

Enumeration

```
# port 80 has only basic stuff and blog

# To get tony flag we enumerate this port

# as source code and posts doesnt have the flag i downloaded the pictures there and checked them

# a picture had the tony flag when i string it

# port 8080 is the managing web app so we enumerate that. We see that jboss 3.0.0 is vulnerable to a java seriliaztion rce
```

Nmap

```
ORT    STATE SERVICE    VERSION
22/tcp  open  ssh        OpenSSH 6.6.1p1 Ubuntu 2ubuntu2.13 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
| 1024 d6:97:8c:b9:74:d0:f3:9e:fe:f3:a5:ea:f8:a9:b5:7a (DSA)
| 2048 33:a4:7b:91:38:58:50:30:89:2d:e4:57:bb:07:bb:2f (RSA)
| 256 21:01:8b:37:f5:1e:2b:c5:57:f1:b0:42:b7:32:ab:ea (ECDSA)
|_ 256 f6:36:07:3c:3b:3d:71:30:c4:cd:2a:13:00:b5:25:ae (ED25519)
80/tcp  open  http       Apache httpd 2.4.7 ((Ubuntu))
|_ http-generator: Hugo 0.66.0
|_ http-server-header: Apache/2.4.7 (Ubuntu)
|_ http-title: Tony's Blog
1090/tcp open  java-rmi   Java RMI
|_ rmi-dumpregistry: ERROR: Script execution failed (use -d to debug)
1098/tcp open  java-rmi   Java RMI
1099/tcp open  java-object Java Object Serialization
| fingerprint-strings:
| NULL:
| java.rmi.MarshalledObject[
| hash[
| locBytest
| objBytesq
| xpp5
| # http://thm-java-deserial.home:8083/g
| org.jnp.server.NamingServer_Stub
| java.rmi.server.RemoteStub
| java.rmi.server.RemoteObject
| xpwA
| UnicastRef2
|_ thm-java-deserial.home
3873/tcp open  java-object Java Object Serialization
4446/tcp open  java-object Java Object Serialization
4712/tcp open  msdtc      Microsoft Distributed Transaction Coordinator (error)
4713/tcp open  pulseaudio?
| fingerprint-strings:
| DNSStatusRequestTCP, DNSVersionBindReqTCP, FourOhFourRequest, GenericLines, GetRequest, Help, JavaRMI, Kerberos, LANDesk-RC,
LDAPBindReq, LDAPSearchReq, LPDString, NCP, NULL, NotesRPC, RPCCheck, RTSPRequest, SIPOptions, SMBProgNeg, SSLSessionReq,
TLSSessionReq, TerminalServer, TerminalServerCookie, WMSRequest, X11Probe, afp, giop, ms-sql-s, oracle-tns:
|_ 126a
5445/tcp open  smbdirect?
5455/tcp open  apc-5455?
5500/tcp open  hotline?
| fingerprint-strings:
| DNSStatusRequestTCP:
| CRAM-MD5
| NTLM
| GSSAPI
| DIGEST-MD5
|_ thm-java-deserial
```

```

| GenericLines, NULL:
|   CRAM-MD5
|   NTLM
|   DIGEST-MD5
|   GSSAPI
|   thm-java-deserial
| GetRequest, SMBProgNeg, TLSSessionReq:
|   GSSAPI
|   DIGEST-MD5
|   NTLM
|   CRAM-MD5
|   thm-java-deserial
| HTTPOptions:
|   NTLM
|   GSSAPI
|   CRAM-MD5
|   DIGEST-MD5
|   thm-java-deserial
| Help:
|   DIGEST-MD5
|   GSSAPI
|   NTLM
|   CRAM-MD5
|   thm-java-deserial
| Kerberos:
|   GSSAPI
|   DIGEST-MD5
|   CRAM-MD5
|   NTLM
|   thm-java-deserial
| RPCCheck:
|   NTLM
|   CRAM-MD5
|   GSSAPI
|   DIGEST-MD5
|   thm-java-deserial
| RTSPRequest:
|   DIGEST-MD5
|   CRAM-MD5
|   NTLM
|   GSSAPI
|   thm-java-deserial
| SSLSessionReq:
|   CRAM-MD5
|   GSSAPI
|   NTLM
|   DIGEST-MD5
|   thm-java-deserial
| TerminalServerCookie:
|   GSSAPI
|   CRAM-MD5
|   NTLM
|   DIGEST-MD5
|_   thm-java-deserial
5501/tcp open  tcpwrapped
8009/tcp open  ajp13      Apache Jserv (Protocol v1.3)
| ajp-methods:
|   Supported methods: GET HEAD POST PUT DELETE TRACE OPTIONS
|   Potentially risky methods: PUT DELETE TRACE
|_ See https://nmap.org/nsedoc/scripts/ajp-methods.html
8080/tcp open  http       Apache Tomcat/Coyote JSP engine 1.1
| http-methods:
|_ Potentially risky methods: PUT DELETE TRACE
|_ http-open-proxy: Proxy might be redirecting requests
|_ http-server-header: Apache-Coyote/1.1
|_ http-title: Welcome to JBoss AS
8083/tcp open  http       JBoss service httpd
|_ http-title: Site doesn't have a title (text/html).
5 services unrecognized despite returning data. If you know the service/version, please submit the following fingerprints at https://nmap.org/cgi-bin/submit.cgi?new-service :
=====NEXT SERVICE FINGERPRINT (SUBMIT INDIVIDUALLY)=====
SF-Port1099-TCP:V=7.91%I=7%D=5/2%Time=608F6788%P=x86_64-pc-linux-gnu%r(NUL

```

```

SF:L,17B,"\\xac\\xed\\0\\x05sr\\0\\x19java\\.rmil\\.MarshallableObject\\|\\xbd\\x1e\\x97\\
SF:xedc\\xfc>\\x02\\0\\x03\\0\\x04hash\\[\\0\\x08locBytest\\0\\x02\\[B\\[\\0\\x08objByte
SF:sq\\0~\\0\\x01xpp5\\xafFur\\0\\x02\\[B\\xac\\xf3\\x17\\xf8\\x06\\x08T\\xe0\\x02\\0\\x0p\\
SF:0\\0\\x004\\xac\\xed\\0\\x05t\\0#http://thm-java-deserial\\.home:8083/q\\0~\\0\\0q
SF:0~\\0\\0uq\\0~\\0\\x03\\0\\0\\0\\xcd\\xac\\xed\\0\\x05sr\\0\\x20org\\.jnp\\.server\\.Nam
SF:ingServer_Stub\\0\\0\\0\\0\\0\\0\\0\\x02\\x02\\0\\0xr\\0\\x1ajava\\.rmil\\.server\\.Remo
SF:teStub\\xe9\\xfe\\xcd\\xc9\\x8b\\xe1e\\x1a\\x02\\0\\0xr\\0\\x1cjava\\.rmil\\.server\\.R
SF:emoteObject\\xd3a\\xb4\\x91\\x0ca3\\x1e\\x03\\0\\0xpwa\\0\\x0bUnicastRef2\\0\\0\\x16
SF:thm-java-deserial\\.home\\0\\0\\x04\\x92L\\xb4T`\\xc3\\x9d\\xbc\\x9d\\xae9\\xcb\\0\\
SF:0\\x01y0&\\xd3\\xae\\x80\\x02\\0x");
=====NEXT SERVICE FINGERPRINT (SUBMIT INDIVIDUALLY)=====
SF-Port3873-TCP:V=7.91%I=7%D=5/2%Time=608F678E%P=x86_64-pc-linux-gnu%r(NUL
SF:L,4,"\\xac\\xed\\0\\x05");
=====NEXT SERVICE FINGERPRINT (SUBMIT INDIVIDUALLY)=====
SF-Port4446-TCP:V=7.91%I=7%D=5/2%Time=608F678E%P=x86_64-pc-linux-gnu%r(NUL
SF:L,4,"\\xac\\xed\\0\\x05");
=====NEXT SERVICE FINGERPRINT (SUBMIT INDIVIDUALLY)=====
SF-Port4713-TCP:V=7.91%I=7%D=5/2%Time=608F678E%P=x86_64-pc-linux-gnu%r(NUL
SF:L,5,"126a\\n")%r(GenericLines,5,"126a\\n")%r(GetRequest,5,"126a\\n")%r(RTS
SF:PRequest,5,"126a\\n")%r(RPCCheck,5,"126a\\n")%r(DNSVersionBindReqTCP,5,"1
SF:26a\\n")%r(DNSStatusRequestTCP,5,"126a\\n")%r(Help,5,"126a\\n")%r(SSLSessi
SF:onReq,5,"126a\\n")%r(TerminalServerCookie,5,"126a\\n")%r(TLSSessionReq,5,
SF:"126a\\n")%r(Kerberos,5,"126a\\n")%r(SMBProgNeg,5,"126a\\n")%r(X11Probe,5,
SF:"126a\\n")%r(FourOhFourRequest,5,"126a\\n")%r(LPDString,5,"126a\\n")%r(LDA
SF:PSearchReq,5,"126a\\n")%r(LDAPBindReq,5,"126a\\n")%r(SIPOptions,5,"126a\\n
SF:")%r(LANDesk-RC,5,"126a\\n")%r(TerminalServer,5,"126a\\n")%r(NCP,5,"126a\\
SF:n")%r(NotesRPC,5,"126a\\n")%r(JavaRMI,5,"126a\\n")%r(WMSRequest,5,"126a\\n
SF:")%r(oracle-tns,5,"126a\\n")%r(ms-sql-s,5,"126a\\n")%r(afp,5,"126a\\n")%r(
SF:giop,5,"126a\\n");
=====NEXT SERVICE FINGERPRINT (SUBMIT INDIVIDUALLY)=====
SF-Port5500-TCP:V=7.91%I=7%D=5/2%Time=608F678E%P=x86_64-pc-linux-gnu%r(NUL
SF:L,4B,"\\0\\0\\0G\\0\\0\\x01\\0\\x03\\x04\\0\\0\\x03\\x03\\x04\\0\\0\\x02\\x01\\x08CRAM
SF:MD5\\x01\\x04NTLM\\x01\\nDIGEST-MD5\\x01\\x06GSSAPI\\x02\\x11thm-java-deserial
SF:")%r(GenericLines,4B,"\\0\\0\\0G\\0\\0\\x01\\0\\x03\\x04\\0\\0\\x03\\x03\\x04\\0\\0\\
SF:\\x02\\x01\\x08CRAM-MD5\\x01\\x04NTLM\\x01\\nDIGEST-MD5\\x01\\x06GSSAPI\\x02\\x11t
SF:hm-java-deserial")%r(GetRequest,4B,"\\0\\0\\0G\\0\\0\\x01\\0\\x03\\x04\\0\\0\\x03
SF:\\x03\\x04\\0\\0\\x02\\x01\\x06GSSAPI\\x01\\nDIGEST-MD5\\x01\\x04NTLM\\x01\\x08CRA
SF:M-MD5\\x02\\x11thm-java-deserial")%r(HTTPOptions,4B,"\\0\\0\\0G\\0\\0\\x01\\0\\x0
SF:3\\x04\\0\\0\\x03\\x03\\x04\\0\\0\\x02\\x01\\x04NTLM\\x01\\x06GSSAPI\\x01\\x08CRAM
SF:-MD5\\x01\\nDIGEST-MD5\\x02\\x11thm-java-deserial")%r(RTSPRequest,4B,"\\0\\0\\
SF:0G\\0\\0\\x01\\0\\x03\\x04\\0\\0\\x03\\x03\\x04\\0\\0\\x02\\x01\\nDIGEST-MD5\\x01\\x0
SF:8CRAM-MD5\\x01\\x04NTLM\\x01\\x06GSSAPI\\x02\\x11thm-java-deserial")%r(RPCChe
SF:ck,4B,"\\0\\0\\0G\\0\\0\\x01\\0\\x03\\x04\\0\\0\\x03\\x03\\x04\\0\\0\\x02\\x01\\x04NTL
SF:M\\x01\\x08CRAM-MD5\\x01\\x06GSSAPI\\x01\\nDIGEST-MD5\\x02\\x11thm-java-deseria
SF:l")%r(DNSStatusRequestTCP,4B,"\\0\\0\\0G\\0\\0\\x01\\0\\x03\\x04\\0\\0\\x03\\x03\\x
SF:04\\0\\0\\x02\\x01\\x08CRAM-MD5\\x01\\x04NTLM\\x01\\x06GSSAPI\\x01\\nDIGEST-MD5\\
SF:x02\\x11thm-java-deserial")%r(Help,4B,"\\0\\0\\0G\\0\\0\\x01\\0\\x03\\x04\\0\\0\\x
SF:03\\x03\\x04\\0\\0\\x02\\x01\\nDIGEST-MD5\\x01\\x06GSSAPI\\x01\\x04NTLM\\x01\\x08C
SF:RAM-MD5\\x02\\x11thm-java-deserial")%r(SSLSessionReq,4B,"\\0\\0\\0G\\0\\0\\x01\\
SF:0\\x03\\x04\\0\\0\\x03\\x03\\x04\\0\\0\\x02\\x01\\x08CRAM-MD5\\x01\\x06GSSAPI\\x01
SF:\\x04NTLM\\x01\\nDIGEST-MD5\\x02\\x11thm-java-deserial")%r(TerminalServerCoo
SF:kie,4B,"\\0\\0\\0G\\0\\0\\x01\\0\\x03\\x04\\0\\0\\x03\\x03\\x04\\0\\0\\x02\\x01\\x06GS
SF:SAPI\\x01\\x08CRAM-MD5\\x01\\x04NTLM\\x01\\nDIGEST-MD5\\x02\\x11thm-java-deseri
SF:a")%r(TLSSessionReq,4B,"\\0\\0\\0G\\0\\0\\x01\\0\\x03\\x04\\0\\0\\x03\\x03\\x04\\0\\
SF:0\\x02\\x01\\x06GSSAPI\\x01\\nDIGEST-MD5\\x01\\x04NTLM\\x01\\x08CRAM-MD5\\x02\\x
SF:11thm-java-deserial")%r(Kerberos,4B,"\\0\\0\\0G\\0\\0\\x01\\0\\x03\\x04\\0\\0\\x0
SF:3\\x03\\x04\\0\\0\\x02\\x01\\x06GSSAPI\\x01\\nDIGEST-MD5\\x01\\x08CRAM-MD5\\x01\\x
SF:04NTLM\\x02\\x11thm-java-deserial")%r(SMBProgNeg,4B,"\\0\\0\\0G\\0\\0\\x01\\0\\x0
SF:3\\x04\\0\\0\\x03\\x03\\x04\\0\\0\\x02\\x01\\x06GSSAPI\\x01\\nDIGEST-MD5\\x01\\x04
SF:NTLM\\x01\\x08CRAM-MD5\\x02\\x11thm-java-deserial");
Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port
Aggressive OS guesses: ASUS RT-N56U WAP (Linux 3.4) (95%), Linux 3.16 (95%), Linux 3.10 - 3.13 (94%), Linux 5.4 (94%), Linux 3.1
(93%), Linux 3.2 (93%), AXIS 210A or 211 Network Camera (Linux 2.6.17) (92%), Linux 3.2 - 3.16 (92%), Linux 3.2 - 3.5 (92%), Linux
3.2 - 4.9 (92%)
No exact OS matches for host (test conditions non-ideal).
Network Distance: 4 hops
Service Info: OSs: Linux, Windows; CPE: cpe:/o:linux:linux_kernel, cpe:/o:microsoft:windows

```

TRACEROUTE (using port 5445/tcp)

HOP RTT ADDRESS

1 198.49 ms 10.4.0.1

2 ... 3

4 491.41 ms 10.10.47.16

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 218.30 seconds

SSH:22

HTTP:80

gobuster

```
/.hta          (Status: 403) [Size: 282]
/.htaccess     (Status: 403) [Size: 287]
/.htpasswd     (Status: 403) [Size: 287]
/categories    (Status: 301) [Size: 314] [--> http://10.10.47.16/categories/]
/css           (Status: 301) [Size: 307] [--> http://10.10.47.16/css/]
/fonts         (Status: 301) [Size: 309] [--> http://10.10.47.16/fonts/]
/images        (Status: 301) [Size: 310] [--> http://10.10.47.16/images/]
/index.html    (Status: 200) [Size: 16608]
/js            (Status: 301) [Size: 306] [--> http://10.10.47.16/js/]
/page          (Status: 301) [Size: 308] [--> http://10.10.47.16/page/]
/posts         (Status: 301) [Size: 309] [--> http://10.10.47.16/posts/]
/server-status (Status: 403) [Size: 291]
/sitemap.xml   (Status: 200) [Size: 661]
/tags          (Status: 301) [Size: 308] [--> http://10.10.47.16/tags/]
```

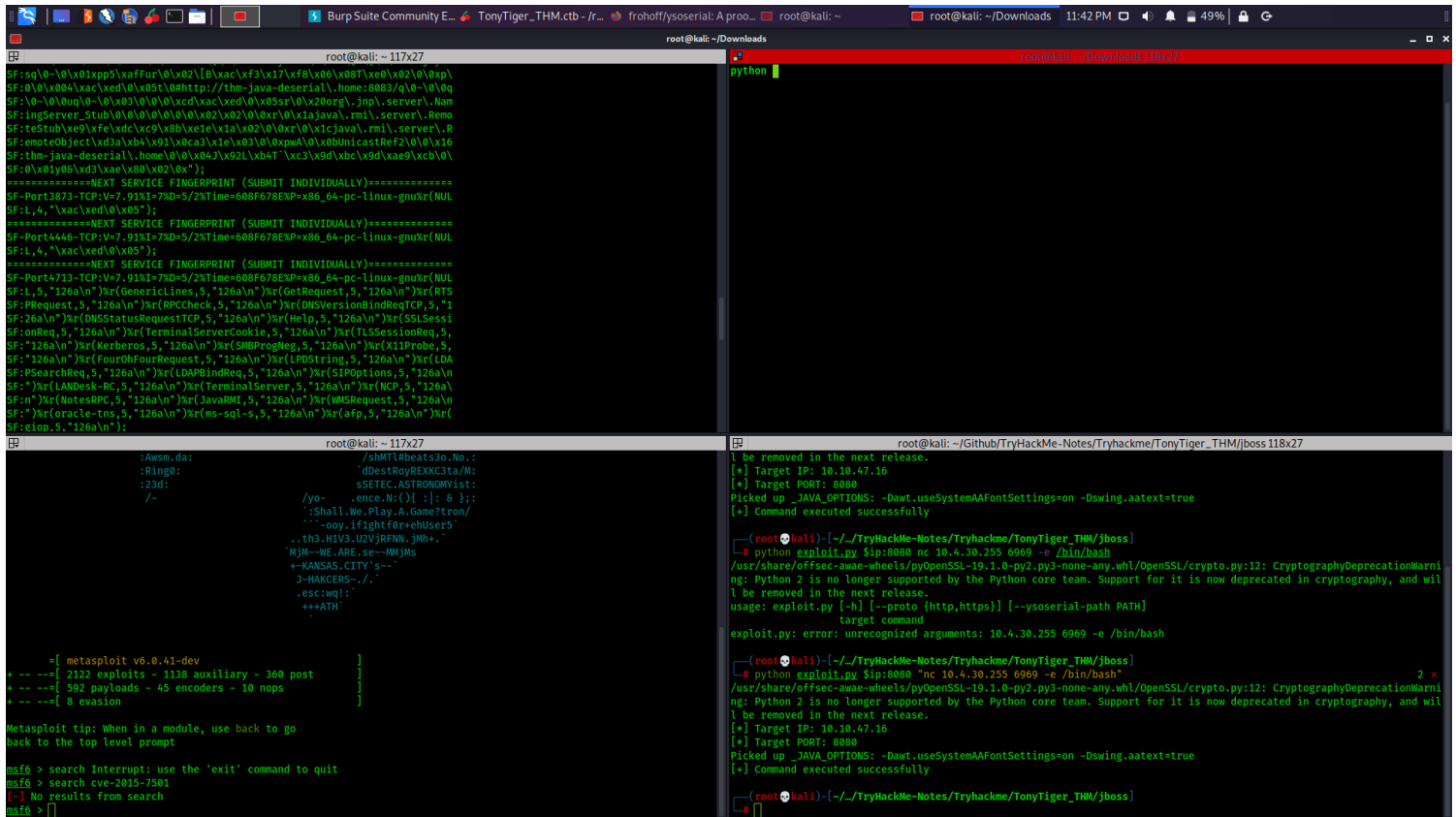
HTTP:8080

This is the managing web app and is using jboss web manager

jboss 3.0.0 is vulnerable to a java serialization rce attack

we download its exploit and a ysoserial.jar file which is required for proper serialization and execution of our payload

Now we get a reverse shell with this rce



#

Exploitation

we download its exploit and a ysoserial jar file alongside it to properly deserilaize the code

No we have rce and we get a reverse shell

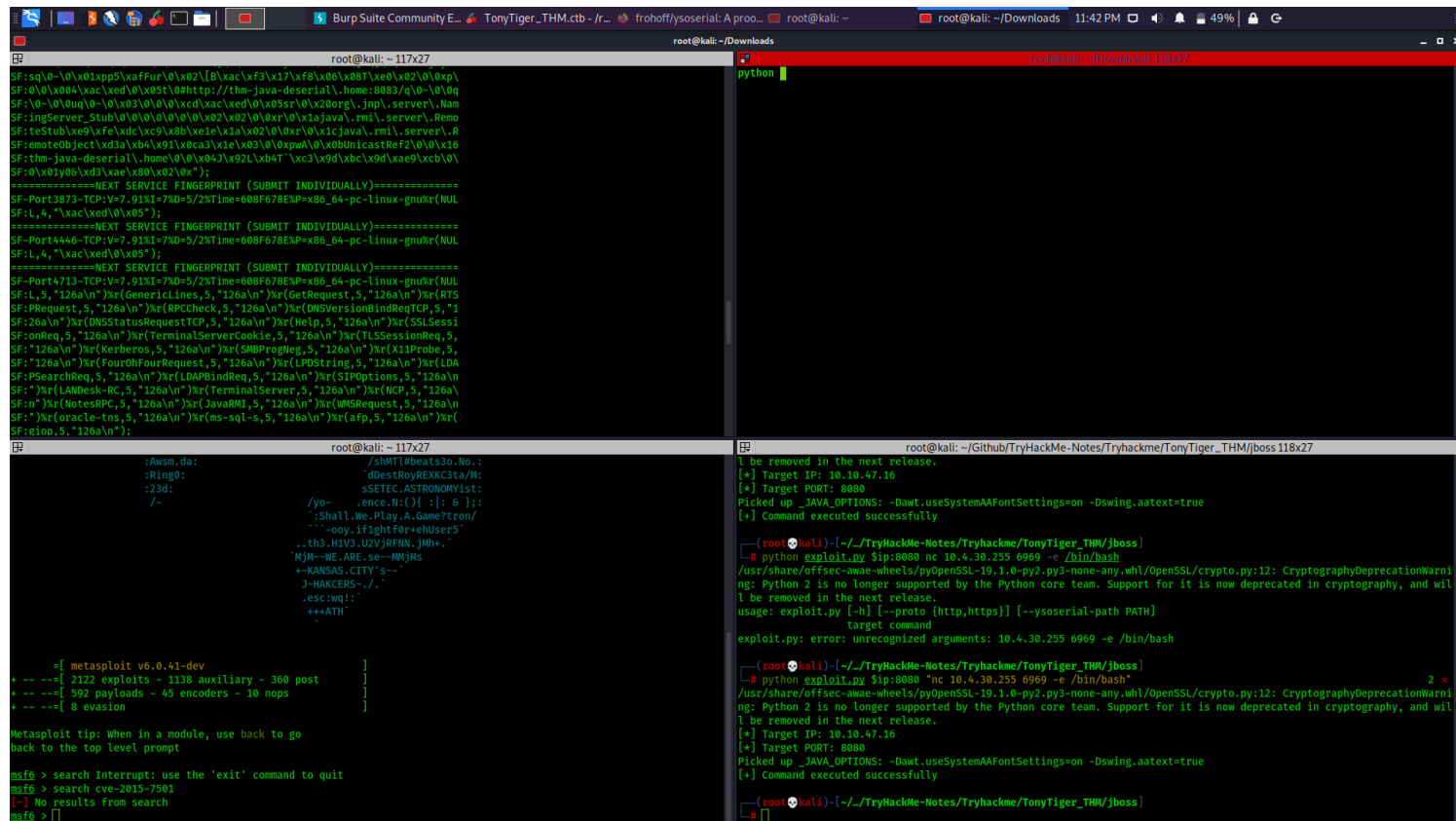
Java Sereliazation

This is the maanaging web app and is usimg jboss web manager

jboss 3.0.0\is vulnerable to a java seriliazation rce attack

we download its exploit and a ysoserial.jar file which is required for proper serialization and execution of our payload

Nowwe get a reverse shell with this rce



#

PostExploitation

we see a note in jboss home directory and we ge jboss ssh password which is likeaboss

Then we sudo -l as jboss and we can use find with sudo privilege so we spawn a root by escaping shell sequence

we get a root file and a base64 encoded value

we decode it and get a BC77AC072EE30E3760806864E234C7CF

the flag is **zxcvbnm123456789**

Loot

Credentials

User creds

jboss:likeaboss

Flags

tony flag

THM{Tony_Sure_Loves_Frosted_Flakes}

jboss flag

THM{50c10ad46b5793704601ecdad865eb06}

root flag

zxcvbnm123456789