

Cyber Security for Law Firms

Presented to the Louisville Bar Association

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Director, Security Services



/usr/bin/whoami

Twelve years with CBTS as security consultant to shops small (5 person) and large (Fortune 5)

GIAC Certified Penetration Tester, Incident Handler,
Forensic Analyst

BSidesCincinnati cofounder

\$81b

Gartner Says Worldwide Infosec Spend in 2016 Will Top \$81.6 billion

<http://www.gartner.com/newsroom/id/3404817>

Who's attacking?

What do they want?

How do they do it?

How do we **stop them**?

Pre-compromise

Reconnaissance

- Attacker research

Weaponization

- Create malware

Delivery

- Phish or similar attack

Compromise

Exploitation

- Malware exploits vulnerabilities

Installation

- Operations of malware

Post-compromise

Command & Control

- Attacker control of system

Actions on Intent

- Lateral movement and exfiltration of data

What are they after?



Bandwidth



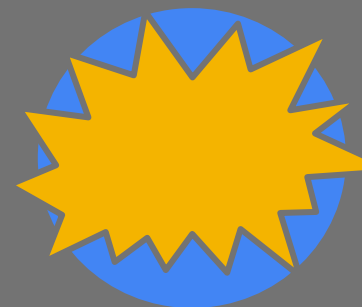
Access



Sensitive Data



Money



Destruction

How do they attack?



Phishing
& Social
Engineering



Web App
Attacks



Exploiting
Listening Services



Password
Attacks



Local Attacks

Threat Models:

Who's attacking?

What do they want?

How do they **do it**?

Cybercriminals

Targets



Bandwidth



Money

Attack Vectors



Phishing
& Social
Engineering



Password
Attacks

State Sponsored

Targets



Sensitive Data



Access

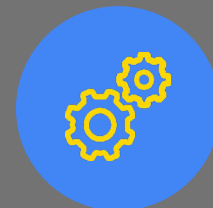
Attack Vectors



Phishing
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Password
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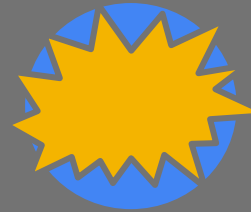
Exploiting
Listening Services

Hacktivists

Targets



Bandwidth



Destruction

Attack Vectors



Phishing
& Social
Engineering



Password
Attacks



Web App
Attacks

Insiders

Targets



Sensitive Data



Access



Destruction

Attack Vectors



Local Attacks



Password
Attacks



Exploiting
Listening Services

Mis-users

Targets



Sensitive Data



Access



Bandwidth

Attack Vectors



Local Attacks



Password Attacks

Top Security Controls:

How do we **stop** them?



Center for Internet Security®

The CIS Critical Security Controls for Effective Cyber Defense

1. Perimeter Defense

Content-Filtering Web Proxy

Sandboxing

Network IDS/IPS

Application Firewall

Layer 2-3 Firewall

SCAP-Based Filtering



2. Vulnerability Management

Patch Management

Vulnerability Assessment

Penetration Testing

Auditing



3. Secure Data Storage

Encryption

Data Loss Prevention

Multifactor Authentication

UBA



4. Monitoring & Response

Log Collection

Log Correlation & SIEM

Security Operations Center

Managed Security Services



5. Awareness Training

Phishing Simulations

Personalized Material

Formal Policies & Procedures

Up-To-Date



Q&A

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