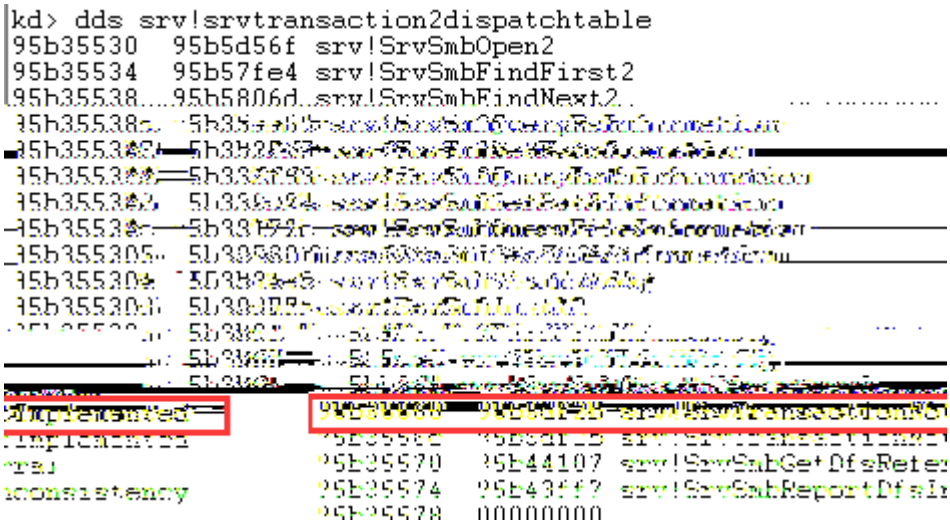
Shadow Brokers NSA DoublePulsar
DoublePulsar

SMB RDP
EternalBlue EternalRomance srv.sys
SrvTransaction2DispatchTable 14 srv.sys
SrvTransaction2DispatchTable 14
SrvTransactionNotImplemented SMB SMB_COM_TRANSACTION2
DoublePulsar
SMB_COM_TRANSACTION2

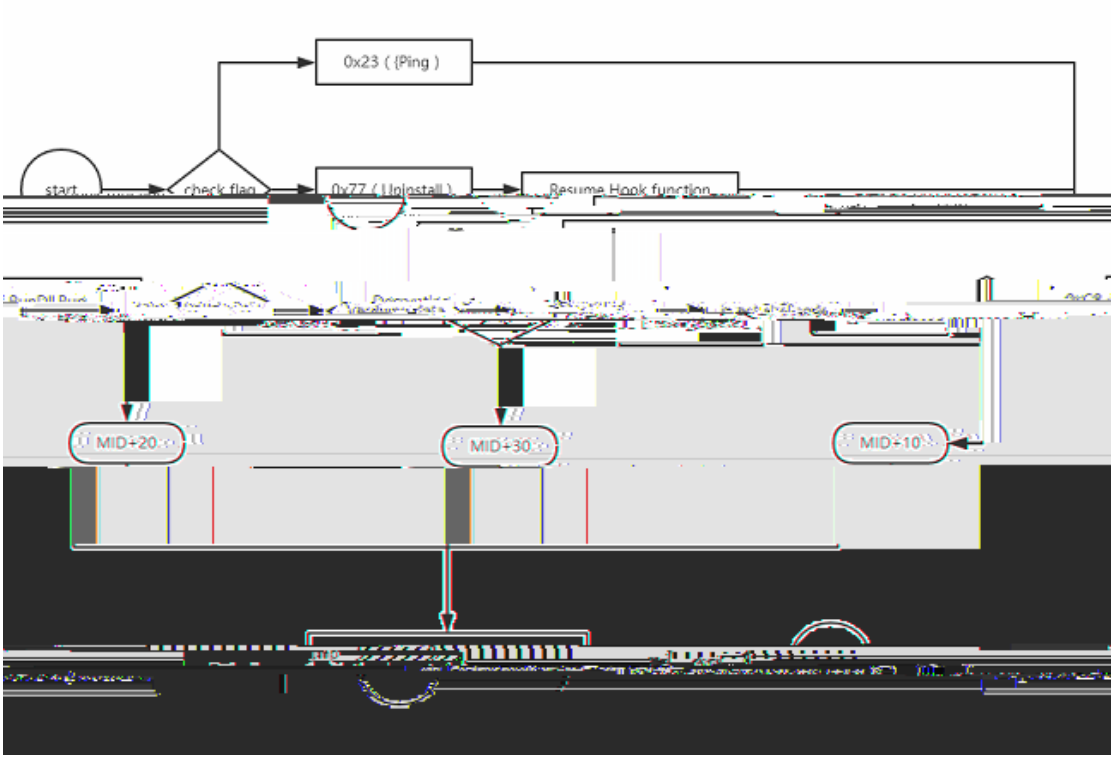
1. SrvTransaction2DispatchTable 14
SrvTransactionNotImplemented



2. SrvTransaction2DispatchTable 14

3.DoublePulsar

OutputInstall	shellcode RunShellcode
Ping	DoublePulsar
RunDLL RunShellcode	shellcode Dll



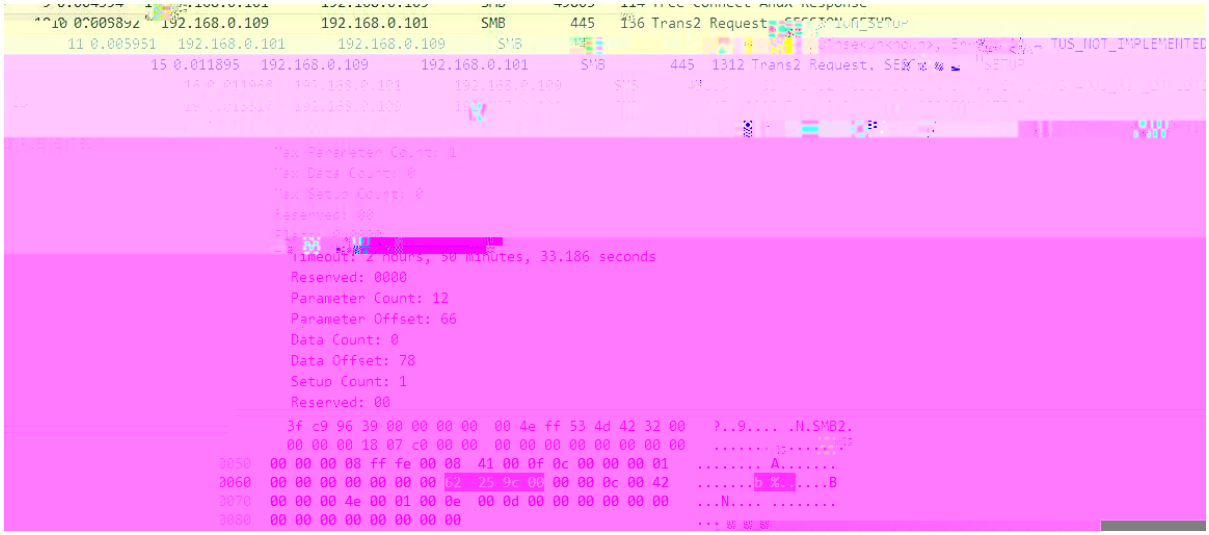
(1)CheckFlag

SMB_COM_TRANSACTION2

Timeout flag

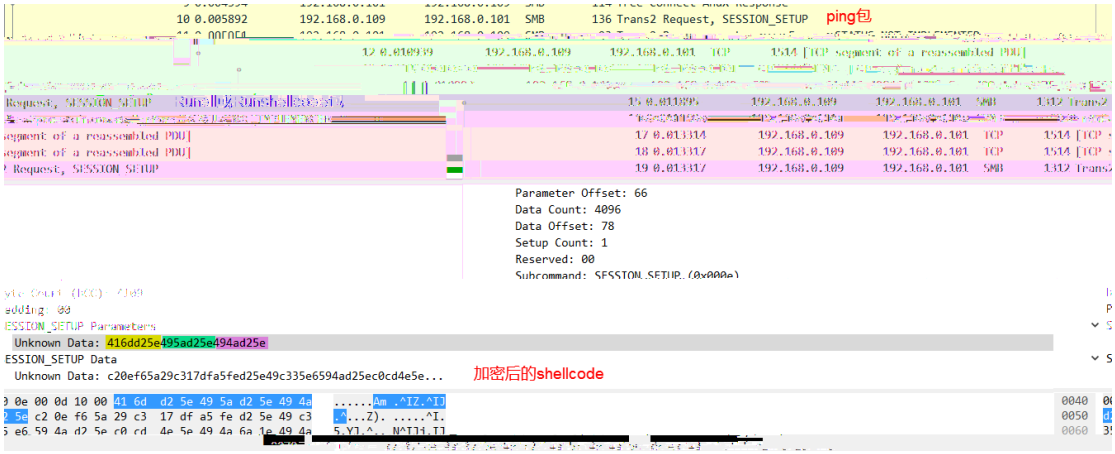
```
seg000:86847194 sub_86847194    proc near               ; CODE XREF: start+30↑p
seg000:86847194                 xor     eax, eax
seg000:86847196                 mov     al, cl
seg000:86847198                 shr     ecx, 8
seg000:8684719B                 add     al, cl
seg000:8684719D                 shr     ecx, 8
seg000:868471A0                 add     al, cl
                                retn
                sub_86847194    endp
seg000:868471A7
```

timeout 0x23



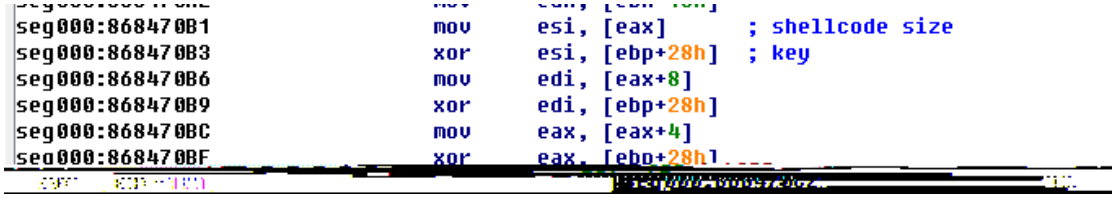
0x23	Ping
0x77	
0xc8	shellcode

(



SESSION_SETUP Data shellcode

a. shellcode

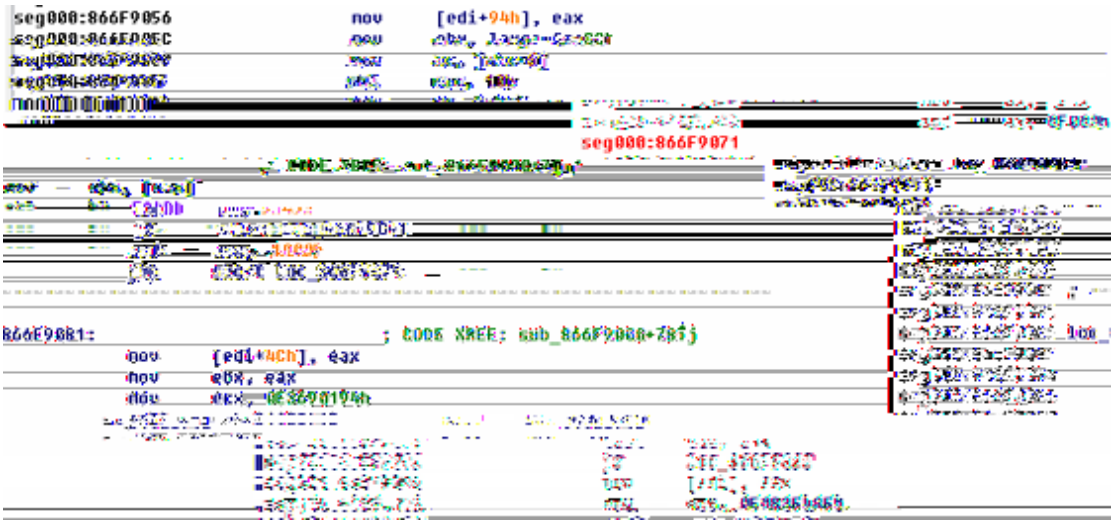


b. shellcode shellcode

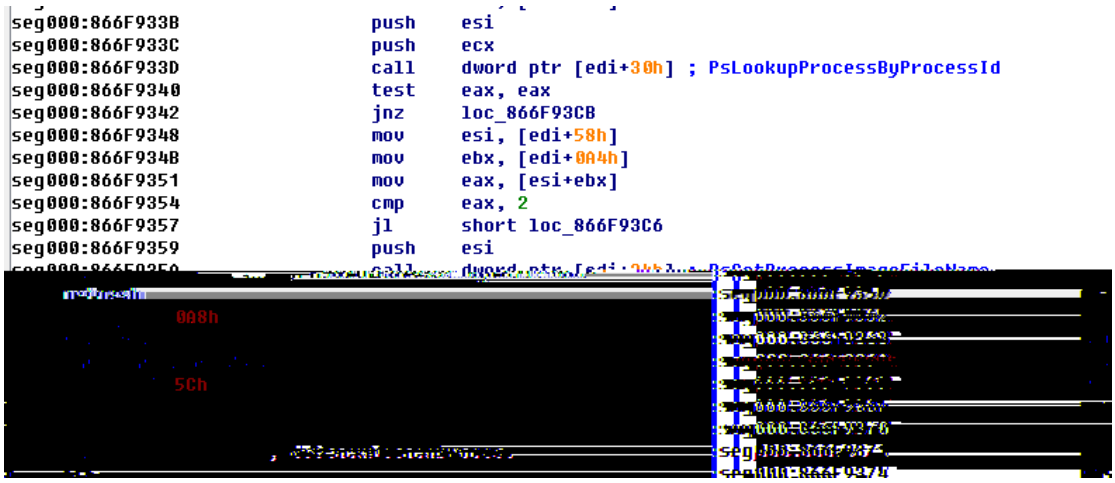
shellcode



c. Rundll shellcode IDT ntoskrnl.exe IDT ntoskrnl.exe PE



d. PID lsass.exe



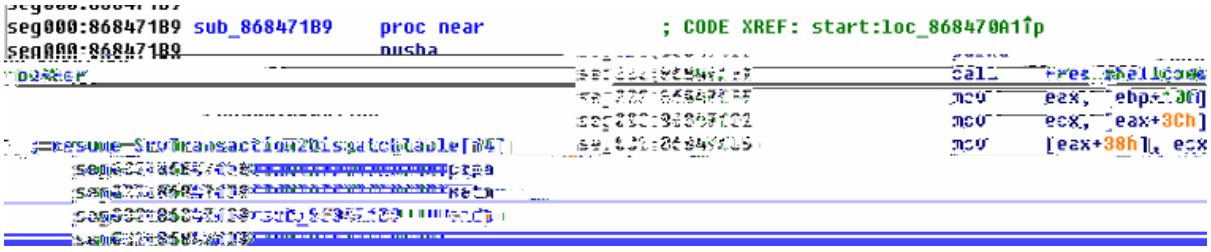
e. APC



(4)Uninstall

0x77

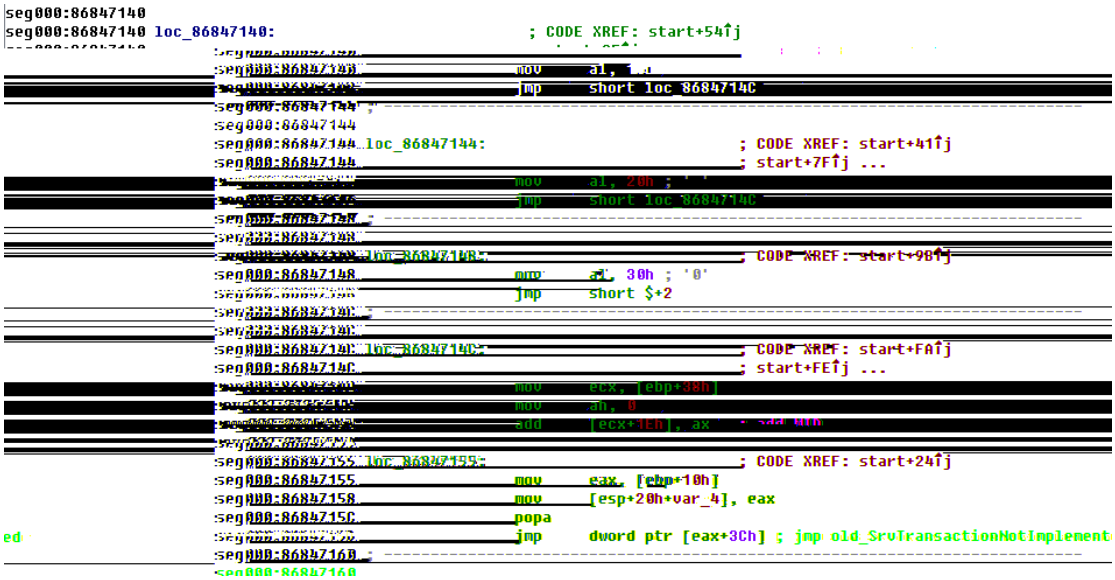
SrvTransaction2DispatchTable



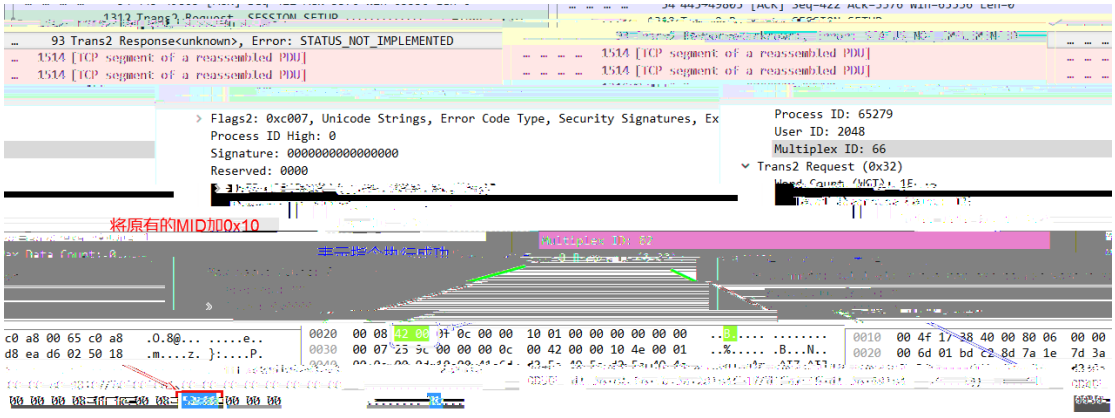
(5)

SrvTransactionNotImplemented

MID



MID+0x10	
MID+0x20	
MID+0x30	



VenusEye

VenusEye

Hedwig Locky

18

Sage 2.0

Office 0day 2016



