Solution Brief

Intel Security
FiVerity

FiVerity: A Holistic Approach to Digital Fraud Detection

The fight against fraud in the financial sector

FIVERITY

Security: A universal requirement

The tremendous growth of electronic financial services is one of the most dramatic effects of the online revolution of the 21st century. Its ramifications have touched virtually every individual, company, organization, and government in the world. In addition, the pressures of the pandemic have not only increased the use of online financial services, but incentivized the introduction of new tools, both public and private. From credit cards and loan applications to online accounts and collections, online finance has provided banks with incredible opportunities for growth.

Unfortunately, these benefits have come with a costly downside. Along with the rapid growth of digital financial services, fraud attempts have skyrocketed, both in frequency and severity. The problem is real, growing—and expensive. Although industries spent over $23 billion on cyber defense[1], banks lost over $720 billion to identity theft in 2021 alone[2]. Even worse: despite these massive expenditures, an estimated 44% of fraud attempts are not even detected.[3]

FiVerity: Protecting the online growth of financial institutions

The figures above illustrate the critical nature of the problem of fraud—and why solutions like those FiVerity has developed are crucial to the future of payments.

FiVerity specializes in fraud detection for the financial services industry, delivering comprehensive security solutions by integrating machine learning (ML) and AI with Confidential Computing. Its innovative platform strengthens detection for anti-fraud and cybersecurity teams and the financial services industry as a whole.

Confidential Computing: A new level of protection for sensitive data

While the threat of cyber criminals certainly isn't limited to financial services, banks maintain extremely sensitive customer transaction and Personally Identifiable Information (PII) that's protected by strict privacy regulations. This is especially valuable to fraud perpetrators for carrying out identity theft, fraud, and social engineering attacks. In effect, these infiltrators take cover beneath PII protections, knowing that institutions are limited in sharing this information with fraud detection solutions or other banks. Now, though, Confidential Computing helps financial institutions to stay ahead of the criminals by enabling collaboration and thorough analysis of PII information safely and securely without compromising customer privacy.

Confidential Computing is at the heart of FiVerity solutions, providing financial institutions with new tools in the fight against fraud. Organizations that have been limited to on-prem solutions due to security concerns can now confidently embrace cloud sharing, gaining access to collaborative fraud detection models. These models analyze encrypted data from multiple banks to identify patterns of fraudulent activity with a much higher degree of accuracy. This amount of data and computing power simply isn't available with an on-prem solution.

And thanks to Confidential Computing, users gain these benefits without fear of exposing their sensitive data or providing competitors with insight into fraud that may have occurred within their organization. These advantages include:

- Protection of data at rest, in transit and in use.
- A secure environment for cloud-based information-sharing with critical partners.
- Full control over specific data to share or migrate to the cloud.
- Access to mutli-party computing models that analzye data from companies throughout the financial services to identify patterns and detect fraud.
- Better prevention of insider attacks and unauthorized access to sensitive data.
- Attestation functionality to help ensure the integrity and confidentiality of sensitive customer information and transaction data.
- Simplified management and enforcement of security policies, including identity verification, data access control, and attestation.
- Access to audit logs to verify that compliance requirements have been met.

Engineered for fintech growth

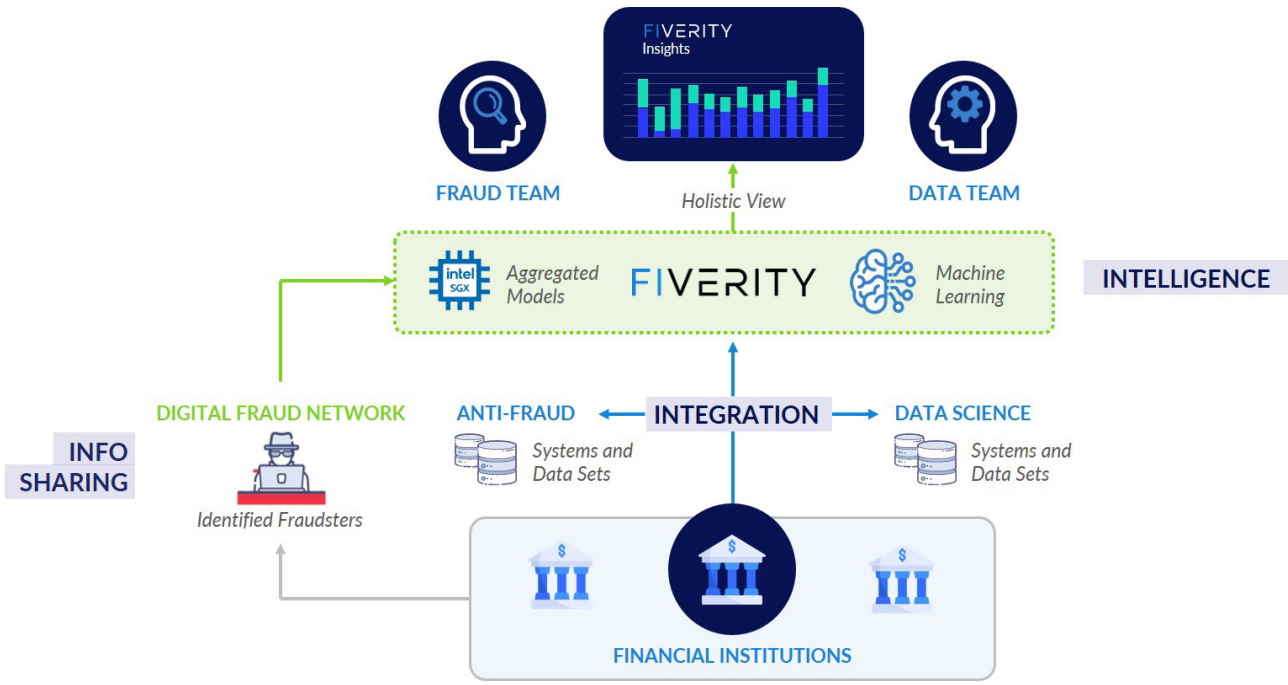
FiVerity delivers two advanced product solutions:

Fraud Analytics Platform: Comprehensive Detection

FiVerity applies advanced automation and a proprietary "human-in-the-loop" model to identify fraudulent profiles for both current customers and new accounts. Based on an AI-driven analysis scheme that learns as it goes, the system becomes increasingly adept at detecting varied and sophisticated fraud tactics.

Plus, FiVerity works with existing fraud detection systems, processing alerts and data from those systems to detect a wide range of crimes. FiVerity's flexible platform optimizes fraud defenses; for organizations across the financial sector:

- Fully encrypts customer PII and transaction data, giving banks access to aggregated fraud detection models.
- Comprehensively analyzes online activity to protect consumer-facing business practices such as application processing, deposits, payments, credit verification, and customer onboarding.
- "Human-in-the-loop" model incorporates the expertise of human fraud anlysts to better identify fraudulent profiles, increasing hit rates while reducing false positives.
- Identifies fake profiles early, before they build credit-worthiness and multiply throughout the industry.

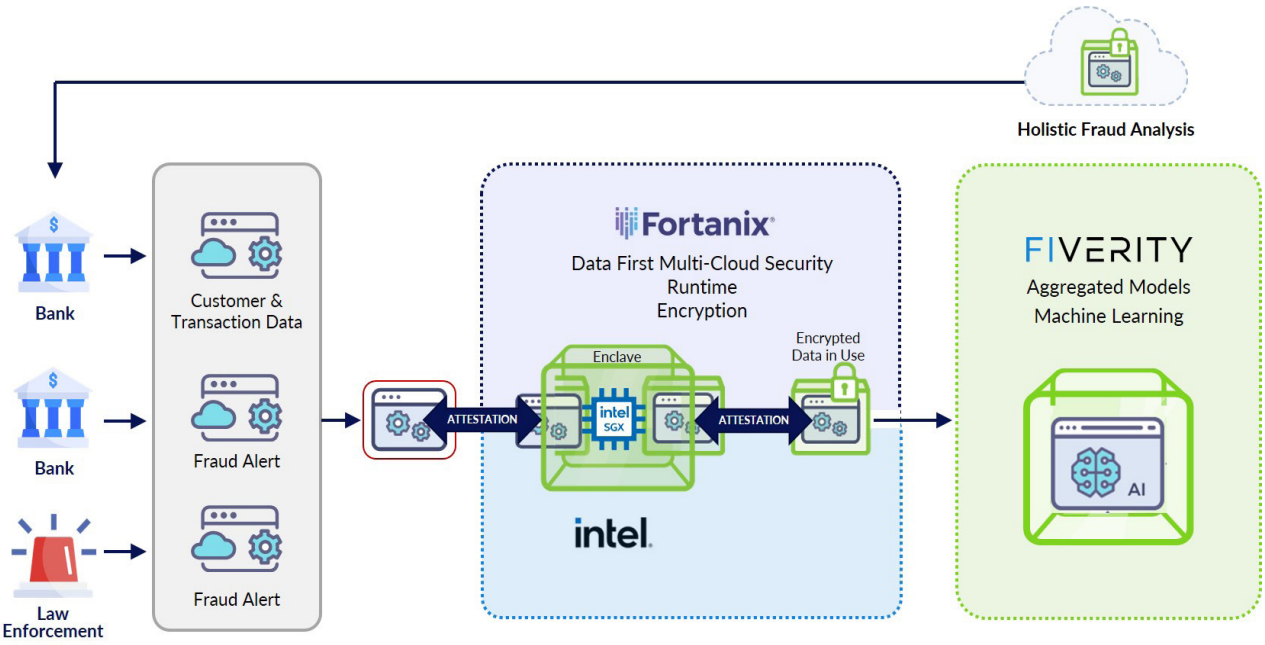


Digital Fraud Network™: Collaborating for the Fight Against Fraud

Online fraud is, of course, a global problem affecting banks, credit unions, credit card processors, brokerages, and many more organizations throughout the world. As a result, true solutions to online fraud must also be global, and that requires collaboration between a broad spectrum of companies, government agencies, and non-profits.

Traditionally, financial institutions independently gathered information on digital fraud, but concerns about leaks or privacy violations limited their willingness to share that data with other banks, regulators or law enforcement. Now, with FiVerity's implementation of Confidential Computing, organizations can confidently share sensitive information in real time, receive alerts about fraudulent profiles and suspicious activity, and safeguard PII with comprehensive encryption. As a result, these organizations can now benefit from the value previously hidden in customer activity and transactions, without risking the integrity of their data or violating privacy regulations.

And it's important to note that, despite the high level of capabilities it delivers, the Digital Fraud Network isn't just for the big banks. It's cost-effective for financial institutions of any size, including community banks and credit unions who have fewer technological and fraud-fighting resources than the institutions on Wall Street, but face the same threats.



"FiVerity helps us take an aggressive approach to fraud detection. Its comprehensive offering bolsters our existing identity verification and cybersecurity solutions. The platform's flexibility is critical to meet the needs of our expanding product lines, and working together with innovative fintechs like FiVerity helps keep us on the leading edge, delivering superior value to the businesses we serve."
- Michael Butler, CEO, Grasshopper Bank, New York

Industry-leading Intel technologies

To help safeguard customer data during fraud detection, FiVerity takes advantage of the industry-leading security capabilities enabled by Intel® Software Guard Extensions (Intel SGX). Intel SGX consists of a set of security features built into 3rd generation Intel® Xeon® Scalable processors and select Intel® E3 processors. Designed specifically to support trusted computation, and based on the principle of application and data isolation, Intel SGX enables developers to partition code into hardened enclaves. FiVerity code running within an enclave, and the data it analyzes, are invisible to other applications, the operating system or hypervisor, and even rogue employees with credentialed access.

First designed for general remote computation security, secure web browsing, and digital rights management, Intel SGX has expanded to support machine learning applications that have moved to the cloud, as well as blockchain operations and AI workloads.

Market Leading Fortanix Confidential Computing

FiVerity has joined forces with Fortanix to bring Confidential Computing to the broadest fintech audience with smooth installation and support. Fortanix is a leader and industry pioneer at integrating technologies like Intel SGX, and has over 100 enterprise and government customers worldwide on their Intel SGX-based Confidential Computing solutions. Working together, the two companies help provide customers with a fast, easy path to protect their applications and data in transit, at rest and in use.

Learn more:

To find out more about how FiVerity and Intel can help you prevent fraud, visit the links below, or contact us at info@fiverity.com.

FiVerity
https://www.fiverity.com

Intel® SGX
https://www.intel.com/content/www/us/en/architecture-and-technology/software-guard-extensions.html

Fortanix
https://www.fortanix.com

NOTICES AND DISCLAIMERS

1. Source: Fortune Business Insights, Jul 2021. Global Fraud Detection and Prevention Market, Analysis, Insights and Forecast, 2021-2028.
2. Source: Aite Group, Mar 2021. U.S. Identity Theft: The Stark Reality.
3. Source: LNRS, Jan 2022. True Cost of Fraud.

Intel does not control or audit third-party data. You should consult other sources to evaluate accuracy.
Intel technologies may require enabled hardware, software or service activation.
No product or component can be absolutely secure.
Your costs and results may vary.

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