







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

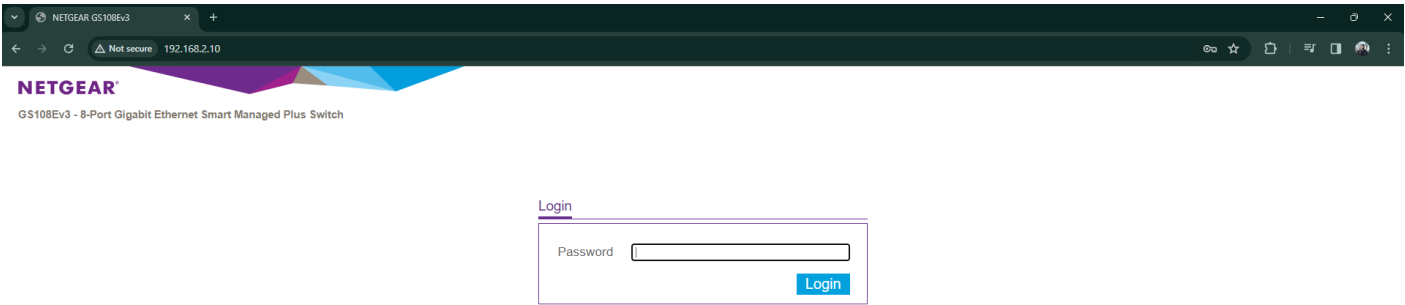
Search

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 | <div></div> | active | dynamic | <div></div> <div></div> |
| 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 | <div></div> | active | dynamic | <div></div> <div></div> |

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 |
|-------------|----------------------|--------|------|-----------|----------------|------------------------------|---------|---|-------------------------------------|
| <div></div> | LAN (lan) | igb0 | | static | 192.168.1.1/24 | fe80::a236:9fff:fe2f:85b0/64 | | 192.168.1.0/24 fe80::%igb0/64 | <div></div> <div></div> <div></div> |
| <div></div> | homeLAB (opt1) | igb1 | | static | 192.168.2.1/24 | | | 192.168.2.0/24 | <div></div> <div></div> <div></div> |
| <div></div> | WAN (wan) | igb2 | | dhcp | | fe80::a236:9fff:fe2f:85b2/64 | | default <div>Expand</div> | <div></div> <div></div> <div></div> |
| <div></div> | Unassigned Interface | igb3 | | | | | | | <div></div> |
| <div></div> | Loopback (lo0) | lo0 | | static | 127.0.0.1/8 | ::1/128 fe80::1/64 | | <div></div> 127.0.0.1 <div>Expand</div> | <div></div> <div></div> |
| <div></div> | Unassigned Interface | enc0 | | | | | | | <div></div> |
| <div></div> | Unassigned Interface | pflg0 | | | | | | | <div></div> |

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