



Financial Institution Fraud

J Michael Skiba, MBA, PhD, Dr. Fraud

www.drfraud.org



Technology Trajectory in Financial Institutions

How many Connected devices in 2018?

- A. 15 M
- B. 15 B
- C. 30 B
- D. 50 B





Technology Trajectory in Financial Institutions

How many Connected devices in 2020?

- A. 15 M
- B. 15 B
- C. 30 B
- D. 50 B



What drives a Financial Criminal?

- Psychological Theories:
 - Sociological
 - Psychological
 - Biological





Case Study: Carbanak

Exhibit 1

The new cyber profile of fraud and financial crime is well illustrated by the Carbanak attacks.



1. Spear phishing

Employee in targeted organization receives email with the Carbanak backdoor as an attachment



2. Backdoor executed: credentials stolen

Upon opening attachment, employee activates the Carbanak backdoor



3. Machines infected in search for admin PC

Carbanak searches network and finds admin PC; embeds and records



4. Admin PC identified, clerk screens intercepted

Attacker watches admin screen to mimic admin behavior for the bank's cash-transfer systems



5. Balances inflated and inflated amount transferred

Attackers alter balances, pocket extra funds (\$1k account enlarged to \$10k, then \$9k transferred)



6. ATM programmed to dispense cash

Attackers program ATMs to issue cash to waiting accomplices at specific times



7. Cash moved through channels by wire transfers, e-payments

Attackers use online and e-payments to receiver banks to transfer extracted funds



Prevention: Two-Pronged-Human and Tech

- Human:
 - Reduce Opportunity
 - Training –USB
 - Honest Statements
 - Vacations



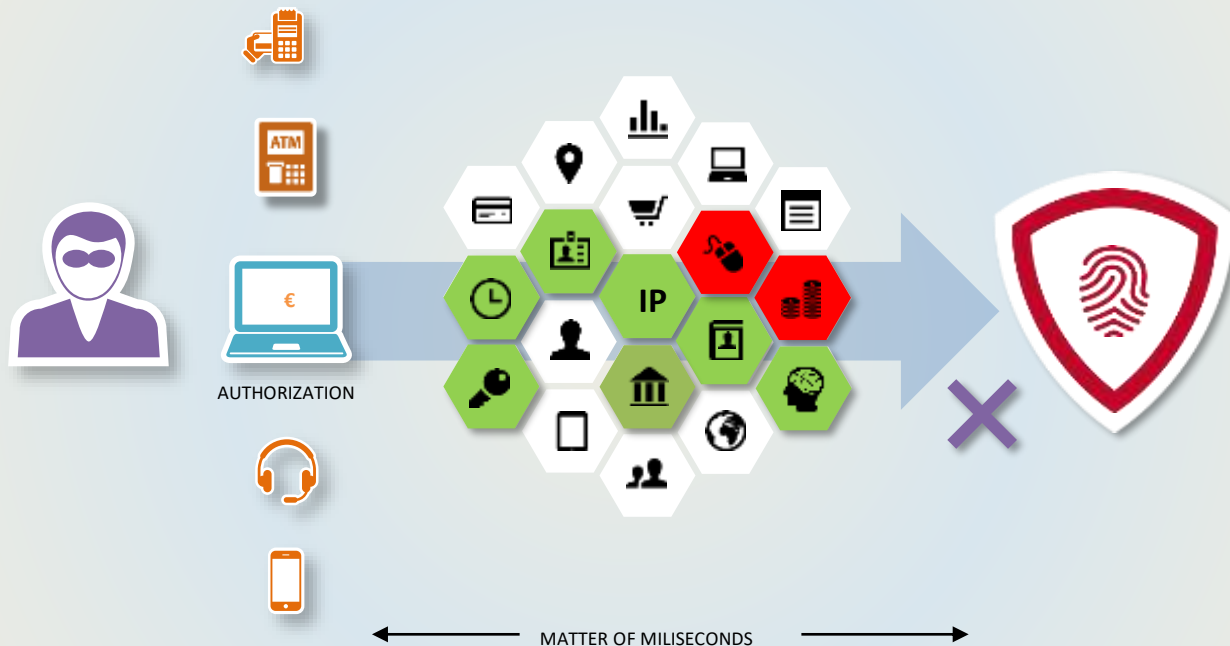
Prevention: Two-Pronged-Human and Tech

- Leverage Tech Solutions:
 - Behavioral Bridge
 - Leverage Tech “brains”-ML/AI, soft boundaries

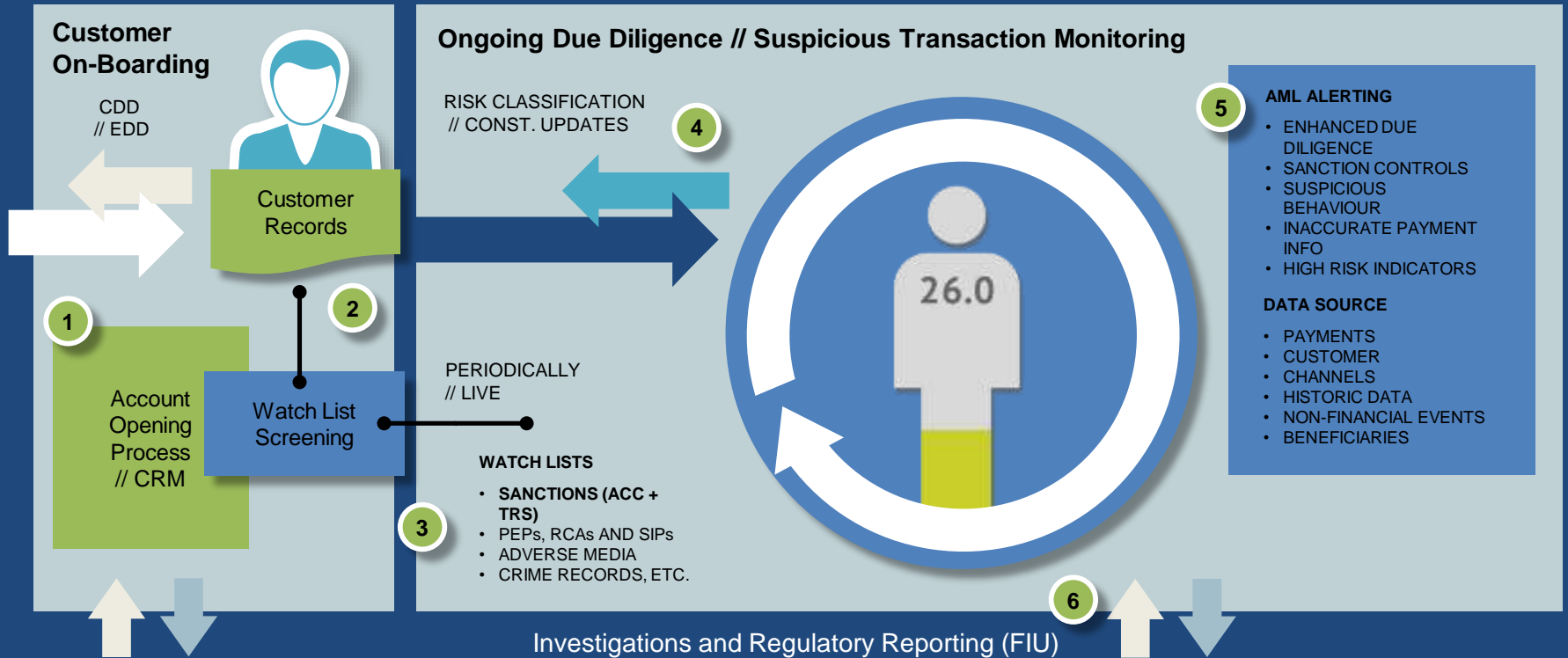
Creating a digital fingerprint of your customer



Creating a digital fingerprint of your customer



AML // CFT Screening and Monitoring Process



Prevention: Two-Pronged-Human and Tech

- Vulnerability Assessment



Trends:

- Cross-Border
- Increased Volume
- Remote Workers
- Cryptocurrency
- Internal-Justification
- Online banking





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Jmichaelskiba@gmail.com

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