

## Linux File System Analysis

EX.NO-8

DATE: 02-04-2025

### AIM:

Perform real-time file system analysis on a Linux system to identify an attacker's artefacts.

### PROCEDURE:

- Task 1 Introduction
  - Task 2 Investigation Setup
  - Task 3 Files, Permissions, and Timestamps
  - Task 4 Users and Groups
  - Task 5 User Directories and Files
  - Task 6 Binaries and Executables
  - Task 7 Rootkits
  - Task 8 Conclusion
- Task 1 Introduction :**

Answer the questions below

I'm ready to continue!

No answer needed

✓ Correct Answer

### **Task 2 Investigation Setup :**

Answer the questions below

After updating the `PATH` and `LD_LIBRARY_PATH` environment variables, run the command `check-env`. What is the flag that is returned in the output?

THM{5514ec4f1ce82f63867806d3cd95dbd8}

✓ Correct Answer

🔍 Hint

### **Task 3 Files, Permissions, and Timestamps :**

Answer the questions below

To practice your skills with the `find` command, locate all the files that the user `bob` created in the past 1 minute. Once found, review its contents. What is the flag you receive?

THM{0b1313afd2136ca0faafb2daa2b430f3}

✓ Correct Answer

🔍 Hint

Extract the metadata from the `reverse.elf` file. What is the file's MIME type?

application/octet-stream

✓ Correct Answer

Run the `stat` command against the `/etc/passwd` file on the compromised web server. What is the full **Modify Timestamp (mtime)** value?

2020-10-26 21:10:44.000000000 +0000

✓ Correct Answer

### **Task 4 Users and Groups :**

Answer the questions below

Investigate the user accounts on the system. What is the name of the backdoor account that the attacker created?

b4ckd00r3d ✓ Correct Answer [Hint](#)

What is the name of the group with the group ID of 46?

plugdev ✓ Correct Answer

View the `/etc/sudoers` file on the compromised system. What is the full path of the binary that Jane can run as sudo?

/usr/bin/pstree ✓ Correct Answer

### Task 5 User Directories and Files :

Answer the questions below

View Jane's `.bash_history` file. What flag do you see in the output?

THM{f38279ab9c6af1215815e5f7bbad891b} ✓ Correct Answer

What is the hidden flag in Bob's home directory?

THM{6ed90e00e4fb7945bead8cd59e9fcd7f} ✓ Correct Answer

Run the `stat` command on Jane's `authorized_keys` file. What is the full timestamp of the most recent modification?

2024-02-13 00:34:16.005897449 +0000 ✓ Correct Answer

### Task 6 Binaries and Executables :

Answer the questions below

Run the `debsums` utility on the compromised host to check only configuration files. Which file came back as altered?

/etc/sudoers ✓ Correct Answer

What is the `md5sum` of the binary that the attacker created to escalate privileges to root?

7063c3930affe123baecd3b340f1ad2c ✓ Correct Answer

### Task 7 Rootkits :

Answer the questions below

Run `chkrootkit` on the affected system. What is the full path of the `.sh` file that was detected?

/var/tmp/findme.sh ✓ Correct Answer

Run `rkhunter` on the affected system. What is the result of the `(UID 0) accounts` check?

Warning ✓ Correct Answer

### Task 8 Conclusion :

Answer the questions below

Click and continue learning!

No answer needed ✓ Correct Answer

### RESULT:

Thus the Linux File System Analysis is completed using tryhackme platform.