



FEDERAL
RESERVE
BANK
of ATLANTA

Retail Payments Risk
Forum

ATM ATTACKS AND DEFENSES

**Talk About Payments
Webinar**

November 3, 2022

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- **Survey** - A request will be sent immediately after end of webinar, please provide feedback
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AGENDA

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Introductions

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Attacks against Personnel

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Audience Q&A

OUR PANELISTS



David N. Tente
Executive Director
ATM Industry Association



Brenda Born
Supervisory Special Agent
Federal Bureau of Investigation



Brad Moody
Executive Vice President
Lowers Risk Group



John Toneatto
Vice President
Loomis

ATM INDUSTRY ASSOCIATION/ASA

A global trade association of over 11,000 members

– ATMIA originated in the U.S. which is still the largest of our nine regions



David Tente
Executive Director,
ATMIA
President, ASA



- An extensive library of Best Practice manuals
- Compliance monitoring services
- ATMIA Academy; e-training and certification
- Managing the industry's NextGen ATM initiative



- Industry advocacy
- Annual security survey
- Working committees focused on security and compliance
- A leadership role in the industry regarding payments and financial self-service



- Broad industry constituency
 - Financial institutions
 - ISO/IAD
 - Manufacturers
 - EFT networks
 - Payment processors
 - And many others . . .

LOOMIS



Loomis Armored USA

- Loomis Employees – 10,368
- Loomis Routes Deployed 2,160
- Loomis ATMs Serviced – 106,285 in 7,715 Cities & Towns
- Loomis Annual touches of ATMs – 5,646,976



John Toneatto
Vice President

ATM External Threats

- Burglary
- Robbery
- Skimming
- Jackpotting

ATM Internal Threats

- Cross-Loading ATM Cassettes
- Safe Door Left Open
- Internal Theft
- Ponzi Scheme

LOWERS RISK GROUP

- Serves the financial services industry specially focused on fidelity crime, fraud investigations, compliance, and risk mitigation.
- Global insurance markets leverages Lowers Risk Group's 40+ years of industry knowledge to help companies improve their potential risk vulnerabilities and collaboratively build solutions.
- Work includes fraudulent-claims investigations, regulatory compliance audits, and BCP evaluations to cybersecurity policy development, litigation support, and due diligence.
- Our experts draw upon decades of experience and expertise to provide tailored solutions that reduce risk and improve the bottom line. These global experiences allow companies to protect people, brands, and profits.



Brad Moody

Executive Vice
President

FEDERAL BUREAU OF INVESTIGATION

- Established in 1908
- > 35,000 employees including special agents and support personnel
- Headquartered in Washington DC
 - 56 field offices and more than 350 satellite offices
 - >60 international offices
- Priorities include:
 - Combat significant cyber criminal activity
 - Combat significant violent crime



Brenda Born
Supervisory Special
Agent



A NEED FOR ATM CRIME DATA AND TREND ANALYSIS

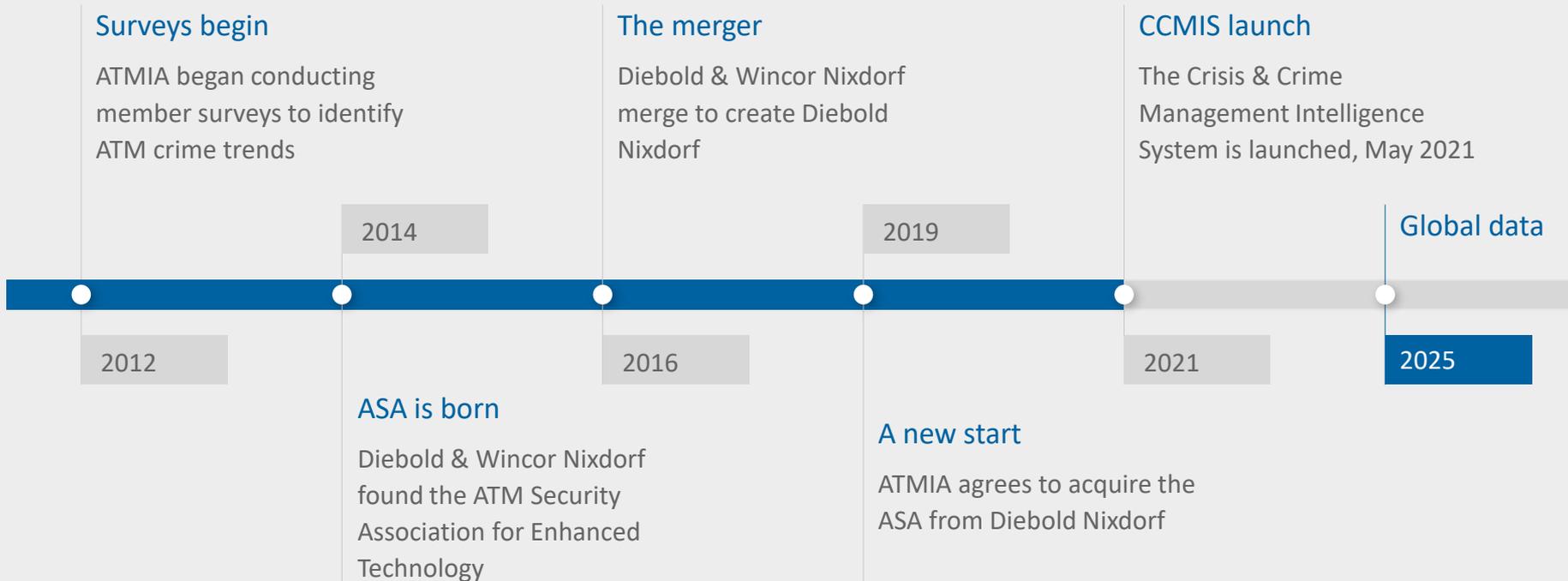
How often do you hear about ATM crimes on the news if it's not in the immediate area?

- No ATM operator wants publicity about ATM crime
- Difficult to get info from law enforcement
- Every stakeholder wants to be prepared for the threats that they are most likely to encounter
- Trends change – and you need to be able to stay aware of how they are changing



A NEED FOR ATM CRIME DATA AND TREND ANALYSIS

ATMIA/ASA history of tracking and analyzing ATM crime trends



CRISIS AND CRIME MANAGEMENT INTELLIGENCE SYSTEM (CCMIS)

The first and only database that tracks and analyzes ATM crime - globally

- Available to all industry stakeholders
- Free to law enforcement
- Recorded over 14,600 crime incidents since launch in May, 2021
- Up to six levels of data detail
- Compare trends by region, by time frame, by type . . .
- Data export/import capability

CRISIS AND CRIME MANAGEMENT INTELLIGENCE SYSTEM

Home / Reports & Statistics

My Account -

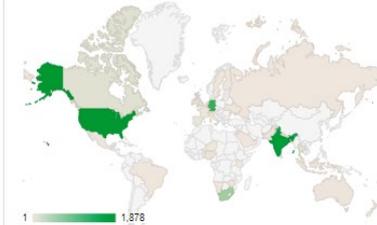
REPORTS & STATISTICS

Search Search by keyword or click advanced for additional options

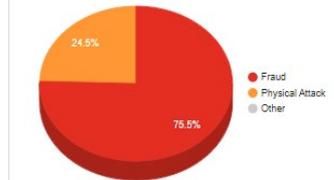
Displaying 100% of all incidents (2,436 intelligence reports, 14,613 incidents)

Chart Table

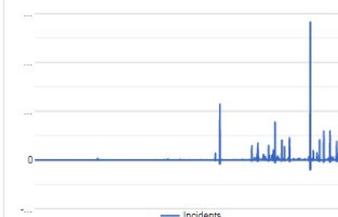
Global Incidents



Incidents by Type



Incidents by Date



Incident Types by Date



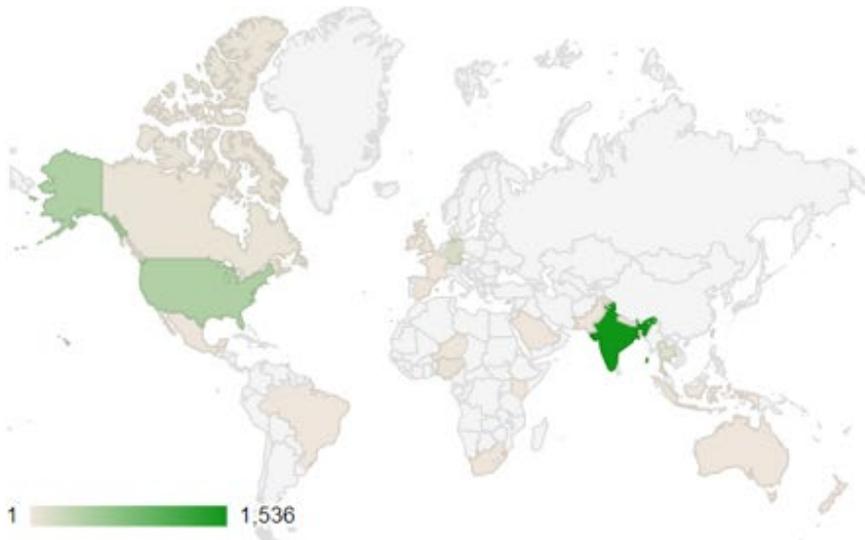
FRAUD INCIDENTS BY TYPE - GLOBALLY

Incident Type: Fraud Incident ✕

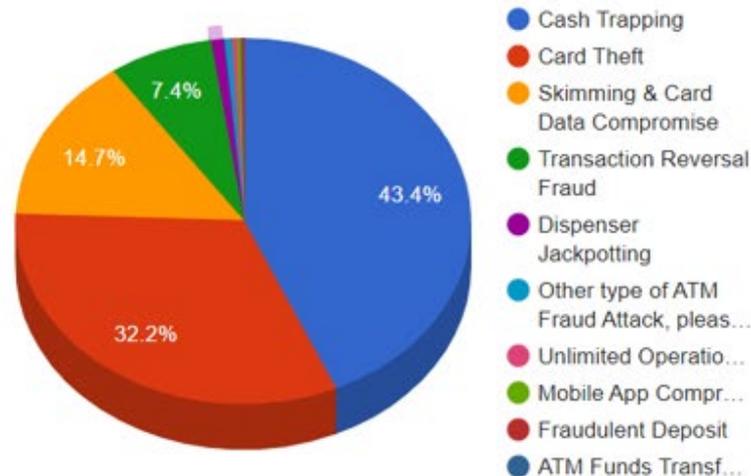
Displaying 74.60% of all incidents (478 intelligence reports, 10,411 incidents)

Chart Table

Global Incidents



Incidents by Type



INCIDENTS BY TYPE – U.S. MARKET

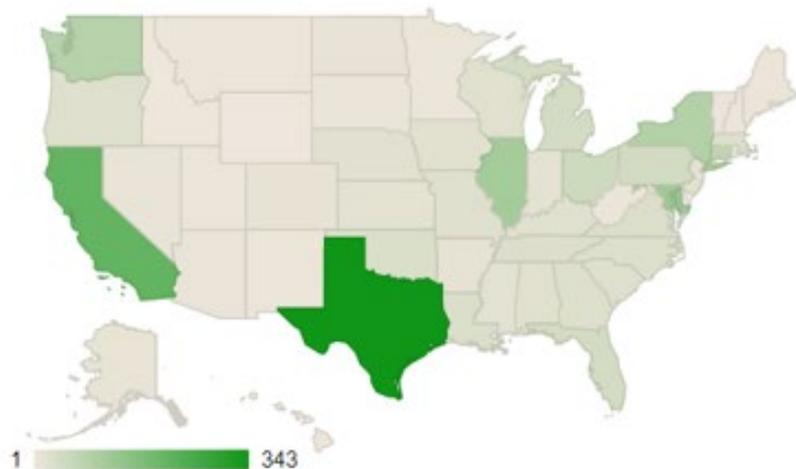
Country: United States ✕

Displaying 13.26% of all incidents (1,382 intelligence reports, 1,851 incidents)

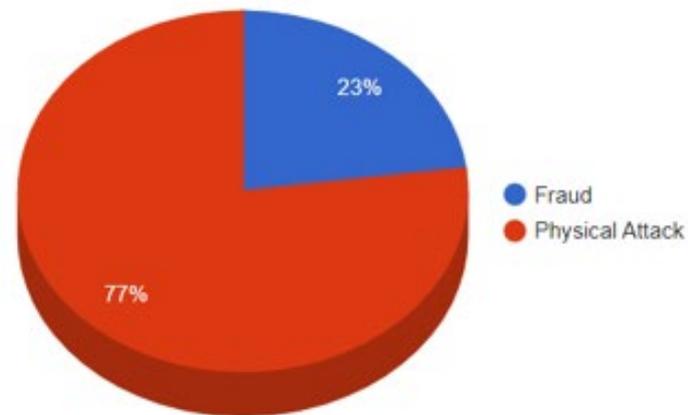
Chart

Table

Incidents by Country (United States)



Incidents by Type



FRAUD INCIDENTS BY TYPE – U.S. MARKET

Country: United States ✕

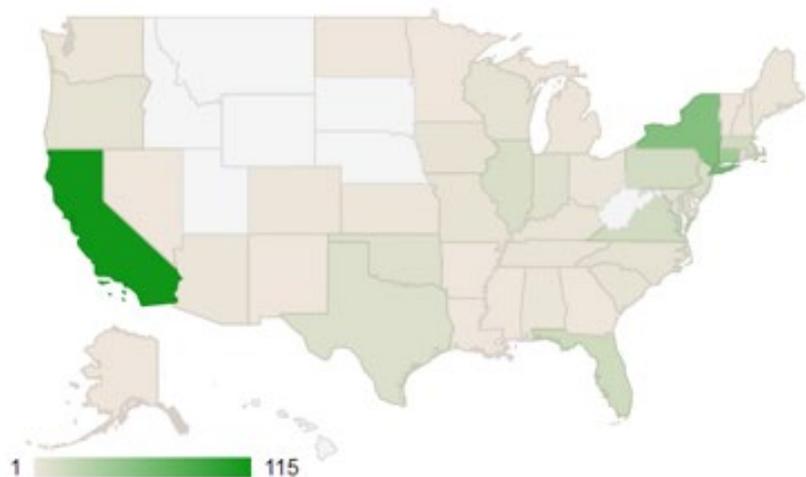
Incident Type: Fraud Incident ✕

Displaying 3.05% of all incidents (258 intelligence reports, 425 incidents)

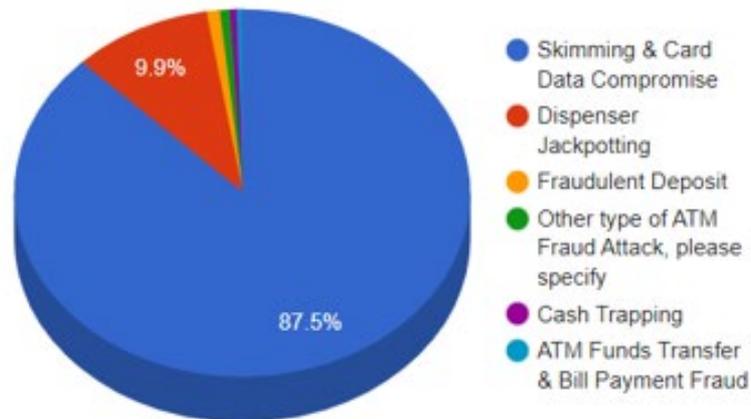
Chart

Table

Incidents by Country (United States)



Incidents by Type



PHYSICAL ATTACK INCIDENTS BY TYPE – U.S. MARKET

Country: United States ✕

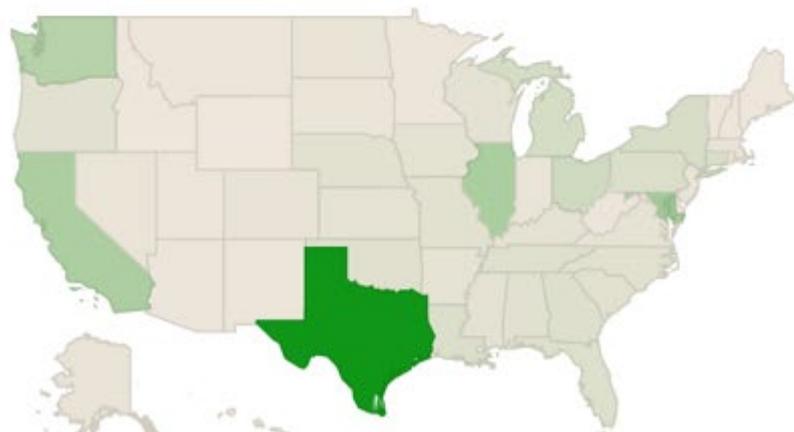
Incident Type: Physical Attack Incident ✕

Displaying 10.22% of all incidents (1,124 intelligence reports, 1,426 incidents)

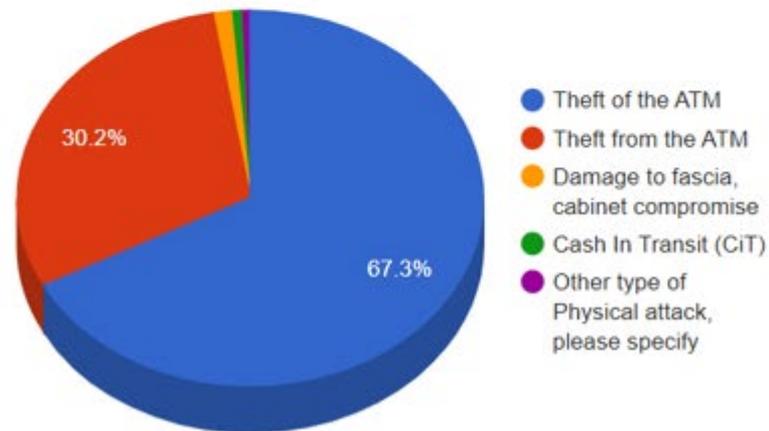
Chart

Table

Incidents by Country (United States)



Incidents by Type



ATM PERSONNEL ATTACKS



PERSONNEL ATTACKS

- Targets
 - CIT Carrier Replenishing ATM
 - FLM Provider servicing ATM
 - Customer's Personnel conducting Deposit Pulls
- Location
 - Drive Up ATM
 - ATM in Standalone Kiosk
- Frequency
 - 202 Attacks against CIT Carriers in past five years
 - 107 occurred at ATMs vs 29 at Banks
 - High level of violence – 37 Attempted Homicides with four CIT employees killed & two bystanders killed

ARMED ATTACKS AT ATM



ARMED ATTACKS AT ATM

- Counter Measures – CIT Carriers
 - High Security Level Vehicles
 - Focused Anti-Robbery Training
 - Specific Location Approach / Parking Protocols
 - Reduce Exposure time at ATM
 - Exchange Currency in secure environments when possible
- Counter Measures – ATM Owner
 - Reduce steps needed to service / settle ATM
 - Ensure good CCTV coverage at and around ATM
 - Monitored Alarms in Place with Hold-Up Feature

ATM PHYSICAL ATTACKS



Gas Attack – Trend in EU

COUNTER MEASURES TO ATM HOOK & CHAIN ATTACK



Bollards &
Security Gate
deterrent
system with
remote
monitoring



INTERNAL ATM THREATS

- Unauthorized Access to safe - Counter Measures
 - Auditable locks utilizing encrypted one-time use combination
 - Good CCTV coverage of ATM
 - Monitored Alarm System
- Cross Loaded ATMs - Counter Measures
 - Properly labeled Cassettes/and Cassette Slots by FLM
 - If possible, limit number of denominations used in ATM
- Internal Theft - Counter Measures
 - Auditable locks utilizing encrypted one-time use combination.
 - Tri-Party Shared Access Contract / Investigation protocols
 - Random Audits of ATM's / Random Swaps of ATM Service Crews

ATM CYBER FRAUD



ATM CYBER FRAUD

The Next
Form of
Bank
Robbery



ATM CYBER FRAUD

- Cash Trap
- Skimming
- Transaction Reversal
- Jackpotting
- Deposit Trapping
- Fraudulent Deposit
- Mobile App Compromise

WHY CYBER?

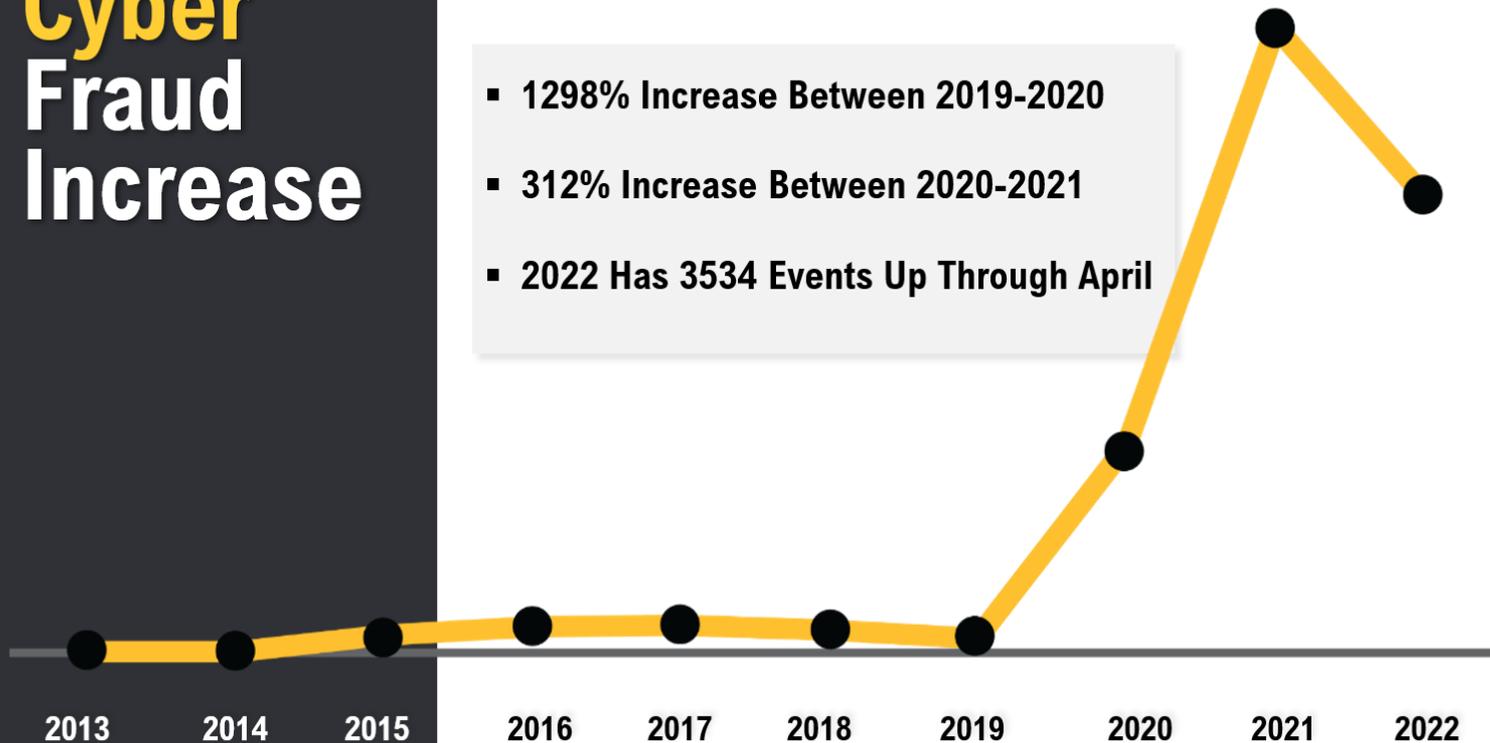
ATM Cyber Theft Advantages

- No Weapons Needed
- Easy to Procure Tools
- No Interaction with People
- Property Crime
- Speed
- Hard to Trace



Cyber Fraud Increase

- 1298% Increase Between 2019-2020
- 312% Increase Between 2020-2021
- 2022 Has 3534 Events Up Through April



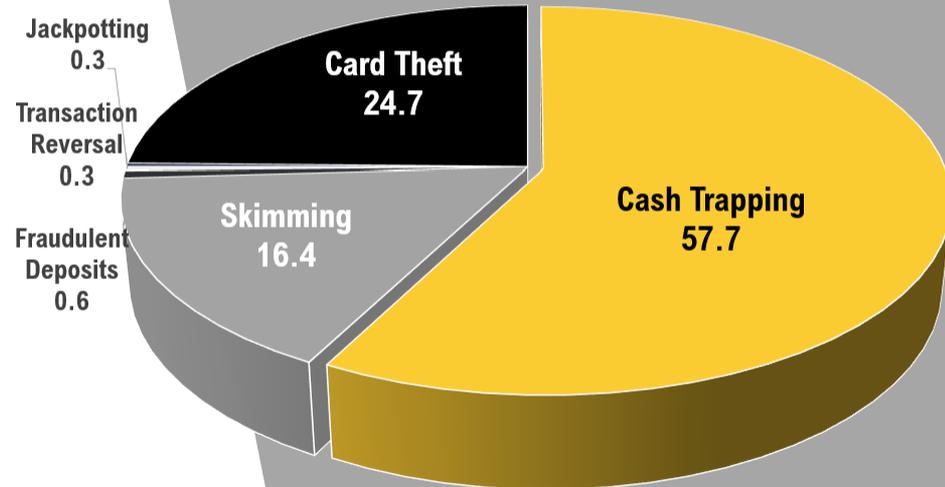
GLOBAL COMPARISON

- Globally fraud accounted for 92% of crime incidents and physical attacks, 8% in Q1, 2022.

- South Africa has 67% physical and 33% Cyber fraud
- Asia has 24% physical and 76% Cyber fraud
- Asia Pacific has 75% physical and 25% Cyber fraud
- Europe has 1.5% physical and 98.5% Cyber fraud
- North America had 73% physical and 27% Cyber

❖ Incidents are self reported

Popular Methods



❖ Data driven from ATM Security Association April 2022

TYPES OF CYBERFRAUD



Cash Trapping 57.7%

Currency is physically trapped behind the shutter



Fraudulent Deposit .6%

Deposit of fraudulent notes or checks Money Laundering



Card Theft 24.7%

Physical trapping of an ATM card at the location



Transaction Reversal .3%

Theft of cash from an ATM during a transaction. The account is not debited but subsequently reversed such that the account balance is not depleted.



Skimming 16.4%

The motorized card acceptor has an overlay to capture information



Dispenser Jackpotting .3%

Cash is forced to be fraudulently dispensed by the ATM without any account being debited

POPULAR METHODS

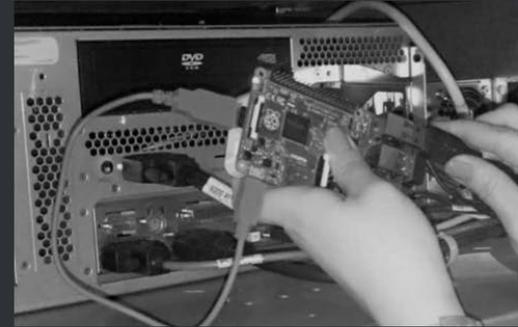
Cash Trapping



Card Skimming



Cyber Jackpotting



ATM PHYSICAL ATTACKS



What Questions Can We Answer?



Federal Reserve
Bank *of* Atlanta



David N. Tente

The ATM Industry Association (ATMIA) is a global trade association with over 11,000 members in 65 countries, representing ATM and payments professionals from a broad cross-section of the industry. In his current role as Executive Director of ATMIA, USA, David leads ATMIA's largest region. He works with the membership team to maintain and grow U.S. membership, develops and manages content for the industry's premier conference, manages regional committee groups, and serves as an ATM industry evangelist. David also leads advocacy efforts for the region at the local, state, and federal regulatory levels, representing the interests of the broader ATM industry, as well as consumers who depend on ATMs for convenient access to cash.



Brad Moody

Brad offers 25 years of executive experience in financial services risk management and has collaborative partnerships as a trusted advisor with financial institutions by managing audit and compliance programs. Ingrained in his work is a specialty in cyber security where he leads cyber risk assessments, vulnerability assessments, and penetration testing programs utilizing various methodologies such as ISO, AICPA, and NIST. He has also built security management programs and guarding operation practices integrating various technology solutions for Fortune 500 companies, resulting in uniform operational excellence.

Prior to joining Lowers Risk Group, Brad's experience as executive manager of transaction services for Bank of America. Brad also managed a team that evaluated security controls and surveys for cash vaults, ATMs, and banking centers as well as investigations on suspected vendor robbery and theft.



SSA Brenda Born

FBI Supervisory Special Agent Brenda Born entered on duty with the FBI in October 2005 and was assigned to the Washington Field Office where she investigated Cyber Criminal Intrusions, Cyber Threats To Life, and then moved on to investigating Crimes Against Children. In September 2014, SSA Born transferred to Cyber Headquarters where she was the Undercover Coordinator for all Cyber Criminal and National Security Undercover Operations. In September 2017 SSA Born transferred to the Minneapolis Field Office. SSA Born is currently the Supervisor of squad C-4 covering the Violent Crime Task Force and the Child Exploitation and Human Trafficking Task Force.



John Toneatto

John has worked in the Cash in Transit industry for several decades. He is currently the VP of Security and provides support and direction regarding CIT losses, investigation, and physical security. He also heads up the claims department in the USA. During investigations John works closely with the US Attorney Offices, District Attorney Offices, Federal, State, Local Law Enforcement investigators, and joint task forces in many of the states across the country. John has been certified as an NRA Law Enforcement Firearms Instructor, State of California Firearms Instructor, and a Simunitions Instructor

John has been a member ACFE [Association of Certified Fraud Examiners] for the last 12 years and has been on their ACFE Global Alliance committee for the last seven years. He served as the Chairman of the NACA [National Armored Car Association] for the last five years. John has been a member of the California Robbery Investigators Association for the past 40 years and a member of the Robbery Investigators of Texas since its inception.

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