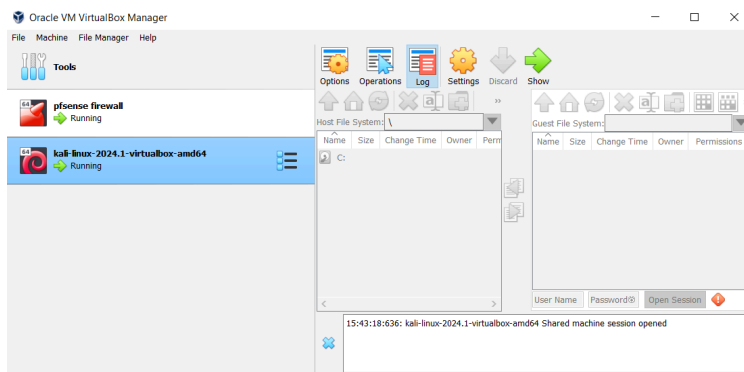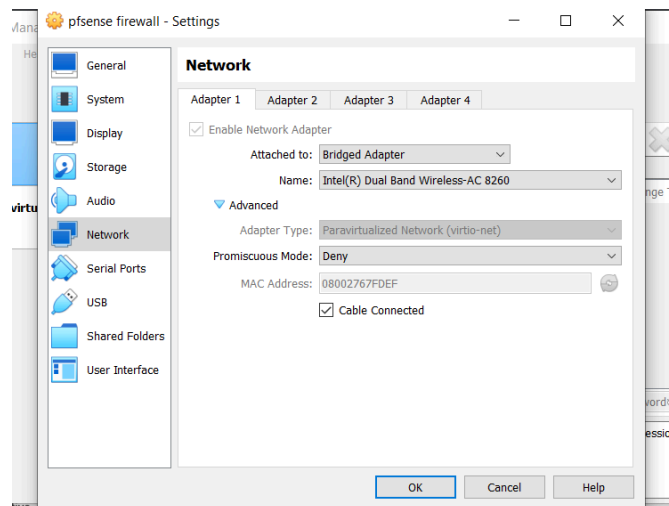# 1. Install pfSense: OK, it's done

- Follow the steps outlined in the previous response "Installing pfSense on VirtualBox with DMZ Setup (Markdown Format)" to install pfSense on a VirtualBox VM.
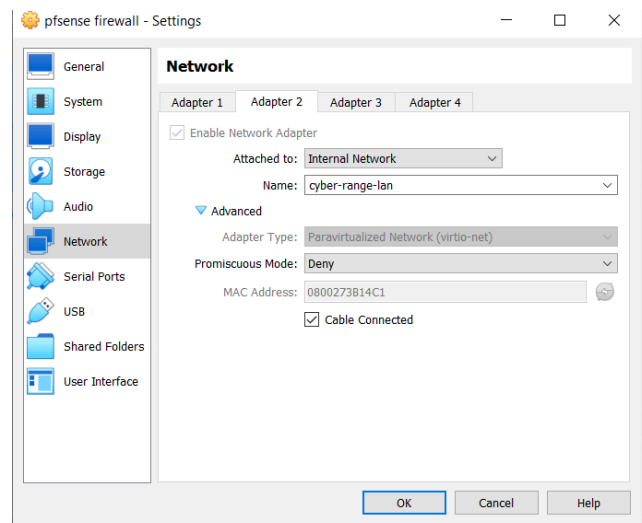

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- During installation, select the following interface assignments:
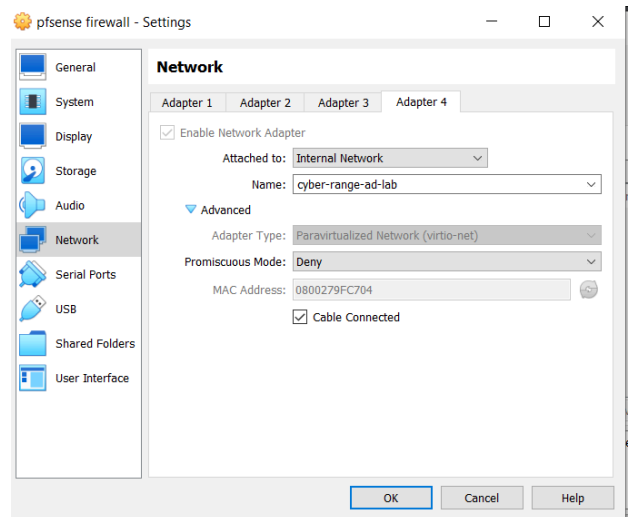 - WAN (red): Bridged adapter connected to your internet modem.

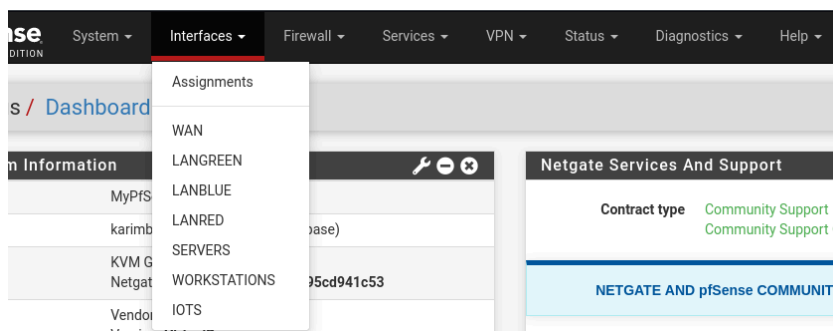 - LAN (green): Internal network adapter (created within VirtualBox).
  -

  -

○ DMZ (red): Separate internal network adapter (created within VirtualBox)

2. Configure VLANs:

● In the pfSense web GUI, go to **Interfaces** > **Assignments**.

● Create two new VLAN interfaces:
  ○ **Guest (Blue):** Tag it with a unique VLAN ID .
  ○ **DMZ (Red):** Tag it with a different VLAN ID .

- Assign the Guest VLAN interface to the internal network adapter dedicated for guest devices.
- Assign the DMZ VLAN interface to the separate internal network adapter dedicated for the DMZ.

3. Configure Firewall Rules:

- Go to **Firewall** > **Rules**.

- Create the following rules:

  - **Deny all traffic:** Block all traffic between any interface by default.
  - **Allow specific traffic:** Create specific rules to allow:
    - LAN to Guest: Only necessary traffic (e.g., web browsing, limited internet access).
    - Guest to LAN: Only allow specific outbound traffic (e.g., DNS lookups).
    - LAN to DMZ (optional): Only necessary traffic for exposed services.
    - DMZ to WAN (optional): Only allowed outbound traffic for the exposed services.
    - WAN to any: Block all incoming traffic by default.

Firewall / Rules / LANGREEN

Floating   WAN   **LANGREEN**   LANBLUE   LANRED   SERVERS   WORKSTATIONS   IOTS

Rules (Drag to Change Order)

	States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
✓	1/2.13 MiB	*	*		*	LANGREEN Address	443 80	*		*	Anti-Lockout Rule	⚙
☐ ✗	0/0 B	IPv4+6 *	*		*	WAN subnets	*	*	none			⬇✏🗔⊘🗑✕
☐ ✓	14/235.23 MiB	IPv4 *	LANGREEN subnets	*	*		*	*	none		Default allow LAN to any rule	⬇✏🗔⊘🗑✕
☐ ✓	0/0 B	IPv6 *	LANGREEN subnets	*	*		*	*	none		Default allow LAN IPv6 to any rule	⬇✏🗔⊘🗑✕

⬆ Add ⬇ Add 🗑 Delete ⊘ Toggle 🗔 Copy 💾 Save ➕ Separator

Firewall / Rules / LANRED

Floating   WAN   LANGREEN   LANBLUE   **LANRED**   SERVERS   WORKSTATIONS   IOTS

Rules (Drag to Change Order)

	States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
☐ ✓	0/0 B	IPv4 *	LANRED subnets	*	LANRED address	*	*	none		Allow packets to default gateway	⬇✏🗔⊘🗑✕
☐ ✓	0/0 B	IPv4 *	LANRED subnets	*	kali	*	*	none		Allow packets to Kali VM	⬇✏🗔⊘🗑✕
☐ ⊘	0/0 B	IPv4 *	LANRED subnets	*	! RFC1918	*	*	none		Allow packets to any non-private address	⬇✏🗔⊘🗑✕
☐ ✗	0/0 B	IPv4+6 *	*		*	*	*	none		Block everything else	⬇✏🗔⊘

⬆ Add ⬇ Add 🗑 Delete ⊘ Toggle 🗔 Copy 💾 Save ➕ Separator

Firewall / Rules / LANBLUE

Floating   WAN   LANGREEN   **LANBLUE**   LANRED   SERVERS   WORKSTATIONS   IOTS

Rules (Drag to Change Order)

	States	Protocol	Source	Port	Destination	Port	Gateway	Queue	Schedule	Description	Actions
☐ ✓	0/0 B	IPv4 *	LANBLUE subnets	*	kali	*	*	none		Allow packets to Kali VM	⬇✏🗔⊘🗑✕
☐ ✗	0/0 B	IPv4+6 *	*		*	*	*	none		Block access to everything	⬇✏🗔⊘

⬆ Add ⬇ Add 🗑 Delete ⊘ Toggle 🗔 Copy 💾 Save ➕ Separator