

## COGNIZANCE-TASK-7

BY ARCHANAA.N

- 0) bandit0
- 1) boJ9jbbUNNfktd78OOpsqOltutMc3MY1
- 2) CV1DtqXWVFXTvM2F0k09SHz0YwRINYA9
- 3) UmHadQclWmgdLOKQ3YNgjWxGoRMb5luK
- 4) plwrPrtPN36QITSp3EQaw936yaFoFgAB
- 5) koReBOKulIDDepwhWk7jZC0RTdopnAYKh
- 6) DXjzPULLxYr17uwoI01bNLQbtFemEgo7
- 7) HKBPTKQnlay4Fw76bEy8PVxKEDQRKTzs
- 8) cvX2JJa4CFALtqS87jk27qwqGhBM9pIV
- 9) UsvVyFSfZZWbi6wgC7dAFyFuR6jQQUhR
- 10) truKLdjsbJ5g7yyJ2X2R0o3a5HqJFuLk
- 11) IFukwKGsFW8MOq3IRFqrxE1hxTNEbUPR
- 12) 5Te8Y4drgCRfCx8ugdwuEX8KFC6k2EUu
- 13) 8ZjyCRiBWFYkneahHwxCv3wb2a1ORpYL
- 14) 4wcYUJFw0k0XLSHlDzztnTBHiqxU3b3e
- 15) BfMYroe26WYalil77FoDi9qh59eK5xNr
- 16) cluFn7wTiGryunymYOu4RcffSxQleuhd

```
Activities Terminal Mar 6 23:29
bandit4@bandit: ~/inhere

archanaa@archanaa-VirtualBox:~$ ssh bandit0@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit0@bandit.labs.overthewire.org's password:
Linux bandit0tw.local 5.4.8 x86_64 GNU/Linux

www... ver he ...re.org

Welcome to OverTheWire!

If you find any problems, please report them to Steven or morla on
irc.overthewire.org.

--[ Playing the games ]--

This machine might hold several wargames.
If you are playing "somegame", then:

* USERNAMES are somegame0, somegame1, ...
* Most LEVELS are stored in /somegame/.
* PASSWORDS for each level are stored in /etc/somegame_pass/.

Write-access to homedirectories is disabled. It is advised to create a
working directory with a hard-to-guess name in /tmp/. You can use the
command "mktemp -d" in order to generate a random and hard to guess
directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled
so that users can not snoop on eachother. Files and directories with
easily guessable or short names will be periodically deleted!

Please play nice:

* don't leave orphan processes running
* don't leave exploit-files laying around
* don't annoy other players
* don't post passwords or spoilers
* ... more nice content!
```

```
Activities Terminal Mar 6 22:47
bandit0@bandit: ~

This machine has a 64bit processor and many security-features enabled
by default, although ASLR has been switched off. The following
compiler flags might be interesting:

-m32          compile for 32bit
-fno-stack-protector  disable ProPolice
-Wl,-z,norelro  disable relro

In addition, the execstack tool can be used to flag the stack as
executable on ELF binaries.

Finally, network-access is limited for most levels by a local
firewall.

--[ Tools ]--

For your convenience we have installed a few usefull tools which you can find
in the following locations:

* gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/l0ngd/peda.git) in /usr/local/peda/
* gdbint (https://github.com/gdbint/gdbint) in /usr/local/gdbint/
* pwntools (https://github.com/c0llops/pwntools)
* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh

--[ More Information ]--

For more information regarding individual wargames, visit
http://www.overthewire.org/wargames/

For support, questions or comments, contact us through IRC on
irc.overthewire.org #wargames.

Enjoy your stay!

bandit0@bandit:~$ ls -alsps
total 24
4 drwxr-xr-x 2 root root 4096 May 7 2020 ./
4 drwxr-xr-x 41 root root 4096 May 7 2020 ../
4 -rw-r--r-- 1 root root 220 May 15 2017 .bash_logout
4 -rw-r--r-- 1 root root 3526 May 15 2017 .bashrc
4 -rw-r--r-- 1 root root 675 May 15 2017 .profile
4 -rw-r----- 1 bandit0 bandit0 33 May 7 2020 .readme
bandit0@bandit:~$ cat .readme
bo39jbb0wRttd7000gq0Lutnc3Wv1
bandit0@bandit:~$
```

```
Activities Terminal Mar 5 21:06 bandit1@bandit:~  
  
This machine has a 64bit processor and many security-features enabled  
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compiler flags might be interesting:  
  
-m32 compile for 32bit  
-fno-stack-protector disable ProPolice  
-Wl,-z,norelro disable relro  
  
In addition, the execstack tool can be used to flag the stack as  
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Enjoy your stay!  
  
bandit1@bandit:~$ ls -alps  
total 24  
4 -rw-r----- 1 bandit1 bandit1 33 May 7 2020 .  
4 drwxr-xr-x 2 root root 4096 May 7 2020 /  
4 drwxr-xr-x 41 root root 4096 May 7 2020 /..  
4 -rw-r--r-- 1 root root 220 May 15 2017 .bash_logout  
4 -rw-r--r-- 1 root root 3526 May 15 2017 .bashrc  
4 -rw-r--r-- 1 root root 675 May 15 2017 .profile  
bandit1@bandit:~$ cat ./-  
CVIDtQxWVFXtVhZfOk9SHZ0VwEINYA9  
bandit1@bandit:~$
```

```
Activities Terminal Mar 5 21:12 bandit2@bandit:~  
  
-fno-stack-protector disable ProPolice  
-Wl,-z,norelro disable relro  
  
In addition, the execstack tool can be used to flag the stack as  
executable on ELF binaries.  
  
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bandit2@bandit:~$ ls -alps  
total 24  
4 drwxr-xr-x 2 root root 4096 May 7 2020 /  
4 drwxr-xr-x 41 root root 4096 May 7 2020 /..  
4 -rw-r--r-- 1 root root 220 May 15 2017 .bash_logout  
4 -rw-r--r-- 1 root root 3526 May 15 2017 .bashrc  
4 -rw-r--r-- 1 root root 675 May 15 2017 .profile  
4 -rw-r----- 1 bandit2 bandit2 33 May 7 2020 spaces in this filename  
bandit2@bandit:~$ cat spaces in this filename  
cat: spaces: No such file or directory  
cat: in: No such file or directory  
cat: this: No such file or directory  
cat: filename: No such file or directory  
bandit2@bandit:~$ cat spaces\ in\ this\ filename  
UMhAdQcLmGdLOKjYVhGjXGGRMBsluk  
bandit2@bandit:~$
```

```
Activities Terminal Mar 5 21:16 archanaa@archanaa-VirtualBox:~  
  
firewall.  
  
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Enjoy your stay!  
  
bandit3@bandit:~$ ls -alps  
total 24  
4 drwxr-xr-x 3 root root 4096 May 7 2020 /  
4 drwxr-xr-x 41 root root 4096 May 7 2020 /..  
4 -rw-r--r-- 1 root root 220 May 15 2017 .bash_logout  
4 -rw-r--r-- 1 root root 3526 May 15 2017 .bashrc  
4 drwxr-xr-x 2 root root 4096 May 7 2020 .inhere/  
4 -rw-r--r-- 1 root root 675 May 15 2017 .profile  
bandit3@bandit:~$ cd .inhere/  
bandit3@bandit:~/inhere$ ls -al  
total 12  
drwxr-xr-x 2 root root 4096 May 7 2020 .  
drwxr-xr-x 3 root root 4096 May 7 2020 ..  
-rw-r----- 1 bandit4 bandit3 33 May 7 2020 .hidden  
bandit3@bandit:~/inhere$ ls -la  
.. .hidden  
bandit3@bandit:~/inhere$ cat .hidden  
pLwRPrPM36QITSp3QqW9yaf0gAB  
bandit3@bandit:~/inhere$ cd ..  
bandit3@bandit:~$ exit  
logout  
Connection to bandit.labs.overthewire.org closed.  
archanaa@archanaa-VirtualBox:~$
```

```
Activities Terminal Mar 6 22:51
bandit4@bandit: ~/inhere

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* gdbintt (https://github.com/gdbintt/gdbintt) in /usr/local/gdbintt/
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total 24
4 drwxr-xr-x 3 root root 4096 May 7 2020 ./
4 drwxr-xr-x 41 root root 4096 May 7 2020 ../
4 -rw-r--r-- 1 root root 220 May 15 2017 .bash_logout
4 -rw-r--r-- 1 root root 3526 May 15 2017 .bashrc
4 drwxr-xr-x 2 root root 4096 May 7 2020 .binery/
4 -rw-r--r-- 1 root root 675 May 15 2017 .profile
bandit4@bandit:~$ cat inhere/
cat: inhere: is a directory
bandit4@bandit:~$ cd
bandit4@bandit:~$ cd inhere/
bandit4@bandit:~/inhere$ find . -type f | xargs file
./file01: data
./file00: data
./file06: data
./file03: data
./file05: data
./file08: data
./file04: data
./file07: ASCII text
./file02: data
./file09: data
bandit4@bandit:~/inhere$ cat ./file07
koReBOKuIDepwHuk7J2cORTdgpNAVKh
bandit4@bandit:~/inhere$
```

```
Activities Terminal Mar 5 21:36
bandit5@bandit: ~/inhere

compiler flags might be interesting:

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bandit5@bandit:~$ ls
inhere
bandit5@bandit:~$ cd inhere/
bandit5@bandit:~/inhere$ find . -type f -size 1033c ! -executable
./maybeh07e07.file02
bandit5@bandit:~/inhere$ cat ./maybeh07e07.file02
DXJZPULLXyR17uwo101BNLQbtFemEg07
bandit5@bandit:~/inhere$
```

```
Activities Terminal Mar 5 21:40
bandit6@bandit: ~

ffind: '/boot/lost+found': Permission denied
ffind: '/tmp': Permission denied
ffind: '/run/lvm': Permission denied
ffind: '/run/screen5-bandit1': Permission denied
ffind: '/run/screen5-bandit10': Permission denied
ffind: '/run/screen5-bandit19': Permission denied
ffind: '/run/screen5-bandit29': Permission denied
ffind: '/run/screen5-bandit30': Permission denied
ffind: '/run/screen5-bandit9': Permission denied
ffind: '/run/screen5-bandit10': Permission denied
ffind: '/run/screen5-bandit18': Permission denied
ffind: '/run/screen5-bandit20': Permission denied
ffind: '/run/screen5-bandit11': Permission denied
ffind: '/run/screen5-bandit12': Permission denied
ffind: '/run/screen5-bandit15': Permission denied
ffind: '/run/screen5-bandit17': Permission denied
ffind: '/run/screen5-bandit16': Permission denied
ffind: '/run/screen5-bandit26': Permission denied
ffind: '/run/screen5-bandit18': Permission denied
ffind: '/run/screen5-bandit14': Permission denied
ffind: '/run/screen5-bandit13': Permission denied
ffind: '/run/screen5-bandit19': Permission denied
ffind: '/run/screen5-bandit31': Permission denied
ffind: '/run/screen5-bandit17': Permission denied
ffind: '/run/screen5-bandit12': Permission denied
ffind: '/run/screen5-bandit14': Permission denied
ffind: '/run/screen5-bandit13': Permission denied
ffind: '/run/screen5-bandit24': Permission denied
ffind: '/run/shm': Permission denied
ffind: '/run/lock/lvm': Permission denied
ffind: '/var/spool/bandit24': Permission denied
ffind: '/var/spool/cron/crontabs': Permission denied
ffind: '/var/spool/rsyslog': Permission denied
ffind: '/var/tmp': Permission denied
ffind: '/var/lib/apt/lists/partial': Permission denied
ffind: '/var/lib/polkit-1': Permission denied
ffind: '/var/lib/dpkg/info/bandit7.password'
ffind: '/var/lib': Permission denied
ffind: '/var/cache/apt/archives/partial': Permission denied
ffind: '/var/cache/ldconfig': Permission denied
ffind: 'type': No such file or directory
ffind: 'f': No such file or directory
bandit6@bandit:~$ cat /var/lib/dpkg/info/bandit7.password
INBPTKQyWfW7eBEGpVxKEDqNK7zs
bandit6@bandit:~$
```

```
Activities Terminal Mar 5 21:51
bandit7@bandit:~$

* don't leave exploit-files laying around
* don't annoy other players
* don't post passwords or spoilers
* again, DONT POST SPOILERS!
  This includes writeups of your solution on your blog or website!

--[ Tips ]--

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Enjoy your stay!

bandit7@bandit:~$ grep "milllonth" data.txt
milllonth      cv423234cFAltqS87jk27qwqChM9pLV
bandit7@bandit:~$ exit
```

```
Activities Terminal Mar 5 21:54
bandit8@bandit:~$

10 KLu6lrnqFwh0KVoTweoT9eSt6oxYQnv
10 KrDvVORXLPfRhfrnmup30nVhUKDMS8
10 kUB0khsiW6SpwI2YUoIQ3hXfU8lqn
10 1113ed7u5H9e30dyLWp2hqb0u0eGm
10 12IECn3kQK8EB16103gHuInJocTF3has
10 LfrBfAHopP9bgGAZP4qrkvt3pysAYC
10 Lq4vMwVY7s8bGd8eLA35AHzo2gM6lHg
10 mgpWdH2H2hTQw35c8bwkxwPKLuhJn
10 m20N32HQZL14kwrdeLqU01CbYa0tbtT
10 n2Bb4nlp4ndTmFyIfC3InlqnywqX05d0I
10 nLW6LQvLEw8bW424eznRtQ0uULCVZ
10 N0dH1KfKlBx4XNa3oLFngbH7o1S5hb
10 oJGAbNGSN3ppKUBXGrgLwWRR55ouLA5
10 OZmpw8d01evForX0N32WHicRPLtP4E
10 PfhMcXb3me5n3nab1KwXKCU7zyndHl
10 PQK0e1QwT98Y8yobuxZAOL4cNwVoID
10 P4vYQ5uUBPRZ05d4uP0DLX5G3JrAx
10 pbt3ZMTqG03U6gQCn33C0G1oq5E4
10 q4WNA00quC3YHn73I4zVWzCBdFtQ8wa
10 RHLSP0AvF7hgiC0d5Q2rOzX00N55UW
10 s16B32z4RPkyw8d6spTnK6vG5rFC3
10 S4B5uMwCao27zS8YRQXh195vndpu0L
10 SHMAUEUqe4mV753pETTfZfsyNR352E2k
10 t952N21y6p44Fennmdoip8n7u503bd
10 v5c0K1ATVfU0K6sHtTMar1j12WJ5L
10 Szwp5ZAD5Jfey0z2btv0dNysRtRHJ
10 TXUQBQvNEzzYIne78Ln0X2bHFLBx2G
10 TH04dFZ2Z0H047TtYkYpRLVzL2c0F
10 tW9LY1h10uHPK4usZnN8oXbJr12ZATY
10 U0N9d3W4ZKPFeg9GQ0L1nA3y6q4h5
10 U0SGMcQd0mFrfuF4Fj8Xk6vBNBLP
10 U1CNDVMTg3tcc38P1j1nAXHUM63UyJ
10 U35VbcqK3dcCZQCMkv6A9X7hLBNE4
10 U5vYpFZ2bL6w9C7GAPyFureJQQUHR
10 U0nX2hVQEcraz5J0u14wNZ03yuk8A
10 V2d9uWHLUPLV1DsuhJ9fROEnrCZNaA
10 v92axkVA0dIOLITZ2uocT8tfx2gmly9
10 v8AB4E91lbvkeuR2V0mwGgd3nT8eo9
10 w4zUWfCTUraAh8LkNS8gH3Wk22omBEKA
10 WBg79XvF6nyTTSKLTGCG6Jb3ex94Xmr
10 wJ9wuxESBR0T7rUfHnLWz5Ys06ETC
10 X13N0UKr84gugX12Hn1Viv8ke2Lc7I
10 Xye3obrU3yGtdGx8CKLQSt0pW5cVpCA
10 y08b5eaz0e3JnHqKw0pP7ayVENRKY
10 y5v4TlWgnrF0ne8pwnz7Nj5oLr72
10 Z90C6DQppreChPwR3J2V9YVtFXNVC0
10 zdd2ctVVer0e15HE3tEL2MeL5jL7LM
bandit8@bandit:~$
```

```
Activities Terminal Mar 5 21:57
bandit9@bandit:~$

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Enjoy your stay!

bandit9@bandit:~$ strings data.txt | grep "="
===== the*2L'4
=IG e
===== password
cI=25G1
Z)===== ts
A=|t8E
Zob=
c^ Lah=3G
*SF=s
&===== truKldj5b35g7yyJ2X2R003a5HQ3FuLk
&=A.H8*
bandit9@bandit:~$
```



```
Activities Terminal Mar 5 22:03 bandit10@bandit: -  
  
* don't post passwords or spoilers  
* again, DONT POST SPOILERS!  
This includes writeups of your solution on your blog or website!  
  
--[ Tips ]--  
  
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-m32 compile for 32bit  
-fno-stack-protector disable ProPolice  
-Wl,-z,norelro disable retpo  
  
In addition, the execstack tool can be used to flag the stack as  
executable on ELF binaries.  
  
Finally, network-access is limited for most levels by a local  
firewall.  
  
--[ Tools ]--  
  
For your convenience we have installed a few usefull tools which you can find  
in the following locations:  
  
* gef (https://github.com/hugsy/gef) in /usr/local/gef/  
* pwmdbg (https://github.com/pwmdbg/pwmdbg) in /usr/local/pwmdbg/  
* peda (https://github.com/longid/peda.git) in /usr/local/peda/  
* gdbinit (https://github.com/gdbinit/gdbinit) in /usr/local/gdbinit/  
* pwntools (https://github.com/callopsied/pwntools)  
* radare2 (http://www.radare.org/)  
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh  
  
--[ More Information ]--  
  
For more information regarding individual wargames, visit  
http://www.overthewire.org/wargames/  
  
For support, questions or comments, contact us through IRC on  
#wargames.  
  
Enjoy your stay!  
  
bandit10@bandit1:~$ cat data.txt  
Vch1zH8c3K3b3jKIG1z1ELGdWt3S9dzRlc4T9xM0LSRnFyeEUxahNtUKVlVVBsc==  
bandit10@bandit1:~$ base64 -d data.txt  
The password is IruqWqGsfM8NqQ3IRfQxEthxTNEBUP  
bandit10@bandit1:~$
```

A screenshot of a terminal window titled "Activities" and "Terminal" with a date of "Mar 5 22:57". The terminal shows a user named "bandit11@bandit: ~" with a search icon and window controls. The content of the terminal is as follows:

```
--[ More information ]--  
  
For more information regarding individual wargames, visit  
http://www.overthewire.org/wargames/  
  
For support, questions or comments, contact us through IRC on  
#wargames.  
  
Enjoy your stay!  
  
bandit11@bandit:~$ cat data.txt  
Gur cnffjbeq vf SgRl4qetPESpkBhtqjHRKXSP6x2Rhh  
bandit11@bandit:~$ echo "Gur cnffjbeq vf SgRl4qetPESpkBhtqjHRKXSP6x2Rhh"  
Gur cnffjbeq vf SgRl4qetPESpkBhtqjHRKXSP6x2Rhh  
bandit11@bandit:~$ echo "Gur cnffjbeq vf SgRl4qetPESpkBhtqjHRKXSP6x2Rhh"tr "n-za-mN-ZA-M" 'a-zA-Z'  
Gur cnffjbeq vf SgRl4qetPESpkBhtqjHRKXSP6x2Rhhtr "n-za-mN-ZA-M" 'a-zA-Z'  
bandit11@bandit:~$ echo "Gur cnffjbeq vf SgRl4qetPESpkBhtqjHRKXSP6x2Rhh" | tr "n-za-mN-ZA-M" 'a-zA-Z'  
The password is StEBVddrgCfXCxbugdweX8KfC6k2EUu  
bandit11@bandit:~$ cat data.txt | tr "s(echo -n [A..Z] [a..z] | tr -d ' ')" "s(echo -n [N..Z] [A..H] [n..z] [a..n] | client_loop: send disconnect: Broken pipe  
bandit11@bandit:~$ ssh bandit11@bandit.labs.overthewire.org -p 2220  
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames  
  
bandit11@bandit:~$ ssh bandit11@bandit.labs.overthewire.org's password:  
Linux bandit.0tw.local 5.4.8 x86_64 GNU/Linux  
  
www. ver he .ire.org  
  
Welcome to OverTheWire!  
  
If you find any problems, please report them to Steven or morla on  
irc.overthewire.org.  
  
--[ Playing the games ]--  
  
This machine might hold several wargames
```

The image shows a Linux desktop with a terminal window open. The terminal title bar reads "bandit1@bandit: -". The terminal output shows the following sequence of actions:  

```
bandit1@bandit:~$ cp data.txt /tmp/ARCHANA  
bandit1@bandit:~$ cd /tmp/ARCHANA  
bandit1@bandit:/tmp/ARCHANA$ ls  
data6.bin  data.tar  data.txt  
bandit1@bandit:/tmp/ARCHANA$ xxd -r data.txt > data  
bandit1@bandit:/tmp/ARCHANA$ ls  
data  data6.bin  data.tar  data.txt  
bandit1@bandit:/tmp/ARCHANA$ file data  
data: gzip compressed data, was "data6.bin", last modified: Thu May 7 18:14:30 2020, max compression, from Unix  
bandit1@bandit:/tmp/ARCHANA$ mv data file.gz  
bandit1@bandit:/tmp/ARCHANA$ gzip -d file.gz  
gzip: file.gz: No such file or directory  
bandit1@bandit:/tmp/ARCHANA$ file data6.bin  
data6.bin: bzip2 compressed data, block size = 900k  
bandit1@bandit:/tmp/ARCHANA$ mv data6 bin.data.bz2  
bandit1@bandit:/tmp/ARCHANA$ bzip2 -d data.bz2  
bandit1@bandit:/tmp/ARCHANA$ ls  
data  data.tar  data.txt  file.gz  
bandit1@bandit:/tmp/ARCHANA$ file data  
data: POSIX tar archive (GNU)  
bandit1@bandit:/tmp/ARCHANA$ mv data data.tar  
bandit1@bandit:/tmp/ARCHANA$ ls  
data6.bin  data.tar  data.txt  file.gz  
bandit1@bandit:/tmp/ARCHANA$ file data6.bin  
data6.bin: gzip compressed data, was "data9.bin", last modified: Thu May 7 18:14:30 2020, max compression, from Unix  
bandit1@bandit:/tmp/ARCHANA$ mv data6 bin.archu.gz  
bandit1@bandit:/tmp/ARCHANA$ gzip -d archu.gz  
bandit1@bandit:/tmp/ARCHANA$ ls  
archu  data.tar  data.txt  file.gz  
bandit1@bandit:/tmp/ARCHANA$ file archu  
archu: ASCII text  
bandit1@bandit:/tmp/ARCHANA$ cat archu  
The password is 8zjyCtBwRvKneahhxvcV3wbZa10RpYl  
bandit1@bandit:/tmp/ARCHANA$ exit  
logout  
Connection to bandit.labs.overthewire.org closed.  
- ssh channel 1: disconnected -  
bandit1@bandit:~$ ssh bandit1@bandit.labs.overthewire.org -p 2220  
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames
```

  
At the bottom of the terminal, it says:  

```
bandit1@bandit.labs.overthewire.org's password:  
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

```
Activities Terminal Mar 6 00:17 bandit15@bandit: ~  
* pwntools (https://github.com/Gallopsled/pwntools)  
* radare2 (https://www.radare.org)  
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh  
--[ More information ]--  
For more information regarding individual wargames, visit  
http://www.overthewire.org/wargames/  
For support, questions or comments, contact us through IRC on  
irc.overthewire.org #wargames.  
Enjoy your stay!  
bandit15@bandit:~$ cat /etc/passwd | grep bandit15  
bandit15@bandit:~$ nc localhost 30000  
bandit15@bandit:~$ nc localhost 30000  
Correct!  
BfWVroe2oWvalli177Fodl9qh59eK5xNr  
bandit15@bandit:~$ exit  
logout  
Connection to localhost closed.  
bandit15@bandit:~$ exit  
logout  
Connection to bandit.labs.overthewire.org closed.  
archana@archana-VirtualBox:~$ ssh bandit15@bandit.labs.overthewire.org -p 2220  
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames  
bandit15@bandit.labs.overthewire.org's password:  
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux  
  
OwOwOw  
www.OverTheWire.org  
Welcome to OverTheWire!
```

```
Activities Terminal Mar 6 00:23 bandit15@bandit: ~  
--[ Tips ]--  
This machine has a 64bit processor and many security-features enabled  
by default, although ASLR has been switched off. The following  
compiler flags might be interesting:  
  
-fno-stack-protector compile for 32bit  
-Wl,-z,norelro disable ProPolice  
-Wl,-z,norelro disable relro  
  
In addition, the execstack tool can be used to flag the stack as  
executable on ELF binaries.  
  
Finally, network-access is limited for most levels by a local  
firewall.  
--[ Tools ]--  
For your convenience we have installed a few usefull tools which you can find  
in the following locations:  
  
* gef (https://github.com/hugsy/gef) in /usr/local/gef/  
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/  
* peda (https://github.com/l0ng1d/peda.git) in /usr/local/peda/  
* gdbinit (https://github.com/gdbinit/gdbinit) in /usr/local/gdbinit/  
* pwntools (https://github.com/Gallopsled/pwntools)  
* radare2 (http://www.radare.org)  
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh  
--[ More information ]--  
For more information regarding individual wargames, visit  
http://www.overthewire.org/wargames/  
For support, questions or comments, contact us through IRC on  
irc.overthewire.org #wargames.  
Enjoy your stay!  
bandit15@bandit:~$ nc -l -s -p 30001  
BfWVroe2oWvalli177Fodl9qh59eK5xNr  
Correct!  
clufn7wTlGryunymY0u4RcFFsxQLuehd  
  
^Z  
[1]+ Stopped ncat -l -s -p 30001  
bandit15@bandit:~$
```

THANK YOU!