Hacker's Methodology

(…a malicious mindset)

Hacker's Methodology

Performing Reconnaissance

Scanning and Enumeration

Gaining Access

Escalation of Privilege

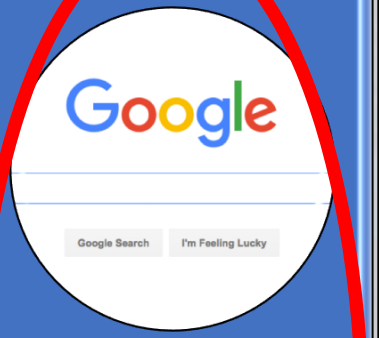
Maintaining Access

Covering Tracks and Placing Backdoors

Pre-Attack Steps

Risk Level

Hacker's Methodology



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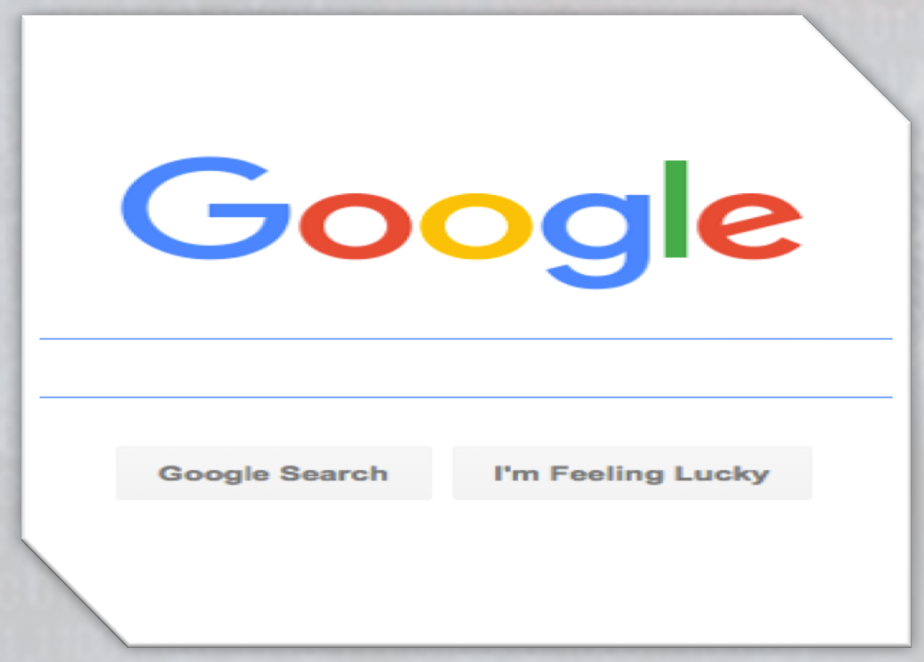
Step 1 - Performing Reconnaissance



- Systematic attempt to locate, gather, identify, and record information about a target (aka “Footprinting”)
- Reconnaissance techniques include:
  - Social engineering
  - Dumpster diving
  - Email harvesting
  - Internet or open-source research
- Only PASSIVE information gathering occurs

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Step 2 - Scanning & Enumeration

- Scanning
  - Actively connecting to the system and get response to identify open ports & services
- Enumeration
  - In-depth information gathering
    - Open shares
    - User accounts information
    - Software versions
- Compile the information gathered to build a target map before beginning your attack

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Step 3 - Gaining Access

- Performing exploits for the first time to attempt to gain access to target
- Client-side or remote exploitation attacks
  - Social engineering techniques
  - Open wireless connections
  - Unsecured or unpatched system
  - System vulnerability
  - Web applications vulnerabilities
  - Backdoors
  - Buffer overflows
  - Trojans

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Step 4 - Escalation of Privilege

- Gain administrative, system or root access by escalating the account's privileges
- Exploit a vulnerability or a bug in an application or the operating system
- After privilege escalation, attackers have full control over the system and/or network
- Gain administrator access over the workstation, then expand to domain administrator (if possible)

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Step 5 - Maintaining Access

- Attackers use techniques to maintain access:
  - Network sniffers
  - Steal additional passwords
  - Lateral movement to other targets
  - Opening ports and starting services
- Survey the host and understand its posture
  - Look for others on the system…are you alone?
- Goal is keep persistent access
- Now, you are ready for data exfiltration, data compromise, system takeover, ...

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Step 6 - Covering Tracks

- Erase evidence of their attack
  - Temp files
  - Log files
  - Previous stage malware (if used)
- Modifying log files
  - Access times
  - User identity
- Hiding files and folders
- Alternate Data Streams (ADS)
- Installing rootkits
- Installing backdoors
- Setup call backs for designated times

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