OverTheWire Intro

learn security concepts through games!

ACM Discord

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Command Line Hacking

Command line hacking is an essential part of cybersecurity. Having access to a user's command prompt allows you to perform a wide range of tasks that are critical for system administration, security assessment, and incident response.

Command line interfaces provide direct access to the OS, enabling users to execute commands without a GUI.

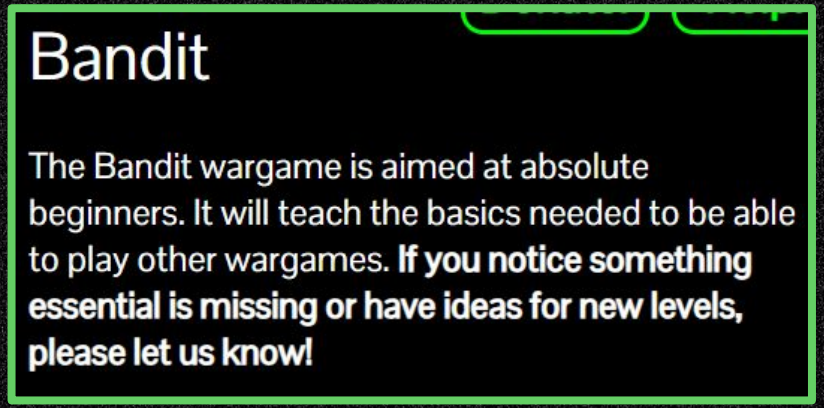
Many networking tools such as ping, traceroute, and nmap are only accessible via the command line. These tools are essential for ensuring the security of network configurations.

In the event of a security breach, command line tools can be used to analyze logs, retrieve info, and conduct forensic investigations quickly and effectively.

Games to help you learn security concepts used in the real world :OOO

https://overthewire.org/wargames/bandit/

- Basic networking
- File systems/file naming importance
- Writing scripts
- Get comfortable with Linux/Command Line
- Problem solving/answer hunting skills



SSH

SSH will provide an encrypted connection between 2 hosts over an unsecure network. It allows users (you) to securely share data over two computers.

In order to SSH into something you will need to open your Terminal (Mac users) or Powershell, WSL (Windows Subsystem for Linux), or Command Prompt (Windows users).

Example on how to do it:

Type ssh username@hostname or ssh username@ipAddress

Might ask for the user name and password of the host or possibly just the password, enter the password but be aware since it is a password (for security) it will not show length of password or password at all.

When you're done with the server just type "exit" and then enter a couple of times until you see your computer's name in left corner like this;

Command Prompt Cheat Sheet

ssh	allows secure communication	file	identifies file type
ls	lists all files in current directory	du	provide disk usage information
cd	changes directory	find	finds files and directories
cat	displays file contents	grep	searches and matches text patterns

For guides on how to use these...

https://www.geeksforgeeks.org/25-basic-ubuntu-commands/

https://www.stationx.net/linux-command-line-cheat-sheet/

Bandit - Level 0

Level Goal

The goal of this level is for you to log into the game using SSH. The host to which you need to connect is **bandit.labs.overthewire.org**, on port 2220. The username is **bandit0** and the password is **bandit0**. Once logged in, go to the Level 1 page to find out how to beat Level 1.

Commands you may need to solve this level

ssh

Helpful Reading Material

Secure Shell (SSH) on Wikipedia
How to use SSH on wikiHow

ssh bandit0@bandit.labs.overthewire.org -p 2220

Password: bandit0

Bandit - Level 0 -> Level 1

Level Goal

The password for the next level is stored in a file called **readme** located in the home directory. Use this password to log into bandit1 using SSH. Whenever you find a password for a level, use SSH (on port 2220) to log into that level and continue the game.

Commands you may need to solve this level

ls , cd , cat , file , du , find

TIP: Create a file for notes and passwords on your local machine!

```
ls

cat  readme
```

Logging Out and Back In

```
bandit0@bandit:~$ ls
readme
bandit0@bandit:~$ cat readme
Congratulations on your first steps into the bandit game!!
Please make sure you have read the rules at https://overthewire.org/rules/
If you are following a course, workshop, walkthrough or other educational activity,
please inform the instructor about the rules as well and encourage them to
contribute to the OverTheWire community so we can keep these games free!

The password you are looking for is: ZjLjTmM6FvvyRnrb2rfNWOZOTa6ip5If

bandit0@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
PS C:\Users\calie> ssh bandit1@bandit.labs.overthewire.org -p 2220
```

Bandit - Level 1 -> Level 2

Level Goal

The password for the next level is stored in a file called - located in the home directory

Commands you may need to solve this level

ls , cd , cat , file , du , find

Helpful Reading Material

Google Search for “dashed filename”
Advanced Bash-scripting Guide - Chapter 3 - Special Characters

ls

cat ./-

Bandit - Level 2 -> Level 3

Level Goal

The password for the next level is stored in a file called **spaces in this filename** located in the home directory

Commands you may need to solve this level

ls , cd , cat , file , du , find

Helpful Reading Material

Google Search for “spaces in filename”

ls

cat ‘spaces in this filename’

Bandit - Level 3 -> Level 4+

- Try to get as far as you can before 6:30 !
- Work together? Work alone? Ask for help if you're stuck!!
- Don't be afraid to use Google, but don't cheat (or post your answers online!) ...that's bad ctf etiquette O_O
- If you're interested in being on the scoreboard...
  - https://overthewire.org/information/wechall.html

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