Intrusion Detection

EX-NO-12

AIM:

Learn cyber evasion techniques and put them to the test against two IDS.
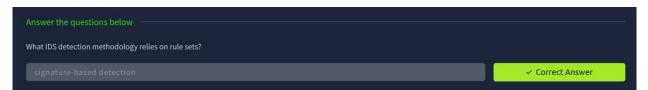
PROCEDURE:

- Task 1 Introduction
- Task 2 Intrusion Detection Basics
- Task 3 Network-based IDS (NIDS)
- Task 4 Reconnaissance and Evasion Basics
- Task 5 Further Reconnaissance Evasion
- Task 6 Open-source Intelligence
- Task 7 Rulesets
- Task 8 Host Based IDS (HIDS)
- Task 9 Privilege Escalation Recon
- Task 10 Performing Privilege Escalation
- Task 11 Establishing Persistence
- Task 12 Conclusion

Task 1 Introduction :

> Answer the questions below
>
> Deploy the target machine and create an account and log into the system at http://MACHINE_IP:8000, in preparation for future tasks.
>
> No answer needed   ✓ Correct Answer   ♀ Hint

Task 2 Intrusion Detection Basics :

> Answer the questions below
>
> What IDS detection methodology relies on rule sets?
>
> signature-based detection   ✓ Correct Answer

Task 3 Network-based IDS (NIDS) :

> Answer the questions below
>
> What widely implemented protocol has an adverse effect on the reliability of NIDS?
>
> TLS   ✓ Correct Answer   ♀ Hint
>
> Experiment by running tools against the target and viewing the resultant alerts. Is there any unexpected activity?
>
> No answer needed   ✓ Correct Answer   ♀ Hint

Task 4 Reconnaissance and Evasion Basics :

Answer the questions below

What scale is used to measure alert severity in Suricata? (*-*)

1-3   ✓ Correct Answer   ♀ Hint

How many services is nmap able to fully recognise when the service scan (-sV) is performed?

3   ✓ Correct Answer   ♀ Hint

Task 5 Further Reconnaissance Evasion :

Answer the questions below

Nikto, should find an interesting path when the first scan is performed, what is it called?

/login   ✓ Correct Answer

What value is used to toggle denial of service vectors when using scan tuning (-T) in nikto?

6   ✓ Correct Answer   ♀ Hint

Which flags are used to modify the request spacing in nikto? Use commas to separate the flags in your answer.

6,A,B   ✓ Correct Answer   ♀ Hint

Task 6 Open-source Intelligence :

Answer the questions below

What version of Grafana is the server running?

8.2.5   ✓ Correct Answer   ♀ Hint

What is the ID of the severe CVE that affects this version of Grafana?

CVE-2021-43798   ✓ Correct Answer   ♀ Hint

If this server was publicly available, What site might have information on its services already?

shodan   ✓ Correct Answer

How would we search the site "example.com" for pdf files, using advanced Google search tags?

site:example.com filetype:pdf   ✓ Correct Answer

Task 7 Rulesets :

Answer the questions below

What is the password of the grafana-admin account?

GraphingTheWorld32   ✓ Correct Answer   ♀ Hint

Is it possible to gain direct access to the server now that the grafana-admin password is known? (yay/nay)

yay   ✓ Correct Answer   ♀ Hint

Are any of the attached IDS able to detect the attack if the file /etc/shadow is requested via the exploit, if so what IDS detected it?

Suricata   ✓ Correct Answer   ♀ Hint

Task 8 Host Based IDS (HIDS) :

Answer the questions below

What category does Wazuh place HTTP 400 error codes in?

web   ✓ Correct Answer   ♀ Hint

Play around with some post-exploitation tools and commands and make note of what activity is detected by Wazuh; compare it to the activity that's detected by Suricata.

No answer needed   ✓ Correct Answer

Task 9 Privilege Escalation Recon :

Answer the questions below

What tool does linPEAS detect as having a potential escalation vector?

docker   ✓ Correct Answer   ♀ Hint

Is an alert triggered by Wazuh when linPEAS is added to the system, if so what its severity?

5   ✓ Correct Answer   ♀ Hint

Task 10 Performing Privilege Escalation :

Answer the questions below

Perform the privilege escalation and grab the flag in /root/

{SNEAK_ATTACK_CRITICAL}   ✓ Correct Answer

Task 11 Establishing Persistence :

Answer the questions below

Abuse docker to establish a backdoor on the host system

No answer needed   ✓ Correct Answer

Task 12 Conclusion :

Answer the questions below

Read the above

| No answer needed | ✓ Correct Answer |

RESULT:

Thus the Intrusion Detection is completed using tryhackme platform.