



# Challenges in Business Banking Authentication

- A Bank's Perspective

John Walp, CISSP, CISM

M&T Bank - Administrative Vice President and CISO

# Problem: The Threat Has Changed

- Cybercrime: Well funded, state sponsored and increasingly sophisticated
- Castle and Moat Approach To Security Is No Longer Valid as Attackers Focus on Consumer PCs
- Traditional Client-side Controls failing – Anti-Virus, Firewalls are not enough
- Consumers and SMBs are at a Disadvantage and most are unaware of the sophistication of the Threat

# Problem: Cybercrime is profitable

- Heartland Payment Systems
  - Est. 130 million cards compromised
- Hannaford – 4.6 million cards compromised
- RBS WorldPay - \$9 million in 12 hours from 2,100 ATMs in 280 cities worldwide
- ACH and Wire Fraud – \$120 million (est.) in 2009

# Problem: Law Enforcement & Education

- Shortage of forensic skills needed to investigate and gather evidence related to cybercrime
- More collaboration and information sharing needed in order to counter the social-media-aware threat
- Cross-channel nature of frauds makes investigations and evidence gathering increasingly complex
- Cyber Security Awareness of majority of online population is sorely lacking and aids attackers

# Problem: Trojan Horse



**Zeus :: Logs search - Mozilla Firefox**

File Edit View History Bookmarks Tools Help

Zeus :: Logs search

**Zeus :: Logs search**

<b>Information:</b> Profile: root GMT date: 16.07.2009 GMT time: 01:40:43	<b>Search filter</b> From date (dd.mm) 16.07 to date 16.07 Countries: <input type="text"/> CompID's: <input type="text"/> Botnets: <input type="text"/> IP's: <input type="text"/> Query: <input type="text" value="online.citi.com"/> Log type: Any Output: Normal <input type="checkbox"/> Case sensitive <input type="checkbox"/> Exclude retries of contents (slow) <input type="checkbox"/> Don't show computer names <input type="checkbox"/> Don't show viewed logs Reset Search Delete
<b>Statistics:</b> Summary	
<b>Botnet:</b> Online bots Remote commands	
<b>Logs:</b> → Search Uploaded files	
<b>System:</b> Profile Options Logout	

Copyright © 2006-2009 Zeus Group

ADOBE CAPTIVATE™

# Challenges with Authentication

- Fraudsters understand business process and structure transactions to avoid detection
- Transactional behavior modeling is only part of the solution as “normal” can change over time
- Velocity Checking and IP Geo-location controls are easily fooled by proxy-aware trojans and root kits
- Global nature of business can lead to false positives as more transactions are originated internationally



ACH Network

- [ACH News](#)
- [AAP Program](#)
- [ACH Quality](#)
- [Operations Bulletins](#)
- [Calendar](#)
- [Regional Payments Associations](#)
- [Government Relations](#)
- [Direct Deposit](#)
- [Direct Payment](#)
- [Unauthorized ACH Transactions](#)

**Unauthorized ACH Transaction Report**

Your ACH transaction was rejected by The Electronic Payments Association (NACHA). Please carefully review the transaction report.

Transaction ID:	ACH83569202050US
Date of Rejection:	
Reason for Rejection:	See details in the report below, issued by the Electronic Payments Association.
Transaction Report:	<a href="#">report-ACH83569202050US.exe</a> (self-extracting, pdf format)

**The Electronic Payments Association**  
 13450 Sunrise Valley Drive, Suite 100  
 Herndon, VA 20171

## Update for Microsoft Outlook / Outlook Express (KB910721)

Please download and install the file:

[officexp-KB910721-FullFile-ENU.exe](#)

### Brief Description

Microsoft has released an update for Microsoft Outlook / Outlook Express. This update is critical and provides you with the latest version of the Microsoft Outlook / Outlook Express and offers the highest levels of stability and security.

### Quick Details

- File Name: officexp-KB910721-FullFile-ENU.exe
- Version: 1.4
- Language: English
- File Size: 81 KB

### System Requirements

- **Supported Operating Systems:** Windows 2000; Windows 98; Windows ME; Windows NT; Windows Server 2003; Windows XP; Windows Vista
- **This update applies to the following product:** Microsoft Outlook / Outlook Express

---

[Contact Us](#)

.. 2009 Microsoft Corporation. All rights reserved. [Contact Us](#) | [Terms of Use](#) | [Trademarks](#) | [Privacy Statement](#)

# Solution: People, Process, Technology

- Make customers, employees, students aware of the real and rapidly growing cyber security threat
  - **“America's economic prosperity in the 21st century will depend on cyber security,” President Barack Obama**
- Encourage customers to buy fraud prevention services (ACH block, payee positive pay, etc.)
  - Consumers: Must practice good Internet Hygiene
  - Banks: Know Your Customer
- Liaison with peers, law enforcement and academia
- Use isolated, separate PC with restricted admin privileges for all financial transactions