



CYBERROOKIE

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# CyberRookie Project - Learning Cyber Skills By Building A HomeLab

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# Week 2 Lesson - Virtualization

## Overview

1. Virtualization
2. Networking/Network Virtualization
3. LAB Practice
4. Hardening The ESXi
5. Homework Requirements

## Virtualization

### 1. What is Virtualization

<https://www.vmware.com/ca/solutions/virtualization.html>

### 2. Online Lab

VMware Virtualization 101 Hands-on Lab

<https://my.vmware.com/en/group/vmware/evalcenter?p=virtualization-hol-20>

## Network Virtualization

### 1. What is network virtualization?

<https://www.vmware.com/topics/glossary/content/network-virtualization>

### 2. Online Lab

VMware Virtualization 101 Hands-on Lab

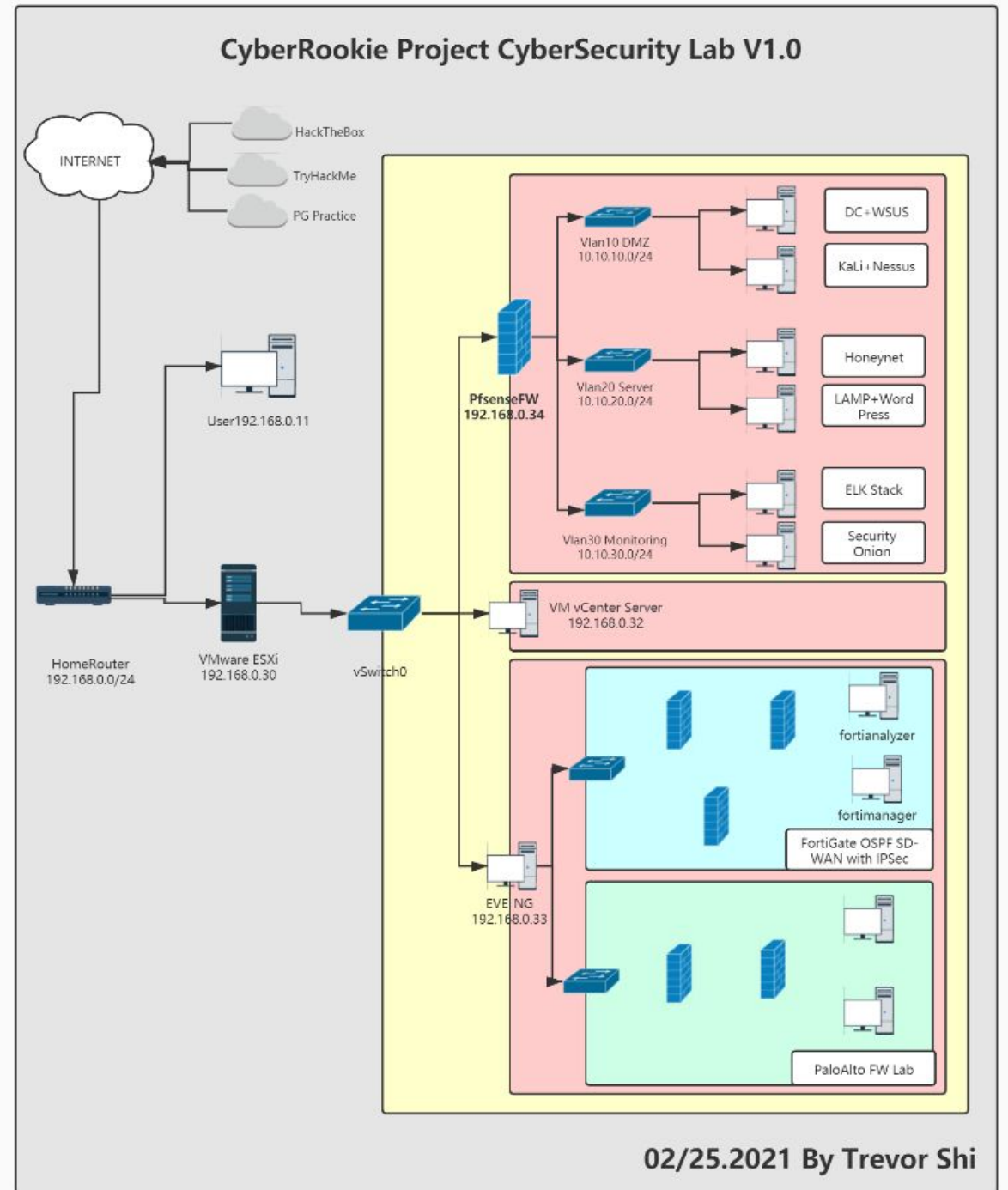
<https://my.vmware.com/en/group/vmware/evalcenter?p=virtualization-hol-20>



## LAB Practice

### #1 Lab Design

1. Vmware ESXi  
Deployment/Admin/Hardening
2. Network admin
3. PfSense/Fortigate Firewall  
Admin/Hardening
4. Windows server AD+365  
Deployment/Admin/Hardening
5. Linux +WEB server  
Deployment/Admin/Hardening
6. Security Monitoring and logging
7. Vulnerability Assessment
8. Audit your IT Environment





## LAB Practice

### #2 LAB PC Hardware Requirements

Minimal: i3 + 8G +500G

Recommend: i5 + 16G+ 1TB



## LAB Practice

### #3 Install ESXi

#### 1. Download ESXi

Download Vsphere 7.0 iso file from VMware

Use RUFUS tool to create USB installer

#### 2. Deploy ESXi

#### 3. ESXi Network Config:

VLAN 10 - DMZ Sub - 10.10.10.0/24

VLAN 20 - Server Sub- 10.10.20.0/24

VLAN 30 - Monitoring - 10.10.30.0/24

#### 4. Additional LAB Practice

Install the VMware vCenter to Vlan0



## LAB Practice

### #4 **ESXi Hardening**

CIS\_VMware\_ESXi\_7.0\_Benchmark\_v1.1.0

## Homework Requirements

1. Understand Virtualization/Networking Virtualization
2. Complete VMware Virtualization 101 Lab
3. Complete Lab requirement, deploy ESXi with 3 vlans on Lab
4. Hardening the ESXi by Using CIS VMware ESXi 7.0 Benchmark

# Q&A

**Look forward to your feedbacks and suggestions.  
Contact: [CyberRookieProject@gmail.com](mailto:CyberRookieProject@gmail.com)**



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# Thank You