GETTING STARTED WITH

HACKTHEBOX

ME

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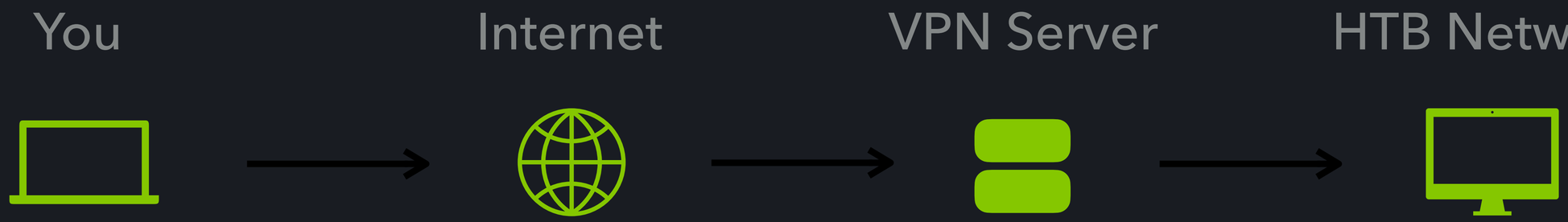
Assembled in Miami

@nightshiftc

Work

- Full Stack Software Engineer
- Bug Bounty Program / VDP Manager
- MiamiJS meetup Founder and Co-organizer

CONNECTING TO HACKTHEBOX




```
$ sudo openvpn --version

$ sudo apt install openvpn

$ sudo openvpn htb.ovpn
```

HACKER METHODOLOGY

- Recon
  searching for vulnerabilities that can be used to gain access
- Exploitation
  Using vulnerabilities identified during by recon to gain access
- Privilege Escalation
  Gain elevated access to resources that are usually protected
- Post Exploitation (not applicable to HTB)
  Persistence, Data Extraction, Removing evidence of breach

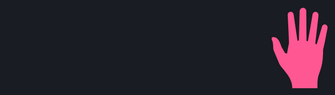
RECON

- Passive
  Don’t interact with the target directly: OSINT, viewing a webpage and its source, googling, looking at social media, Github repos.
- Active
  Interact directly with the systems in order to gather system level information. Can be illegal. Get permission.

PORT SCANNING WITH NMAP

```
$ nmap -sV -T4 10.10.10.75
```

- -sV
  version detection
- -T4
  paranoid (0) | sneaky | polite | normal (3 - default) | aggressive | insane (5)
- -p-
  Scan ports from 1 through 65535
- -sC
  Performs a script scan using the default set of scripts

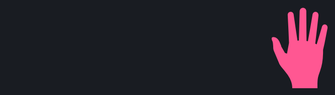


DIRECTORY & FILE DISCOVERY

Brute forcing with a wordlist to search for unlinked directories and files

- Word Lists
  - in Kali: /usr/share/wordlists
  - Daniel Miessler's SecLists

```
$ feroxbuster -u http://10.10.10.75/nibbleblog -x html php
-w ~/labs/tools/SecLists/Discovery/Web-Content/raft-
medium-directories.txt -s 200 204 301 -d 1
```



FINDING PUBLIC EXPLOITS

- Metasploit
  penetration testing framework that helps you find and exploit vulnerabilities
- Common Vulnerabilities and Exposures (CVE) repositories
  e.g. Exploit-DB, Mitre

METASPLOIT FRAMEWORK

It is many things, but among them it is a collection of exploits that can be used to exploit known vulnerabilities from within the MSF Console

- use
  changes context to the indicated exploit
- show options
  displays options for current exploit and if they are required
- set
  set option values for current payload
- exploit
  attempts to run exploit with designated options

NETCAT REVERSE SHELL

A reverse shell is a shell session established using Remote Command Execution (RCE) from the remote victim machine instead of the attacker's.

```
$ nc -nvlp 1234
```

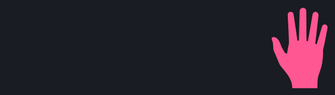
- -l
  Listen mode
- -n
  Disable DNS resolution for faster connection
- -v
  Verbose mode
- -p
  Listener port

INTERACTIVE SHELL

```
$ python3 -c 'import pty; pty.spawn("/bin/bash")'
– CTRL+Z
$ stty raw -echo; fg
– ENTER, ENTER
$ echo $TERM
  dumb
$ stty size
  67 318
$ export TERM=xterm-256color
$ export stty rows 67 columns 318
```

ROOT USER

- Remove any or all files
- Change the permissions of any or all files
- Create, update and remove user accounts
- Remove or install software



PRIVILEGE ESCALATION

- Manual commands
  - `id`
  - `sudo -l`
  - `ls -la /root`
  - `ls -la /home/nibbler`

CONTINUED LEARNING

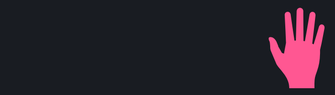
Lame

Bashed

Shocker

Valentine

- Courses:
  - Tib3rius' Linux Privilege Escalation
  - Tib3rius' Window Privilege Escalation

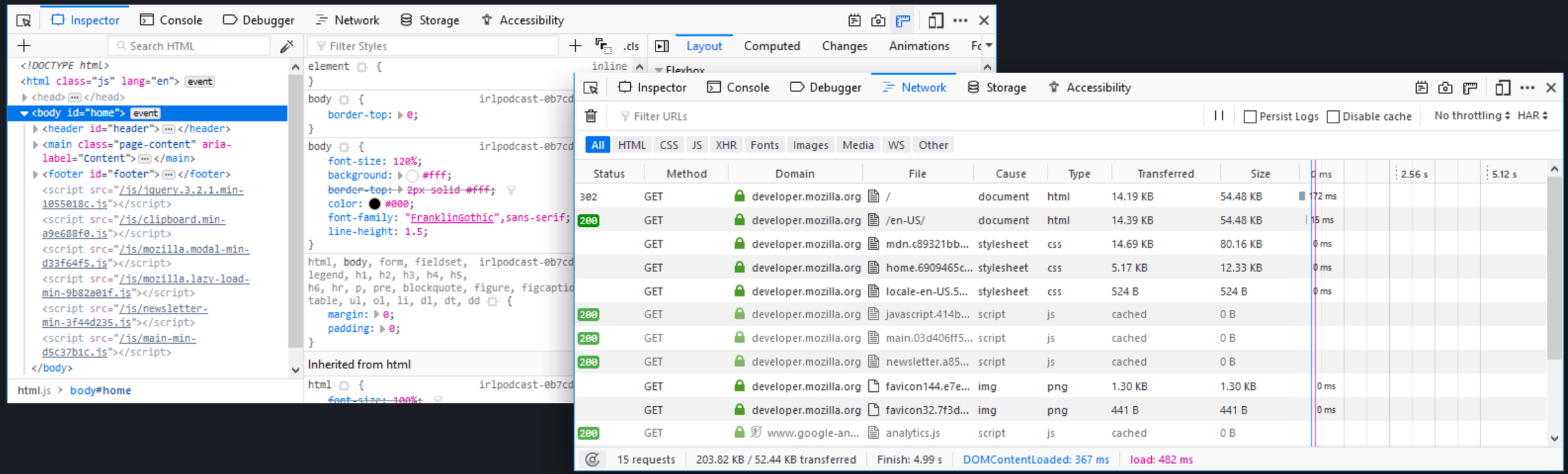


LINUX ENUMERATION SCRIPTS

- linPEAS
- Linux Smart Enumeration
- LinEnum
- g0tmi1k's Linux Priv Esc cheat sheet

MANUAL WEB ENUMERATION

- inspecting with browser's developer tools for: comments, cookies, LocalStorage, HTTP requests



BURP SUITE

- Proxy
  Sits between your browser and website's server to intercept, inspect, and modify the traffic in both directions
- Repeater
  Tool for manipulating and reissuing HTTP and WebSocket requests, and analyzing responses