

Initial Configurations

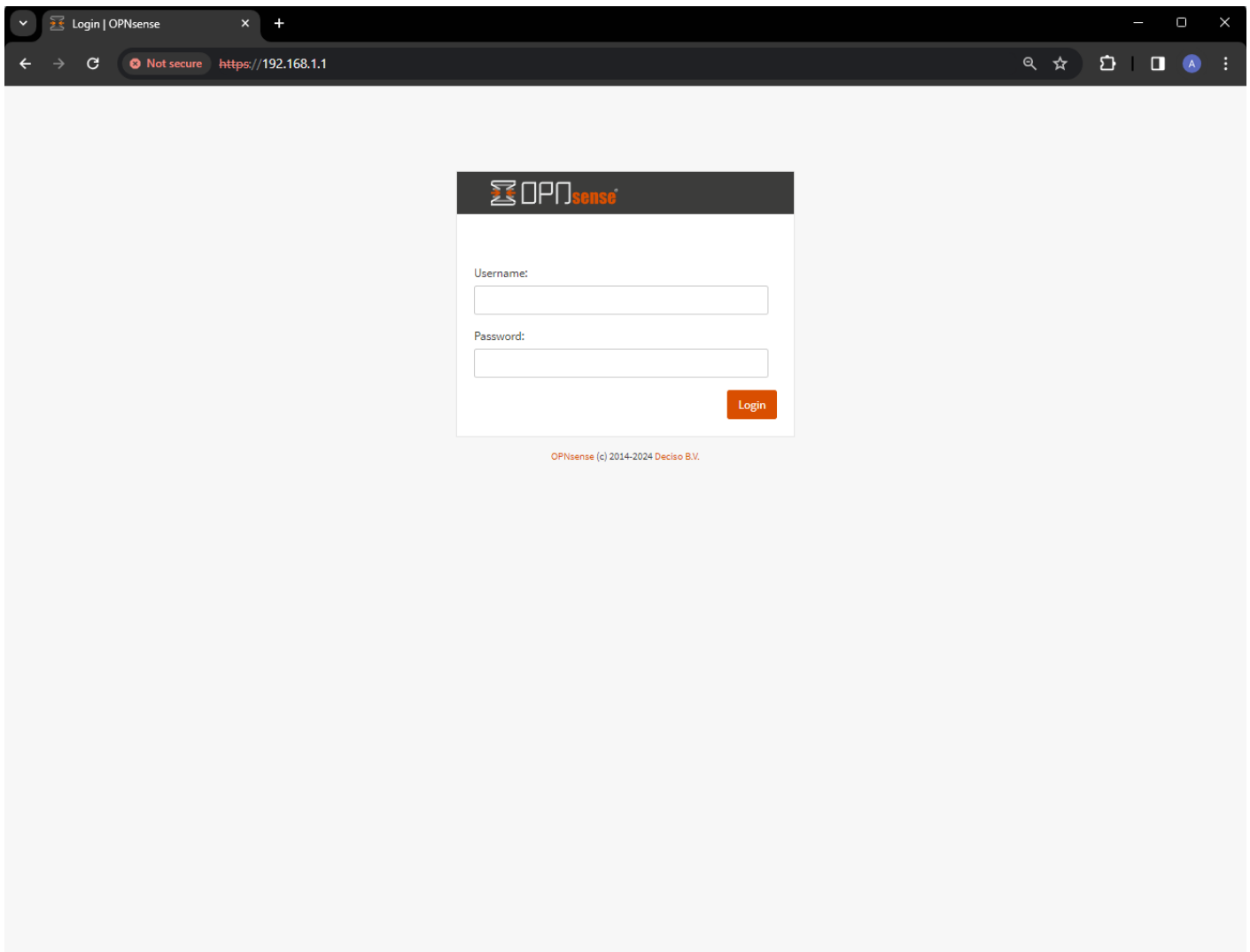
- [Web GUI](#)
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Web GUI

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

100

0

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 04:05:56 CDT 2024

CPU usage

1 %

State table size

0 % (852/801000)

MBUF usage

4 % (20158/496484)

Memory usage

32 % (11776/36136 KB)

SWAP usage

21 % (1768/8191 MB)

Disk usage

1 % / [vrb] (5.5G/454G)

Traffic Graph

In (bps)

Out (bps)

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


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) ▼

Save

 Assign a new interface

Device	 igb3 (a0:36:9f:2f:85:b3) ▼
Description	<input type="text"/>

Add

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	
Enable	<input checked="" type="checkbox"/> Enable Interface
Lock	<input type="checkbox"/> Prevent interface removal
Identifier	opt1
Device	igb1
Description	<input type="text" value="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	
IPv4 address	<input type="text" value="192.168.2.1"/> <input type="text" value="24"/>
IPv4 Upstream Gateway	<input type="text" value="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.

Enable	<input checked="" type="checkbox"/> Enable DHCP server on the homeLAB interface	
Deny unknown clients	<input type="checkbox"/>	
Ignore Client UIDs	<input type="checkbox"/>	
Subnet	192.168.2.0	
Subnet mask	255.255.255.0	
Available range	192.168.2.1 - 192.168.2.254	
Range	from	to
	<input type="text" value="192.168.2.10"/>	<input type="text" value="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



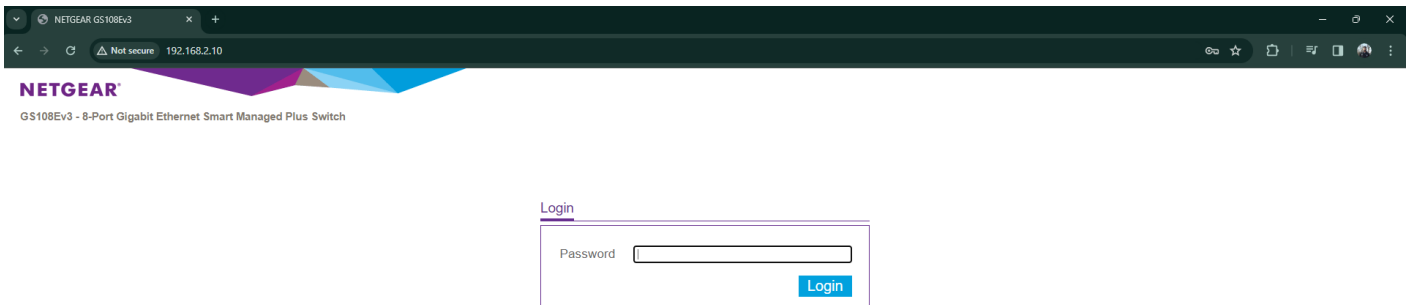
☐ Show inactive

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	<input type="button" value="+"/> <input type="button" value="trash"/>
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	<input type="button" value="+"/> <input type="button" value="trash"/>

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 whats 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	<input type="button" value="gear"/> <input type="button" value="info"/> <input type="button" value="search"/>
	homeLAB (opt1)	igb1		static	192.168.2.1/24			192.168.2.0/24	<input type="button" value="gear"/> <input type="button" value="info"/> <input type="button" value="search"/>
	WAN (wan)	igb2		dhcp		fe80::a236:9fff:fe2f:85b2/64		default <input type="button" value="Expand"/>	<input type="button" value="refresh"/> <input type="button" value="gear"/> <input type="button" value="info"/> <input type="button" value="search"/>
	Unassigned Interface	igb3							<input type="button" value="search"/>
	Loopback (lo0)	lo0		static	127.0.0.1/8	::1/128 fe80::1/64		<input type="button" value="Expand"/> 127.0.0.1 <input type="button" value="Expand"/>	<input type="button" value="info"/> <input type="button" value="search"/>
	Unassigned Interface	enc0							<input type="button" value="search"/>
	Unassigned Interface	pflg0							<input type="button" value="search"/>