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A **Broadcom** Company

How to Fight Fraud with a Frictionless Customer Experience

Merchants want to reduce card-not-present fraud while maximizing legitimate sales, all with a streamlined customer experience. Now you can experience these benefits with one powerful solution.

Executive Summary

Challenge

Card-not-present (CNP) fraud costs merchants billions of dollars in chargebacks and disputes. As eCommerce continues to grow, you need new tools to fight back. And you need security that doesn't get in the way of business. In other words, you want to minimize fraud while maximizing legitimate sales.

Opportunity

The path to reducing fraud while creating a smooth customer experience is here. The combination of CA Technologies' unique global fraud risk network and industry-leading data science enables highly accurate decision-making. Our patented predictive analytics and machine learning capabilities take advantage of the extensive and diverse data provided through the EMV 3-D Secure protocol.

Benefits

With Merchant Risk Analytics, there's no need to compromise between reducing risk and increasing genuine sales, while streamlining your customers' shopping experience. You stay in control, maintaining your own fraud policies and systems. The solution enables you to take a big step forward in accelerating your business and protecting your customers.

Fraud and Friction

Card-not-present (CNP) fraud is showing no signs of slowing down. It is no longer simply a result of lone bad actors. Stealing and selling credit card data is big business for sophisticated, organized crime. Illegal behavior is quickly adapting to fraud prevention attempts, and genuine customer transactions can look deceptive. These dynamics make detection and prevention more complex.

As a result, it has become increasingly important for greater accuracy and stability, yet traditional fraud prevention models are no longer adequate. Your customers worry about the safety of online transactions but don't want to be interrupted when making a purchase. Your top concern is completing the sale with minimal risk. You need security that doesn't get in the way of doing business. In other words, you want to quickly finalize the sale, while at the same time minimizing fraud loss and reducing false declines.

Merchant Risk Analytics

With Merchant Risk Analytics, you can lower the risk of fraud, while at the same time providing a great customer experience that doesn't cost you lost sales due to false declines. Benefit from higher transaction volumes, increase conversions and reduce the cost of chargebacks.
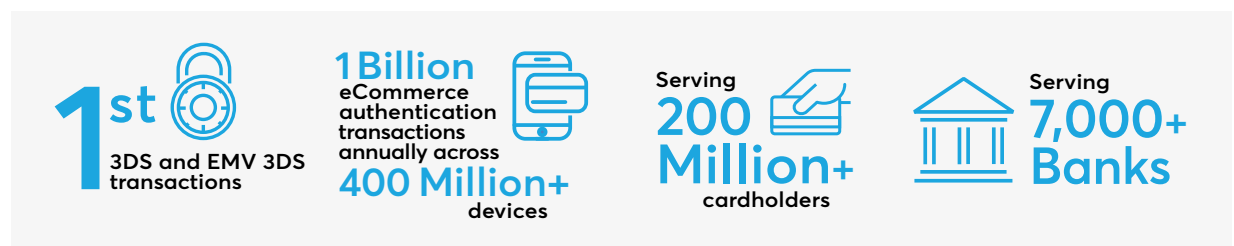
Our patented, predictive analytics and machine learning capabilities take advantage of the quantity and diversity of data provided by EMV 3-D Secure (EMV 3DS) enabling highly accurate decision-making via a combination of our unique global risk network and our in-house, industry-leading data science team.

In addition, our payment security solution offers a big step forward in accelerating your business and protecting your customers. Merchant Risk Analytics enables you to:

• Grow transaction volume and conversion rates

• Reduce false declines

• Control chargeback liability

• Create a frictionless customer experience

• Minimize fraud loss

• Manage fraud thresholds

• Minimize customer service calls, reducing operational costs

CA Technologies, a Broadcom Company, has the largest global consortium network of real-time, eCommerce authentication transaction data to support risk analytics, scoring and EMV 3DS. The company has nearly 20 years of experience helping our customers successfully fight CNP fraud. The numbers speak for themselves.

FIGURE 1.

CA leads the way in fraud prevention.

1st 3DS and EMV 3DS transactions

1 Billion eCommerce authentication transactions annually across **400 Million+** devices

Serving **200 Million+** cardholders
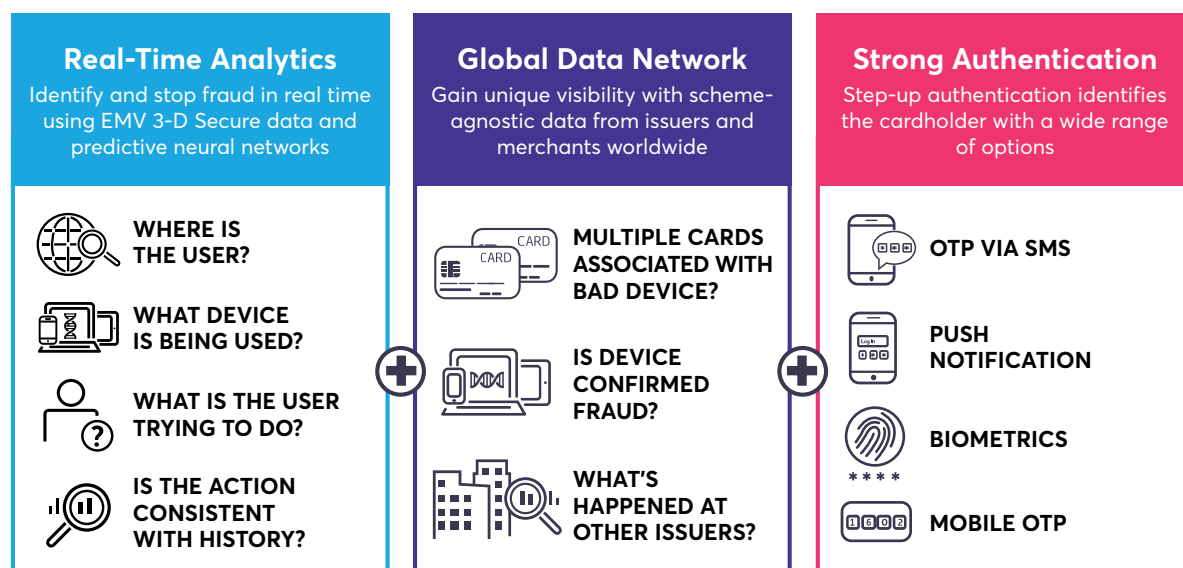
Serving **7,000+ Banks**

The Nuts and Bolts of Merchant Risk Analytics

Merchant Risk Analytics is an SaaS-based solution that works independently and/or in combination with your existing fraud prevention systems. It gives you full visibility and control over all transactions and can provide frictionless, risk-scoring and risk-based authentication, enabling you to maximize conversions. And with strong authentication, the solution enables you to meet the European Banking Authority PSD2 regulation and card scheme requirements. The solution combines CA's leadership in EMV 3DS with real-time fraud risk assessment derived from billions of transactions and world-class data models. Patented predictive analytics give issuers, processors and merchants the insights they need to reduce fraud losses as well as false declines.

High-quality data—across time, transactions, devices, card schemes and merchants—are essential to producing optimal outcomes. A risk assessment, in combination with your own business rules, gives you more confidence in fraud protection while offering customers a better buying experience.

With the ability to configure and manage authentication and risk policies, you stay in control. Merchant Risk Analytics is the only solution to provide true, real-time analysis—in mere milliseconds. CA is unique in its scheme-agnostic design, rich historical and real-time data and unrivaled data science capabilities.

FIGURE 2.

Merchant Risk Analytics combines real-time analytics, leveraging the CA global network of consortium data and strong authentication.

Real-Time Analytics
Identify and stop fraud in real time using EMV 3-D Secure data and predictive neural networks

- WHERE IS THE USER?
- WHAT DEVICE IS BEING USED?
- WHAT IS THE USER TRYING TO DO?
- IS THE ACTION CONSISTENT WITH HISTORY?

Global Data Network
Gain unique visibility with scheme-agnostic data from issuers and merchants worldwide

- MULTIPLE CARDS ASSOCIATED WITH BAD DEVICE?
- IS DEVICE CONFIRMED FRAUD?
- WHAT'S HAPPENED AT OTHER ISSUERS?

Strong Authentication
Step-up authentication identifies the cardholder with a wide range of options

- OTP VIA SMS
- PUSH NOTIFICATION
- BIOMETRICS
- MOBILE OTP

Real-Time, Risk Scoring, Machine Learning and Analytics

By tapping into our comprehensive network of eCommerce authentication data, you benefit from unique insights that fuel the neural network models to automatically adapt to fraud patterns in real time. It is this instant analysis of multi-dimensional, large-scale data that enables transparent fraud assessment of eCommerce transactions.

CA neural network models are powered by advanced machine learning techniques that understand legitimate and fraudulent behavior in the context of EMV 3DS as well as detailed data that spans device ID, geolocation, transaction amount and much more. CA offers the advantage of understanding the transaction in the context of what is normal for each individual cardholder.

The system employs a self-learning scoring model, which analyzes and compares historical and real-time transaction behavior. Cardholder and device profiles are then immediately updated, influencing the model to reflect the most current and accurate risk score.

These models are continually being updated specifically for each merchant, based on their commerce purchase trends. The system continues to learn from every purchase transaction that flows through their systems—in real time. This modeling is done not just for individual merchants but also across the consortium of merchants and issuers, which yields benchmarks, comparisons and an even richer data set upon which to generate the risk score. The evaluation of every transaction is a little smarter than the last, as the data set becomes richer and more tailored.

In the end, this analysis is designed to reduce friction during the checkout process by recommending step-up authentication only for those transactions that truly look risky.
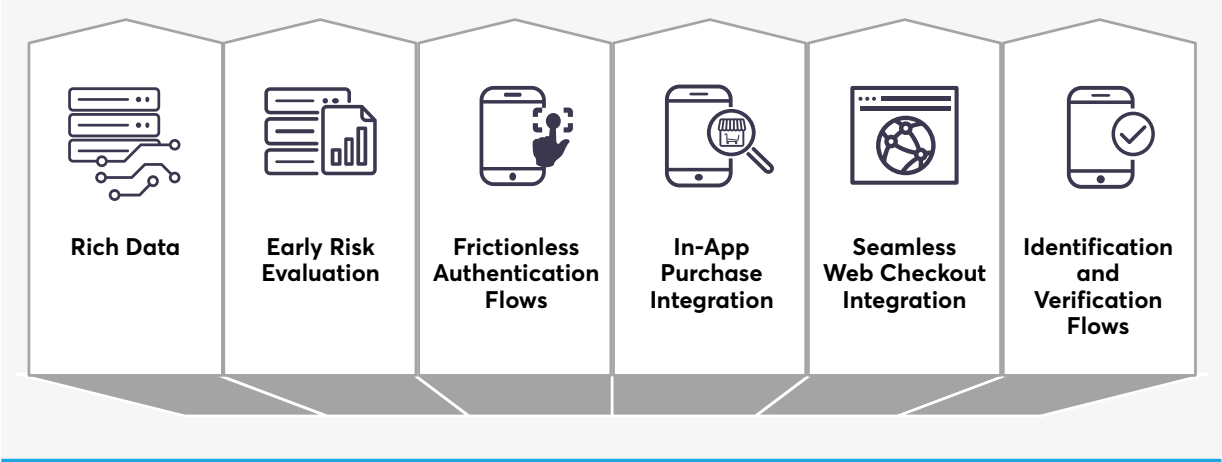
EMV 3-D Secure Provides More Data

Merchant Risk Analytics uses EMV 3-D Secure (EMV 3DS) to reduce the risk of fraud and boost conversions that lead to genuine sales.

EMV 3DS facilitates a more robust data connection between merchants, payment networks and card issuers to analyze and share more intelligence about transactions. The EMV 3DS protocol provides a real-time, secure information-sharing pipeline so that you can gather and share an extensive number of transaction attributes. This data can be used by the card issuer to generate better risk decisions.

Merchant Risk Analytics has a unique advantage over single-issuer EMV 3DS implementations. It sees and maintains far richer transactional and device data than other solutions, which have visibility into only a single card scheme. Unlike others, CA actively works with multiple issuers and processors around the world in the deployment of EMV 3DS protocols. This gives us the ability to leverage and incorporate data that flows through the transactions of multiple issuers, not just one. And on top of this multi-scheme data, the solution augments EMV 3DS with unique predictive real-time learning and scoring models.

FIGURE 3.
EMV 3DS introduces many important new features.

| Rich Data | Early Risk Evaluation | Frictionless Authentication Flows | In-App Purchase Integration | Seamless Web Checkout Integration | Identification and Verification Flows |

Risk-Based and Strong Authentication Working Together

Most online shoppers are well aware of their exposure to data breaches and payment fraud. A secure commerce experience is table stakes. And the majority of consumers want to feel that they have an element of control over their eCommerce security.
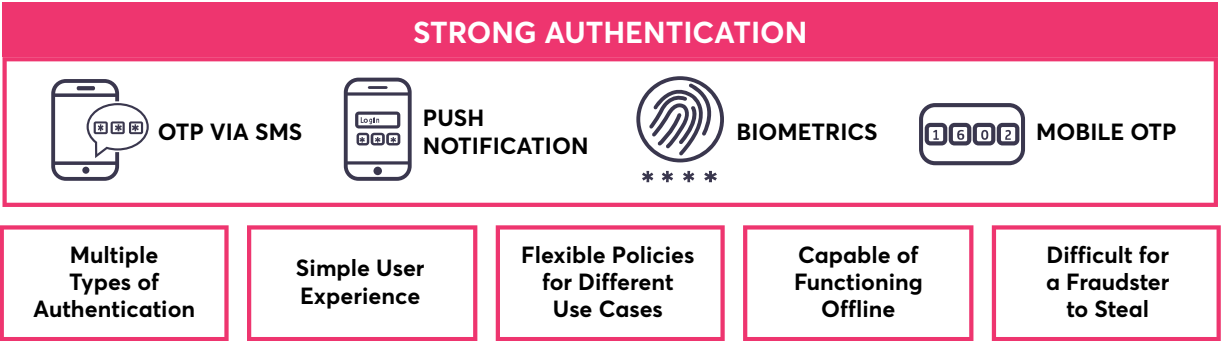
At the same time, your customers are looking for a frictionless experience with streamlined authentication such as a push notification. Merchant Risk Analytics helps you know if and when the friction should be introduced. Authentication decisions are made based on the extensive amount of data collected, and analytics transparently assess fraud risk.

This means the majority of transactions may proceed without step-up authentication—meaning less cart abandonment and more genuine sales. Legitimate cardholders don't have to deal with the hassle of multiple authentication steps, and the fraudsters are more likely to be rejected. And challenge decisions can be made with more confidence.

For the small percentage of transactions that must be challenged, CA offers an optional strong authentication component as part of our solution. This component offers a variety of authentication methods, including one-time-use passwords, push notifications and biometrics—enabling advanced authentication that is both flexible and scalable.

Multi-factor authentication not only reduces fraud risks, it is also critical to complying with governmental regulations such as the European Banking Authority's Payment Services Directive (PSD2). In addition, CA strong authentication enables full compliance with Verified by Visa, Mastercard Identity Check, JCB J/Secure, American Express, SafeKey and Discover/Diners ProtectBuy cardholder authentication programs.

FIGURE 4.

Flexible authentication enables optimal step-up methods based on cardholder data.

STRONG AUTHENTICATION

OTP VIA SMS | PUSH NOTIFICATION | BIOMETRICS | MOBILE OTP

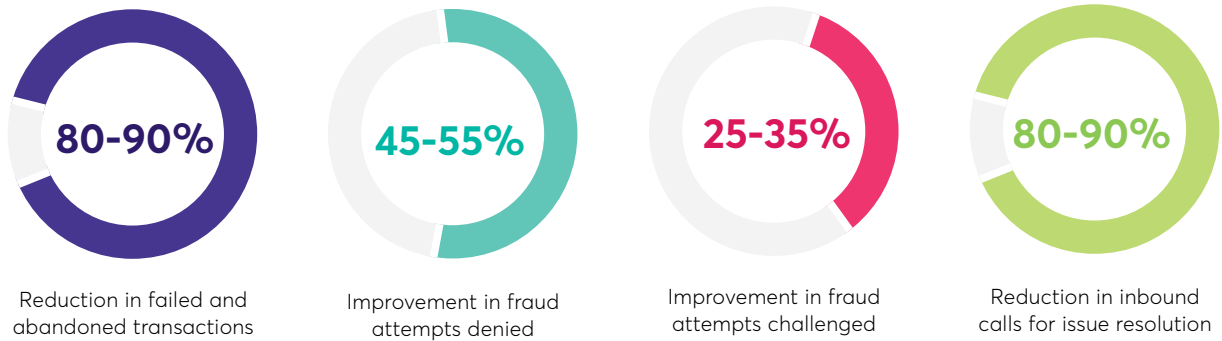| Multiple Types of Authentication | Simple User Experience | Flexible Policies for Different Use Cases | Capable of Functioning Offline | Difficult for a Fraudster to Steal |

Merchants Are in the Driver's Seat

With Merchant Risk Analytics, you're in control. You can set the risk policy and authentication experience for your customers with CA and/or your own risk structure, rule-building tools and existing fraud systems. It is flexible, which means that you can integrate it with your current systems and policies and continue to make updates at any time to dynamically adjust to current fraud scenarios.

And Merchant Risk Analytics supports CNP transactions with or without issuer EMV 3DS implementation. You can incorporate, or disregard issuer accept, deny and challenge decisions for any transaction.

FIGURE 5.

Merchant Risk Analytics improves performance across the board. Figures are based on issuer usage of CA Solutions with 3DS 1.0.

80-90%
Reduction in failed and abandoned transactions

45-55%
Improvement in fraud attempts denied

25-35%
Improvement in fraud attempts challenged

80-90%
Reduction in inbound calls for issue resolution

Make Better Decisions

With Merchant Risk Analytics, merchants benefit from a unique 360° view of transactions that deliver comprehensive intelligence, resulting in more reliable risk assessments. This gives merchants a higher level of confidence in deciding which transactions to allow, reject or require further authentication. The result: enhanced fraud protection and a superb customer experience. A win-win for all.

To learn more about Merchant Risk Analytics from CA Technologies, visit **ca.com/merchants**

Connect with CA Technologies

CA Technologies, a Broadcom Company, is the industry leader in payment and identity fraud, with friction-free transaction authentication powered by patented artificial intelligence. As the world's largest 3-D Secure provider and a pioneer in data analytics for online fraud—powered by the largest global data analytics network in the industry— CA delivers a unique 360° view of transactions for issuers, processors and merchants, across all payment schemes. Learn more at **ca.com/merchants**