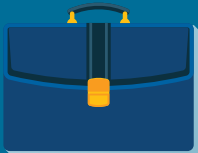


CONNECTED

T H E C E N T E R O F C O M M E R C E



CHALLENGE ACCEPTED



CHALLENGE

ACCEPTED

Outsmarting Fraudsters On
An Ever-changing Battlefield.

\$8.45
BILLION

Current scale of annual fraud on the dark web¹

40%
GROWTH

Current Compound Annual Growth Rate (CAGR) of the dark web¹

\$189
BILLION

Total annual commerce on the dark web by 2020¹



THE NEW FACE OF FRAUD

Forget unkempt, pale figures in dimly lit rooms filled with computer screens. Today's fraudsters wear business suits. They work in real offices, keep regular hours, and openly market their products and services. "The reality is, it's become big business," explains EJ Jackson, SVP & GM, Security & Fraud Solutions at First Data®. "It's moved away from this lone individual on their computer wearing a hoodie to organized groups who are collaborating, using cutting-edge technology and leveraging machine learning to defraud businesses as much as they can – and doing it out in the open."

CHALLENGE ACCEPTED

OUTSMARTING FRAUDSTERS ON AN EVER-CHANGING BATTLEFIELD

✍ ANITA J. FINKELSTEIN 📧 GREG GATLIN

99.7%
VULNERABLE

The percentage of web applications that Trustwave scanning services tested in 2016 that displayed at least one vulnerability.²

\$5
PER AD

Estimated cost for cybercriminals to infect 1,000 vulnerable computers with malvertisements.²

\$20
PER IDENTITY

Dark market value of a single individual identity (name, SS#, DOB, address, phone number).³

30
CYBERCRIME ORGS

Number of cybercrime organizations in Russia, generating a black market valued at \$2B per year.⁴



FRAUD AS A LUCRATIVE CAREER CHOICE

The biggest fraud organizations now recruit top talent from universities. "The stigma of this sort of endeavor seems to be gone, and the financial rewards are greatly motivating," points out Jackson. "It's not perceived as a criminal activity. In some cases, it might not be illegal in the locality they are in, or if it is illegal, it's not enforced." So, he says, the risk of getting caught is low. "In many places, the local government turns a blind eye. They not only advocate it, they promote it, because it's in their state's interest to allow the activity to go on for the economic benefits."



FIRST DATA®: FIGHTING FRAUD WITH END-TO-END SOLUTIONS

The Security & Fraud Solutions team that Jackson heads up at First Data, continually develops and innovates products that help issuers and merchants prevent, detect and mediate fraud. We encrypt and tokenize card data for over 170 billion transactions a year, while Fraud Detect® analyzes and scores incoming transactions to help identify fraud before it happens 80% of the time. "By combining our access to big data, with machine learning and a 200+ person cybersecurity team that actively monitors the dark web, we can identify fraud more quickly than ever, dramatically reducing fraud, and fraud costs for merchants," says Jackson.

1.50+
MILLION

Merchant outlets protected by TransArmor® which encrypts and tokenizes consumer data both in-flight and at-rest.⁵

80%
REPORTED

Reported improvement in fraud detection by a big-box retailer using Fraud Detect®.⁵

.5
SECONDS

Amount of time it takes Fraud Detect to deliver a risk assessment score for a transaction to ensure it does not impede the customer experience.⁵

THE NEW DIRECTION OF FRAUD PREVENTION

Jackson's team is also working with solutions that render stolen data useless. FirstSense™ improves fraud alerting for financial institutions by mining the dark web and using machine learning to identify stolen data much earlier in the resale cycle. The goal is to warn institutions when their data is in the hands of criminals, so they can scrub accounts before they reach the dark web marketplace, lowering their value to fraud organizations.⁵ Jackson believes the breadth of data First Data works with is what ultimately enables his team to outsmart fraudsters. "Having access to such a large set of global data from credit cards, debit cards, and gift cards provides us with massive truths that machine learning can use to make better and better decisions, which helps us identify and prevent potential fraud better than ever."



3,800
FINANCIAL INSTITUTIONS

The number of Financial Institutions that use First Data Security & Fraud Solutions to protect their data and their customer's data.⁶

130
LOCAL CURRENCIES

The number of local currencies First Data processes payments in for merchants in over 40 countries, across all networks, all brands, and all payment methods.⁶

99%
ACCURACY

After identifying a compromised Bank Identification Number (BIN) First Data can accurately identify compromised Personal Identification Numbers.

SOURCES

Outsmarting Fraudsters

¹ First Data Security & Fraud Solutions Internal Data

² Trustwave 2017 Global Security Report

³ <https://www.idtheftcenter.org/Identity-Theft/how-much-is-your-identity-worth-on-the-black-market.html>

⁴ <https://www.bba.org.uk/wp-content/uploads/2015/02red24+Cybercrime+Top+10+countries+where+attacks+originate+-+2015.pdf>

⁵ Brad Rhoads, "A Light in the Shadows," Connected magazine, Volume 2, 2017

⁶ First Data Network & Security Solutions Internal Data

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