

- >> OPERATING ELECTRONIC
TRANSACTIONS
- >> PAYMENT
- >> eSERVICES
- >> CRM

Fraud Risk Management in practice



Tessa Dzial – **B**usiness **A**nalytics **C**ompetence **C**enter

Si tu aimes les maths 5 February 2011

Agenda



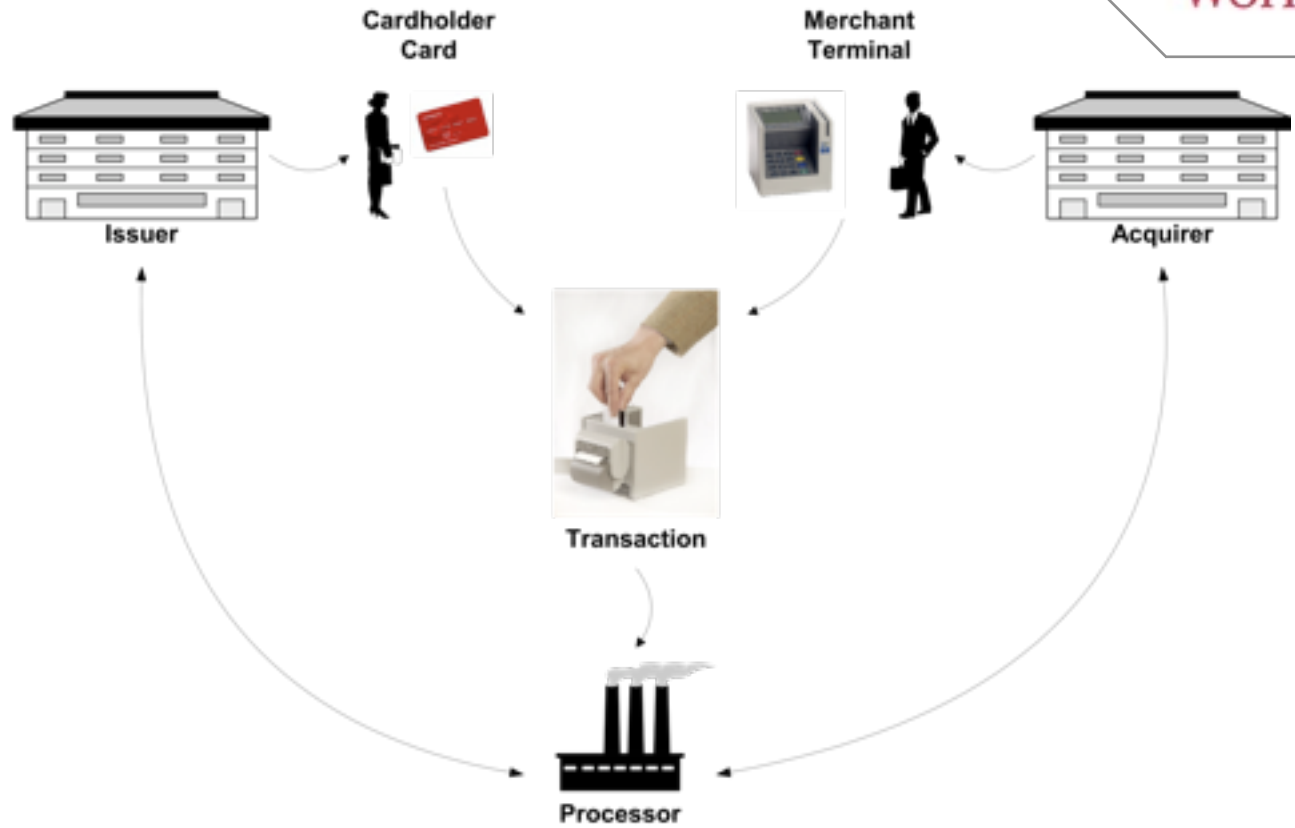
- Parcours
- ATOS Worldline
- Risk Management Strategy
- The Strategy in Practice

Parcours

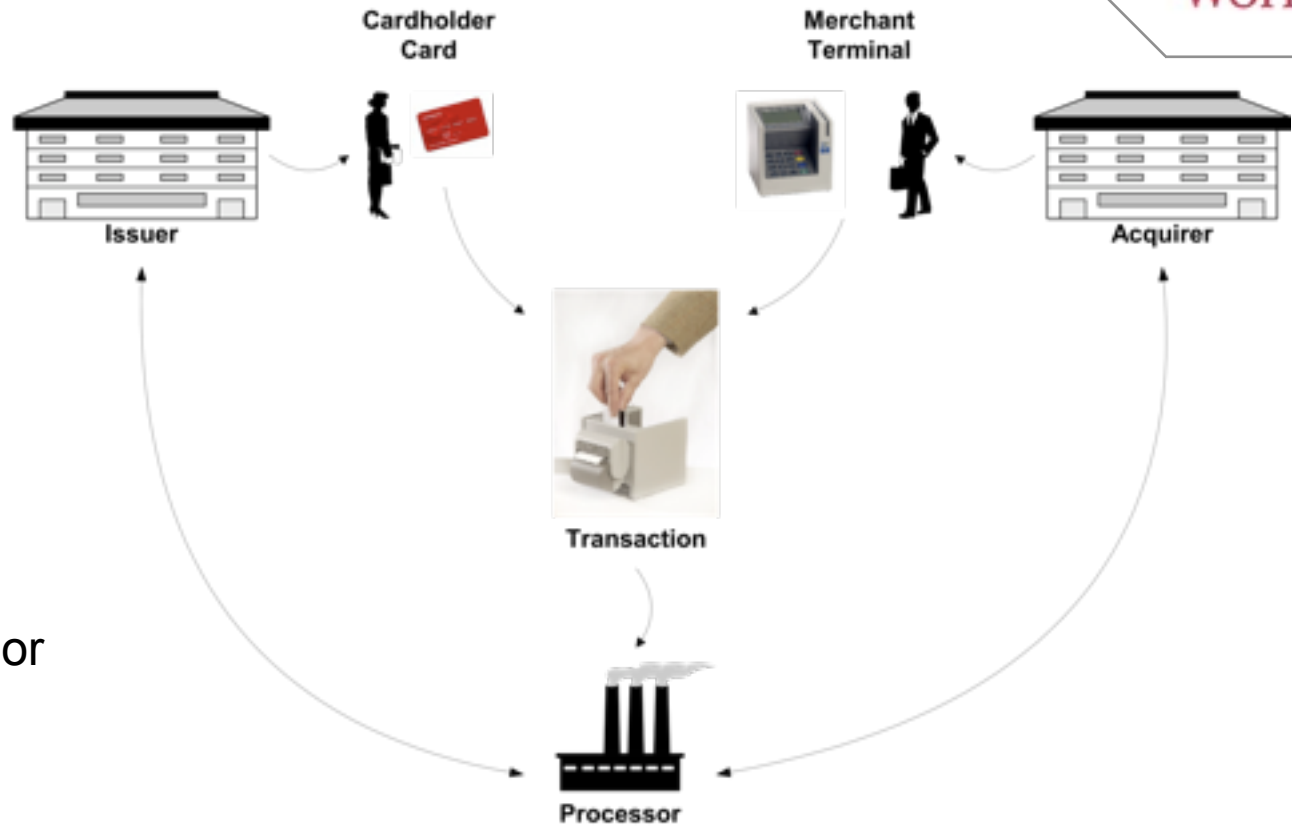


- Etudes secondaires au Lycée Dachsbeck
- 2000-2004: License en sciences mathématiques, orientation statistiques, probabilités et recherche opérationnelle. ULB
- 2004-2005: Diplôme d'Etudes Spécialisées en statistiques. ULB
- 2006-aujourd'hui: Atos Worldline: Business Analytics Expert

Atos Worldline

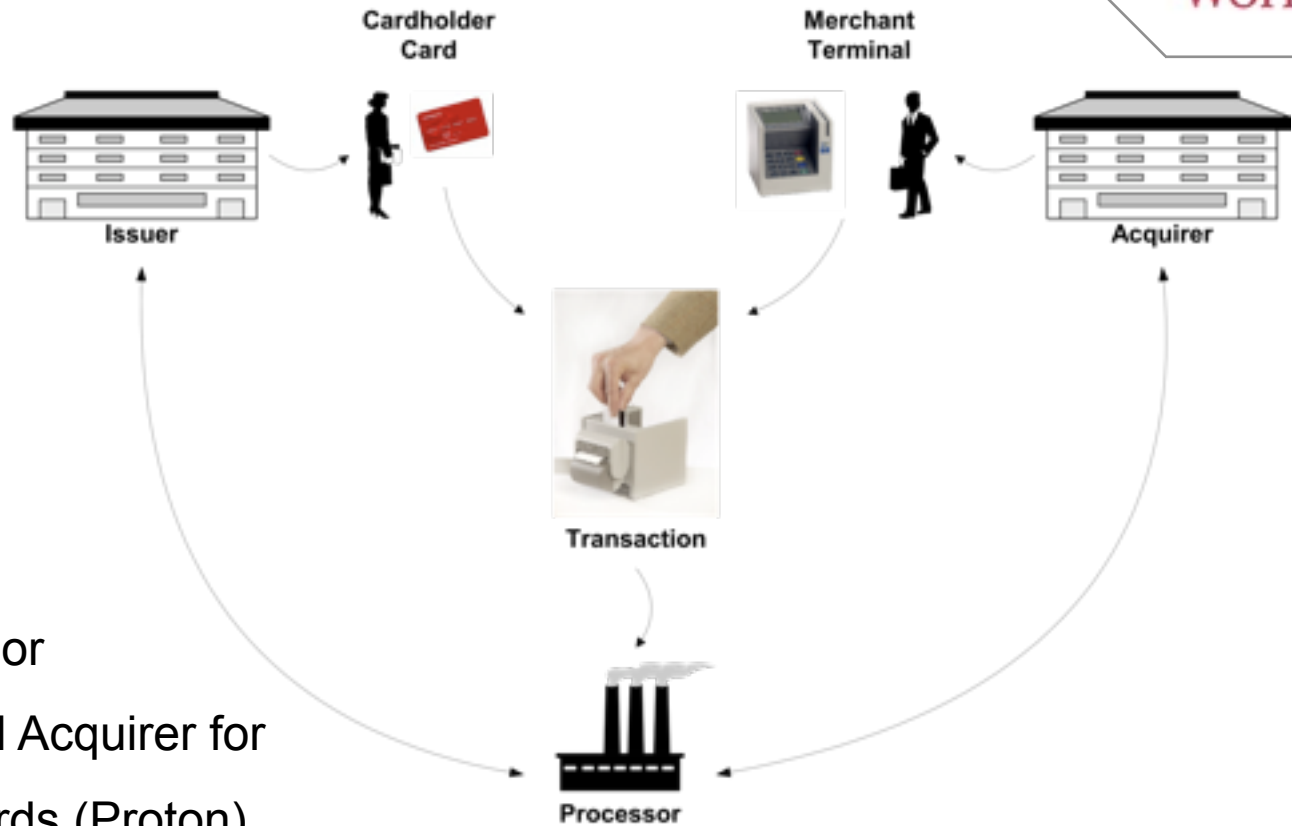


Atos Worldline



➤ Terminal Vendor

Atos Worldline



- Terminal Vendor
- Processor and Acquirer for
 - Purse Cards (Proton)
 - Debit Cards (BC/MC, Maestro, VPay)
 - Credit Cards (Visa, MasterCard)

- Some stats
 - Number of transactions 1.121 million
 - BC/MC 848 million
 - Amount of transactions €83.400 million
 - Number of cards 13 million

- That's about €2.010 per second

Risk Management Strategy

- Awareness
- Technical infrastructure
 - EMV
 - 3D-Secure



- (Mass-) blocking
- Cardstop
- Chargeback

- Transaction scoring
- Case investigation

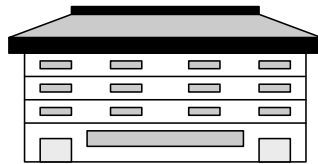
Detection Strategy

- Centralisation
- Independence
- Embedded flexibility

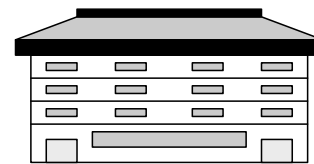


Detection Strategy

- Centralisation
- Independence
- Embedded flexibility



Issuer



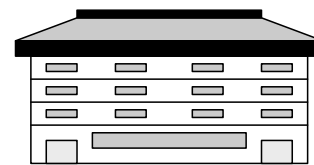
Acquirer

Detection Strategy

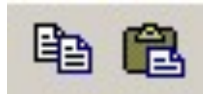
- Centralisation
- Independence
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Issuer



Acquirer



Counterfeit



Lost/Stolen

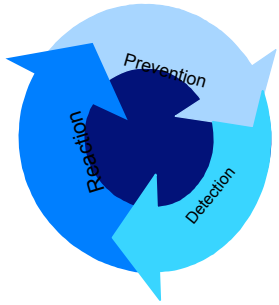


E-Com

Fraud Type Evolution



Fraud Type Evolution



Detection

➤ Skimming Detection



Skimming

2002



Abuse

Detection

➤ Skimming Detection



Skimming



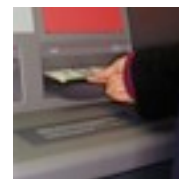
Skimming

2002



Abuse

2004



Abuse



Detection

➤ Skimming Detection



Skimming



Skimming



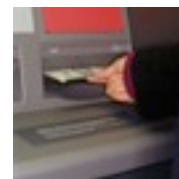
Skimming

2002



Abuse

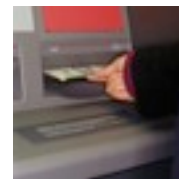
2004



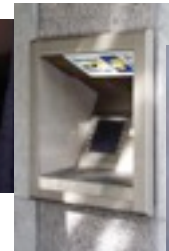
Abuse



2007

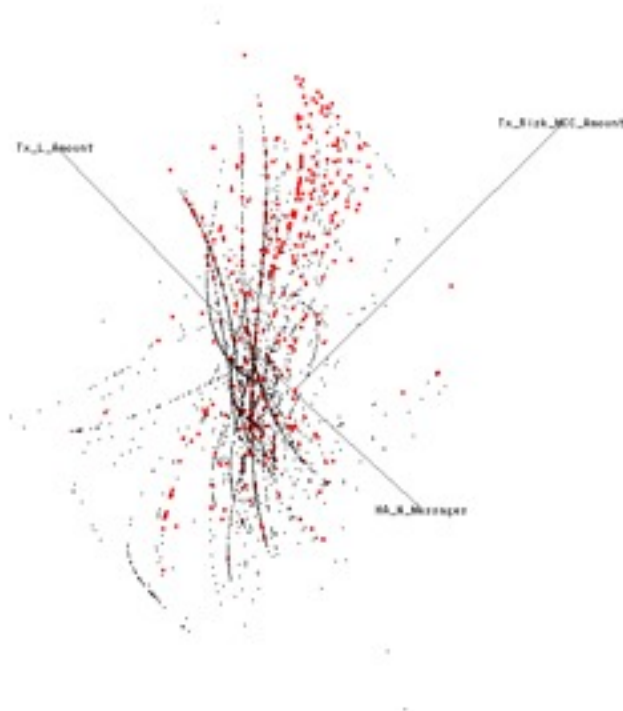


Abuse



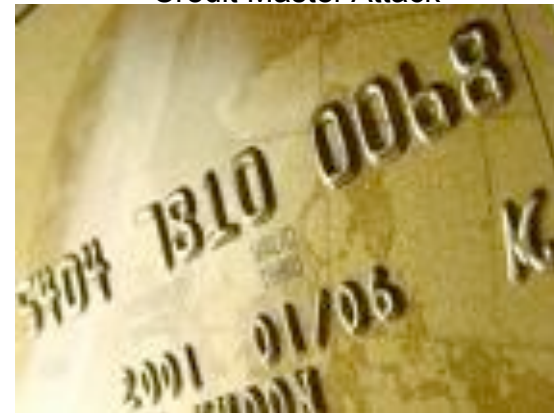
Detection

- Our fraud is complex and its detection a high dimensional problem, fortunately we have lots of data



Data Driven Fraud Detection

Credit Master Attack

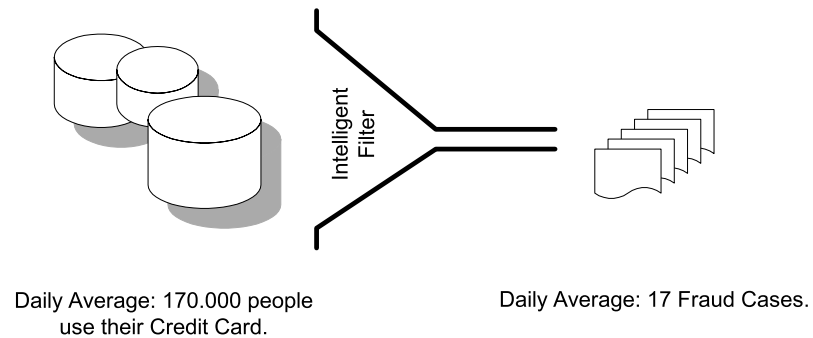


Expert Driven Fraud Detection

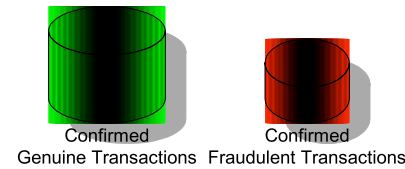
Detection

- Data management
 - Data modelling
 - Aggregation
 - Profiling

- ‘Intelligent filtering’ toolkit
 - Rules
 - Data mining
 - Neural networks
 - Decision trees
 - Statistics

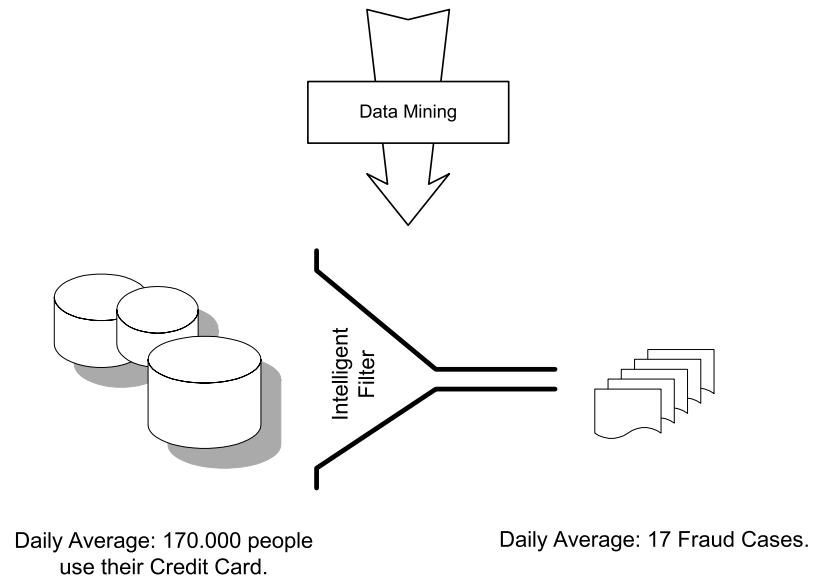


Detection

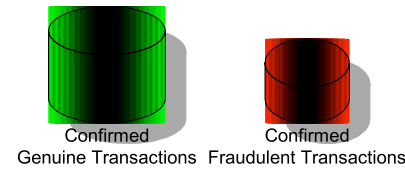


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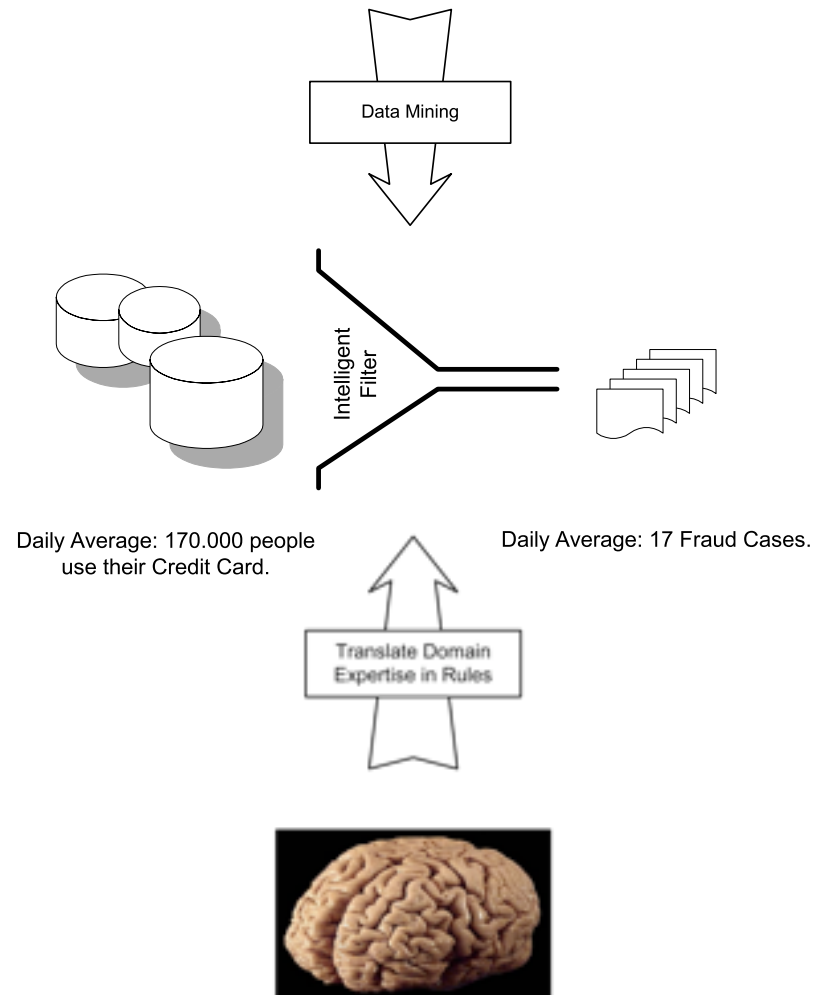


Detection



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Reaction

- Late shift and weekend shift
- 24/7 for High Security Incidents
- Police Training



- Joint judicial actions

Performances

- We currently protect
 - 8.8 million Purse Cards,
 - 2.7 million Credit Cards,
 - 10.5 million Debit Cards,
 - and 55.000 Credit ME's against Fraud
 - and 4.000 ATM's and PTO's against Skimming

- Savings for 2010: €24 million

Thank you for your attention

