

Linux File System Analysis

EX.NO-08

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/hosts` 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?

✓ Correct Answer 🔍 Hint

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

✓ 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?

✓ 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?

✓ Correct Answer

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

✓ Correct Answer

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

✓ 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?

✓ Correct Answer

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

✓ 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?

✓ Correct Answer

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

✓ Correct Answer

Task 8 Conclusion :

Answer the questions below

Click and continue learning!

✓ Correct Answer

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RESULT:

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