Divided We Fall: Fighting Payments Fraud Together

Dr. Mark Greene
CEO
Fair Isaac Corporation

5 June 2008
- Do we want to fight fraud or move it around?
- Does failure to prevent fraud have even deeper consequences?
- Are industry fraud prevention initiatives enough, or is public sector intervention needed?
Defining the Issue
How Collaboration Wins
New Technology
Forward Thoughts
Defining Terms: First Party Abuse

- Civilly Prosecutable

- TYPES
  - Real person submits fraudulent information to obtain facilities
  - Real person sells their account knowingly
  - Real person fabricates a fictitious identity

- TACTICS
  - Leverage / modify personal data to prevent bureau pull
  - Falsify / manipulate application data and build credit history
  - Sell / purchase identity for account takeover

- EFFECTS
  - Alleged victimless crime, opportunist and organised
  - Can represent between 10-35 % of debt book.
  - Worst case seen 65%
Defining Terms: Traditional ID Frauds

- Criminally Prosecutable

**TYPES**
- Identity takeover – Uses information to apply for new accounts
- Account takeover – Uses information to take over specific existing accounts

**TACTICS**
- Dumpster Diving
- Phishing
- Lost / Stolen / Intercepted
- Hacking

**EFFECTS**
- There is a legitimate victim
- Significant customer concern backed by Regulator and Governments
Fraud On the Rise – But Not Across Board

+50% New phone account fraud
+33% Online purchase fraud
+10% Checking, savings acct fraud
-21% New card account fraud
-22% Credit card fraud
“Card Not Present” Fraud on the rise

49% of transactional fraud = CNP Fraud
Global Card Fraud

GLOBAL CARD FRAUD PER $100 IN TOTAL SALES

Lost or Stolen | Counterfeit | Card Not Present | Other
---|---|---|---
0.05 | 0.06 | 0.03 | 0.04

Source: Based on The Nilson Report data, July 2007

What Are the Costs of Fraud?

Actual money stolen
Chargeback costs
Labor and administration costs

Loss of reputation, customer confidence
Non-economic / social consequences
Funding other crime
‘…Madrid bombers financed attacks through ATM fraud…’

‘…9/11 hijackers tried to buy gas station…’

‘…IRA financed arms purchases with card fraud…’

‘…Russian organized criminals funded CD counterfeit business, prostitution and drug smuggling with card fraud…’
The Balloon Effect in Fraud

Source: Credit Card Fraud Update: Silos vs. The Balloon Effect, Mercator Advisory Group, December 2006
Growing Complexity, Changing Risks

More Channels
More Lines of Business
More Regulations
More Technology
More Change
Lenders seek Enterprise approach to Fraud

Reduced fraud losses are seen as the chief benefit of an enterprise fraud solution

- Reduced fraud losses: 77%
- Better management of fraud resources: 61%
- Increased profitability: 42%
- Improved customer loyalty: 23%
- Improved customer service: 40%
- Other: 5%

Source: TowerGroup, 2008
Defining the Issue
How Collaboration Wins
New Technology
Forward Thoughts
Successful Collaboration: Cards Fraud

Fair Isaac Falcon Fraud Manager
Models trained on consortium data
1.5 billion card accounts
Successful Collaboration: Cards Fraud

Falcon
Introduced 1992

Source: Nilson data
Successful Collaboration: ATM Fraud Detection

11,000 banks
Nationwide ATM networks
Identifying points of compromise to alert other card issuers
Learning from Collaboration: PIN Points of Compromise

PIN Points of Compromise
2001-2007

- ATM-Bank
- ATM -NonBank
- POS

Successful Collaboration: Chip & PIN Rollout — UK

99.8% PIN-verified

150 transactions per second

130 M Chip & PIN cards, 92%

850,000 tills upgraded, 87%

24% reduction in counterfeit and fraud on lost and stolen cards
... but We See the Balloon Effect

GLOBAL CARD FRAUD PER $100 IN TOTAL SALES

<table>
<thead>
<tr>
<th>Year</th>
<th>Lost or Stolen</th>
<th>Counterfeit</th>
<th>Card Not Present</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>1993</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>1994</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>1995</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>1996</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>1997</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>1998</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>1999</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>2000</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>2001</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>2002</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>2003</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>2004</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>2005</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>2006</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Source: Based on The Nilson Report data, July 2007
Defining the Issue
How Collaboration Wins
New Technology
Forward Thoughts
Device Profiling

Looks for unusual device behavior

- Large amounts
- Rapid transactions
- Suspicious patterns of transaction types

Often involve multiple cards

Requires cross-issuer view

80% relative performance lift in real-time value detection at a 10-to-1 false positive rate
Predictive Lift from Adding Merchant Analysis

40% relative performance lift in real-time value detection at a 10-to-1 false positive rate
Adaptive Models

Keep up with dynamic nature of fraud

Dynamically adjust model weights

Based on experience of each individual issuer
Predictive Lift from Adaptive Analytics

18% relative performance lift in real-time value detection at a 10-to-1 false positive rate
Defining the Issue
How Collaboration Wins
New Technology
Forward Thoughts
Technology is Powered by Collaboration
The Next Big Thing: Fraud Alert Network

Collaborative rules subscription service
Consortium data collection
Compromise analysis and reporting
Payments fraud remains front-burner issue

Fraud evolves with new payment products technologies

Too big an issue to fight separately

Private sector collaboration is essential

Public sector involvement can help re: best practices, information sharing
Thank You!

MarkGreene @ FairIsaac.com