

METASPLOIT

Cybersecurity Presentation

Group 7



INTRODUCTION

-What is Metasploit?

Metasploit is a powerful penetration testing framework widely used for testing and evaluating the security of computer systems and networks.



- Metasploit as an open-source framework developed by Rapid7
 - provides a suite of tools and resources for exploiting vulnerabilities, conducting security assessments, and testing the effectiveness of security defenses

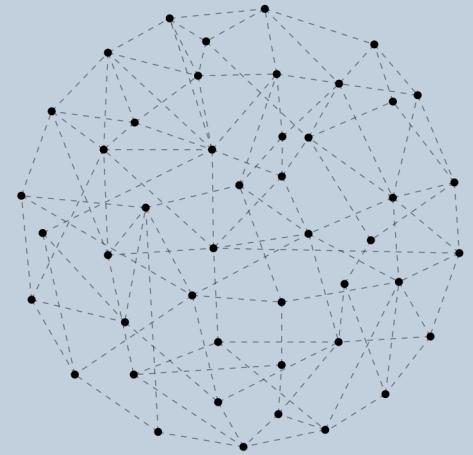
KEY FEATURES OF METASPLOIT

- Exploit development and execution**
- Vulnerability scanning and identification**
- Payload generation and delivery**
- Post-exploitation activities and privilege escalation**





Metasploit Architecture



- **Metasploit Framework:** The core of the framework that provides the main functionality
- **Metasploit Console (msfconsole):** The command-line interface for interacting with Metasploit
- **Meterpreter:** A powerful payload used for post-exploitation activities
- **Auxiliary Modules:** Additional modules for information gathering and scanning

Metasploit Usage



- **Planning and reconnaissance:** Gathering information about the target system/network.
- **Exploitation:** Identifying and exploiting vulnerabilities to gain unauthorized access.
- **Post-exploitation:** Maintaining control, escalating privileges, and extracting valuable data.
- **Reporting:** Documenting findings and recommendations for remediation.

Metasploit Community and Ecosystem

- Metasploit community that contributes to the framework's development and improvement
- Metasploit modules, exploits, and payloads created and shared by the community



Real-world Examples

- Security assessments and penetration testing engagements
- Red teaming exercises
- Vulnerability research and disclosure





Best Practices and Ethical Use

- The importance of ethical use and responsible practices when using Metasploit or any other hacking tool.
- Highlight the need for proper authorization, consent, and adherence to legal and ethical guidelines.



Conclusion



- **Metasploit provides exploit development, vulnerability scanning, payload generation, and post-exploitation capabilities.**
- **Its architecture includes the Metasploit Framework, msfconsole, Meterpreter, and auxiliary modules.**
- **Metasploit is used for planning, reconnaissance, exploitation, post-exploitation, and reporting in security assessments.**
- **It has a vibrant community that contributes additional resources and tools.**