

Homelab

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1 Background

To conduct experiments and tests in a safe environment I set this home lab. I am also going to install pfsense on my old laptop to use it as a router. Home devices will be in a separate VLAN and the lab will be in a virtualized environment inside a hypervisor in a separate VLAN. This is the basic network topography.

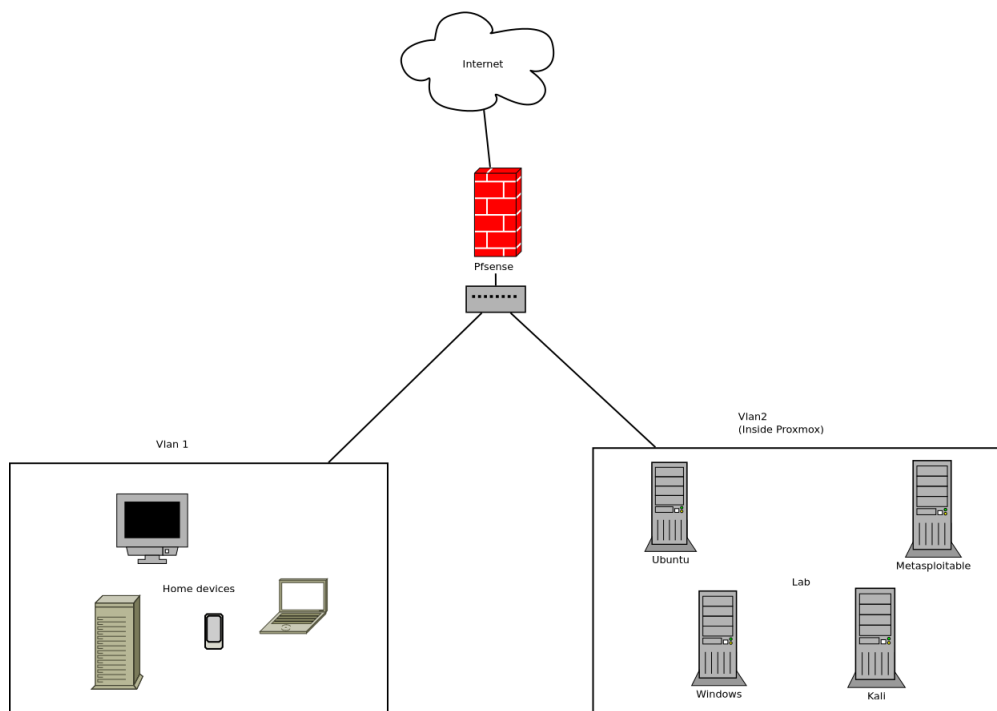


Figure 1: Home network

2 Software

2.1 Router

I installed pfsense which is an open-source FreeBSD-based router. It can be used for various purposes like firewall, IDS/IPS, VLAN and many more. It can be managed by web interface.

2.2 Virtualization

Proxmox VE is an open source virtualization platform. It is based on Debian. It can be managed by web interface. Inside the hypervisor I have installed some virtual machines.

Ubuntu and Windows are normal computers simulating everyday work devices. Metasploitable is installed which acts as a vulnerable device for learning. Kali Linux is used for attacking and learning.

Ubuntu device is sometimes used as a web server for hosting test applications or sites.

3 Hardware

Switch: TP Link TL-SG108E Virtualization Laptop: Dell inspiron 14