

Transaction Optimization

The background of the slide is a dynamic digital scene. It features a central bright light source that creates a lens flare effect, with numerous light rays radiating outwards. The rays are primarily blue and purple, with some yellow and white highlights. Scattered throughout the scene are various numbers and data points, suggesting a high-speed data environment or a financial transaction network.

**Transforming the Customer Experience While
Reducing Fraud Through A.I. and Machine Learning**

CITY NATIONAL BANK



AN RBC COMPANY



Contents

Section 1

Clear Objectives

Section 2

The Ideal Configuration

Section 3

A.I. and Machine Learning Optimization

Sponsored by:

CITY NATIONAL BANK

 AN RBC COMPANY




Elavon

A Real Problem To Solve

\$331 Billion
total in false declines
for payment card
transactions in 2018

32% of falsely
declined consumers
stop shopping with
that retailer

\$42.6 Billion
Total Size of the
global fraud
screening market by
2023

\$710 Billion Card
Not Present sales
approved, 20%
growth

False positive
decline rate is over **3
times the rate** of
existing card fraud

Online fraud to
rise to USD
7.2 billion
by 2020

Source: VisaNet eCommerce data for US for FY16. YoY growth based on FY16 VS. FY15. Fiscal Year (FY) is Oct-Sept.

Source: Global Fraud Detection and Prevention Market data produced by Knowledge Base Value (KBV Research)

Source: MasterCard's Authentication Series Presentation Deck titled, "New Method for Increasing Approvals with Enhanced Data Sharing"

Clear Objectives

- An understanding of False Declines and How They Impact Today's Market
- Discuss New Technologies That Help Decrease Fraud While Improving the Customer Experience
- Reiterate The Importance of Knowing Your Customer and How A.I. and Machine Learning Can Help
- Be Able To Create A Frictionless Customer Experience And Shift Fraud Liability



How To Test for False Positives

	Fraud Exists	Fraud Does Not Exist
Positive Result	True Positive	False Positive
Negative Result	False Negative	True Negative





How To Test for False Positives

	Fraud Exists	Fraud Does Not Exist
Positive Result	Non Valid Customer with No Mistakes	Valid Customer with Mistakes
Negative Result	Non Valid Customer with Mistakes	Valid Customer with No Mistakes





Chargeback vs. Conversion Rates



Chargeback Rates



Conversion Rates



Chargeback vs. Conversion Rates



Chargeback Rates



Conversion Rates

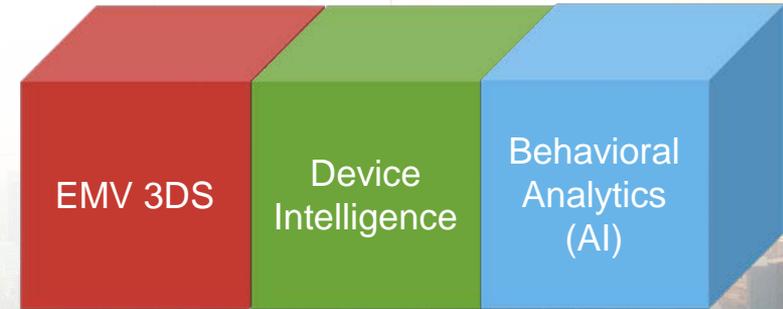


An Ideal Fraud Solution

The ideal Fraud Solution will encompass the following components. Combined, they protect merchants by providing zero liability from all applicable online, eCommerce payment card fraud chargebacks in the market.

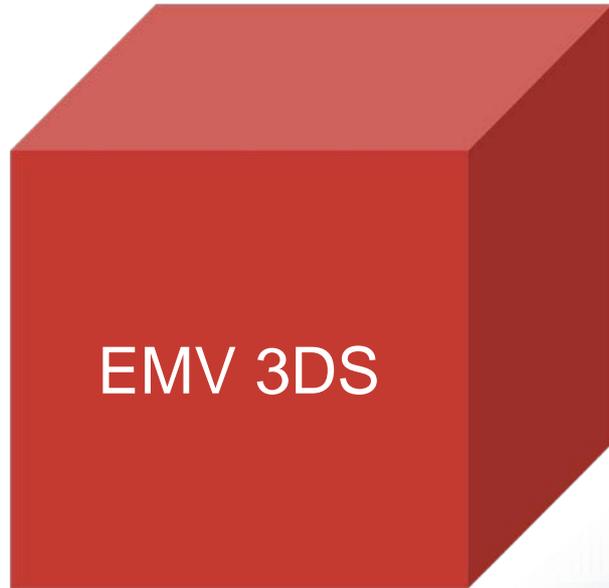
Together they can...

- Dynamically authenticate cardholders based on approximately 700 consumer data points combined.
- Separate good customers from fraudulent anomalies; thus shifting fraud liability from merchant to issuer.
- Prevent false declines due to limited consumer data; improving each merchant's consumer experience online.





An Ideal Fraud Solution



- **Utilizes both 3DS 1.0 and 3DS 2.0 to authenticate** cardholders and provide fraud liability shift to merchants for online, card-not-present (CNP), eCommerce fraudulent transactions.
- This **core security layer helps** prevent unauthorized CNP transactions and protects the merchant from CNP exposure to fraud.
- EMV 3D Secure (3DS) authenticates customers prior to card authorization to mitigate fraud utilizing 200+ consumer related data points

What is Cardholder Authentication

“Authentication is a separate and distinct set of processes prior to authorization”



3D Secure is the globally deployed technology standard to enable cardholder authentication for all major networks:

- Primary ways to authenticate:
 - Apply contextual data (i.e. IP address, geolocation, etc.)
 - Ask consumer to do something (one-time password, biometrics...)



Early EMV 3DS...

Adoption rates for early 3D Secure were low due to the following:

- Bad customer experience with platform – increase in abandoned carts due to friction at checkout
- Lack of education for both cardholder and merchant on the platform
- Implementation and user experience issues with “suspicious” looking popup windows
- Merchants were unable to opt-out or customize the rules of engagement
- Merchants did not find value in the protocol due to lack of total fraud liability shift

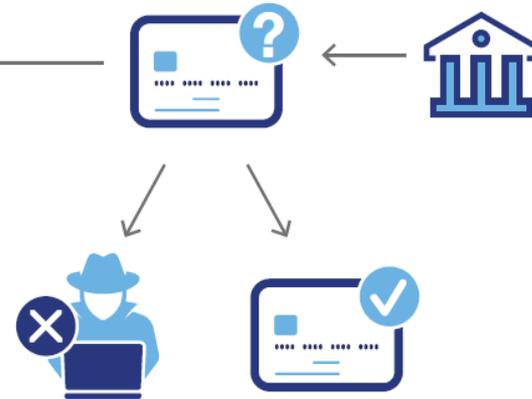
The Benefits of 3D Secure

3D Secure 2.0 Authentication



Merchant and
Issuer
Collaboration

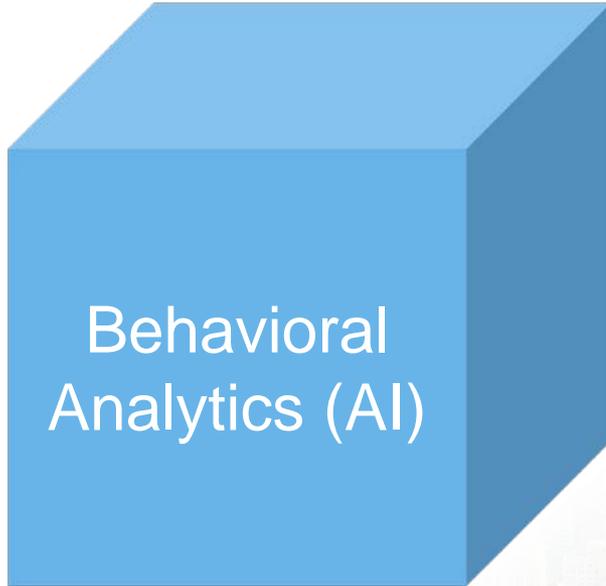
Authorization



Working hand in hand, both the merchant and issuer are able to make more informed, risk-based decisions regarding each online transaction.



An Ideal Fraud Solution



- **A.I. supplements authentication:** the newest and most effective approach to the Merchant/Acquirer 3D Secure Protocol that identifies fraud patterns found in transaction data.
- **Transaction Scoring.** Further refines risk acceptance for merchants.
- Enhances the user's online experience through Machine Learning and Artificial Intelligence (A.I.)



An Ideal Fraud Solution



- An **enterprise-grade device intelligence platform** to identify and capture hundreds of fields of information about a device and the user.
- **Store and share data** about devices with the merchant and issuing banks.
- **Links data to prior shopping sessions** and attribute that device to its mobile or desktop device.



An Ideal Fraud Solution

Key Points To Consider When Selecting A Partner

- EMVco Certified?
- Costs?
- How Many Vendors Is Too Many?



Questions