DEVSECOPS BOOTCAMP

BUILDING RUGGED SOFTWARE

YEAR ONE / WEEK SIX / LESSON ONE

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Week 6 Offensive Security

Agenda

- Thinking Outside the box
- Web Application Vulnerability Chaining
- Lab 1 Web App Vuln Chaining
- Lateral Movement
  - Metasploit Intro
- AWS Account Takeover (ATO)
  - ATO Lab

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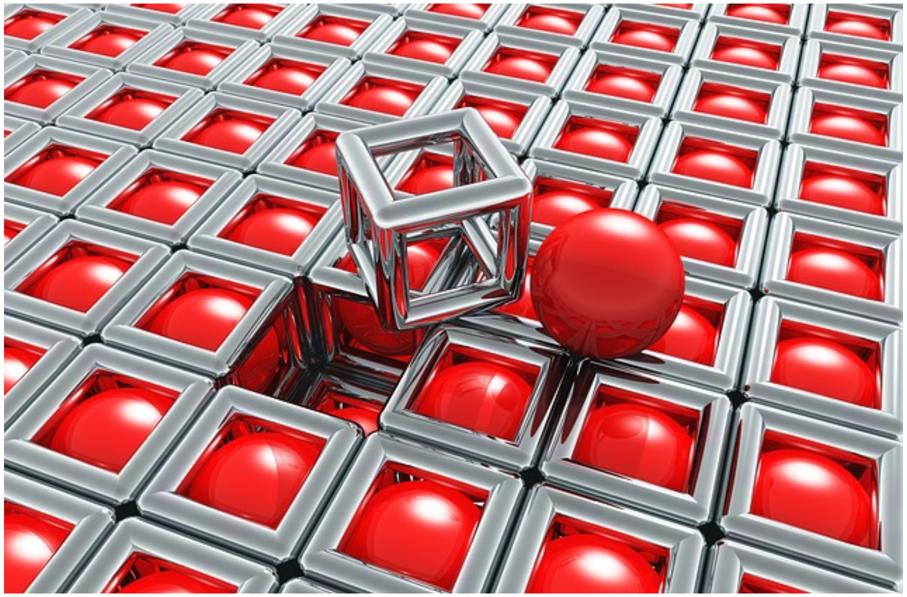
Thinking Like an Attacker

- Attacking the weak link (Humans)
- Redefine the perimeter
- High value target $$$
- Most value for least effort
- Persistence
- Obfuscation



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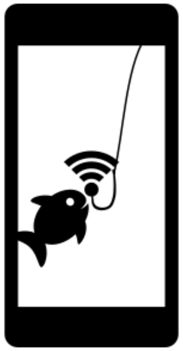
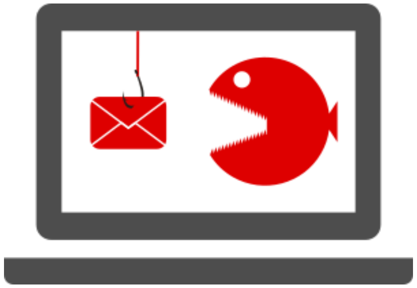
Attack Vectors

- Phishing
- Network
- Malware
- Application
- Web Application
- Mobile
- Wireless MITM





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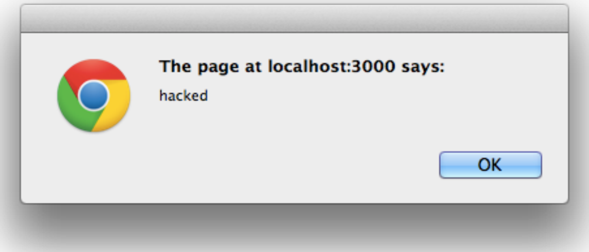
Web Application Exploit Chaining

- Sometimes one vuln is not good enough
- Chaining exploits together improves both the likelihood of occurrence and the impact of successful exploitation
- This is called "vulnerability weaponization"
- You have to be able to "think outside the box" and be a little sadistic



The page at localhost:3000 says:

hacked

http://example.com/redirect.php?url=http://evil.attacker.com

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Exploit Chaining Example #1

Unvalidated redirect + 0-day browser plugin exploit

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Malware drop on victim’s PC

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OS priv escalation exploit

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Hostile PC takeover and/or foothold into internal network

- If attack is targeted, the goal will be the latter (foothold)
- If attack is non-targeted, the goal will be the former (ransomware)

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Exploit Chaining Example #2

Persistent XSS vuln on commonly frequented site

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CSRF vulnerability in victim's broadband router's "mgmt web app"

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Router take-over and/or foothold into internal network

- If attack is targeted, goal will be the latter (foothold)
- If attack is non-targeted, goal will be the former (use router for DDOS)

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Exploit Chaining Example #3

Unvalidated Redirect

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XSS (exploiting Broken Session Mgmt and/or Sensitive Data Exposure vulns)

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more Broken Session Mgmt

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Successful Account Hijack bypassing MFA protection

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Questions?

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Lab 1 Chaining Web Exploits

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