


## EXERCISE 6

## Demonstrate Linux Privilege Escalation

**Aim:** To understand and exploit stack-based buffer overflows by overwriting memory beyond a buffer's limit.



## Linux Privilege Escalation

Learn the fundamentals of Linux privilege escalation. From enumeration to exploitation, get hands-on with over 8 different privilege escalation techniques.

Medium 50 min

Share your achievement Start AttackBox Help Save Room 4854 Options

Room completed (100%)

Which user shares the name of a great comic book writer?

gerryconway ✓ Correct Answer

What is the password of user2?

Password1 ✓ Correct Answer

What is the content of the flag3.txt file?

THM-3847834 ✓ Correct Answer

Task 1 ✓ Introduction

Task 2 ✓ What is Privilege Escalation?

Task 3 ✓ Enumeration

Task 4 ✓ Automated Enumeration Tools

Task 5 ✓ Privilege Escalation: Kernel Exploits

Task 6 ✓ Privilege Escalation: Sudo

Task 7 ✓ Privilege Escalation: SUID

Task 8 ✓ Privilege Escalation: Capabilities

Task 9 ✓ Privilege Escalation: Cron Jobs

Task 10 ✓ Privilege Escalation: PATH

Task 11 ✓ Privilege Escalation: NFS

Task 12 ✓ Capstone Challenge

Complete the task described above on the target system

No answer needed

✓ Correct Answer

How many binaries have set capabilities?

6

✓ Correct Answer

What other binary can be used through its capabilities?

view

✓ Correct Answer

What is the content of the flag4.txt file?

THM-9349843

✓ Correct Answer

How many user-defined cron jobs can you see on the target system?

4

✓ Correct Answer

What is the content of the flag5.txt file?

THM-383000283

✓ Correct Answer

What is Matt's password?

123456

✓ Correct Answer

What is the odd folder you have write access for?

/home/murdoch

✓ Correct Answer

🔍 Hint

Exploit the \$PATH vulnerability to read the content of the flag6.txt file.

No answer needed

✓ Correct Answer

🔍 Hint

What is the content of the flag6.txt file?

THM-736628929

✓ Correct Answer

How many mountable shares can you identify on the target system?

3

✓ Correct Answer

How many shares have the "no\_root\_squash" option enabled?

3

✓ Correct Answer

Gain a root shell on the target system

No answer needed

✓ Correct Answer

What is the content of the flag7.txt file?

THM-89384012

✓ Correct Answer

What is the content of the flag1.txt file?

THM-42828719920544

✓ Correct Answer

What is the content of the flag2.txt file?

THM-168824782390238

✓ Correct Answer

What is the hostname of the target system?

wade7363 ✓ Correct Answer

What is the Linux kernel version of the target system?

3.13.0-24-generic ✓ Correct Answer

What Linux is this?

Ubuntu 14.04 LTS ✓ Correct Answer

What version of the Python language is installed on the system?

2.7.6 ✓ Correct Answer

What vulnerability seem to affect the kernel of the target system? (Enter a CVE number)

CVE-2015-1328 ✓ Correct Answer

**Answer the questions below**

find and use the appropriate kernel exploit to gain root privileges on the target system.

No answer needed ✓ Correct Answer [Hint](#)

What is the content of the flag1.txt file?

THM-28392872729920 ✓ Correct Answer

How many programs can the user "karen" run on the target system with sudo rights?

3 ✓ Correct Answer

What is the content of the flag2.txt file?

THM-402028394 ✓ Correct Answer

How would you use Nmap to spawn a root shell if your user had sudo rights on nmap?

sudo nmap --interactive ✓ Correct Answer

What is the hash of frank's password?

\$6\$2.sUUDsOLIpXKxcr\$elmtgFExyr2ls4jsghdD3DHLHHP9X50Iv.jNmwo/BJpphrPRJWjelWEz2HH.joV14aDEwW1c3CahzB1uaqr ✓ Correct Answer

**Result:** Successfully exploited the buffer overflow to overwrite the return address and redirect program execution.