



# CodePath

Week 8

# Homework

Week 8 Lab report 10/28 @ 11:59 PM

- Submit on **Collab**

CodePath Assignment

- Submit on **Collab** and **CodePath**

# Topics

## Week 8

Readings on course website

- Enumeration
- Footprining
- Fingerprinting
- IDOR
- XSS
- CSRF

# Goals

- Building off of last week
  - More sophisticated attacks
- Prerequisites
  - Vagrant
  - WPDistillery
    - Able to access “wpdistillery.vm” on Kali and Host

# Vagrant/WP

- If you are **stuck**, remove the current VM you have and start a fresh one
  - “vagrant destroy --force”
  - “rm -rf public” <- Need to delete “public” folder
    - In Windows use “del”
- Remember to set version to “4.2” in config.yml file

# Vagrant/WP

```
setup:
  wp: true
  settings: true
  theme: false
  plugins: false
  cleanup: false
  # adjust what data you want to be deleted within the cleanup (required `cleanup: true`)
  comment: false
  posts: false
  files: false
  themes: false
```

# Metasploit

- Exploitation framework
  - On Kali by default
  - Contains ~1600 exploits for many devices
  - Many different pre-loaded payloads
- Straightforward syntax
  - You will become familiar with this during the Lab

# Metasploit

## Available targets:

Id	Name
0	Reflex Gallery 3.1.3

## Basic options:

Name	Current Setting	Required	Description
Proxies		no	A proxy chain of format type:host:port[,type:host:port][...]
RHOST		yes	The target address
RPORT	80	yes	The target port (TCP)
SSL	false	no	Negotiate SSL/TLS for outgoing connections
TARGETURI	/	yes	The base path to the wordpress application
VHOST		no	HTTP server virtual host

## Payload information:

## Description:

This module exploits an arbitrary PHP code upload in the WordPress Reflex Gallery version 3.1.3. The vulnerability allows for arbitrary file upload and remote code execution.



# CodePath Assignment

- You will be pentesting **live** targets
- There are 3 targets from the link
  - Red, Blue, Green
- Each has 2 vulnerabilities

ID	Link
Mirror 1	<a href="https://35.184.88.145/">https://35.184.88.145/</a>
Mirror 2	<a href="https://104.198.208.81/">https://104.198.208.81/</a>

## **Week 8: Globitek Targets**

Blue Target

Red Target

Green Target

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# CodePath Assignment

- Each website looks identical (besides the color)
  - However, they each have 2 different vulnerabilities
- Overall you need to carry out the following in **total**:
  - User enumeration
  - IDOR
  - SQLi
  - XSS
  - CSRF
  - Session Hijacking/Fixation

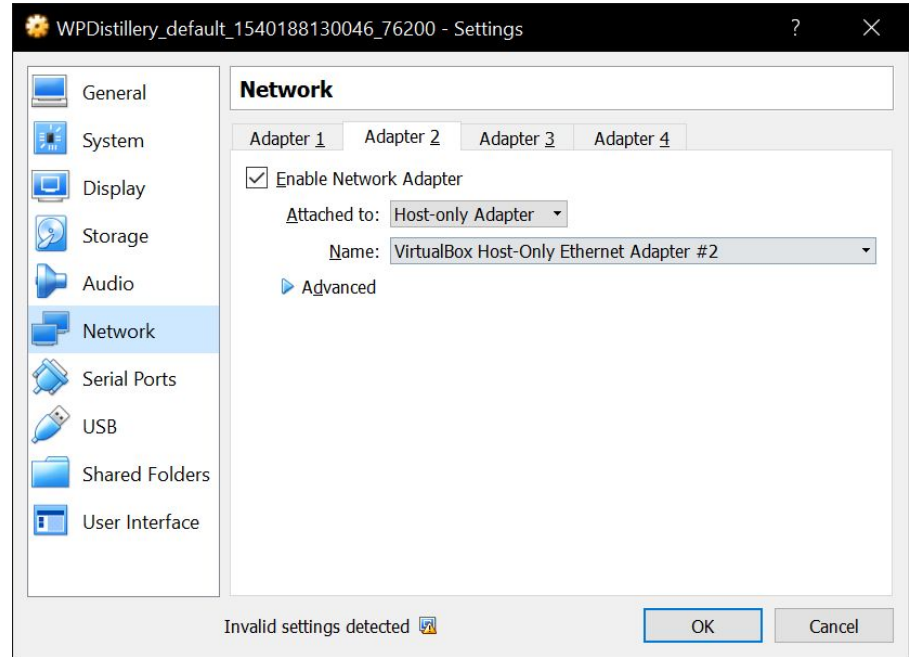
# Setup Notes

- This week we are going to use Kali to attack WordPress
- In order to do this we will place Kali and WordPress in the same network, so that they can communicate with each other
- The next couple of slides will show the changes in the VM settings (full walkthrough on CodePath)



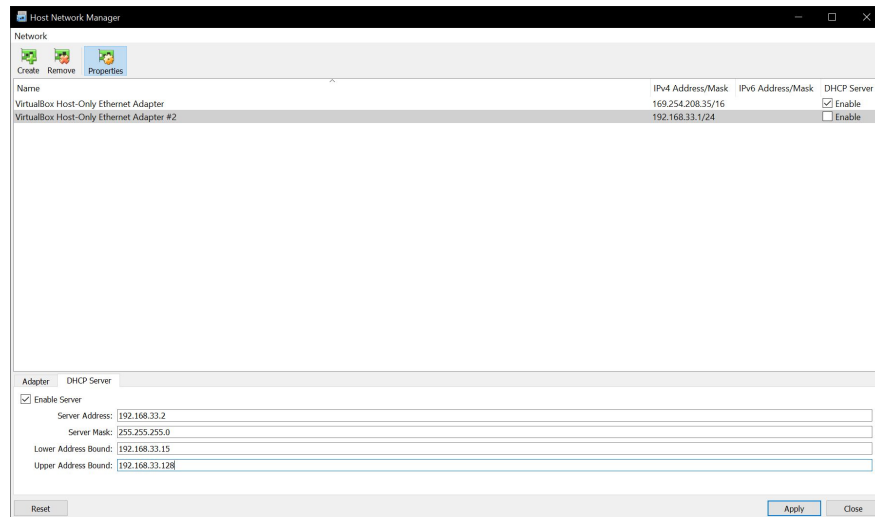
# Setup Notes

- Determining the host adapter of the VM
- Doesn't have to have the name "vboxnet3" like they have in the directions



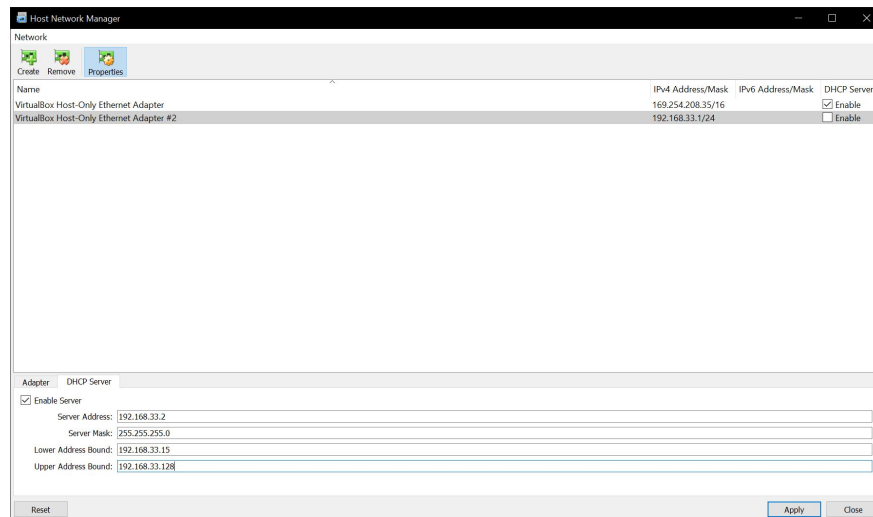
# Setup Notes

- In VirtualBox go to:
  - File -> Host Network Manager
- Make sure “Enable Server” in DHCP is checked



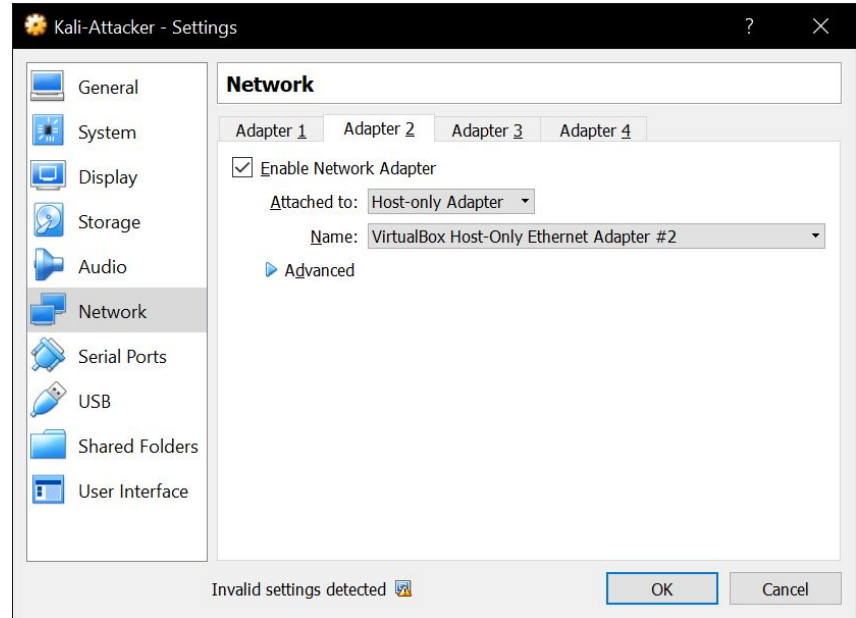
# Setup Notes

- Values in “DHCP Server” tab should match up with CodePath directions



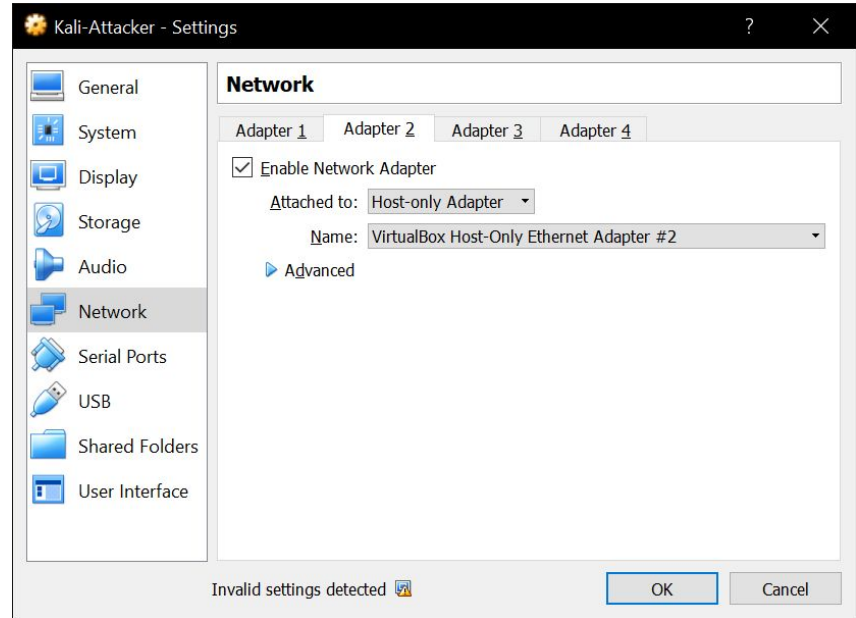
# Setup Notes

- Go to Network settings for Kali-Attacker and set the second adapter as shown in the image



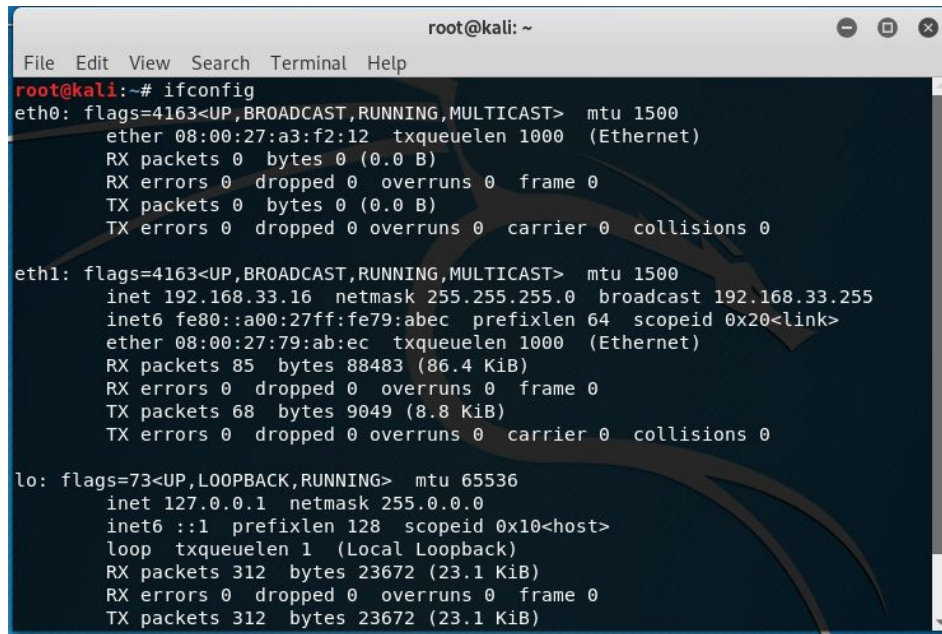
# Setup Notes

- “VirtualBox Host-Only Ethernet Adapter #2” should be whatever the WPDistillery VM was using for their second adapter



# Setup Notes

- This should appear in Kali if everything was setup correctly
  - Important part is the “inet” value

A terminal window titled 'root@kali: ~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the output of the 'ifconfig' command. It displays details for three network interfaces: eth0, eth1, and lo. Each interface shows its flags, MTU, IP address (inet), netmask, broadcast address, MAC address (ether), and various statistics like RX/TX packets, bytes, errors, and dropped frames. A large, faint Kali Linux logo is visible in the background of the terminal window.

```
root@kali:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    ether 08:00:27:a3:f2:12 txqueuelen 1000  (Ethernet)
    RX packets 0  bytes 0 (0.0 B)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 0  bytes 0 (0.0 B)
    TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

eth1: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.33.16 netmask 255.255.255.0 broadcast 192.168.33.255
    inet6 fe80::a00:27ff:fe79:abec prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:79:ab:ec txqueuelen 1000  (Ethernet)
    RX packets 85  bytes 88483 (86.4 KiB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 68  bytes 9049 (8.8 KiB)
    TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1  (Local Loopback)
    RX packets 312  bytes 23672 (23.1 KiB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 312  bytes 23672 (23.1 KiB)
```

# Important Notes

- Necessary to read through everything on the CodePath website carefully
- Start early, some of you **will** encounter technical difficulties
- Windows users must run everything as an administrator
- Document as you go
  - In case you make a mistake

# Important Notes

- If you plan on using the course's copy of Kali...
  - You need to run: `apt-key adv --keyserver hkp://keys.gnupg.net --recv-keys 7D8D0BF6`

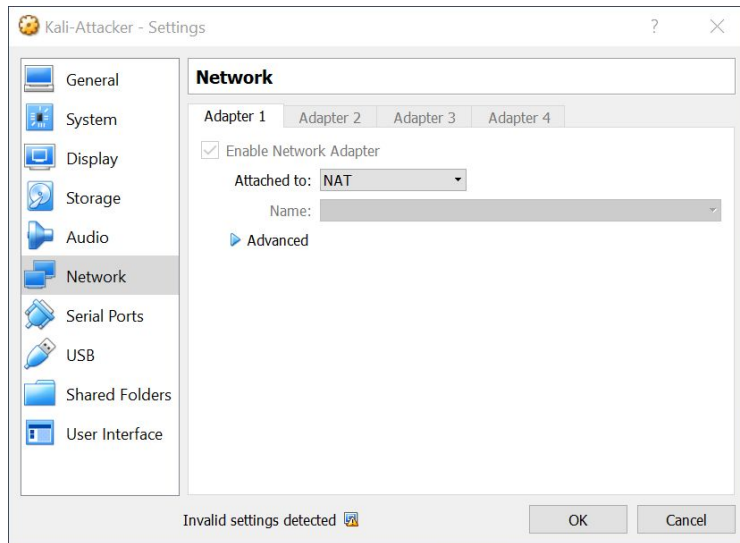


# Important Notes

- If you plan on using the course's copy of Kali...
  - `apt-get update && apt-get upgrade`
    - This will take some time
  - <https://guides.codepath.com/websecurity/Running-Kali-Linux-in-VirtualBox>

# Important Notes

- If you plan on using the course's copy of Kali...



# Important Notes

- Kali by default already this installed, so you should be able to run all commands listed in the Lab with no problems

# Lab Report

- Walkthrough of Milestone 5/6 in the Lab **and** the Assignment as well
  - View rubric on Collab for details
- Make sure to submit a PDF in the format as described in the write-up
- Try and solve all technical issues you encounter (make sure to document these)

# CodePath Assignment Submission

- Following the submission guidelines
  - [https://courses.codepath.com/courses/cybersecurity\\_university/pages/submitting\\_assignments](https://courses.codepath.com/courses/cybersecurity_university/pages/submitting_assignments)
- You need to create a public repo with your GitHub account you used to sign up for CodePath
- Read all directions/requirements carefully

# Office Hours

Monday / Thursday / Sunday : 5 - 7 PM @ Rice 226