] 127.0.0.1 Expand	📄 🔍
✘	Unassigned Interface	enc0							🔍
✘	Unassigned Interface	plog0							🔍