eCommerce fraud explained

Your guide to understanding and managing online fraud

CyberSource®
A Visa Solution

Contents

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Why this guide?

New insights on fraud management help get your business up to speed quickly

Many of the world's eCommerce giants turn to CyberSource to manage risk and reduce fraud. We help those businesses develop effective strategies and deploy an optimal mix of services to manage fraud effectively across channels and borders.

Your business might need new insights to expedite the move to CyberSource solutions from an in-house program, transition from other fraud services, or onboard a new employee in the anti-fraud department. Or you might be looking to develop a clear understanding of key concepts and strategies for eCommerce fraud management as you launch your business and get set up to accept digital payments.

This guide covers the basics for effective fraud management—to help you understand how to maximize revenue, minimize fraud loss, and minimize operational costs.

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What does eCommerce fraud look like?

From account takeovers to gray market sales, fraud takes many different ways, shapes, and forms

eCommerce fraud has many faces. This illegal activity is carried out by an individual—or an organized crime group—through an online store. It results in unauthorized or fraudulent transactions, stolen merchandise, or wrongful requests for refunds. Read on to learn more about common types of eCommerce fraud.

Account takeover is growing

59% of respondents surveyed for the CyberSource 2019 Global eCommerce Fraud Management Report indicated they anticipate account takeover attacks will increase in the next 12 months.[1]

[1] CyberSource, "Masters of Balance: What it takes to be a fraud management leader," 2019 Global eCommerce Fraud Management Report. By their nature, forward-looking statements are subject to risks, uncertainties, assumptions, and changes in circumstances that are difficult to predict or quantify. Therefore, actual results could differ materially and adversely from those forward-looking statements because of a variety of factors.

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eCommerce fraud at a glance

Getting to know common types of eCommerce fraud

1

Account takeover: A fraudster uses stolen login credentials to gain control of someone else's account on an eCommerce site, on a bank site, or through a payment solution. The fraudster might change personal information or use payment details within the account to make purchases.

2

Buy online, pick up in-store: A fraudster uses stolen information to make a purchase online and then picks up the merchandise in a physical store before the retailer can detect the fraud.

3

Clean fraud: A fraudster uses a stolen credit card to make an online purchase, entering enough correct cardholder information for the transaction to look genuine and successfully pass the business's security checks.

4

Card testing: A fraudster uses an automated bot to conduct numerous small-value transactions with stolen credit card numbers. The goal of these tests is to determine which cards can be used for other, higher-value fraudulent transactions and which should be discarded.

5

First-person fraud: A customer buys an item using their own payment card, then claims that the purchase was unauthorized or the item did not arrive. The business reimburses the customer, who effectively gets the item free. (Also known as *friendly fraud.*)

6

Refund or return fraud: A fraudster buys merchandise online with stolen credentials, then goes to a physical store and requests a refund, most often receiving a store gift card due to the lack of a valid store receipt.

7

Reshipping fraud: A fraudster uses stolen payment details to buy goods. The fraudster then contacts the shipper and requests a redirect to a new address, or pays people—known as *mules* or *freight forwarders*—to act as delivery recipients. The mules reship the goods to the fraudster or another location for resale.

8

Gray market fraud: A fraudster buys goods with a stolen credit card and then resells them in unauthorized markets or geographies, or at a discount. (Also known as *reseller fraud.*)

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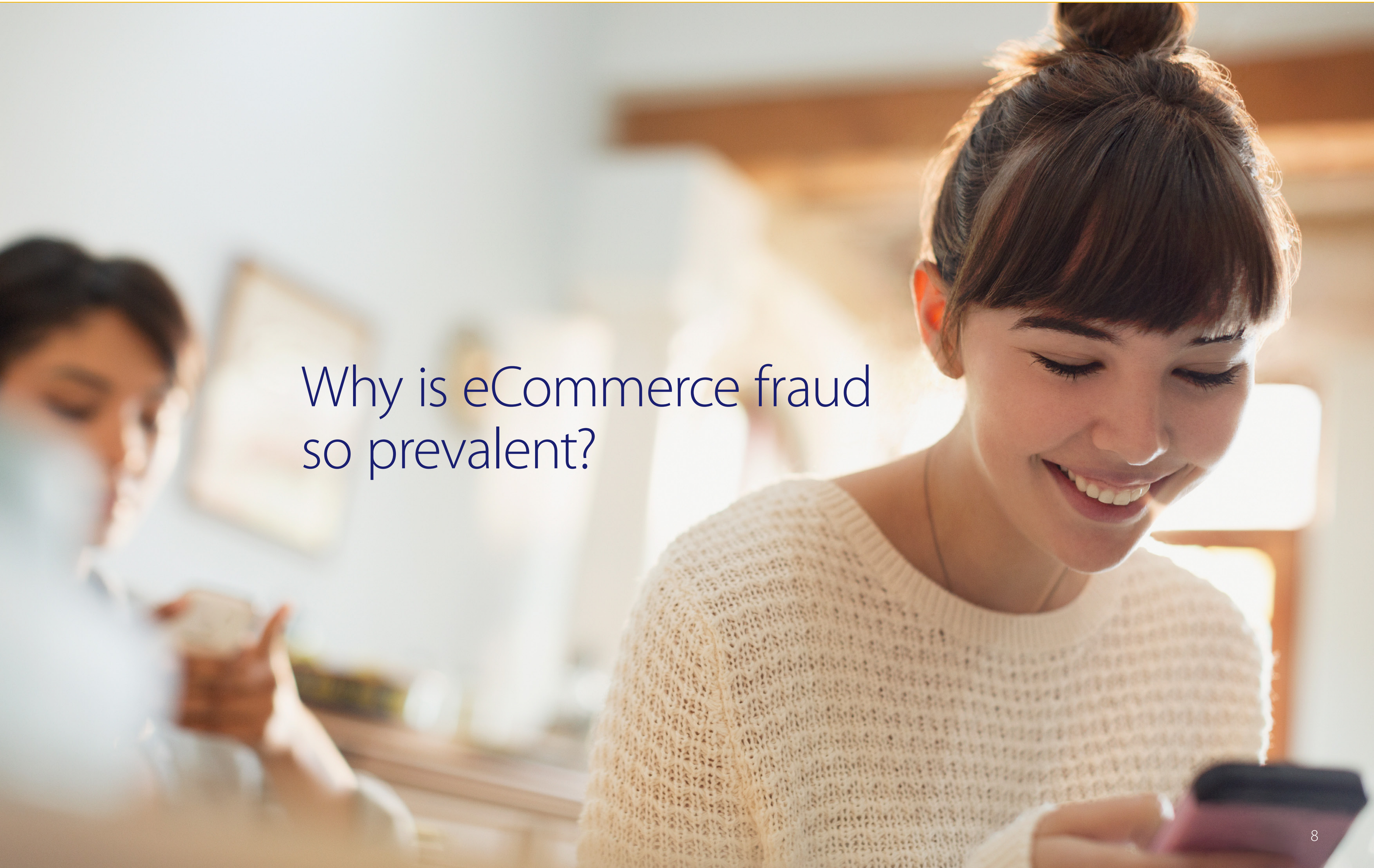

Why is eCommerce fraud so prevalent?

Fraud shifts online

↓82%

In-person, card-present fraud in the US is down by 82 percent.[3]

↑33%

But online, card-not-present fraud in the US is up by 33 percent.[4]

Easy access to information and tighter in-store security have driven fraudsters online

Globally, online businesses and their customers suffer billions in fraud losses every year. It's not surprising that in 2018 more than a third of retailers said combating fraud is one of their top three priorities over the next 18 months.[2]

Two main factors explain the high rate of eCommerce fraud.

1

Ease of acquiring information: It is cheap and easy for fraudsters to buy payment and identity information stolen during data breaches and hacks.

2

Effective in-store fraud prevention: EMV (Europay, Mastercard, and Visa) technology embeds computer chips in credit cards to securely store cardholder data. As a result, criminals have moved more activity online.

[2] The Forrester Wave™: "Global Merchant Payment Providers, Q4 2018," October 10, 2018, https://www.forrester.com/report/The+Forrester+Wave+Global+Merchant+Payment+Providers+Q4+2018/-/E-RES141076

[3] Visa, chip card stats, November 27, 2018, https://usa.visa.com/visa-everywhere/blog.entry.html/2018/11/27/chip_technology_has-u1kX.html

[4] Aite, "3-D Secure 2.0: Key Considerations for Card Issuers," February 21, 2018, https://www.aitegroup.com/report/3-d-secure-20-key-considerations-card-issuers

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Rethink your approach to stay ahead of evolving fraud attacks

eCommerce continues to grow and evolve—and so does eCommerce fraud.

To identify and safeguard against rapidly shifting fraudster strategies, it's more important than ever to adopt a modern fraud management system—one that uses advanced computer models and draws from constantly refreshed global transaction data.

Trends

eCommerce has grown rapidly since the mid 1990s. Today consumers use a variety of devices and payment methods to buy a wide array of products and services online.

eCommerce businesses are implementing omnichannel approaches. The goal is to deliver a seamless customer experience across eCommerce and traditional channels. Some businesses are enabling customers to browse for and buy items online that may be out of stock or not sold in a physical store. (Also known as *endless aisle*.)

Take-aways

eCommerce fraud is growing too. Fraudsters are continuously developing new practices and strategies to take advantage of the latest eCommerce sales channels and payment options.

The typical fraudster profile is also evolving. eCommerce fraud is no longer limited to individuals or small teams. Today fraud is an industry that involves national and global crime rings employing sophisticated techniques.[5]

[5] US Federal Bureau of Investigation, "Transnational Organized Crime," https://www.fbi.gov/investigate/organized-crime

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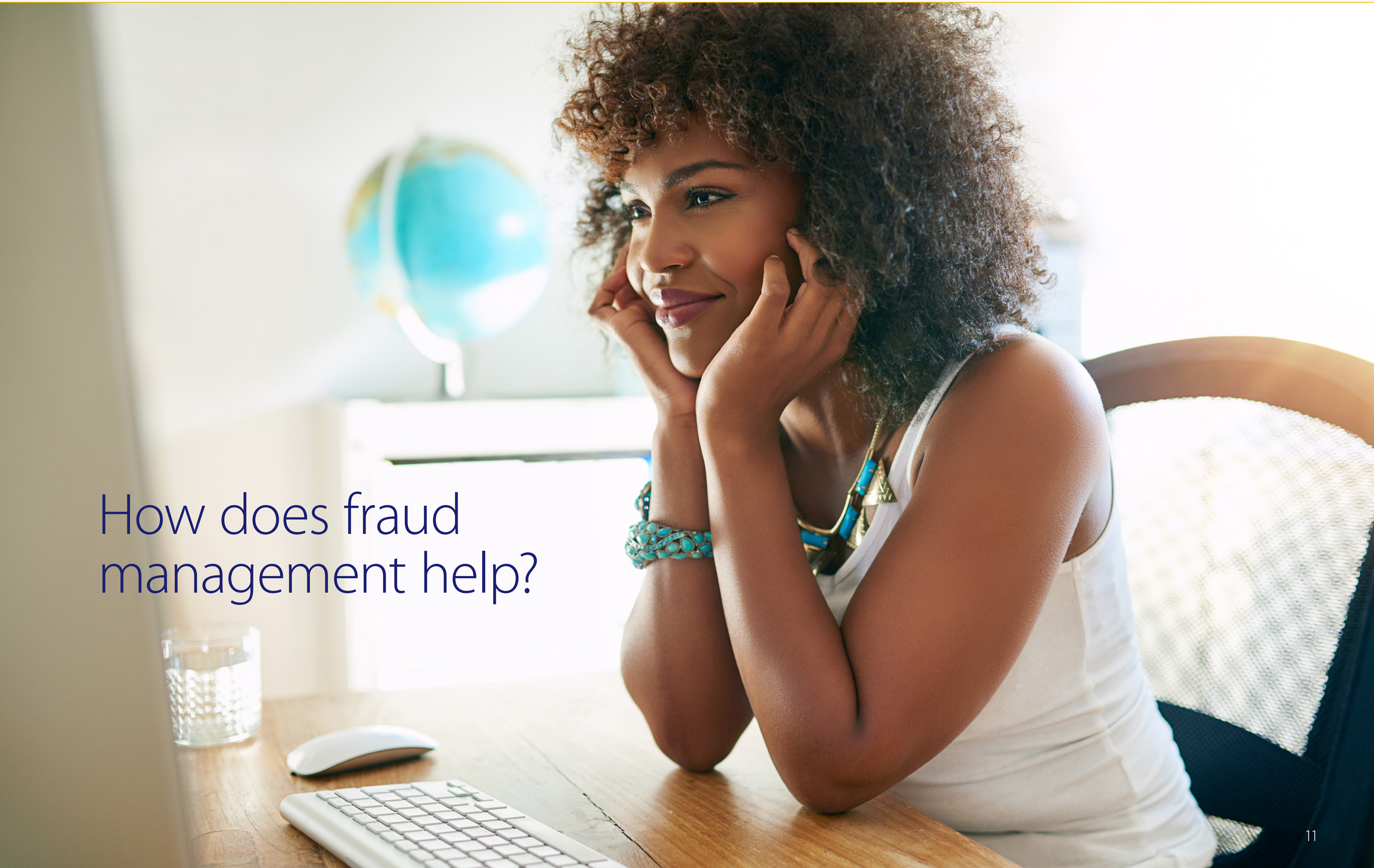
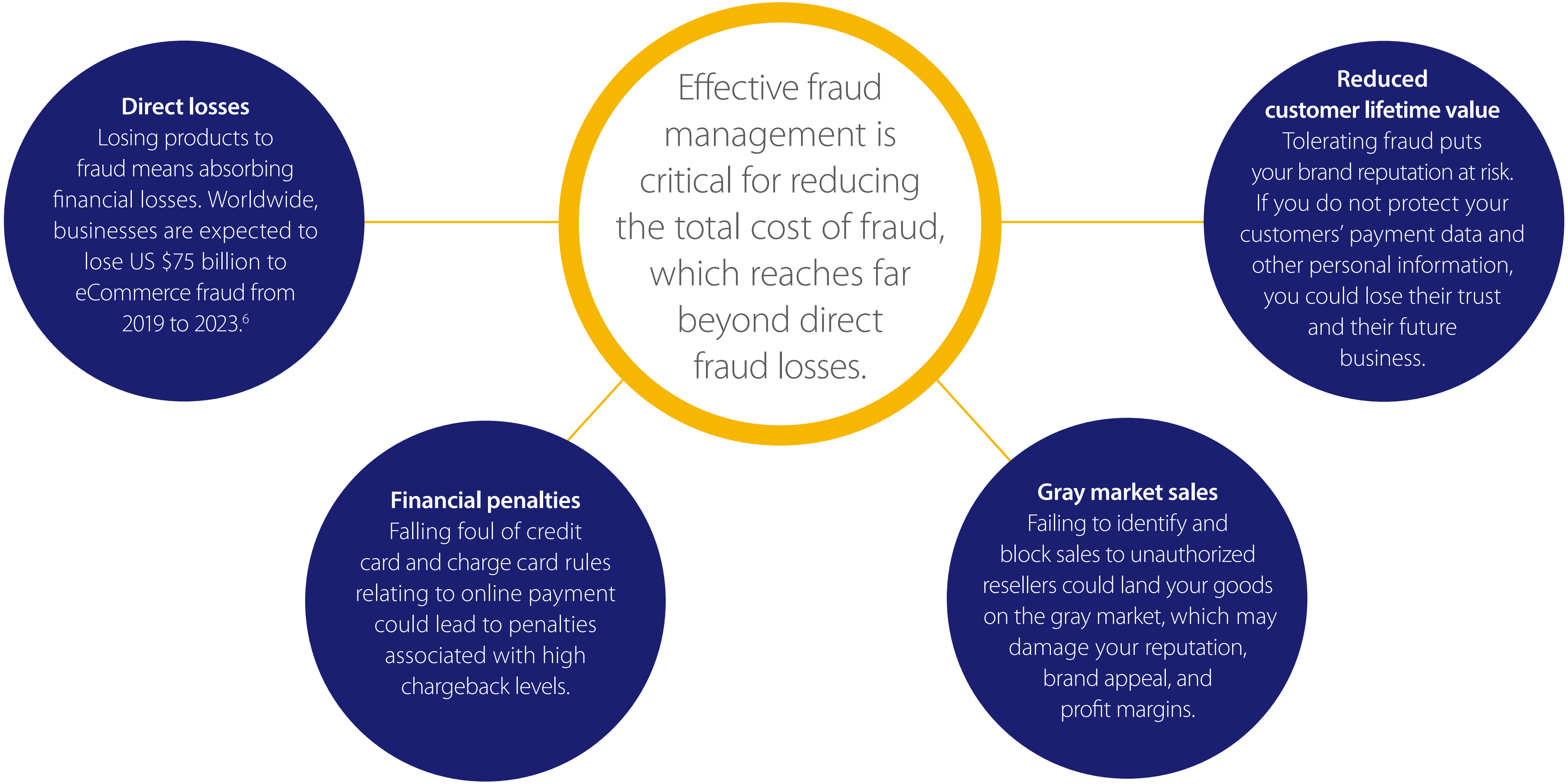


How does fraud management help?

Fraud management helps mitigate the risk of financial losses and damaged reputations



Effective fraud management is critical for reducing the total cost of fraud, which reaches far beyond direct fraud losses.

Direct losses
Losing products to fraud means absorbing financial losses. Worldwide, businesses are expected to lose US $75 billion to eCommerce fraud from 2019 to 2023.[6]

Reduced customer lifetime value
Tolerating fraud puts your brand reputation at risk. If you do not protect your customers' payment data and other personal information, you could lose their trust and their future business.

Financial penalties
Falling foul of credit card and charge card rules relating to online payment could lead to penalties associated with high chargeback levels.

Gray market sales
Failing to identify and block sales to unauthorized resellers could land your goods on the gray market, which may damage your reputation, brand appeal, and profit margins.

[6] CyberSource May 2019 calculations based on eMarketer, Worldwide eCommerce and mCommerce, May 2019 (numbers have been rounded); and a GfK study commissioned by CyberSource, October 2018. By their nature, forward-looking statements are subject to risks, uncertainties, assumptions, and changes in circumstances that are difficult to predict or quantify. Therefore, actual results could differ materially and adversely from those forward-looking statements because of a variety of factors.

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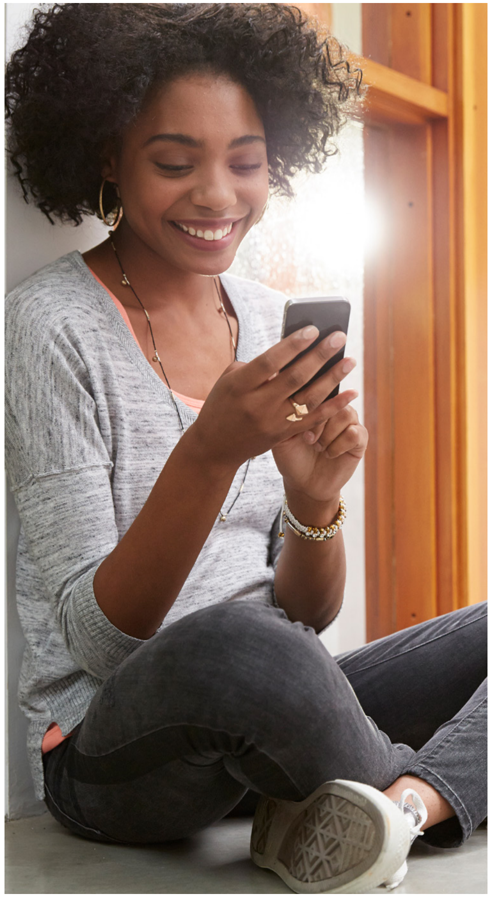

Keep chargebacks under control

An issuing bank reverses a payment, or performs a *chargeback*, to a business's account when a customer successfully disputes an item on their card statement with the card issuer. Fraud-related disputes fall into two categories.

- **Third-party fraud:** A fraudster uses a cardholder's information to make an unauthorized purchase. The cardholder files a dispute with their issuing bank. It could take 30 days or longer for the cardholder to notice the fraudulent transaction when it appears on their statement.
- **First-person fraud:** The cardholder disputes a legitimate charge to their credit card to avoid paying for the item. (Also known as *friendly fraud*.)

Credit and charge cards such as Visa, Mastercard, and American Express are strict about acceptable chargeback rates. Retailers with a chargeback rate that exceeds a card network's limit are placed on a chargeback watch list. Those retailers might also:

- **Incur higher processing fees** on orders, which would cut into profit margins
- **Lose the ability to fight chargebacks** until they bring their chargeback rate down
- **Be placed in a chargeback monitoring program** and required to pay further fees as the card association tries to help them reduce their chargeback rate

In contrast, optimizing chargeback rates is a mark of effective fraud management. The CyberSource 2019 Global eCommerce Fraud Management Report found that fraud management leaders have an average self-reported chargeback rate that is four times lower than others.[7]

When you optimize chargeback rates, you are helping minimize fraud losses without turning away good customers.

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[7] CyberSource, "Masters of Balance: What it takes to be a fraud management leader," 2019 Global eCommerce Fraud Management Report.

How can the online payment process help combat fraud?

Understanding how online payments work helps plan your fraud management strategy

Online payments are multi-faceted processes that should work together to provide a frictionless customer experience while screening for fraudulent transactions. For example:

1. A customer clicks *Buy Now*
2. The business's payments gateway collects the transaction and order information, and passes that information to its payment processor
3. The payment processor checks with the customer's issuing bank to confirm whether:
   - The card used is valid
   - Funds are available for the purchase
   - The transaction matches Address Verification Service (AVS) and Card Verification Value (CVV) responses
4. With the issuing bank's confirmations, the payment processor will either:
   - Put an authorization hold on the funds (so the retailer can review the order before funds are transferred) or
   - Schedule funds for transfer to the business's account at their acquiring bank

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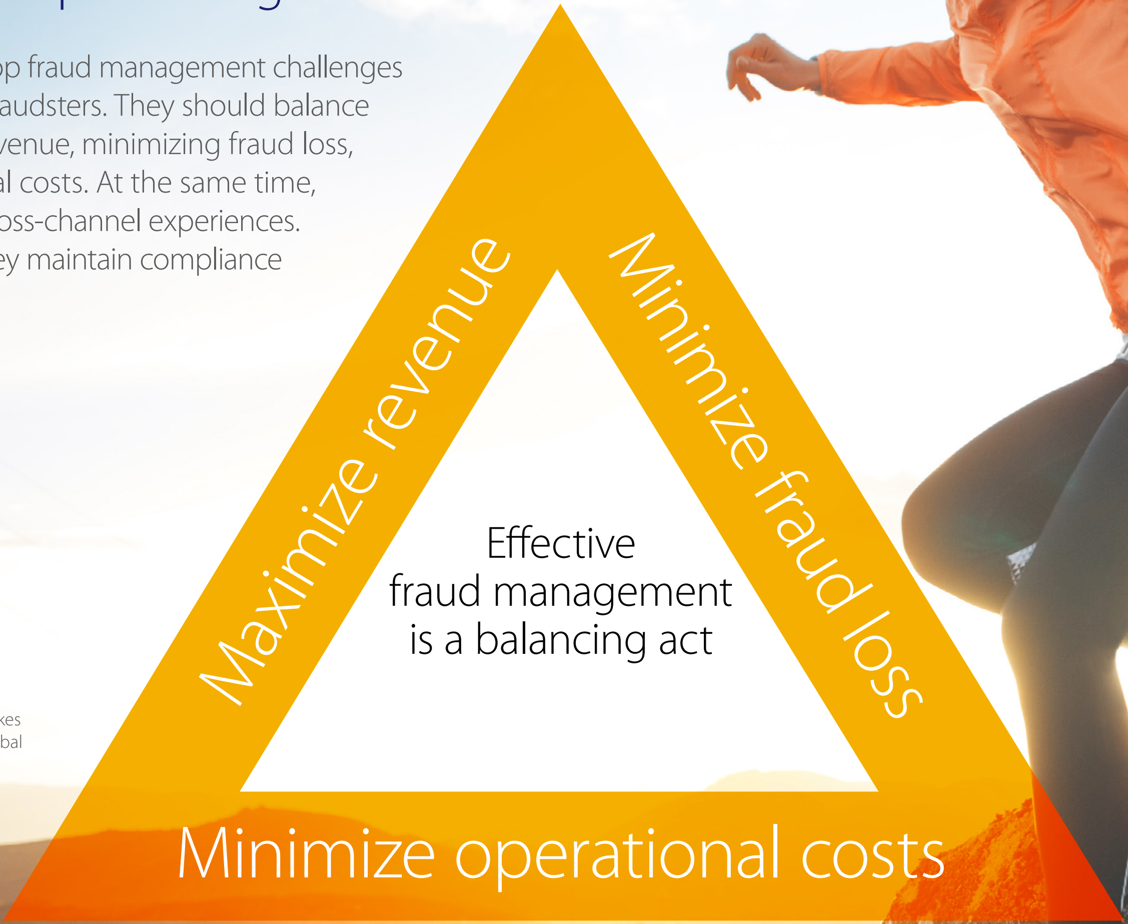
What are the top fraud management challenges?

A seamless customer experience, cross-channel sales, and regulatory compliance are top challenges[8]

For many businesses, the top fraud management challenges extend beyond stopping fraudsters. They should balance the goals of maximizing revenue, minimizing fraud loss, and minimizing operational costs. At the same time, they want to create new, cross-channel experiences. And they should ensure they maintain compliance with emerging regulations.



Maximize revenue

Minimize fraud loss

Minimize operational costs

Effective fraud management is a balancing act

[8] CyberSource, "Masters of Balance: What it takes to be a fraud management leader," 2019 Global eCommerce Fraud Management Report.

Balance revenues, fraud loss, and operational costs

Effective fraud management can help you boost revenue through an outstanding customer experience, while you also combat fraud and enhance operational efficiency.

- **Maximize revenue:** To deliver a seamless customer experience and keep your good customers happy, you should ensure smooth, fast, and frictionless transactions. Your anti-fraud measures cannot slow transactions, mistakenly reject genuine orders (false positives), or otherwise inconvenience customers. Frustrating transactions could drive your customers to your competitors.
- **Minimize fraud loss:** To detect fraudulent orders and prevent as many different types of fraud as possible, you should identify and respond to emerging fraud attacks. But that's not easy.
- **Minimize operational costs:** No matter which fraud management solutions you adopt, you need to streamline and automate processes to control operational costs and keep fraud reviewer head count low.

Keeping pace with evolving types of fraud is often the top fraud management challenge identified by eCommerce businesses in 2019.[9]

[9] CyberSource, "Masters of Balance: What it takes to be a fraud management leader," 2019 Global eCommerce Fraud Management Report.

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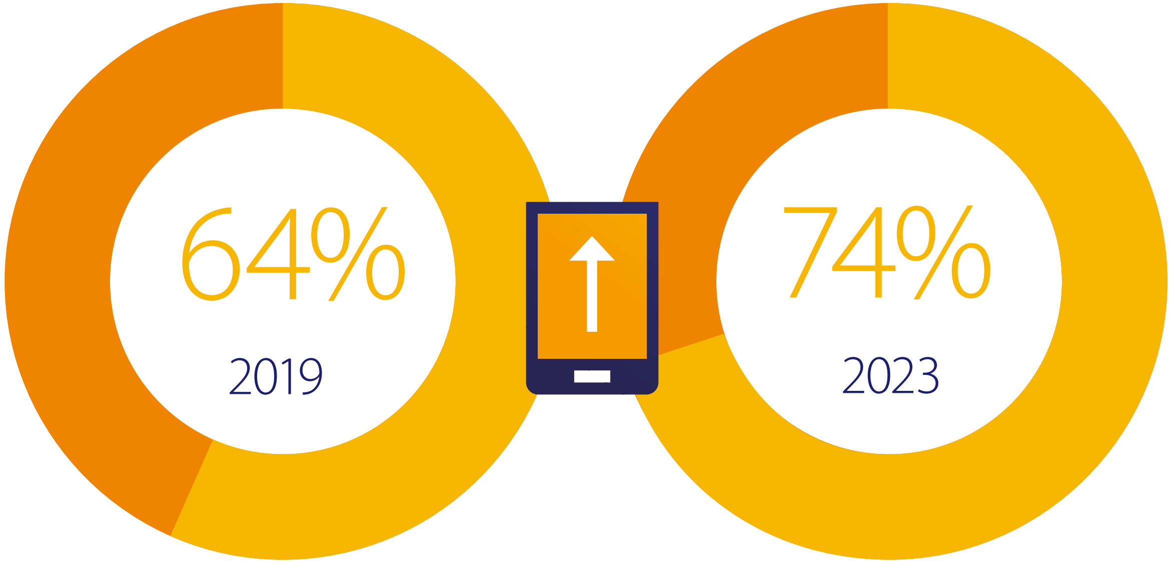
Adopt a cross-channel strategy

Focusing on genuine customer behavior can pay dividends in an increasingly omnichannel world, where consumers have lots of choices for how they shop. In addition to shopping in-person, over the phone, and by surface mail, consumers increasingly use mobile apps from their smartphones and tablets as well as websites from their laptop and desktop PCs.

In many cases, consumers use a combination of channels—for example, placing an order online and then picking up the product at a store.



Mobile payments are on the rise. By 2023, mobile is estimated to account for 74 percent of all eCommerce payments worldwide, up from 64 percent in 2019.[10]

[10] eMarketer, Worldwide eCommerce and mCommerce, May 2019 (numbers have been rounded). By their nature, forward-looking statements are subject to risks, uncertainties, assumptions, and changes in circumstances that are difficult to predict or quantify. Therefore, actual results could differ materially and adversely from those forward-looking statements because of a variety of factors.

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The fact that fraudsters will try to exploit different channels is reason enough to have a cross-channel strategy for fraud management. A cross-channel strategy also helps you understand genuine behavior. Customers who move between channels could look like fraudsters if you do not take account of channel-related differences in purchasing behavior. This means you should have the ability to:

- **Screen orders automatically** for fraud in channel-specific and device-specific ways
- **Recognize genuine customers** (and orders) easily, and provide consumers with a seamless checkout experience in all channels

Omnichannel takes priority

54%

of respondents surveyed by eMarketer put expanding omnichannel at the top of their 2018 list of initiatives over the next 18 months.[11]

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[11] eMarketer, "Technology-Driven Strategies According to US Retailers," February 2018. By their nature, forward-looking statements are subject to risks, uncertainties, assumptions, and changes in circumstances that are difficult to predict or quantify. Therefore, actual results could differ materially and adversely from those forward-looking statements because of a variety of factors.

Comply with emerging regulations

As part of Payment Services Directive 2 (PSD2), new Regulatory Technical Standards have been created by the European Banking Authority. A key aspect of these security standards is the requirement for strong customer authentication (SCA). Currently, SCA is required only when both the acquirer and the issuer are located within the European Economic Area (EEA). PSD2 requires SCA to be applied to all electronic payments, including proximity, remote, and mobile payments within the EEA.

SCA requires consumers to verify their identity in two of three ways: presenting something they are (using biometrics); something only they have (a credit card, mobile device, or token generator); and something they know (a PIN or password). Merchants should ensure they are ready to support SCA to prevent issuing banks from declining their transactions.

PSD2 SCA could impact any organization doing online business in the European Economic Area, as well as banks, fintechs, and other financial services firms that facilitate online payments.

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The SCA mandate is complemented by limited exemptions that aim to support a frictionless payment experience—for example, when transaction risk is low, when transaction value is low, and when merchants initiate the transaction.

Regulated Payment Service Providers (PSPs) are responsible for applying SCA and the exemptions that help achieve the right balance between customer convenience and fraud reduction. The SCA exemptions are available only to PSPs.

To learn more about PSD2 SCA, visit: www.cybersource.com/psd2

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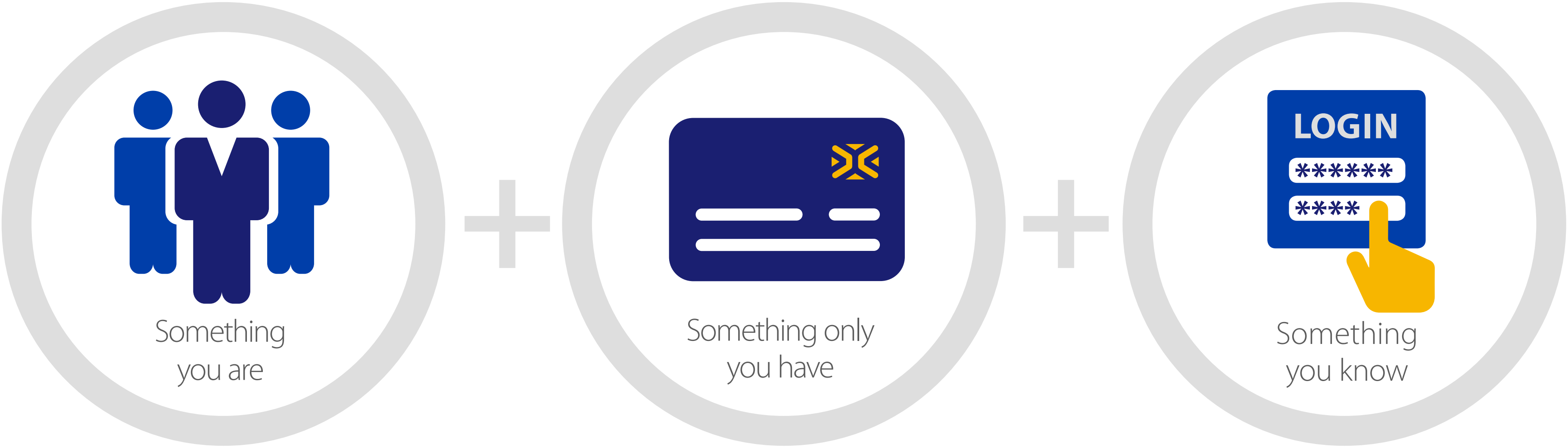

Something you are + Something only you have + Something you know

Strong customer authentication (SCA) verifies the consumer's identity in two of three different ways.

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What is the best way to manage fraud?

A multi-layered approach helps you strike the right balance

No single tool can protect your organization against today's sophisticated eCommerce fraudsters. Point solutions, which focus on a single threat or capability, fail to protect against the full range of fraudulent activity. Moreover, a single-minded focus on minimizing direct losses makes it difficult to balance the goals of reducing fraud, delivering an outstanding customer experience, and expanding revenues.

Pancakes
Health Breakfast
SMOOTHIES R30
STRAWBERRY, BANANA, HONEY & PEAR
RASPBERRY, BANANA, YOGURT, MUESLI & HONEY
BLUEBERRY, BANANA, PEACH & HONEY
MIXED BERRY, YOGURT, MINT & HONEY
DETOX MATCHA SMOOTHIE
ORANGE, APPLE, LEMON, GINGER, OLIVE OIL, HONEY
TURMERIC, PAPRIKA, CINNAMON, CAYENNE PEPPER, MATCHA POWDER

A multi-layered approach—employing a range of tools and techniques—can help you accurately and efficiently distinguish between genuine orders and fraudulent ones.

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Factor a broad range of tools and techniques into your layered approach

Fraud screening
Adopt a fraud screening solution that uses predictive analytics drawing upon both current and historical data to assess risk.

Suspicious activity monitoring
Implement a monitoring solution that detects suspicious activities, including activity that might indicate account takeover.

Manual review
Include a process for manual review in instances when the decision to accept or reject a particular order is not clear in your automated screening process.

Statistical scoring model
Employ a statistical model that scores transactions based on known customer profile information, such as order history, purchase velocity, device tracking, and previous fraud.

Lists and databases
Maintain a negative list or database of known fraud and related characteristics. Also maintain a positive list or database of known no-risk and low-risk customers.

Rules system
Use a rules-based system that integrates the preceding elements in a cascading *if-then* manner, to help you create custom fraud management strategies.

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Determine the role of manual fraud screening

When you set up a new eCommerce operation, you may be able to manually check the small number of orders that come through initially. However, as order volumes ramp up, manual fraud screening can be time-consuming and costly. It might also harm the customer's experience if orders are held up because manual reviewers can't keep pace. When eCommerce business reaches this level, it's time to implement an automated fraud management system.

Manual transaction reviews should be reserved for situations when the accept-or-reject decision is unclear from your automated screening process. Reviewers can then apply a further range of techniques, and use their knowledge of your business and its customers to decide whether the order is genuine. The outcome of manual reviews can also act as a feedback loop, helping to continuously fine-tune the rules and computer models in your screening solution.

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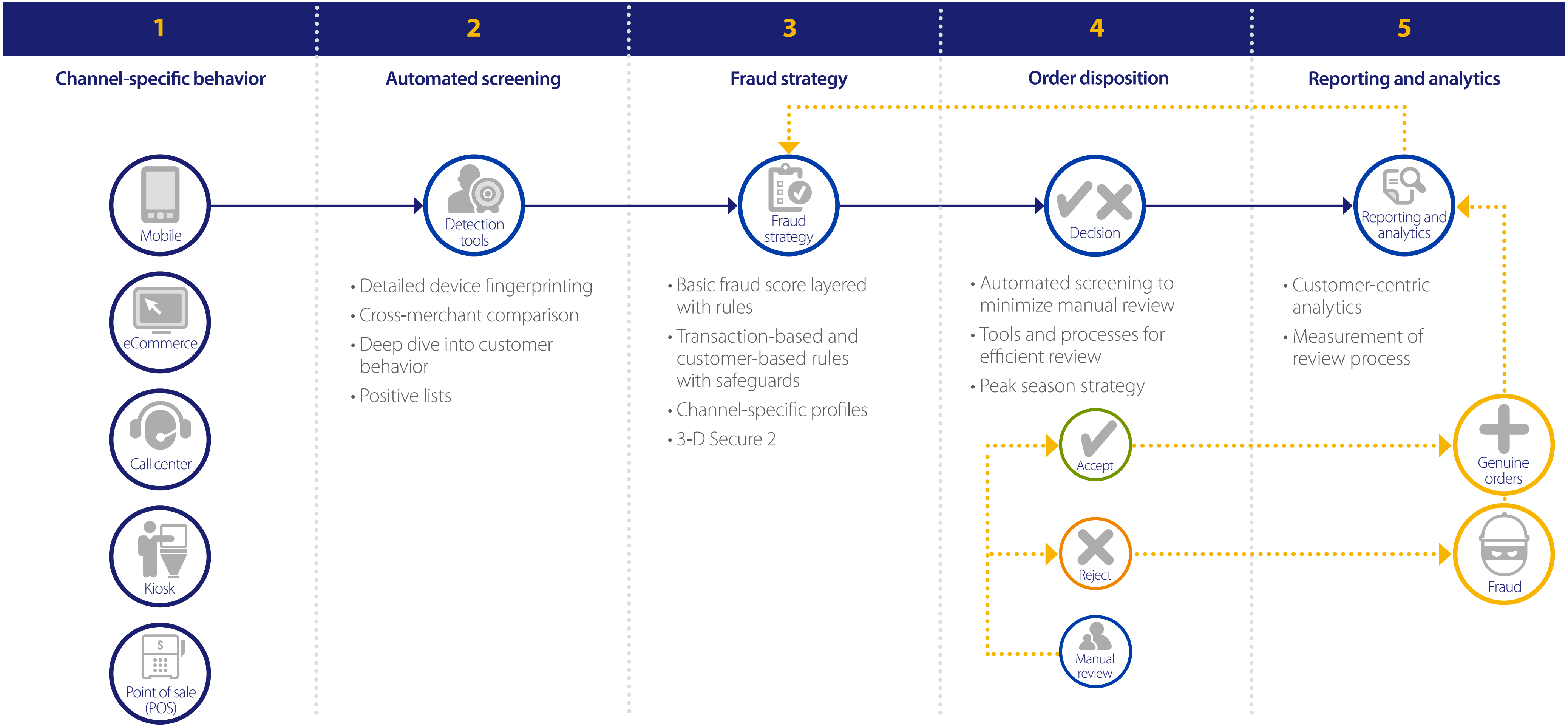

1 Channel-specific behavior

2 Automated screening

- Detailed device fingerprinting
- Cross-merchant comparison
- Deep dive into customer behavior
- Positive lists

3 Fraud strategy

- Basic fraud score layered with rules
- Transaction-based and customer-based rules with safeguards
- Channel-specific profiles
- 3-D Secure 2

4 Order disposition

- Automated screening to minimize manual review
- Tools and processes for efficient review
- Peak season strategy

5 Reporting and analytics

- Customer-centric analytics
- Measurement of review process

Tailor your fraud management cycle to specific business requirements.

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Which tools should be part of your fraud management strategy?

Put screening tools with 3-D Secure 2 and fraud-prediction analytics on your short list

Consider an optimal mix of solutions and services for your organization's fraud management strategy.

Fraud screening tools

Validation services

- Postal address validation services
- Telephone number verification
- Email verification
- Geographic indicators and maps
- Biometric indicators
- Card Verification Value (CVV) Validation
- Address Verification Service (AVS) Validation
- Two-factor phone authentication
- 3-D Secure 2 (3DS 2); also called *payer authentication*
- Credit history check
- Paid-for public record services

Your proprietary data and customer history

- Fraud scoring models (company-specific)
- Customer website behavior and pattern analysis
- Customer order history
- Negative lists (in-house lists)
- Positive lists (in-house lists)
- Order velocity monitoring
- Proxy detection

Multi-merchant data and purchase history

- Credit card fraud alert services from third-party aggregators
- Shared negative lists (also known as *hotlists*)
- Multi-merchant purchase velocity and identity morphing models

Purchase device tracking

- Geolocation—laptop, desktop PC, mobile device, and tablet
- Device fingerprinting
- Web browser IP address

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Protect against fraudulent chargebacks

3-D Secure 2 (3DS 2), also called *payer authentication*, helps thwart fraud-related chargebacks. This technology enables real-time authentication of the payer during an online transaction.

To avoid introducing unnecessary friction during the checkout process, employ a rules-based approach that lets you decide when to request additional authentication. You can preserve the customer experience and reduce the likelihood of checkout abandonment while continuing to benefit from the liability shift by sending only the most risky transactions through 3DS 2.

When transactions verified by 3-D Secure 2 turn out to be fraudulent, card issuers assume financial liability. This is referred to as a *liability shift*.

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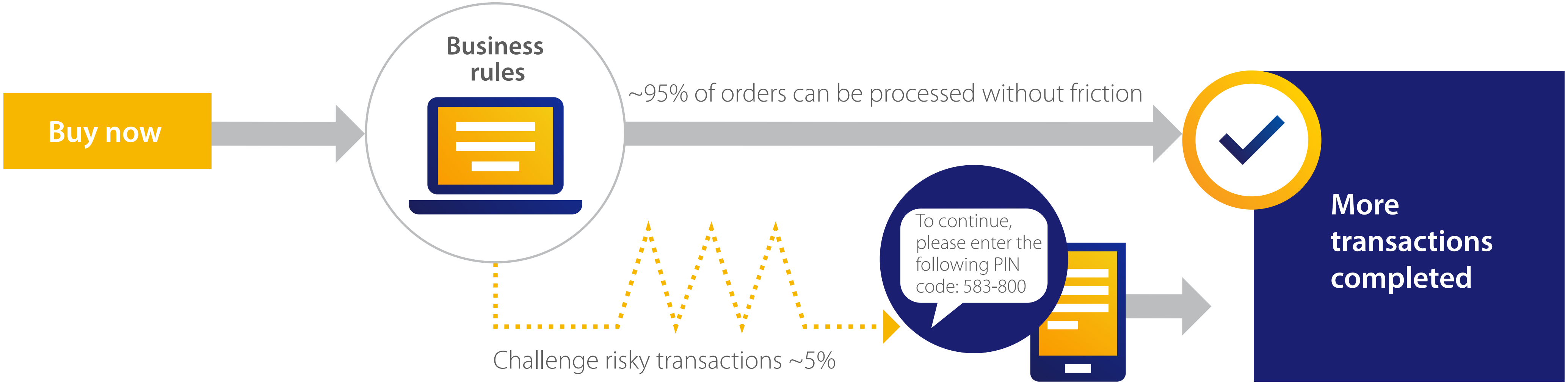
Buy now
Business rules
~95% of orders can be processed without friction
Challenge risky transactions ~5%
To continue, please enter the following PIN code: 583-800
More transactions completed

Order checkout

- Only selected orders are challenged using pre-configured authentication rules

Separate order flows based on risk

- Intelligent rules route high-risk customers to a challenge

Business outcomes

- Less risk of lost sales due to transaction friction
- Reduction in chargebacks
- Potential interchange savings
- Liability shift
- Reduced manual review

CyberSource rules-based 3-D Secure 2 preserves a frictionless customer experience (illustrative example).

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Counter constantly shifting fraud tactics with intelligent computer models

Artificial intelligence (AI) enables devices to reason and learn. *Machine learning* is an advanced form of AI that enables computer models to learn without requiring explicit programming.

Because intelligent computer models learn continuously through a variety of feedback mechanisms, they can deliver increasingly accurate results and generate fresh insights.

To work well within an automated fraud screening solution, a computer model needs to draw from large volumes of high-quality transaction data. A fraud screening solution should also provide an additional level of precision control, allowing you to combine computer analysis with rules based on human intelligence and parameters that make sense for your business.

As fraudsters change their tactics, intelligent computer models can learn, adapt, and uncover emerging patterns to help prevent fraud.

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What's the secret to optimal fraud management?

Tap into CyberSource's fraud-prediction technology

A holistic, multi-layered fraud management strategy capitalizes on sophisticated machine learning and artificial intelligence to balance effective fraud prevention, a seamless customer experience, and operational efficiency. Our experts can help you implement CyberSource fraud management solutions to help increase decision-making accuracy, retain precise control with automated rules, and benefit from deep domain expertise.

Increase accuracy

CyberSource generates risk scores using the only machine learning models built and maintained by data scientists from both Visa and CyberSource, tapping into decades of experience. These models draw insights from billions of transactions processed around the world—and each transaction can have up to hundreds of data fields such as device fingerprint, IP address, geolocation, and more. Given such large volumes of rich data that is updated in real time, CyberSource's unparalleled machine learning models enable businesses to improve their accuracy and speed in detecting new fraud patterns while reducing false positives.

Retain precise control

CyberSource enables you to customize and calibrate fraud management to meet precise business needs. For large enterprises, CyberSource offers virtually unlimited rules as well as machine learning models to automatically suggest new rules without human bias. In addition, you can run through millions of rules permutations with historical data and view side-by-side comparisons before deciding which rules to put into production.

Enterprise-grade fraud-prediction technology analyzes each transaction's probability of risk. CyberSource offers the only fraud management solution with machine learning models built on the combined decades of experience that Visa and CyberSource have worldwide.

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CyberSource fraud management solutions are built upon deep fraud domain expertise

20+ years

of experience in developing machine learning models and rules-based fraud management software

740+ years

of combined expertise across dozens of verticals and geographies, including more than 70 analysts on five continents available for consulting services

24/7

add-on services available worldwide, including fraud screeners to help manage peak seasons or handle overflow manual reviews

Hundreds of millions

of dollars in ongoing investment in fraud management software, hardware, and personnel

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CyberSource offers fraud management solutions for every size company

Small and medium businesses: Standard built-in features

Fraud Management Essentials

Enhance fraud management quickly and easily with Fraud Management Essentials protection—which is integrated with the CyberSource gateway. Fraud Management Essentials uses intelligent computer models, simple rules, and an easy-to-read transaction review console.

Key features

- **Fraud-prediction technology:** Fraud Management Essentials is the only payments gateway fraud management solution with enterprise-grade CyberSource fraud-prediction technology and simple, pre-configured rules built in. All with the strength and stability of Visa.
- **Automatic filtering:** Fraud Management Essentials automatically checks for fraud on every card-not-present payment, enabling you to set transaction filters for the way you do business.
- **Dashboard:** An informative dashboard helps you to rapidly decide whether to accept or reject suspicious transactions, giving you the pre-configured report analytics you should have to tame fraud.

Key benefits

- **Fast time to value:** Get up and running quickly and easily with pre-configured rules.
- **Reduced chargeback costs:** Decrease fraud chargeback costs with highly accurate transaction filtering.
- **Frictionless customer experience:** Provide a seamless customer experience by allowing good transactions to pass through without interruption.

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Enterprise businesses: A full range of world-class fraud tools and services

Decision Manager

Streamline your fraud management operations by taking advantage of powerful detection tests, screening models, case management capabilities, and real-time reporting. CyberSource Decision Manager uses sophisticated machine learning models, in tandem with a flexible rules engine, to deliver swift and accurate responses to unique and emerging fraud trends.

- **Rules Suggestion Engine:** Apply Decision Manager's advanced machine learning to your historical transaction data to automatically suggest new rules without human bias.
- **Decision Manager Replay:** Reduce testing time from months to a matter of minutes. Test different *what-if* fraud strategies against your historical transaction data to assess the impact of fraud strategy changes.

Managed Risk Services

Hire the expert team of CyberSource risk analyst consultants available across five continents to optimize Decision Manager results. Scale your operations with 24/7 availability of add-on screening management resources.

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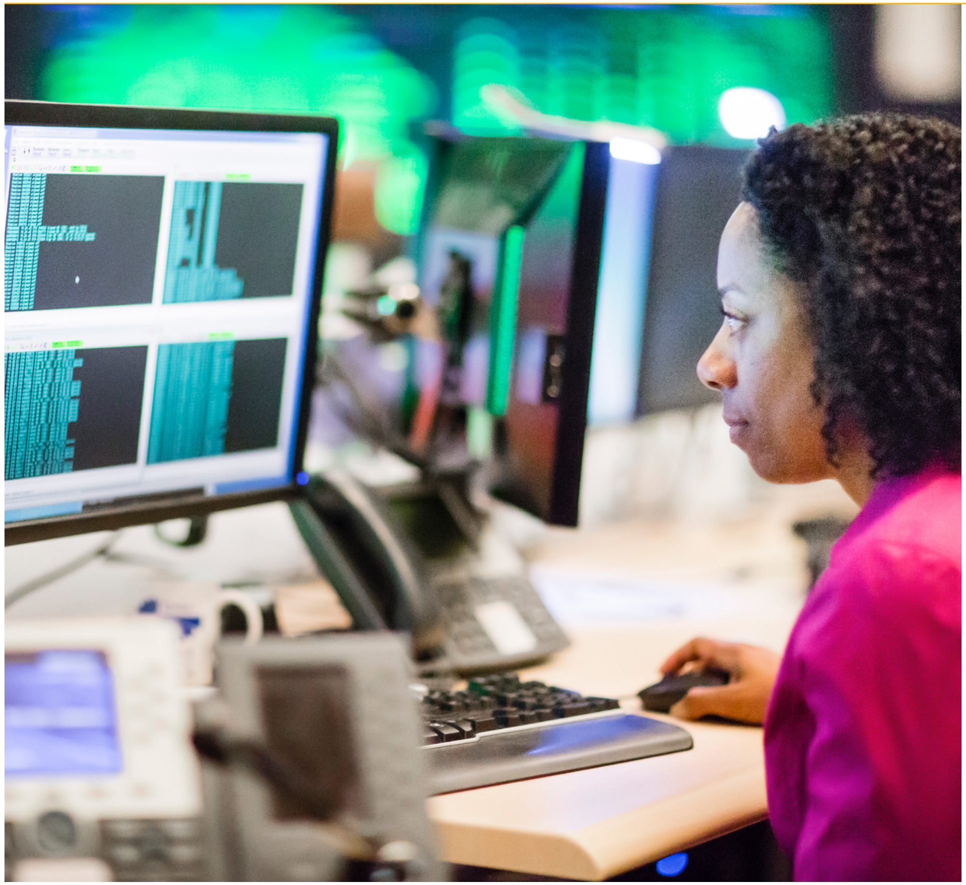

Account Takeover Protection

Shield customer accounts against fraudulent use of payment data by actively monitoring new account creation and account usage according to your rules.

Delivery Address Verification

Verify typed address and correct invalid city, state, ZIP code/postcode combinations for orders originating in over 200 countries and territories.

Fraud Alert

Receive consumer-confirmed fraud notifications in near real time so you can stop shipments, save fulfillment costs, and prevent chargebacks.

Loyalty Fraud Management

Implement a comprehensive fraud management solution that analyzes access behaviors, monitors suspicious account changes, and analyzes checkout purchases using hundreds of fraud detection tests.

3-D Secure 2

Specify rules for which transactions go through the 3-D Secure 2 (3DS 2) process and which do not, to improve the customer checkout experience.

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Glossary

Get going with basic concepts and terms for eCommerce fraud management

Account takeover fraud: The use of stolen login credentials to gain control of an account and commit fraud.

Address Verification Service (AVS): A tool that verifies the address and ZIP code/ postcode that the customer provides during the order process. It compares the numerical portion of the address with card information on file at the customer's issuing bank.

Artificial intelligence (AI): Technology performing functions that traditionally require human intelligence, such as reasoning and learning.

Card Verification Value (CVV): A three-digit or four-digit security code on a payment card, which the customer provides during the purchase process. The bank checks this code as a way to verify that the card is present at the time of purchase.

Chargeback: The process whereby an issuing bank reverses a payment to a business's account, after a customer successfully disputes an item on their card statement.

Clean fraud: The fraudulent use of a stolen credit card and cardholder information to make an online purchase look legitimate.

eCommerce: Buying or selling products online using web, mobile, or other technologies.

EMV (Europay, Mastercard, and Visa) technology: Computer chips embedded in credit cards to securely store cardholder data, helping to prevent fraudulent in-store purchases. (Also known as *chip-and-PIN* technology.)

Endless aisle: The experience enabling in-store customers to easily browse for and order a broad range of products online that may be out of stock or not sold in-store, and have them shipped to the store, home, or other location.

First-person fraud: The cardholder's fraudulent claim that a purchase was unauthorized or the item did not arrive. The customer is reimbursed but keeps the item. (Also known as *friendly fraud*.)

Fraud screening: A predictive analytics approach that assesses risk by drawing upon both current and historical data.

Gray market fraud: The purchase of goods with a stolen credit card and sale of those goods in unauthorized markets or geographies, or at a discount. (Also known as *reseller fraud*.)

Liability shift: When a transaction verified by 3-D Secure 2 (3DS 2) authentication turns out to be fraudulent, the card issuer assumes financial liability (except for recurring transactions).

Machine learning: An advanced form of artificial intelligence that enables computer models to learn without requiring explicit programming.

Manual review: The process of having a human review an order when the decision to accept or reject the order is not clear from an automated screening process.

Negative list: A list or database including credit card details, customer names, email addresses, physical addresses, and sometimes entire countries or regions that have been identified as fraudulent or risky. (Also known as *hotlist*.)

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Omnichannel: The business strategy to deliver seamless customer experiences across eCommerce and traditional sales channels.

Payer authentication: A technology that enables real-time authentication of the payer during an online transaction. (Also known as *3-D Secure 2* or *3DS 2*.)

Payment Services Directive 2 (PSD2): PSD2 is the second Payment Services Directive, designed by the countries of the European Union. It was implemented on January 13, 2018. It may revolutionize the payments industry, affecting everything from the way we pay online, to what information we see when making a payment.

Positive list: A list or database of known no-risk and low-risk customers or cards whose orders are instantly approved, without undergoing a review process.

Refund or return fraud: The process of purchasing merchandise online using stolen credentials, and then going to a physical store to receive a refund or a gift card.

Reshipping fraud: The practice of using stolen payment details to buy goods, and then either contacting the shipping company to redirect delivery to a new address, or paying people (known as *mules* or *freight forwarders*) to receive the goods and reship them to a different location for resale.

Rules system: A solution that uses an *if-then* approach to trigger fraud management functions.

Statistical scoring model: The evaluation of transactions based on known customer profile information, such as order history, purchase velocity, device tracking, and previous fraud.

Strong customer authentication (SCA): As part of Payment Services Directive 2 (PSD2), new Regulatory Technical Standards for authentication have been created by the European Banking Authority. SCA requires consumers to verify their identity in two of three ways: presenting something they are (using biometrics); something only they have (a credit card, mobile device, or token generator); and something they know (a PIN or password).

Suspicious activity monitoring: A solution designed to detect activities that might indicate account takeover fraud.

Third-party fraud: The fraudulent use of a cardholder's information to make an unauthorized purchase.

3-D Secure 2 (3DS 2): A technology that enables real-time authentication of the payer during an online transaction. (Also known as *payer authentication*.)

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Find out more

Discover how CyberSource can help you stop fraud, streamline the customer experience, and control costs

eCommerce fraud will continue to grow and evolve. By moving forward with a holistic, multi-layered approach to fraud management, your organization can maximize fraud prevention and enhance operational efficiency. All while delivering an exceptional customer experience and helping to grow your eCommerce revenues.

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