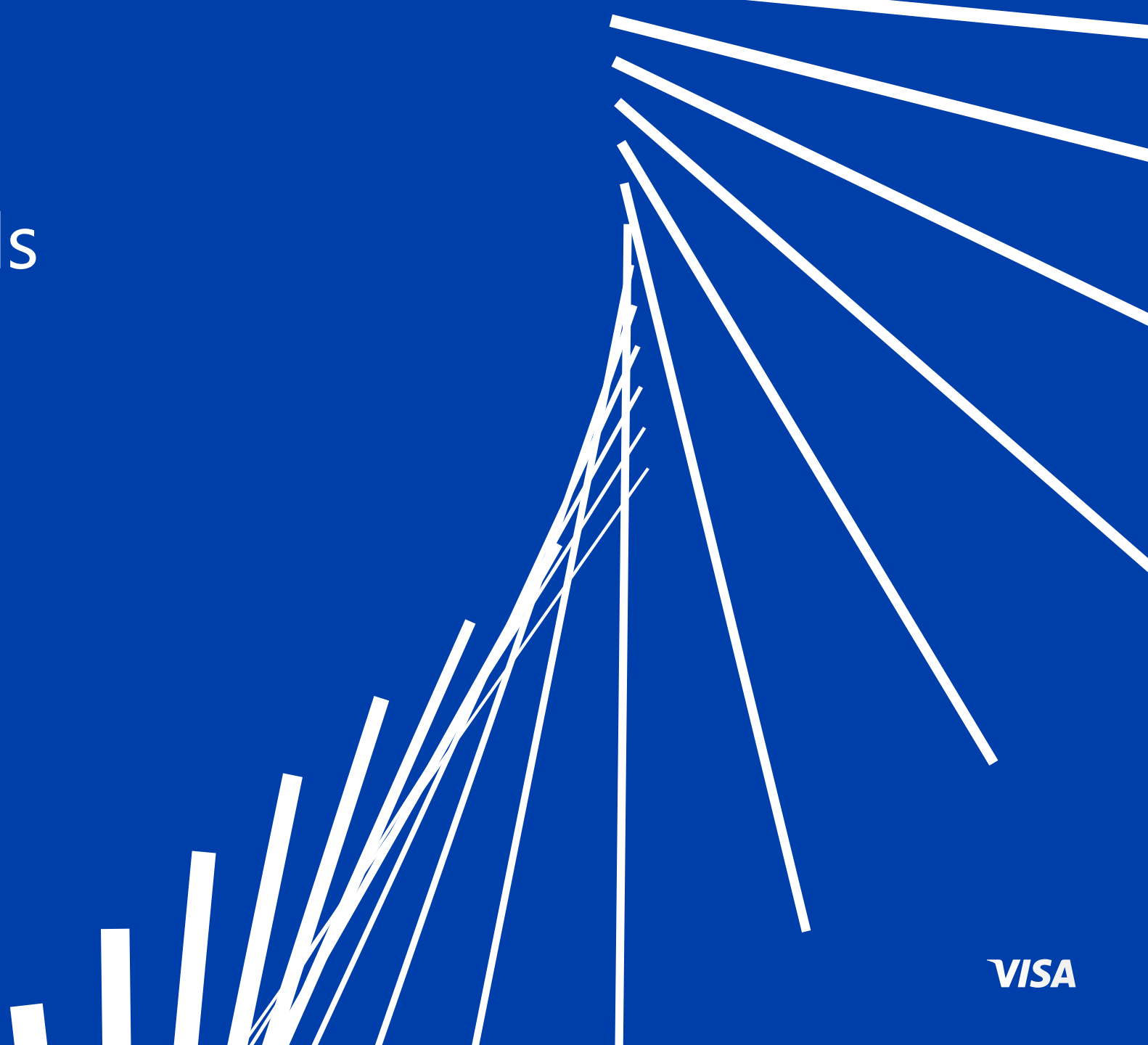
Threats from Website Add-ons and E-commerce Trends

Mario Rivero, Director Payment Fraud Disruption
ASOBANCARIA, Bogota, Colombia
16 November 2018

Agenda

- Global Compromise Trends
- eCommerce Threat Landscape
- Tactics and Techniques used by Hackers
- What Visa is Doing
- Resources for Merchants
- Questions

Compromise Trends



Global Compromise Trends

The Paradigmatic Shift Explained

Shifting Breach Types

- Decrease in events involving magnetic stripe data
- Increase in eCommerce compromises
- Proliferation of third-party breaches

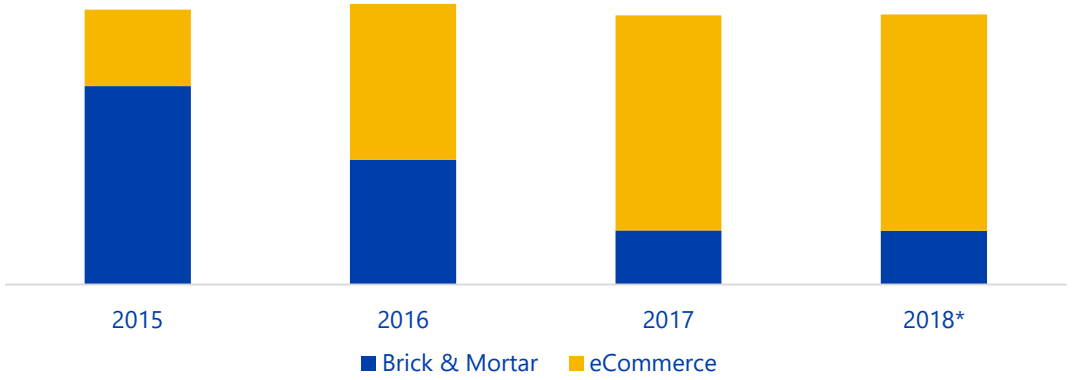
Criminals Moving Beyond Merchants

- Pursuing data aggregators
- Increasing focus on eCommerce service providers
- Targeting Integrators Resellers
- Penetrating financial institutions

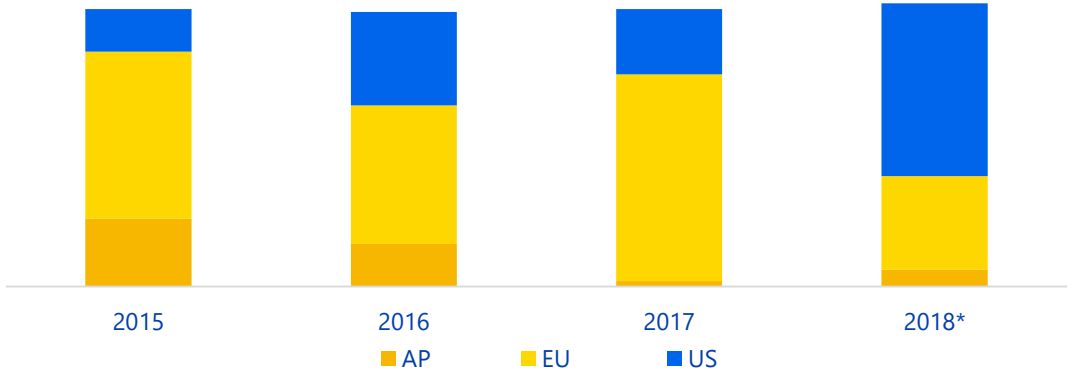
Sharpening Focus on Evolving Trends

- Curtailing network intrusions e.g. eCommerce
- Detecting ATM cash-outs
- Minimizing account testing

Unique Cases by Entity Type



Unique eCommerce Cases by Region



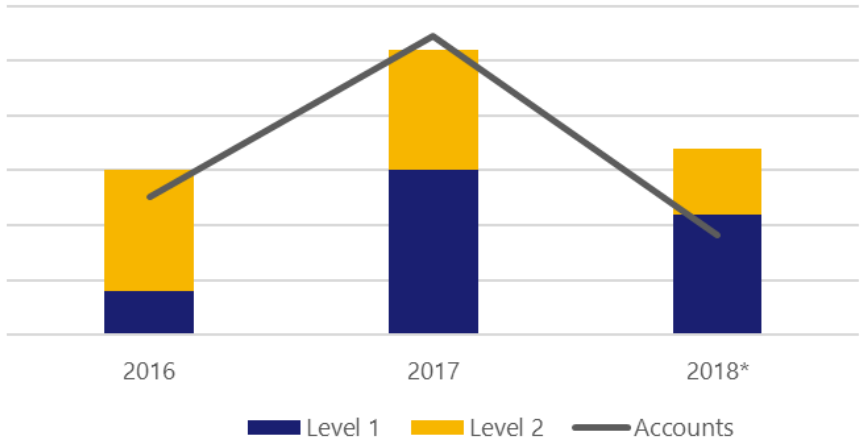
*January 2018 – June 2018

Global Breaches Summary: Q2 2018

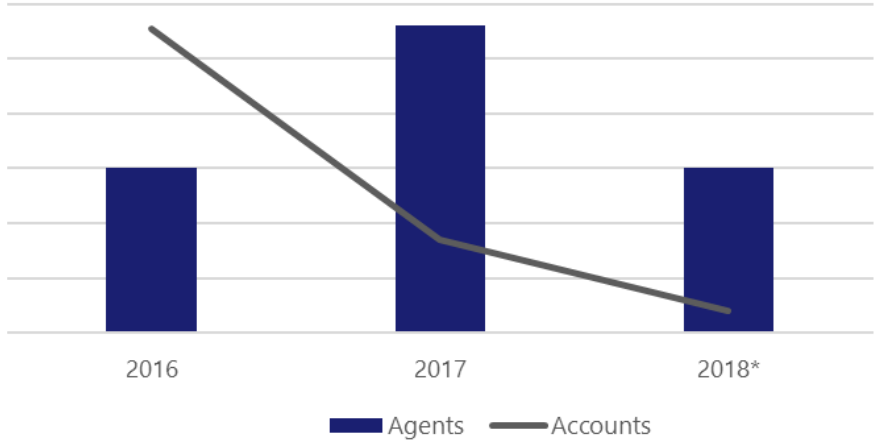
Global Breaches by Level

	2015	2016	2017	2018*
Level 1	<1%	<1%	2%	4%
Level 2	<1%	1%	1%	2%
Level 3	4%	13%	15%	28%
Level 4	76%	57%	38%	60%
Service Provider**	2%	2%	4%	6%
Europe***	17%	27%	39%	-
Total	100%	100%	100%	100%

Large Merchant Breaches



Service Provider Breaches



** Available for 1 January 2018 – 30 June 2018.*
*** Service Provider category includes all agents.*
**** As of 1 January 2018, cases in Europe will be combined with ROW categories.*

The Threat Landscape

Image http://www.safaricrewtanzania.com/wp-content/uploads/Wildebeest-SERENGETI-migration-Safari-Crew-Tanzania.jpg

VISA

An Overview of Website Add-ons and Scripts

What are add-ons and scripts?

Website add-ons and scripts are pieces of code that can be added to a webpage and are executed in the user's web browser.

What role do add-ons and scripts serve?

Website add-ons and scripts provide expanded capabilities to websites. Code can be added that gathers analytical data, integrate with social media or other services.

What risks do website plugins and scripts pose?

Criminals are targeting third-party vendors that may be outside of the payments ecosystem – but their services can bring them directly into merchant eCommerce environments with little vetting and easy plug-in capabilities.

If the hackers can breach a third-party provider of website plugins or scripts, they may be able to modify the legitimate code to steal data from 1,000s of eCommerce merchants using the service

A report by PYMNTS.com cited that around 85% of all call center interactions will not require a human employee by 2020 (i.e. Chatbot)

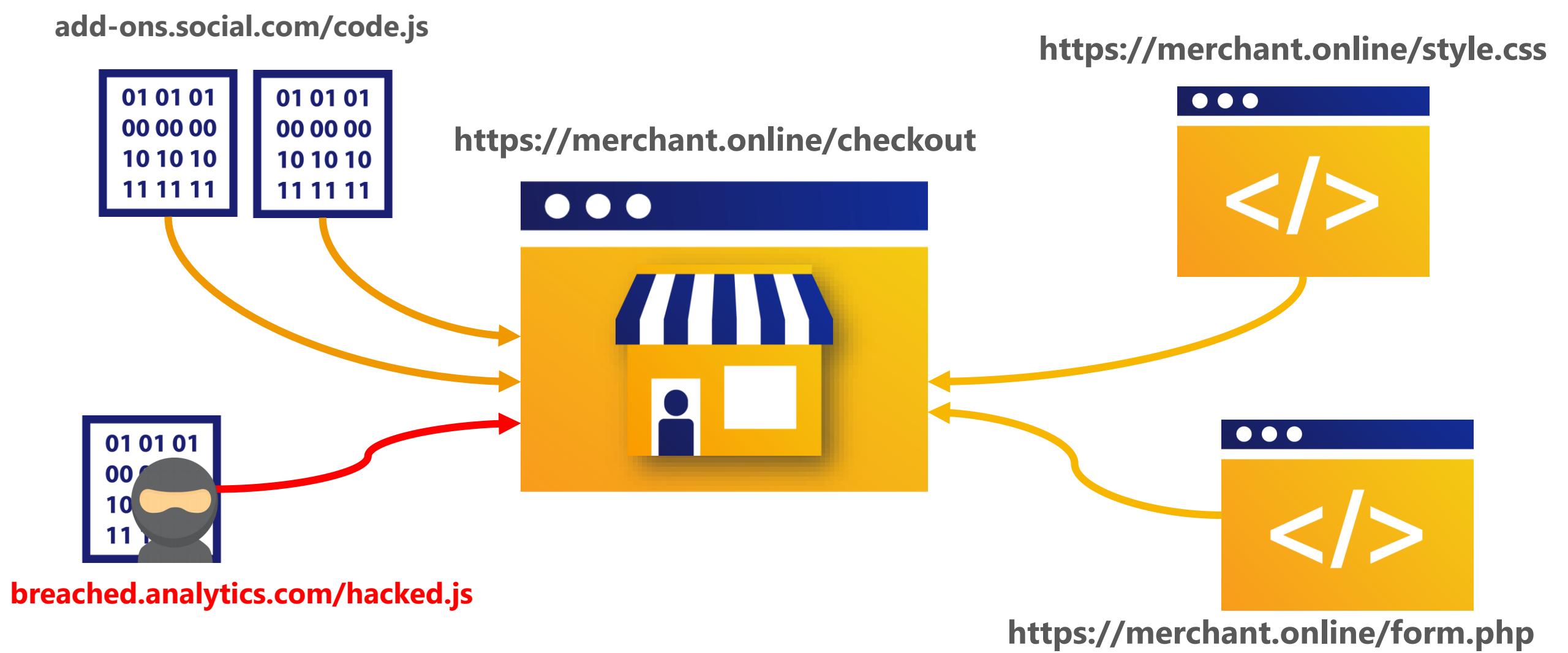
Merchants should be continually aware and up-to-date on the risks of potential exploitation. They should adopt anti-fraud and security measures that secure their clients' payment card data.

Recent agent investigations highlight the importance of securing the vendor ecosystem as well a merchant's own eCommerce environment

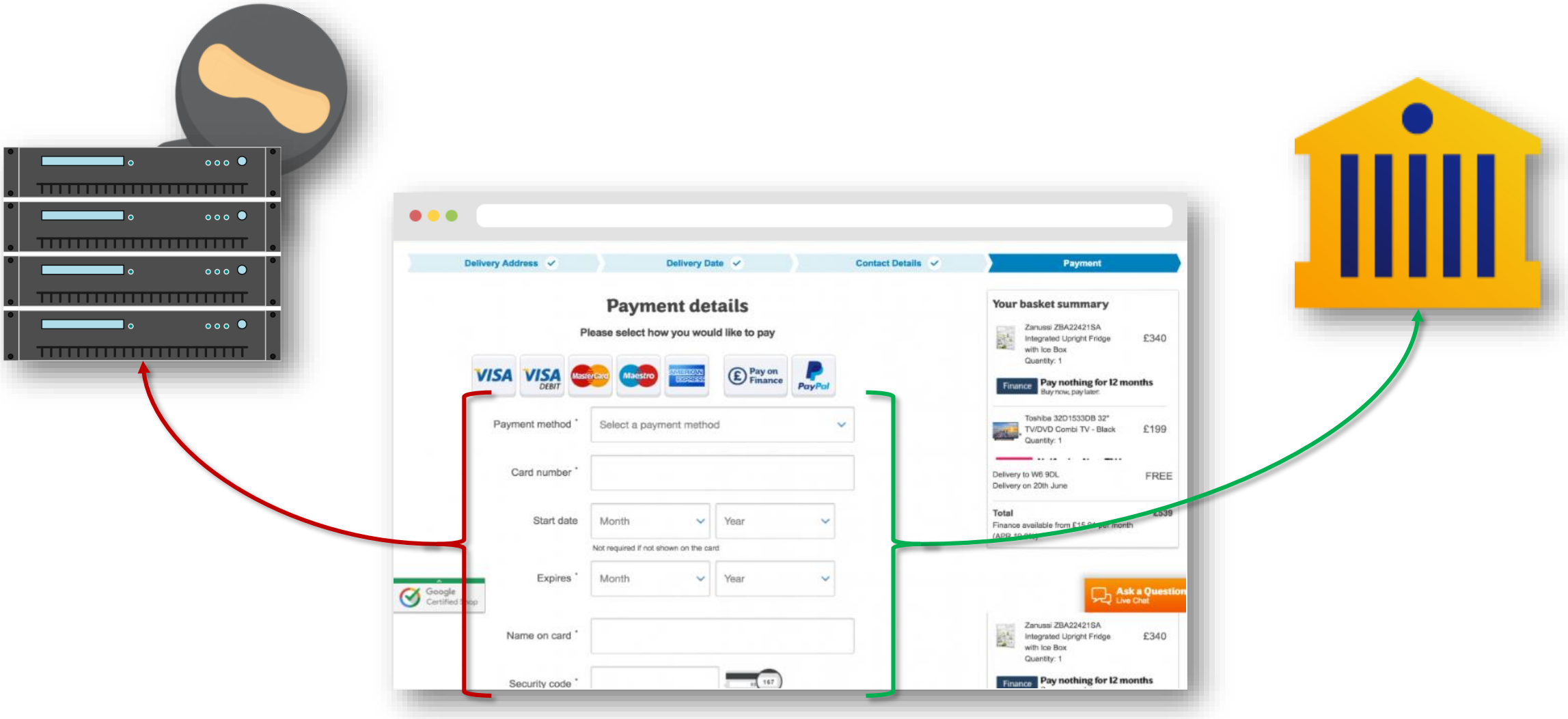
What is ECommerce malware?

- Acts as an online payment data skimmer
- Lucrative endeavor for criminals
- Malware infections are unsophisticated, hidden in plain sight, and persistent
- Significant contributor to global fraud in CNP space

How eCommerce Malware Works



How eCommerce Malware Works

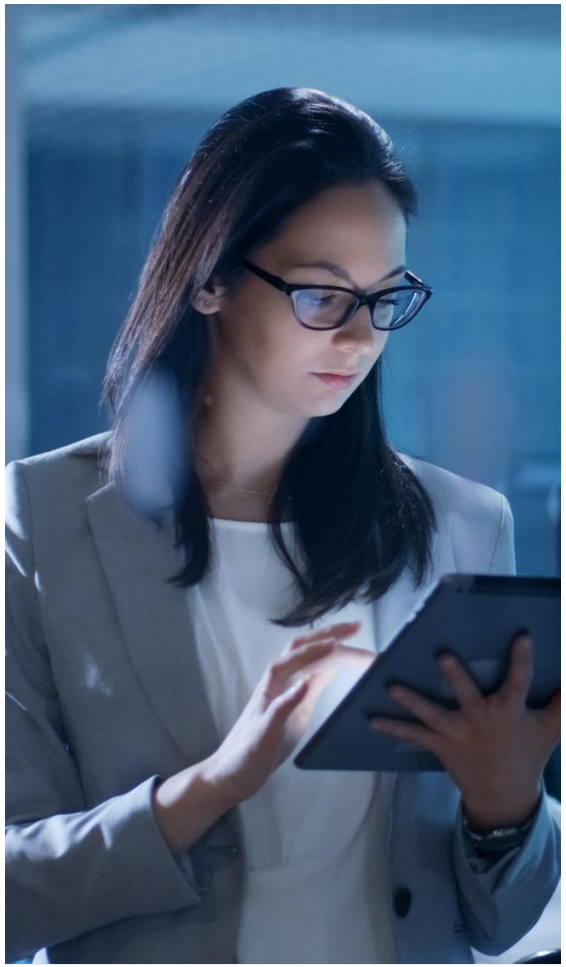


What Visa is Doing to Help

Payment Fraud Disruption: At-a-Glance

- Disruption of fraud and crime through early detection and alerting
- Operational prevention and response to client, merchant and third-party breaches
- Advance key law enforcement and industry partnerships, both domestically and internationally

What Visa Is Doing To Help?



1. eCommerce Threat Disruption (eTD) Initiative
   - Proactive compromise detection that doesn't rely on fraud reports
   - Shortens the time-to-remediate from months to days
   - Works to disrupt attackers by taking down their infrastructure

2. Developing Detection Algorithms
   - Advanced machine learning algorithms to identify common points of purchase (CPPs)
   - Ability to identify CPPs quicker and at a greater scale

3. Industry Outreach
   - Webinars, Intelligence Alerts, and Best Practice Guides

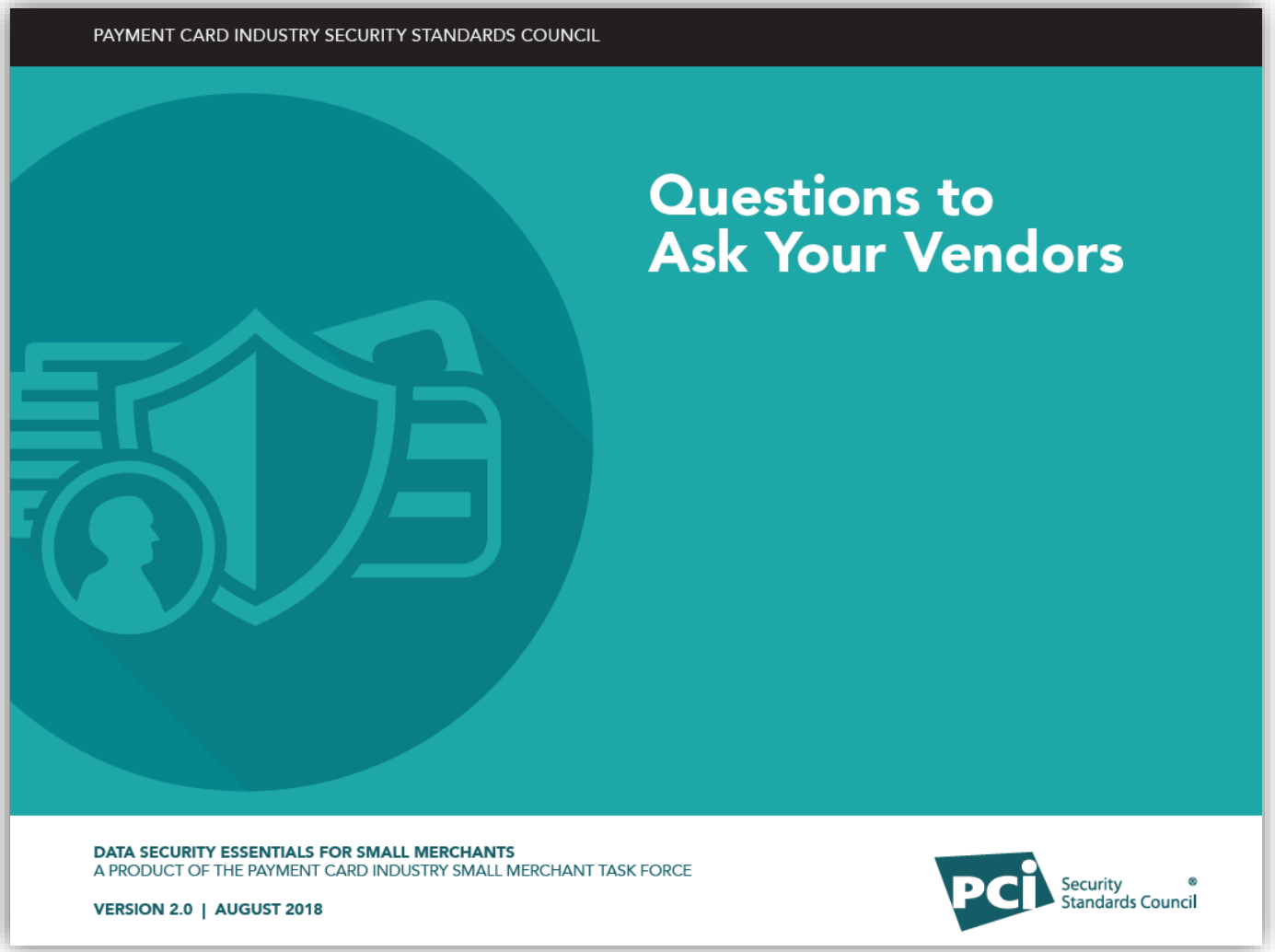
Resources for Merchants and Best Practices

Payment Card Industry Resources for Small Merchants

www.pcisecuritystandards.org/merchants/#rfsm

- Aids small-merchant owners and operators
- Provides questions to ask your vendors and service providers
- Assists with understanding how vendors support the protection of your customers' card data and your environment
- Is the vendor's solution required? Ensure a strong business justification
- Ask vendor what happens if there is a data breach?
  - ✓ How is the merchant notified?
  - ✓ What monitoring services do they provide?
- Partner with your merchant acquiring bank for guidance

NOTE: *If a merchant suspects a compromise, they should contact their acquiring bank immediately for guidance to ensure compliance with all Visa investigation and compliance guidelines*



How can merchants protect themselves?

Additional Questions?
Contact cisp@visa.com

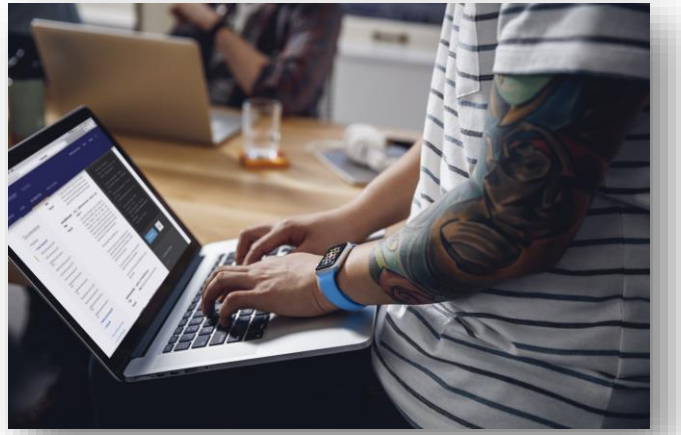
Visa Online Merchant Tool Kit provides helpful information to make a seamless EMV transition
- Streamline your chip migration www.VisaChip.com/businesstoolkit

Visa Data Security Website www.visa.com/cisp
- Alerts, Bulletins
- Best Practices, White Papers
- Past Webinars

Visa Global Registry of Service Providers www.visa.com/onthelist
- List of registered, PCI DSS validated third party agents

PCI Resources for Small Merchants https://www.pcisecuritystandards.org/merchants/
- Guide to Safe Payments, Common Payment Systems, Questions to Ask your Vendors
- Payment Data Security Essential: Video and Infographics

PCI Security Standards Council Website www.pcissc.org
- Data Security Standards, Qualified Assessor Listings, Data Security Education Materials



PCI DSS CERTIFIED

For details, see Visa Global Registry of Service Providers / www.visa.com/onthelist
On the list! 2017
Supports Secure Technology

VISA

Additional Visa Resources

Visa has a number of documents for clients to reference

Visa Security Alerts (public) www.visa.com/cisp

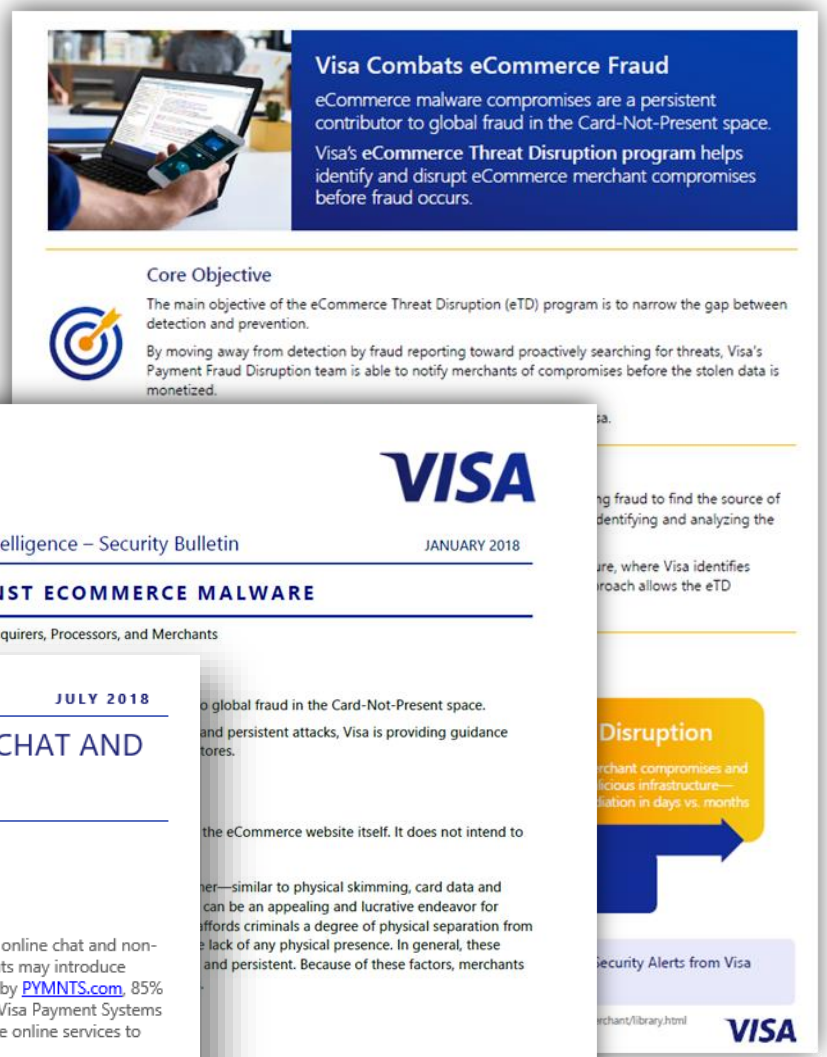
- "Fraudsters Targeting Call Center Chat and Non-Voice Channels" July 2018
- "Protect Against eCommerce Malware" January 2018

www.visaonline (non-public)

- Payment Fraud Disruption's ***Pr3ssure Gauge***, April 2018: "Artificial Intelligence: The future of call centers"

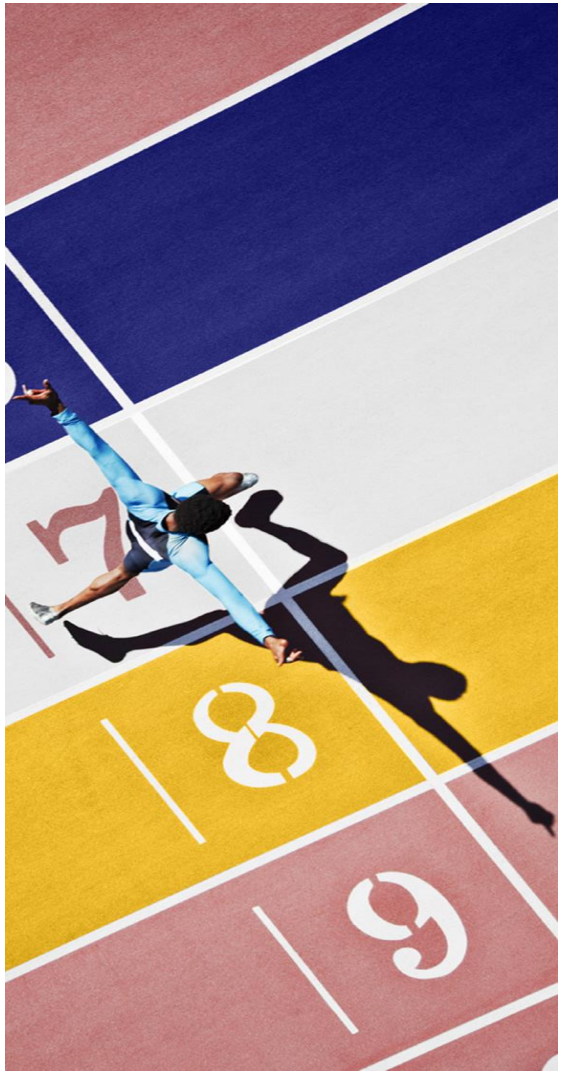
For more information on Visa Online:

- Payment System Intelligence
- Data Compromise and Fraud Investigations



Summary

- **Focus:** Ecommerce fraud is a growing area of concern
- **Capability:** eTD allows us to get ahead of fraud, identifying compromises before fraud occurs
- **Value-add:** Tools like eTD provide immediate security benefit for eCommerce merchants globally
- **Speed:** A cost efficient service for issuers, acquirers and small merchants
  - Faster containment and distribution of at-risk accounts
  - Decreased number of days from identification to case closure



Payment Fraud Disruption

Thank You

Mario Rivero
Director, Payment Fraud Disruption