

Lab Report

CSE451, Computer and Networks Security

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Lab No: (5)	Experiment Title: Vulnerability Scanning Using OpenVAS							
		Date:	8 /	12 /20 <mark>22</mark>				
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1. Screenshots

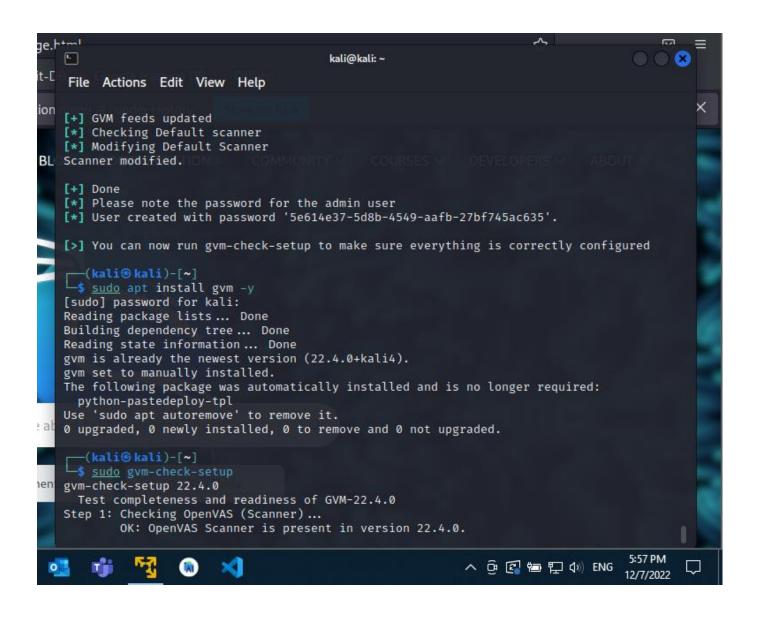
Machine	IP		
Linux Kali	192.168.11.134		
Windows Server 2016	192.168.11.135		
Linux Metasploit	192.168.11.136		

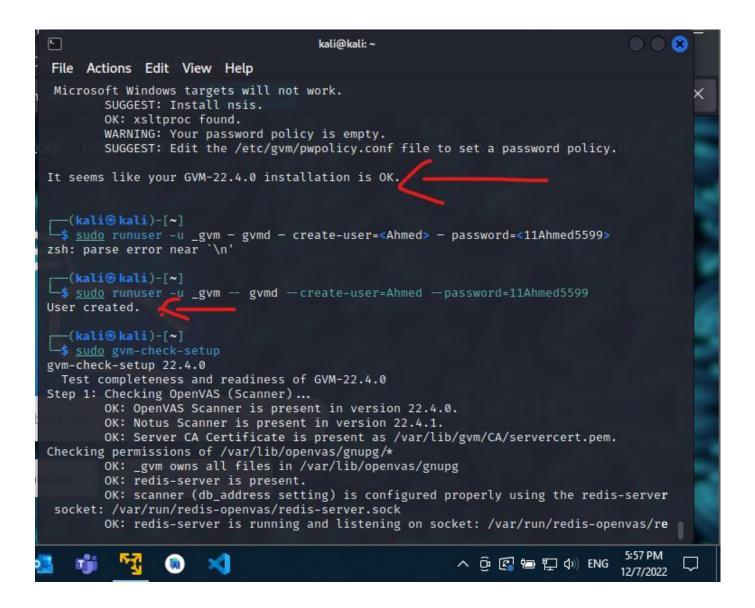
Introduction

Install and setup of gvm (OpenVAS)

```
File Actions Edit View Help
     oot®kali)-[/home/kali]
  sudo gvm-setup
[>] Starting PostgreSQL service
[>] Creating GVM's certificate files
[>] Creating PostgreSQL database
could not change directory to "/home/kali": Permission denied
[i] User gvm already exists in PostgreSQL
could not change directory to "/home/kali": Permission denied
[i] Database gvmd already exists in PostgreSQL
could not change directory to "/home/kali": Permission denied
[i] Role DBA already exists in PostgreSQL
[*] Applying permissions
could not change directory to "/home/kali": Permission denied
NOTICE: role "_gvm" is already a member of role "dba"
GRANT ROLE
could not change directory to "/home/kali": Permission denied
[i] Extension uuid-ossp already exists for gvmd database
could not change directory to "/home/kali": Permission denied
[i] Extension pgcrypto already exists for gvmd database
could not change directory to "/home/kali": Permission denied
[i] Extension pg-gvm already exists for gvmd database
[>] Migrating database
(gvmd:24839): md manage-WARNING **: 14:55:09.254: sql_exec_internal: PQexec failed
ted-
(7)
(gvmd:24839): md manage-WARNING **: 14:55:09.254: sql_exec_internal: SQL: CREATE O
on_str () RETURNS text AS $$ WITH pref_str AS ( SELECT name, substring(
substring (name, '^.*?:([^:]+):') AS pref_id,
                                                      (substring (name, '^.*?:([
                               ^[^:]*:[^:]*:[^:]*:(.*)') || value) AS pr
name,
```

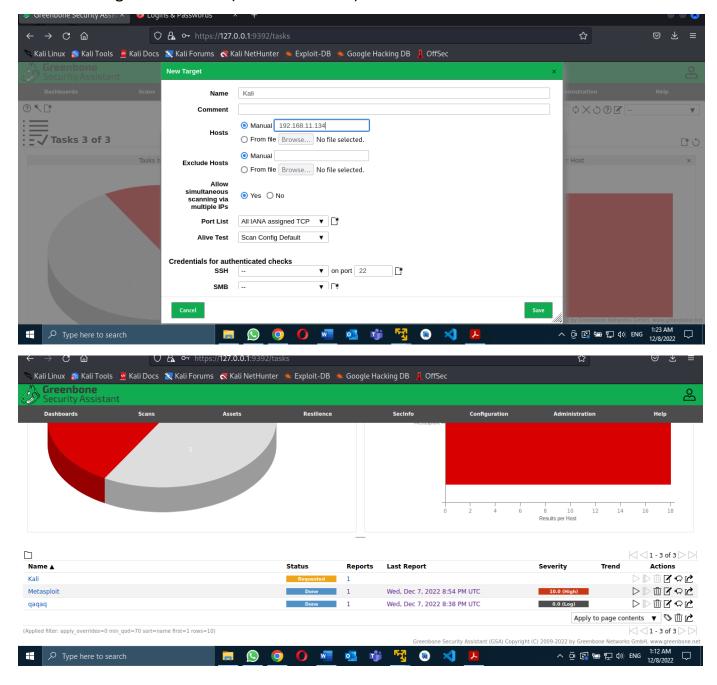
⍂ root@kali:/va File Actions Edit View Help sent 71 bytes received 111 bytes 121.33 bytes/sec total size is 13 speedup is 0.07 [*] Updating Cert Data Greenbone community feed server - http://feed.community.greenbone.net/ This service is hosted by Greenbone Networks - http://www.greenbone.net/ All transactions are logged. If you have any questions, please use the Greenbone community portal. See https://community.greenbone.net for details. By using this service you agree to our terms and conditions. Only one sync per time, otherwise the source ip will be temporarily blocked. receiving incremental file list timestamp 0:00:00 (xfr#1, to-chk=0/1) 13 100% 6.35kB/s sent 71 bytes received 111 bytes 121.33 bytes/sec total size is 13 speedup is 0.07 [+] GVM feeds updated [*] Checking Default scanner 08b69003-5fc2-4037-a479-93b440211c73 OpenVAS /run/ospd/ospd.sock 0 OpenVAS Def [i] No need to alter default scanner [+] Done [i] Admin user already exists for GVM [i] If you have forgotten it, you can change it. See gvmd manpage for more informa [>] You can now run gvm-check-setup to make sure everything is correctly configure

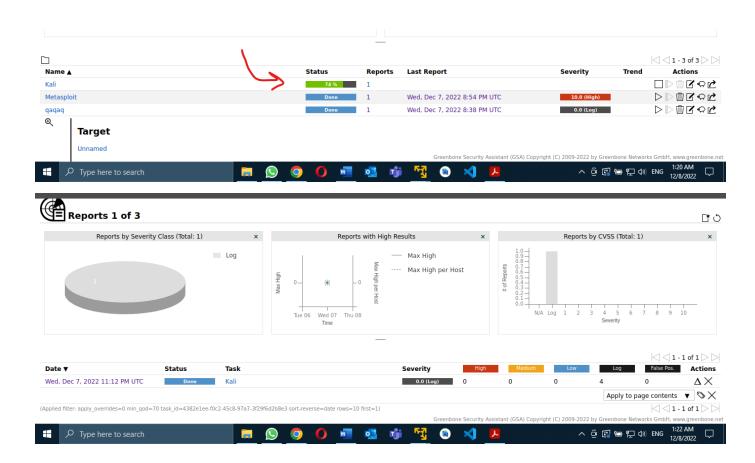




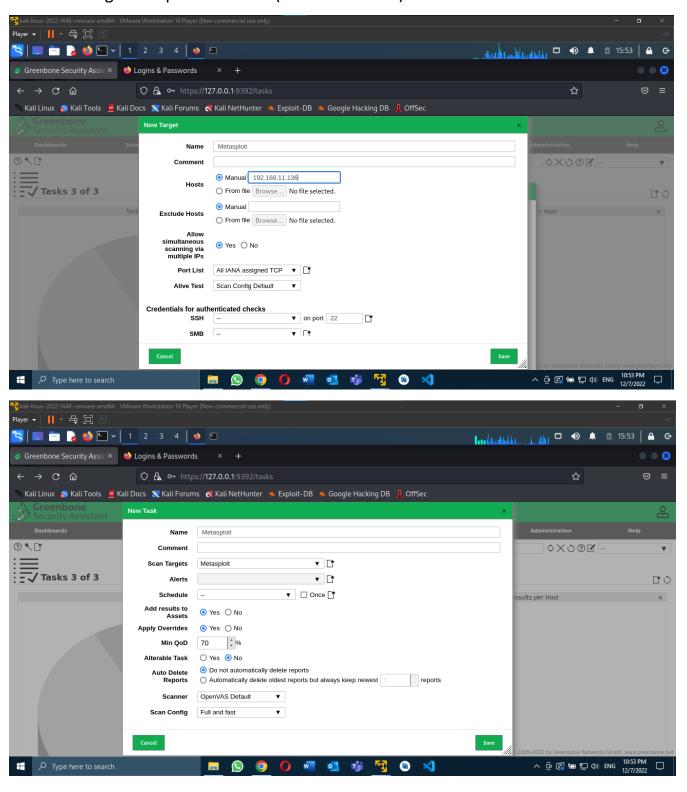
Scanning Target for vulnerabilities

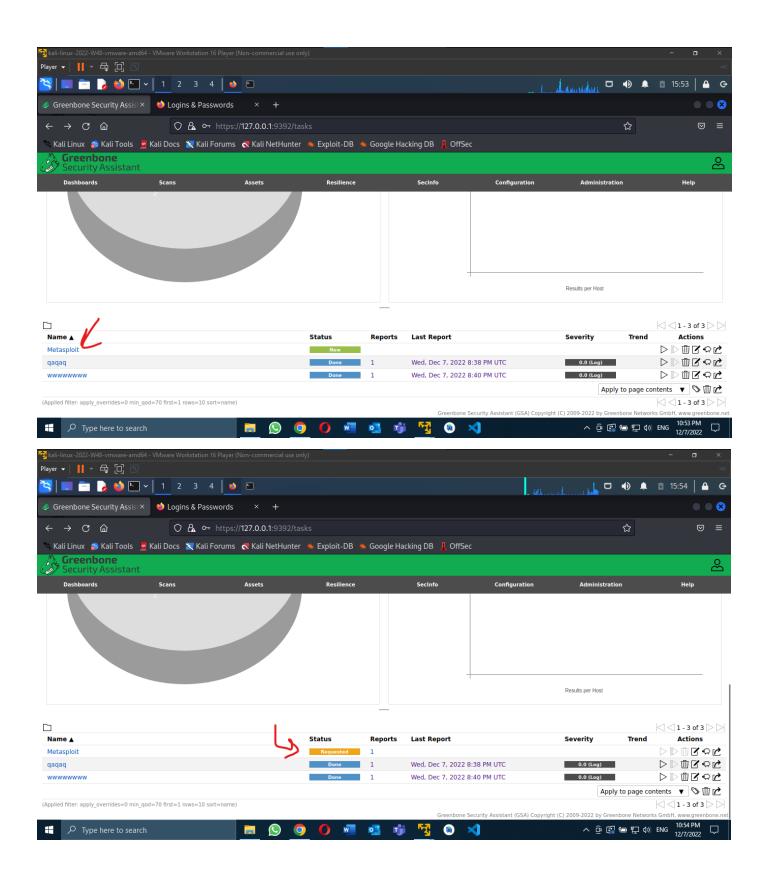
Task Scanning Kali Machine (192.168.11.134)

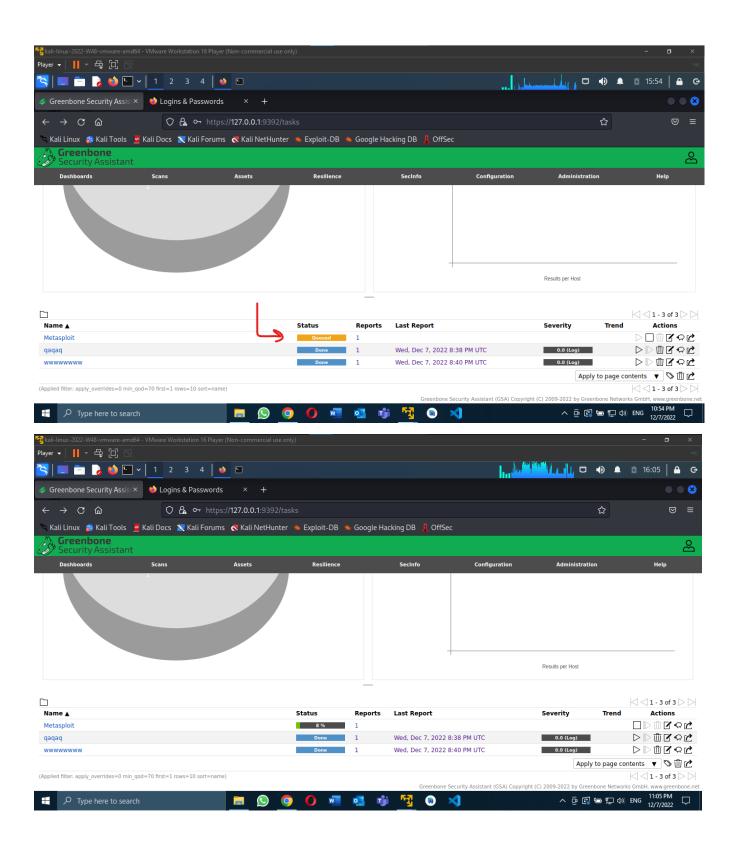


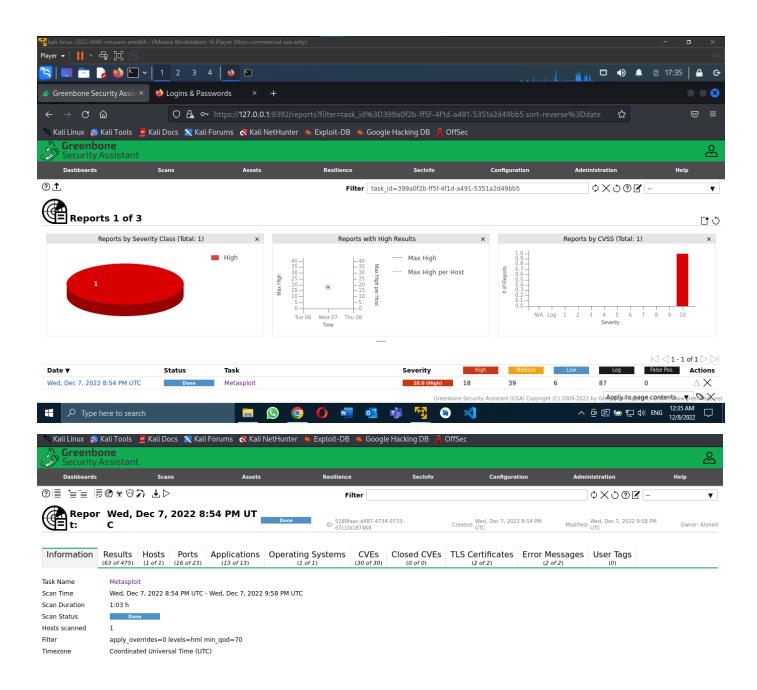


Task scanning Metasploit Machine (192.168.11.136)

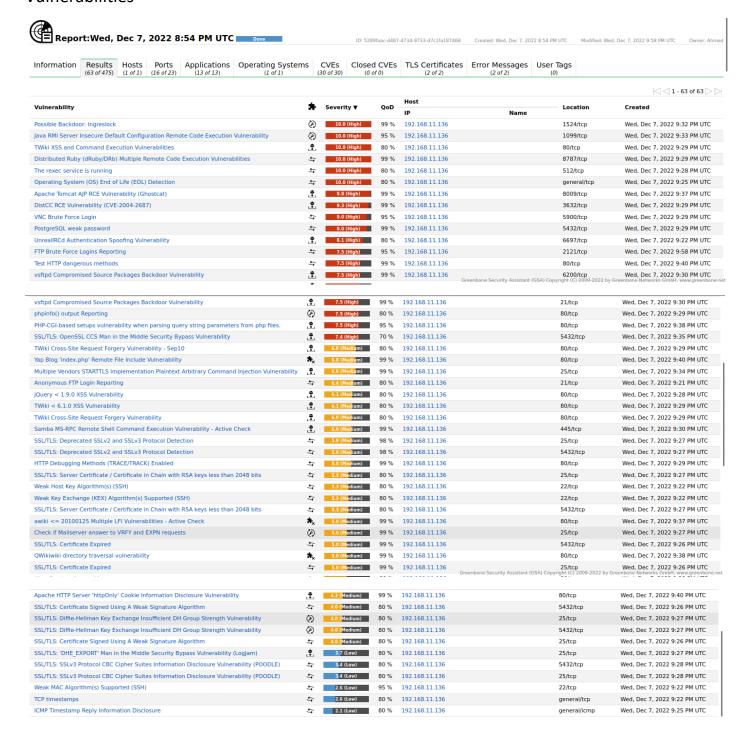








Vulnerabilities



2. Five Vulnerabilities of Metasploitable target:

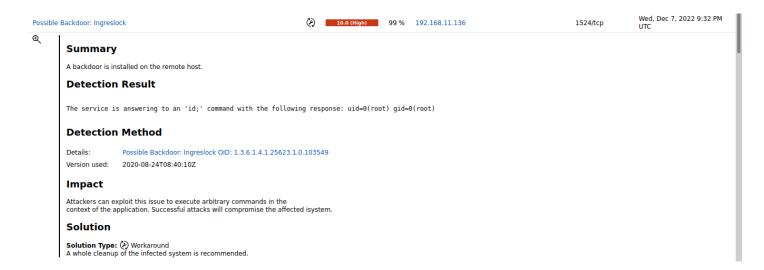
1) Possible Backdoor: Ingreslock

This is an old vulnerability that was first reported in 2004. Backdoor.Ingreslock is a backdoor exploit that gives third parties access to the computer affected by the vulnerability.

Backdoor.Ingreslock gained some attention due to the known browser goggle chrome notifications showing the presence of Backdoor.Ingreslock in its memory processes. Although original versions of Backdoor.Ingreslock are inactive, some Trojans can use alike vulnerabilities to target computers.

Solution

The Backdoor.Ingreslock vulnerability can be countered easily, although Backdoor.Ingreslock may be an indicator for a bigger problem. On the other hand, security practices and scans for vulnerabilities can root out problems like Backdoor.Ingreslock. It is better to look for the source of the possible attack, which may include an attack website or a third-part showing signs of injecting and targeting the computer.

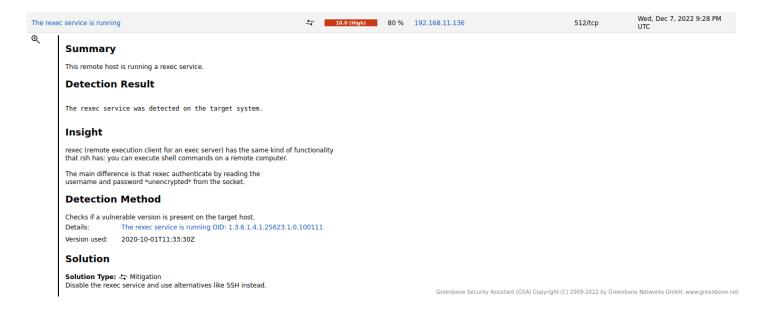


2)The rexec service is running

The RSH remote execution service (rexec) is a legacy service, most of the time is used to - without checking- and blindly have trusted Ips and host. Major problem is that no encryption is applied or any form of authentication in the protocol.

Solution

Disable the rexec service and use better protocols like SSH (Secure Shell Protocol).

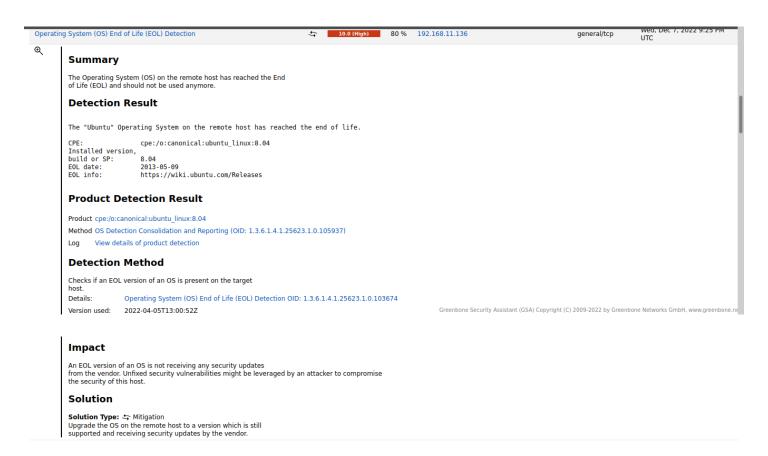


3) OS End of Life Detection.

The Operating System on the remote host has reached the end of life and is advised to not use it further.

Solution:

Upgrade the Operating System on the remote host to have a version that gets security patches from the OS vendor.



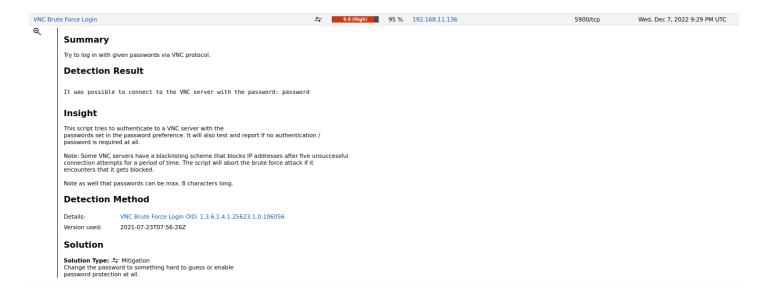
4) VNC Brute force login

When trying to log in with given and saved passwords using VNC protocol, the script tries to authenticate the written password to a VNC server with the passwords saved in a password preference list. It tests and replies if no authentication/password is needed.

Some VNC servers can blacklist IP addresses after five unsuccessful connection requests for some time. The script will abandon the brute force attack if it receives a block and be aware that passwords can be maximum 8 characters long.

Solution:

Make your password difficult to be thought of or use a password protection policy.



5) PostgreSQL weak password

It used to be ok to login into the remote PostgreSQL as a postgres user with the aid of weak credentials.

Solution:

Change the password as soon as possible.

