Cybersecurity Home Lab

Aldin Topcagic

The Main Idea

There are many different technologies that a cybersecurity professional will have to be familiar with. Things like Domain Controllers, SIEMS, Vulnerability Scanners, and virtualized machines will all be a part of the environments we are meant to protect. That is why I have decided to create a Home Lab in order to emulate an enterprise environment and the different technologies that will likely be a large part of my career. This Lab environment is an opportunity to get real-world experience with different tools and showcase the knowledge that I have gained from university and certifications.

Here is what the lab will consist of:
- The Main PC
- The Domain Controller (Windows Server 2016 VM)
- Windows 10 Pro VMs
- Ubuntu VMs
- Vulnerable Windows 10 Pro VM
- RDP Server
- PFSense Firewall(VM)
- Vulnerability Scanner (Tenable Nessus VM)
- SIEM (Splunk VM)

The Environment Diagram

PF Sense VM
WAN:192.168.50.107
LAN: 172.16.162.135

Ubuntu VM
- Nessus Essentials
- Splunk Indexer

Main PC
- AD
- DNS
- DHCP

Windows 10 Pro VM
- RDP Enabled

Ubuntu VM
- Splunk Universal Forwarder

Windows 10 Pro VM

Vulnerable Windows 10 Pro VM
- Latest update uninstalled
- Windows Defender Disabled