

EX NO : 8      PERFORM ROOTKIT DETECTION AND REMOVAL      NAME : MOHAMED ARSATH  
DATE : 14.04.2025      USING RKHUNTER TOOL      ROLL NO : 231901030

AIM:

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

#### TASK 2 : INVESTIGATION SETUP

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, PERMISSION AND TIMESTAMPS

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

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

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

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

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

CONCLUSION :

Rootkit detection and removal using rkhunter tool is successfully performed.