Prevent Financial Crime and Enable Frictionless Customer Experience – Account takeover: what you need to know about loyalty fraud

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David has over eighteen years’ experience in banking and financial technology, eleven of which have been in Asia Pacific. Before joining LexisNexis Risk Solutions David spent 12 years working for Thomson Reuters and has worked with many of the region’s leading financial institutions, corporates and law firms to help define internal process and implement efficient and impactful Risk Screening, Fraud and Business Intelligence Solutions.
Russian cyber criminals stealing British people's reward points and airmiles to go on luxury holidays

British couple flees hotel room in Spain booked for 'Crime and Olger' using their Asos account

Law and Crime

Cathay Pacific data leak: airline warns customers to guard against phishing attempts

- Beleaguered Hong Kong airline says it is aware of attempted fraud, targeting some of the 9.4 million passengers whose data was hacked

- Cybersecurity experts call for Hong Kong to introduce a law that would force

How much are stolen frequent flyer miles worth on the dark web?

There's a black market for your frequent flyer miles. Stolen frequent flyer miles

Marriott Breach -- What Happened, How Serious Is It And Who Is Impacted?

Hackers are now after your air miles to sell on the dark web

How Did 76,000 KrisFlyer Miles Go Missing? Singapore Airlines Investigates A Rash of Hacks

The marvelous world of online mileage brokers
THREAMETRIX DIGITAL IDENTITY NETWORK: CROWDSOURCED FROM OVER 6000+ MEMBER ORGANIZATIONS

- 30B+ events per year
- 4.5B+ active devices
- 1.4B+ online identities
- 30,000+ websites/apps
- 185 Countries
- 600m Addresses
- 800m Current Emails
“WHICH STREET DID YOU GROW UP ON?”

“WHAT IS YOUR FAVORITE COUNTRY?”

“WHAT IS YOUR FAVORITE COUNTRY?”

“ENTER THE 2ND, 4TH AND LAST DIGIT OF THE THIRD PASSWORD YOU RESET IN 2013?”
“MULTIPLE DEVICES, HOW MANY IS THE NORM?”

“LEGITIMATE TRAVELERS, ACCESSING VPN?”

“FAMILY MEMBERS SHARING ACCOUNTS?”

“NUMEROUS PASSWORD RESETS?”
“2.3 BILLION Attacks IN ASIA H2 2018?”

“480% GROWTH IN BOT ATTACKS IN ASIA?”

“504 OF ATTACKS ORIGINATE THROUGH MOBILE?”

TRANSACTIONS POSE OVER 10% RISK IN THE FINANCIAL SERVICES SECTOR?”
The ThreatMetrix Cybercrime Report: APAC

Actual attacks, June – December 2018, detected by The Digital Identity Network

Using digital identity intelligence to distinguish good users from fraudsters

Device, location, behavior & threat data helps verify legitimacy of transactions

Attacks = “high-risk” transactions scored by ThreatMetrix customers
Transactions Originating from APAC: In Numbers

- **India**: 2.3 Billion Transactions Processed
  - 14.8 Billion Human-initiated Attacks
  - 35 Million Bot Attacks
  - 209 Million Mobile Attacks

- **Malaysia**: 1.2 Billion Bot Attacks
  - Including 14 Million Mobile Attacks
  - 89 Million Transactions Processed

**APAC**
- 50% Transactions Come from Mobile
- 1.6 Billion Growth in Bot Attacks YoY

**ROW**
- 61% Transactions Come from Mobile
- 45% Growth in Bot Attacks YoY

India is the biggest attacker, while Malaysia is the biggest bot originator.
Top Attack Originators in APAC

1. India
2. China
3. Japan
4. Australia
5. Bangladesh
6. Hong Kong
7. Vietnam
8. Philippines
9. Pakistan
10. Thailand

Based on total number of attacks detected by geography of origin.
Cybercrime Risk Across the Customer Journey in APAC

**New Account Creations**
- **Attack Rate Per Industry**
  - E-commerce: 16.8%
  - Finance: 4.0%
  - Media: 13.2%
- **Risk**
  - High new account creation attack rate in both e-commerce and media.
  - New accounts are prime targets for identity testing attacks.

**Logins**
- **Attack Rate Per Industry**
  - E-commerce: 7.7%
  - Finance: 1.6%
  - Media: 4.2%
- **Risk**
  - High login attack rate in both e-commerce and media.
  - Fraudsters attempt to takeover accounts using stolen identity credentials in order to access saved credit card/financial information/personal information.

**Payments**
- **Attack Rate Per Industry**
  - E-commerce: 6.4%
  - Finance: 10.1%
  - Media: 0.8%
- **Risk**
  - Payments transactions in Financial Services has the highest attack rate.
  - Fraudsters target financial services due to the immediate monetization of payments.

*Attack rate is based on percentage of transactions identified as high-risk and classified as attacks, by use case. Events identified as attacks are typically blocked or rejected automatically and in real time depending on individual customer use cases.*
Identity Spoofing is the Most Prevalent Attack Vector
Mobile Spotlight: Risk & Reward

Mobile Financial Services Transactions

55% vs 68%

Asia-Pacific vs Rest of the World

Mobile vs Desktop Volume per Transaction Type

- Mobile
- Desktop

- New Account Creations
  - Mobile: 10%
  - Desktop: 90%
- Account Logins
  - Mobile: 40%
  - Desktop: 60%
- Payments
  - Mobile: 60%
  - Desktop: 40%

Attack Rate - Mobile vs Desktop

- Mobile: 4.2%
- Desktop: 6.5%

Attack Rate per Transaction Type - Mobile vs Desktop

- Payments
  - Mobile: 8.2%
  - Desktop: 7.7%
- Account Logins
  - Mobile: 2.2%
  - Desktop: 6.5%
- New Account Creations
  - Mobile: 9.2%
  - Desktop: 21.1%
Fraudsters Target Mobile App Registration as Key Vulnerability in Customer Journey

GLOBAL TREND
Mobile App Registration
Attack Rate Growth
4% YOY
144% in 6 months

INDUSTRY TREND: Media
Mobile App Registration
Attack Rate Growth
324% YOY
148% in 6 months

REGIONAL TREND
South America Finance Mobile App Registrations at risk
All regions see growth in Media Mobile App Registration attacks
BALANCING FRICTION CENTERS ON LEVERAGING DIGITAL AND PHYSICAL IDENTITIES

Organizations that unite digital identity intelligence with physical identity and authentication capabilities to fine-tune their customer experience, reduce friction and detect and block complex fraud.
Creating a Unique Digital Identifier

- Device & Identity Intelligence to recognize users
- True Location Analysis to build consistent behavior
- Trust Score on reputation of that Digital Identity
- Network Comparison against global data from industry peers
Let’s talk case studies
Airline Loyalty Program User Journey

Legend

- **Blue Circle**: ThreatMetrix integration point (with profiling for online channels)
- **Red Circle**: ThreatMetrix decision used to block user action
- **Green Circle**: ThreatMetrix integration point for offline channel

Enrollment

- Forgot password
- Set password
- Call Centre redemption

Login

- Change email
- Change phone
- Change password
- Flight redemption
- Cash + Miles Flight Redemption
- Upgrade with miles
- Non-flight redemption
- Partner non-flight redemption

Transfer Miles
Detecting Flight Redemption Fraud

Trip Routing Rules:
- True IP Location vs Trip Routing
- Country of Residence in Trip Routing

Profile mismatch rules:
- Passenger name
- Booking email
- Booking telephone

Member & fare profile:
- Member tier and balance
- Ticket type

ThreatMetrix velocity rules
ThreatMetrix Global Device Intelligence
ThreatMetrix Proxy and Proxy Anomaly detection
Other Use Cases

- Online Balance Transfer protection
- Forgotten Credentials
- Other Channel Risks
- Customer / Card Fraud Enrichment
- Bonus/Subscription Management
- Operational Case Efficiency
- Fastpath Customer Journeys
- First Party Fraud
- Mules Identification
- Customer Authentication