

Q.no-1

The screenshot shows the pfSense web interface under the 'Interfaces / Interface Assignments' tab. A green message bar at the top states 'Interface has been added.' Below this, a table lists five interfaces (WAN, LAN, OPT1, OPT2, OPT3) and their assigned network ports. The WAN port is le0, LAN is le1, and OPT1, OPT2, OPT3 are VLANs on le1. Each row has a 'Delete' button. At the bottom left is a blue 'Save' button.

Interface	Network port
WAN	le0 (08:00:27:4f:0e:16)
LAN	le1 (08:00:27:33:7c:6b)
OPT1	VLAN 3 on le0 - wan (wan-uplink)
OPT2	VLAN 2 on le1 - lan (LAN-CORE)
OPT3	VLAN 1 on le1 - lan (LAB-network)

The screenshot shows the configuration page for the OPT1 interface. The 'IPv4 Configuration Type' is set to 'Static IPv4'. The 'IPv4 Address' field contains '192.168.10.2'. The 'IPv4 Upstream gateway' field is set to 'None' and has a green 'Add a new gateway' button next to it. A note below explains that if this is an Internet connection, a gateway should be selected or added.

IPv4 Configuration Type: Static IPv4

IPv6 Configuration Type: None

MAC Address: XXXX:XXXX:XXXX:XXXX
The MAC address of a VLAN interface must be set on its parent interface

MTU: (If this field is blank, the adapter's default MTU will be used. This is typically 1500 bytes but can vary in some circumstances.)

MSS: (If a value is entered in this field, then MSS clamping for TCP connections to the value entered above minus 40 for IPv4 (TCP/IPv4 header size) and minus 60 for IPv6 (TCP/IPv6 header size) will be in effect.)

Speed and Duplex: Default (no preference, typically autoselect)

Static IPv4 Configuration:

IPv4 Address:	192.168.10.2
IPv4 Upstream gateway:	None

If this interface is an Internet connection, select an existing Gateway from the list or add a new one using the "Add" button.
On local area network interfaces the upstream gateway should be "none".
Selecting an upstream gateway causes the firewall to treat this interface as a WAN type interface.

pfSense.home.arpa - Interfaces | VLAN Configuration | pfSense

Not secure 192.168.56.105/interfaces.php?if=opt1

Description	OPT1	Enter a description (name) for the interface here.
IPv4 Configuration Type	Static IPv4	
IPv6 Configuration Type	None	
MAC Address	XX:XX:XX:XXXX:XX	The MAC address of a VLAN interface must be set on its parent interface
MTU	400	If this field is blank, the adapter's default MTU will be used. This is typically 1500 bytes but can vary in some circumstances.
MSS		If a value is entered in this field, then MSS clamping for TCP connections to the value entered above minus 40 for IPv4 (TCP/IP header size) and minus 60 for IPv6 (TCP/IP header size) will be in effect.
Speed and Duplex	Default (no preference, typically autoselect)	Explicitly set speed and duplex mode for this interface. WARNING: MUST be set to autoselect (automatically negotiate speed) unless the port this interface connects to has its speed and duplex forced.
Static IPv4 Configuration		
IPv4 Address	192.168.10.2	/ 24
IPv4 Upstream gateway	None	+ Add a new gateway

pfSense.home.arpa - Status | pfSense

Not secure 192.168.56.105

Hardware crypto	Inactive
Kernel PTI	Disabled
MDS Mitigation	Inactive
Uptime	00 Hour 01 Minute 34 Seconds
Current date/time	Sat Dec 13 4:45:32 UTC 2025
DNS server(s)	<ul style="list-style-type: none"> 127.0.0.1 ::1 10.23.97.160
Last config change	Sat Dec 13 4:41:45 UTC 2025
State table size	0% (151/199000) Show states
MBUF Usage	0% (1016/1000000)
Load average	1.29, 0.43, 0.16
CPU usage	55%
Memory usage	16% of 1992 MiB
SWAP usage	0% of 1024 MiB

If you decide to purchase a Netgate Global TAC Support subscription, you **MUST** have your **Netgate Device ID (NDI)** from your firewall in order to validate support for this unit. Write down your NDI and store it in a safe place. You can purchase TAC supports [here](#).

Interfaces			
WAN	autoselect	10.0.2.15 fd17:625cf037:2:a00:27ff:fe4fe:e16	edit
LAN	autoselect	192.168.56.105	edit
OPT1	autoselect	192.168.10.2	edit

Trafic checking with MUT 1450

```
64 bytes from 8.8.8.8: icmp_seq=388 ttl=255 time=6415.646 ms
64 bytes from 8.8.8.8: icmp_seq=387 ttl=255 time=6415.808 ms
64 bytes from 8.8.8.8: icmp_seq=386 ttl=255 time=6415.996 ms
64 bytes from 8.8.8.8: icmp_seq=385 ttl=255 time=6416.131 ms
64 bytes from 8.8.8.8: icmp_seq=391 ttl=255 time=6414.592 ms
64 bytes from 8.8.8.8: icmp_seq=390 ttl=255 time=6415.095 ms
64 bytes from 8.8.8.8: icmp_seq=389 ttl=255 time=6415.559 ms
64 bytes from 8.8.8.8: icmp_seq=392 ttl=255 time=6414.688 ms
64 bytes from 8.8.8.8: icmp_seq=393 ttl=255 time=6519.334 ms
64 bytes from 8.8.8.8: icmp_seq=397 ttl=255 time=6521.701 ms
64 bytes from 8.8.8.8: icmp_seq=396 ttl=255 time=6522.283 ms
64 bytes from 8.8.8.8: icmp_seq=395 ttl=255 time=6522.432 ms
64 bytes from 8.8.8.8: icmp_seq=394 ttl=255 time=6522.564 ms
64 bytes from 8.8.8.8: icmp_seq=398 ttl=255 time=6521.881 ms
64 bytes from 8.8.8.8: icmp_seq=400 ttl=255 time=6521.909 ms
64 bytes from 8.8.8.8: icmp_seq=399 ttl=255 time=6522.082 ms
64 bytes from 8.8.8.8: icmp_seq=401 ttl=255 time=6522.018 ms
64 bytes from 8.8.8.8: icmp_seq=403 ttl=255 time=6521.950 ms
64 bytes from 8.8.8.8: icmp_seq=402 ttl=255 time=6522.119 ms
^C64 bytes from 8.8.8.8: icmp_seq=404 ttl=255 time=6649.145 ms

--- 8.8.8.8 ping statistics ---
1456 packets transmitted, 405 packets received, 72.2% packet loss
round-trip min/avg/max/stddev = 205.894/3684.569/6649.145/1845.070 ms
[2.8.1-RELEASE][admin@pfSense.home.arpal/root: ]
```

```
64 bytes from 8.8.8.8: icmp_seq=388 ttl=255 time=6415.646 ms
64 bytes from 8.8.8.8: icmp_seq=387 ttl=255 time=6415.808 ms
64 bytes from 8.8.8.8: icmp_seq=386 ttl=255 time=6415.996 ms
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64 bytes from 8.8.8.8: icmp_seq=402 ttl=255 time=6522.119 ms
^C64 bytes from 8.8.8.8: icmp_seq=404 ttl=255 time=6649.145 ms

--- 8.8.8.8 ping statistics ---
1456 packets transmitted, 405 packets received, 72.2% packet loss
round-trip min/avg/max/stddev = 205.894/3684.569/6649.145/1845.070 ms
[2.8.1-RELEASE][admin@pfSense.home.arpal/root: ]
```

QNO.2

The screenshot shows the pfSense Firewall Rules configuration page. A new rule is being created with the following settings:

- Disabled:** Disable this rule
- Interface:** LAN
- Address Family:** IPv4
- Protocol:** TCP
- Source:** Source: 192.168.10.50 (Invert match)
- Destination:** Destination: Any (Invert match)

The Source Port Range is set to "any".

The screenshot shows the pfSense Diagnostic Ping configuration and results pages.

Ping Configuration:

- Hostname:** 8.8.8.8
- IP Protocol:** IPv4
- Source address:** LAN
- Maximum number of pings:** 3
- Seconds between pings:** 1

Ping Results:

```
PING 8.8.8.8 (8.8.8.8) from 192.168.56.105: 56 data bytes
64 bytes from 8.8.8.8: icmp_seq=0 ttl=255 time=54.153 ms
64 bytes from 8.8.8.8: icmp_seq=1 ttl=255 time=46.645 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=255 time=57.445 ms

--- 8.8.8.8 ping statistics ---
3 packets transmitted, 3 packets received, 0.0% packet loss
round-trip min/avg/max/stddev = 46.645/52.748/57.445/4.520 ms
```