Emerging Trends in Information Security

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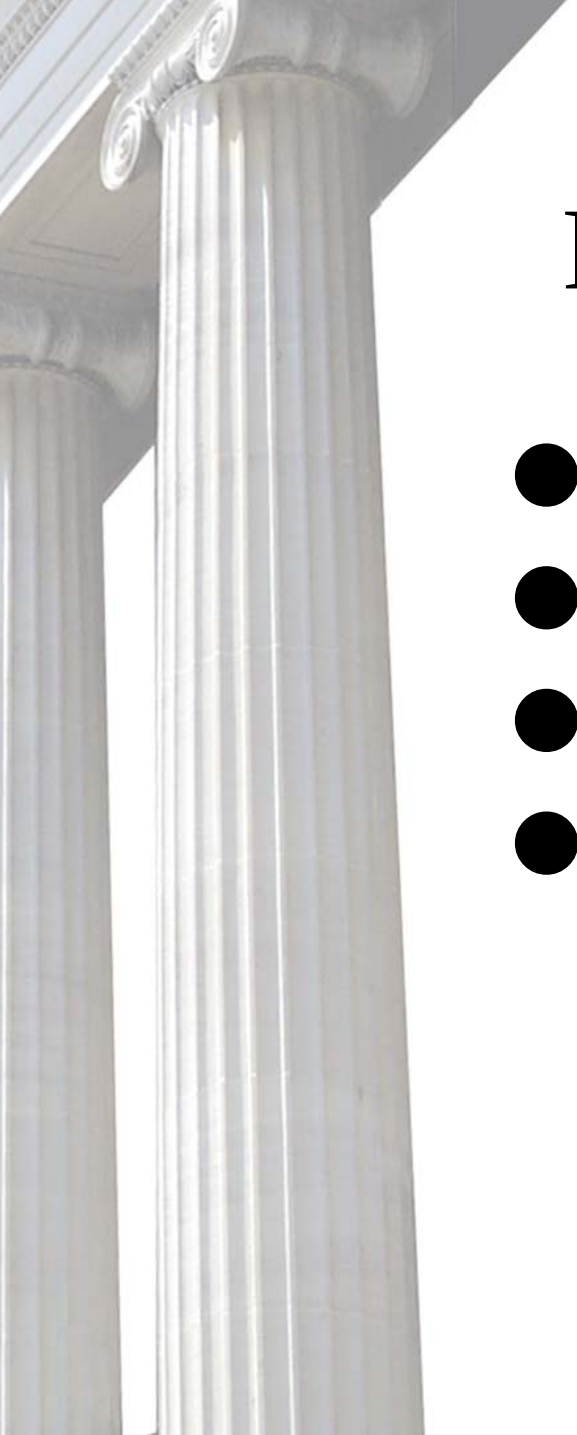


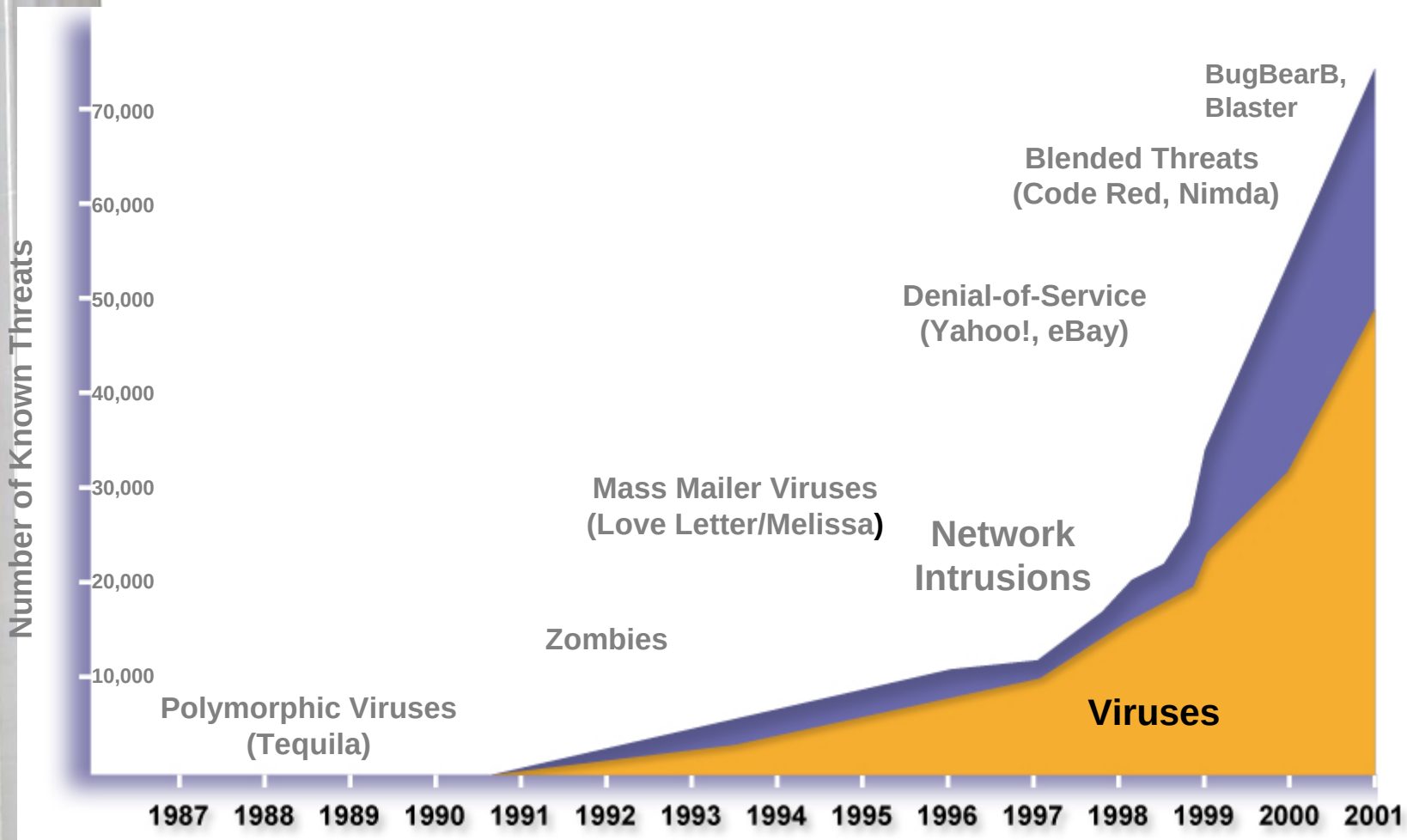
Presentation Focus Areas

- Technology Risk
- Technology Risk Assessment
- Emerging Risks
- Example Discussion

Recent Events

- SASSER (A,B,C,D)
- BugbearB (targeted certain small banks)
- Phishing
- Many Local and Regional Bank Events
- Acxiom (impacted banks & California law)
- Many, many, others

Threat Evolution



FBI Banking Intrusion 2003

2003 - the FBI has a record number of cases involving:

- bank intrusions
- theft of customer account information
- Malicious code

The intrusions used various exploits against known vulnerabilities:

- Unicode Internet Information Service Exploit (IIS)
- Redirecting Customers to Websites
- Blended threat attacks that include Remote Access Trojans

Bugbear A 9/02 and Bugbear B 6/03

- Propagation via email
- Propagation via local area network shares
- Trojan Backdoor- remote command and control of victim system
- Trojan Keylogger - Logs and Exfiltrates personal information (i.e. credit cards, SSNs)
- Email information to multiple dropsites
- Deletes antivirus and security programs
- Targeted the Financial Community

Bugbear B

- 270,000 machines infected with Bugbear.B within the first two hours of proliferation
- First worm that targeted the Financial sector 1,500 banks' IP hard coded into the code
- Personal Information Stolen
  - Hundreds of thousands of credit card numbers
  - Social Security Numbers
  - Login and passwords (Keystroke logging)
  - Screen captures

Threats

- Threat Sources
  - Insiders (FI & vendor) remain greatest threat
  - Hackers: malicious, casual, or opportunistic
- Targets
  - Confidential Information
  - Banking Assets
  - Reputation

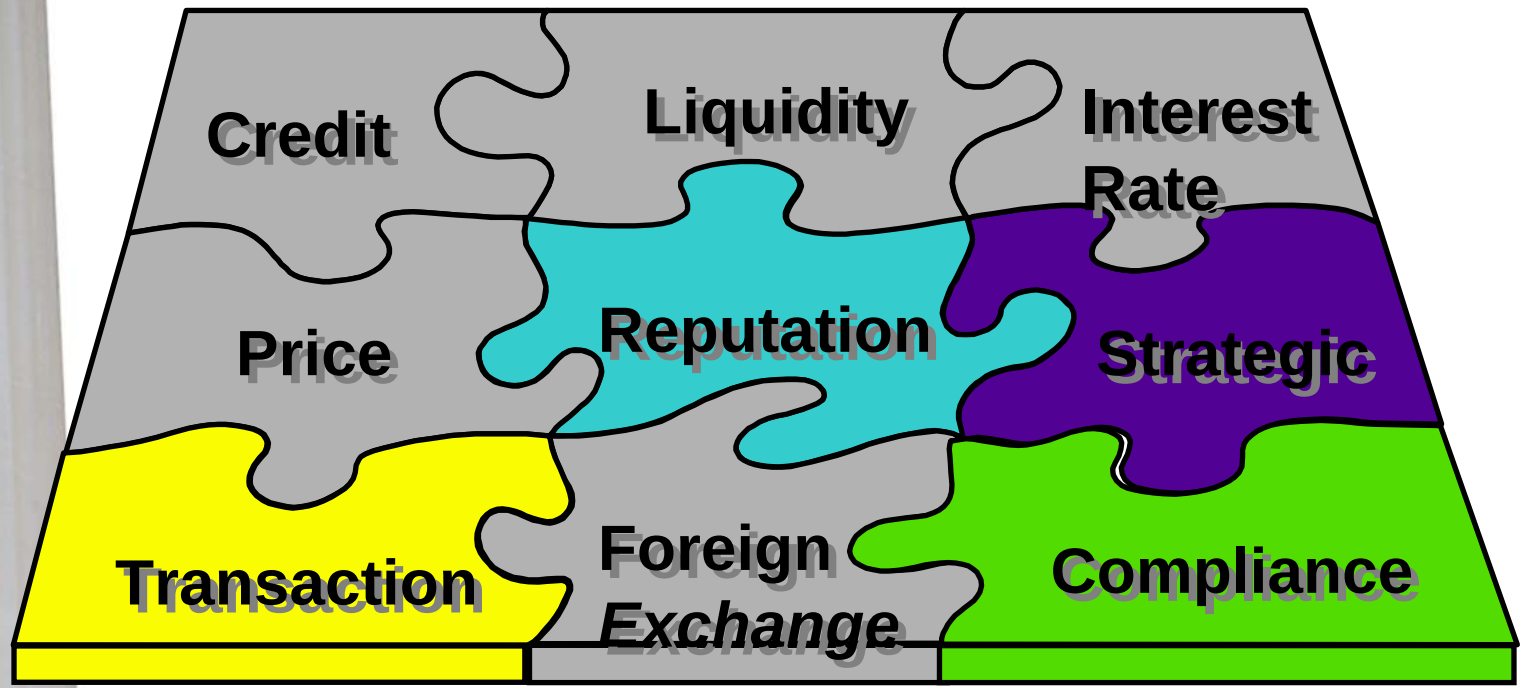
Threats

- Types of Threats
  - Unauthorized access (internal & external - many types social eng.)
  - Viruses, Worms, Trojan Horses, etc.
  - Web site modifications
  - Web site spoofing/phishing
  - Denial of Service attacks
  - Theft of confidential/proprietary information
  - Possible extortion attempts

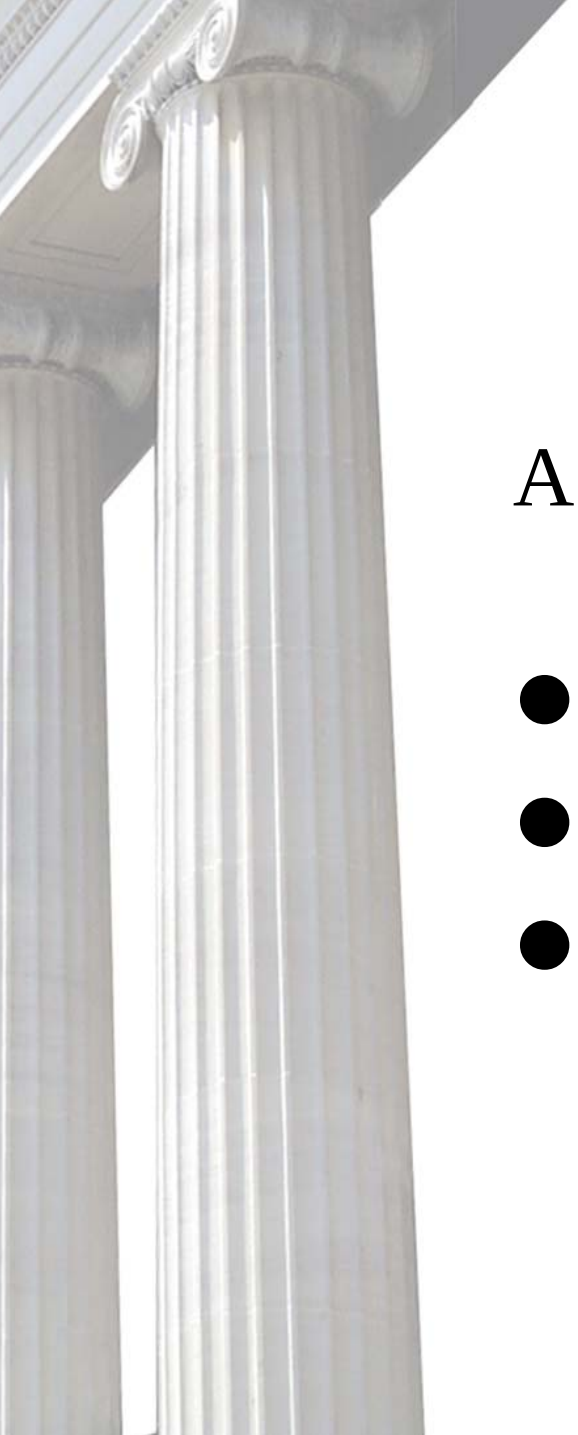
Why Do You Care?

Primary Categories of Risk

IT & Internet Risks



Risk Management Process



CIA Security Model

A well conceived and implemented security program should confirm

- Confidentiality of Data
- Integrity of Data
- Availability of Data

What's Happening

- Lack of risk assessment
- Ability to identify an event?
- Process once an event identified?
- Established priorities?

What's Emerging

- Worm/virus
- Phishing
- Targeted attacks
- Morphing
- Lower level targets
- Technical people & criminal
- Identity theft

What To Do

- Talk before it happens
- Method of identifying an event
- Define priorities
- Have a strategy and written plan
- Awareness/Education
- Patch and vendor management

FFIEC Information Technology Handbook

- Update to the handbook is an ongoing process
- Many booklets have been issued, but will be regularly updated

FFIEC Information Technology Handbook

- Guidance Booklets

Outsourcing

Information Security

Business Continuity

IT Audit

IT Operations

Networks/Connectivity

Payment Systems: Fedline

Payment Systems: retail

Payment Systems: Wholesale

Electronic Banking

Many Others

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