

# XXVII Bank Security Conference CELAES 2012



“MITIGATING RISKS AND CONVERTING THEM INTO BUSINESS OPPORTUNITIES”



*Organized by:*

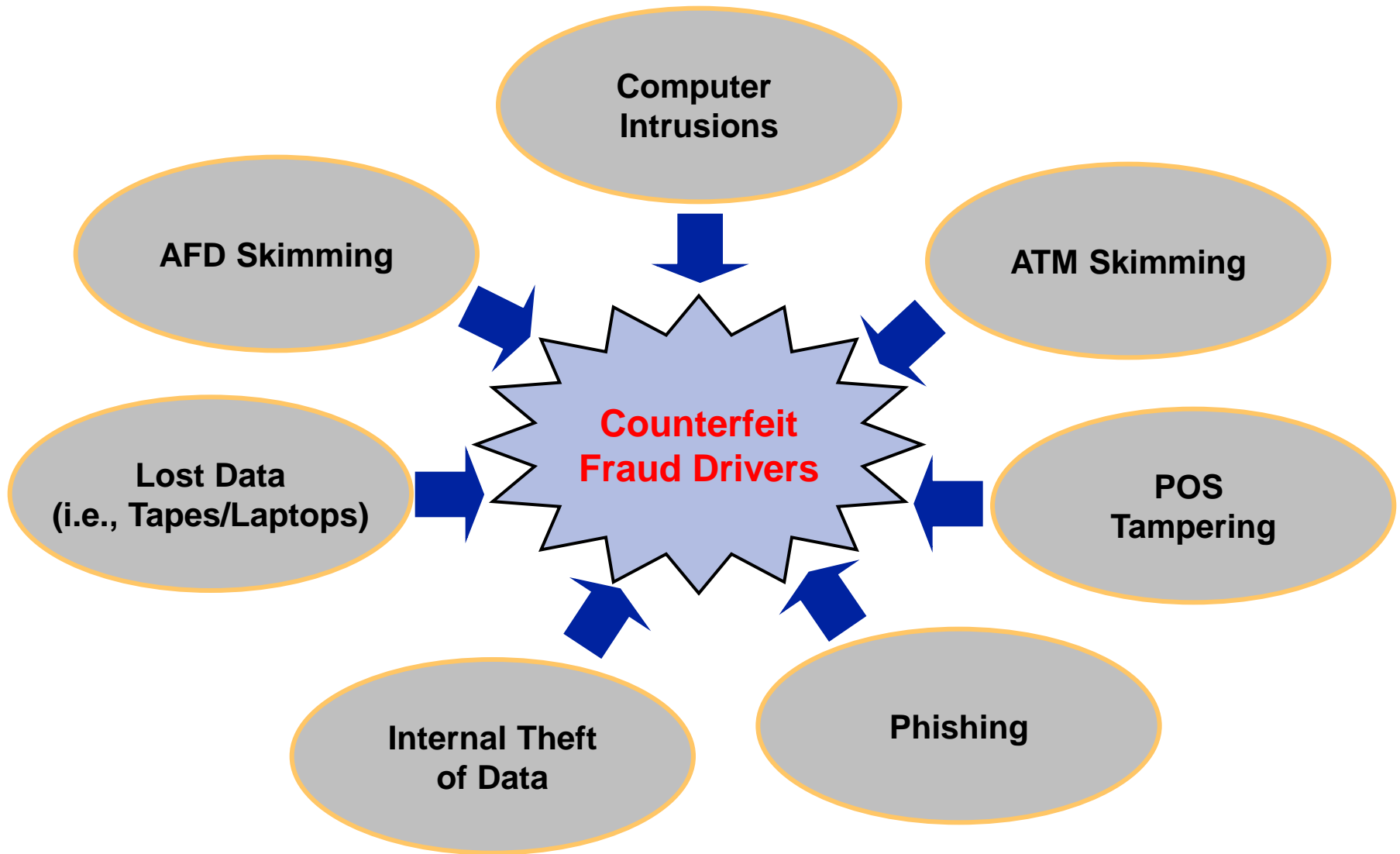




# Data Compromise Landscape



# Data Compromise Landscape



Organized by:



# 2012: The Security Challenge



Fraudsters have evolved their business models and migrated between channels, products and geographies

Criminals continue to adapt and challenge the system

- The number of compromise incidents involving cardholder information has grown globally
- Stakeholder costs are increasing
- Security tops consumer concerns
- Regulatory attention and intervention on the rise

## THE WALL STREET JOURNAL

**The Menace in the Machines**  
-- Cyber-Scams On the Uptick In Downturn

M.P. McQueen  
29 January 2009

## **COMPUTERWORLD**

Brand-new computers sold in China contain preinstalled malicious software

14 September 2012



22 April 2010  
**Cybercrime Moving to Emerging Countries**  
-- Since the Internet is global, it doesn't really matter where attacks come from.



U.S. struggles to ward off evolving cyber threat – Spies, criminals, terrorists eye U.S. networks

12 May 2010

# Data Thieves are Relentless



**➤ Reduce stored card data**

Criminals steal data in transit

**➤ Drive PCI among large merchants**

Criminals targeting small merchants and processors

**➤ Implement EMV chip**

Fraud migrates to card-not-present and non EMV market

Organized by:



# Data Breach Trends – Verizon Report



- 92% of the incidents were discovered by a third party (CPPs)
- 85% of breaches took weeks or more to discover
- 96% of attacks were not highly difficult
- 97% of breaches were avoidable through simple or immediate controls
- In 76% of incidents a third party servicer contributed to the breach

Source: Verizon Business 2012 Data Breach Security Report [http://www.verizonbusiness.com/resources/reports/rp\\_data-breach-investigations-report-2012-press\\_en\\_xg.pdf](http://www.verizonbusiness.com/resources/reports/rp_data-breach-investigations-report-2012-press_en_xg.pdf)

Organized by:



# Data Breaches Reported to Visa – 2011

- Number of compromise incidents reported in 2011 increased by 15% from incidents reported in 2010
  - *67% originated from the U.S.*
  - *U.S. reported events up 27% compared to the same period in 2010*
- 97% of U.S. events occurred at small merchants
  - *91% of U.S. incidents are brick & mortar merchants*
  - *81% involve small restaurant merchants*
  - *Restaurant franchises continue to be the leading merchant category impacted for U.S.*

Source: Visa global CAMS reporting 2011

Organized by:



# How the Hackers are getting in....



- Remote access
- Default or weak credentials used by 3<sup>rd</sup> parties
- SQL injections
- No firewall to protect POS systems from inbound and outbound traffic





## Malicious software used to steal data in real-time

- ❑ Key loggers
- ❑ Packet sniffers
- ❑ Memory scrappers

## Malware sophistication

- ❑ Captures data, creates file and removes duplicate accounts
- ❑ Encrypts stolen data into export file
- ❑ Built in exfiltration mechanisms to send data to hacker
- ❑ Deletes exfiltrated files
- ❑ Anti-forensic tools

# Basics of Incident Management



## Preparation

- ❑ Policies and procedures in the event of a compromise

## Detection

- ❑ Gather evidence

## Containment

- ❑ Remove compromised system from the network

## Eradication

- ❑ Rebuild infected systems

## Recovery

- ❑ Validate the systems have been restored

## Follow-up / Lessons learned

