

Fraud Solution for Financial Services with SAS



INSIGHTS & DATA

Transforming Fraud Detection and Prevention in Banks and Financial Services

Capgemini and SAS are helping financial services firms transform their fraud management capabilities, delivering lower costs and greater protection for customers and their reputations.

In the digital age, the implications of financial crime against banks and other financial services institutions is accelerating rapidly. Fraud prevention now represents one of the biggest areas of concern for the financial services industry and is likely to become one of the largest drivers of IT expenditure in the coming years. Typical organizations lose five percent of revenues to fraud each year, with banking and financial services, government and manufacturing industries most commonly victimized. In total, potential projected global fraud losses related to occupational fraud are more than \$3.5 trillion.¹ In the U.K., in the first six months of 2014, losses on remote banking fraud rose to £35.9 million, up 59% from 2013. Online banking fraud comprised £29.3 million of that total, up 71% from 2013.² The total value of fraudulent transactions conducted using cards issued within SEPA and acquired worldwide amounted to €1.33 billion in 2012, which represented an increase of 14.8% from 2011.³

The figures are staggering - but nothing compared to the real costs in lost productivity and damage to reputations and customer confidence. Then there is the fraud that goes undetected, impossible to account for and assess.

The ramifications are far-reaching: Regulators demand that financial institutions hold more capital and get more proactive about tackling fraud. The European Central Bank's recommendations for the security of Internet payments in effect in February 2015 is just one example of the many new guidelines with which banks must comply.⁴ Financial services organizations need to show they can measure and manage risk with active programs that deliver proven benefits. Fraud also damages financial performance at a time when organizations are being compelled to reduce their cost-to-income ratios. Reputational damage is difficult to repair and leads rapidly to loss of customers and market share.

The industry is crying out for better ways to fight fraud, without excessive costs or shackles that prevent organizations from offering new and innovative services.

1 2012 Global Fraud Study, Report to the Nations on occupational Fraud and Abuse, Association of Certified Fraud Examiners

2 "Customers Urged to be Vigilant as Fraudsters Increase Scam Attacks," Financial Fraud Action UK, 12 September, 2014

3 Third Report on Card Fraud, European Central Bank, Feb 2014

4 Recommendations for the security of internet payments, Final version after public consultation, European Central Bank, 2013

Challenges and opportunities in fraud detection

When it comes to fraud detection, most financial services organizations face similar challenges: disparate transaction systems, piecemeal fraud detection solutions, and high operational costs. In specific fraud areas such as money laundering, shortcomings in a bank's approach to AML controls expose them to non-compliance with regulations and potentially to significant fines. Then there is the challenge of balancing customer experience with added security. Customers, naturally, seek faster and easier processing of transactions - in direct conflict with fraud prevention solutions that impose more security steps.

An effective fraud management system is essential for financial institutions. Failure in this area brings financial, reputational, and punitive risks. But there is an opportunity here too because getting it right can deliver competitive advantage, through improved customer confidence and better customer experience.

The right fraud solution could deliver huge benefits across the business - driving down costs and risks, improving customer satisfaction and enabling innovation. To achieve this, the new solution must be able to:

- Enhance Information Credibility by integrating disparate data sources (including unstructured text such as notes fields and call center logs).
- Detect fraud faster with real-time integration to authorization systems and on-demand scoring of all purchases, payments and non-monetary transactions.
- Improve behavior monitoring of individuals to incrementally detect fraud and reduce false positives by using data across all of a customer's accounts and transactions.
- Uncover hidden relationships, detect subtle patterns of behavior, prioritize suspicious cases and predict future risks using advanced analytics — including complex rule writing capabilities.

Forward thinking banks are evolving their fraud management systems from a level of stand-alone basic detection to one of enterprise predictive risk assessment, integrating big data, advanced analytics, and real time functionality as well as customer experience.

Emerging Trends in Fraud Management

<p>Centralization of Fraud Management Operations</p> 	<p>To effectively ght fraud, forward-looking nancial rms constantly update fraud management systems with new rules, statistical models and acquired knowledge. This process becomes easier and more ef cient with centralized systems.</p>			
<p>Usage of More Real Time External Data</p> 	<p>Several nancial services institutions are no longer content with just using regular transactional data to ght fraud and are also looking at external information obtained from third party vendors and intelligence from social networking sites to improve their capabilities in fraud detection.</p>			
<p>Rise of Cyber Crime increased by the adoption of mobile devices and the use of external data Compute hacking, virus attacks, websites and email spams</p> 	<p>Consumers want simple, easy-to-use banking services, but do not accept that they are vulnerable to fraudulent activities. Organizations which are able secure their transactions by moving to the next generation of authentica-tion, such as biometric authentication enabled through mobile technology, can create competitive advantage by meeting consumers' expectations for products that are both simple and secure.</p>			
<p>Use of advanced analytics methodologies on a single fraud management platform combining...</p> 	<p>Out of pattern analysis - Comparing customer activity with peer group behavior, and also with the customer's own past behavior to identify outlying transactions.</p>	<p>Linkage analysis - Identifying other entities associated with known types of fraud, as well as practices used by fraud-linked entities - sometimes using analysis of social networking activity - and developing strategies to counter these practices.</p>	<p>Model development - Creating fraud- scoring tools and detailed statistical analytics to provide quantitative insight into possible fraud activity.</p>	<p>Rule development - Creating & applying rules for basic business activities to spot unusual trends, as well as specialized rules for specific transactions.</p>

The Way Forward: Capgemini and the SAS® Fraud Framework

After implementing the Global Fraud Management solution from Capgemini and SAS, clients have reported increases in detection rates from 50% to 90%, while reducing overall alerts from tens of thousands to less than 100. Banks are also greatly reducing false positives with up to 95% improvement in false positive rates.

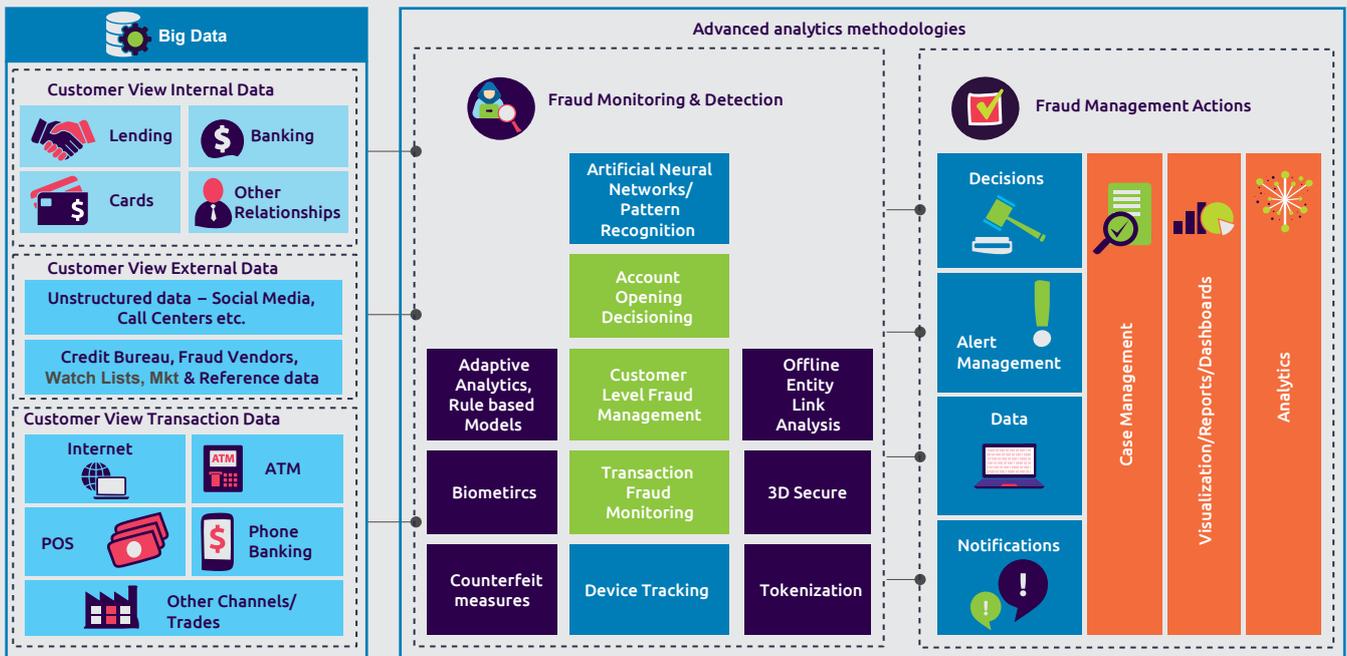
Combining the deep banking and business information management expertise of Capgemini with the leading fraud and financial crime analytics capabilities of SAS, our Global Fraud Management Solution provides financial institutions with unrivaled, integrated capabilities to detect, prevent and manage fraud and financial crime across all lines of business. Our comprehensive solution maximizes fraud detection and prevention, lowers total cost of ownership and protects the bank's brand and reputation.

Together, Capgemini and SAS deliver powerful, agile fraud management built upon four components:

- **A fraud diagnostic** that assesses the current state of fraud management and designs a blueprint for the future
- **Threat assessment** which identifies current and future risks and vulnerabilities
- **Analytics innovation** to bring advanced analytics to bear on issues related to both consumer and fraudster behavior
- **Optimization of fraud management processes and tools** to develop appropriate customer authentication strategies, business rules and other anti-fraud measures.

Our solution encompasses the full range of fraud detection techniques available within the SAS® Fraud Framework, providing a unique hybrid approach to analytics that includes business rules, anomaly detection, predictive analytics, text mining and social network analysis to reveal hidden relationships and suspicious associations among customers, accounts or other entities. The solution offers on-demand scoring with real-time detection for transaction fraud including cards and online banking. We integrate disparate data sources to enhance information credibility and provide visibility to a bank's overall exposure across all channels. The solution includes a suite of tools for effective fraud management, including case management and workflow. Our cyber crime solution helps banks secure their IT infrastructure by avoiding data theft and protecting against cyber attacks and threats. Furthermore, Capgemini and SAS help organizations "future proof" themselves against fraud by protecting against known and unknown vulnerabilities, and providing the flexibility and agility for managing new threats as they arise.

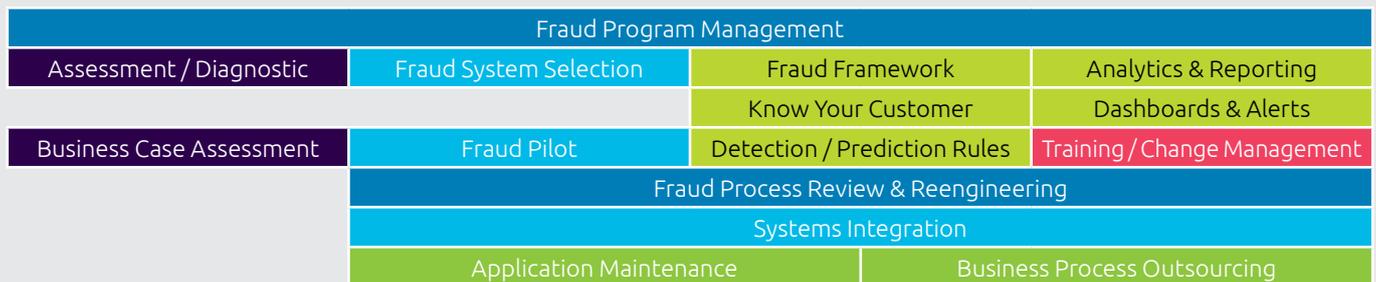
Global Fraud Management System from Capgemini and SAS monitors all data sources and converts them into actionable insights



How it Works: A Complete Fraud Prevention Solution

Our approach to fraud prevention provides a full package implementation service. This includes everything from pre-study to go-live, including program management. It addresses both Business and IT demands to create a solution that delivers business outcomes and a healthy return on investment. We recognize that for many banks building new fraud management capabilities could be a multi-year journey. We manage this opportunity in a phased approach to deliver business benefits at each step of the journey.

A Complete Fraud Management Solution



Preparation Phase
 Process & org. change
 IT & Methodology
 Training
 Framework
 Outsourcing

Each project starts with an assessment and diagnostic phase that defines, reviews and fixes the project scope. Capgemini leverages its knowledge of banking processes and organizations, and best practices to conduct the assessment and develop guidelines to adjust models to a client's specific situation and needs. This includes a gap analysis between the "as is" fraud situation and the "to be" target scenario to investigate the fit of the standard solution and identify any functional or technical pain points which may impact scope. This is followed by an implementation plan to formalize project execution and control.

The business case assessment enables the team to estimate the ROI, which is the ratio of money saved to money spent in preventing Fraud. The average ROI across the financial industry for 2012 was 5 euro for every euro spent on fighting fraud.

A pilot is used to validate the financial opportunity, and test and fine tune new fraud detection techniques. During the pilot the SAS software is installed, and key customer and third party data are extracted to populate the fraud database. Fraud hypotheses are identified, business rules defined, and cases for investigation are prioritized. The pilot period is an opportunity to enrich the business rules and the models to discover the characteristics of fraud cases.

We implement the program using an agile methodology to accelerate delivery, maximize business value, enhance user satisfaction and minimize project risks. We also look to work collaboratively to ensure progressive knowledge transfer that leaves our clients self-sufficient. We utilize Capgemini proven methodology for Package implementation as the delivery framework for implementing the solution.

Case Management is conducted in the context of an intelligence led security environment aimed at supporting all security & intelligence management (SIM) functions. Capgemini and SAS advocate an approach of integration of information on Fraud to make it possible to provide an overall picture of vulnerability to fraud, reuse AML and CDD data to combat fraud, support trend, threat analysis and research and maintain flexibility to deal with incidents of various types. The scope covers a wide set of alerts, including those for Fraud, AML, CDD, access and screening. The solution supports reaction to incidents, including response management and supporting wider research and threat analysis.

Benefits

Effective fraud detection can transform business performance for financial services organizations. Implementing a comprehensive and structured program to detect and prevent fraud has become a core driver in business growth, delivering real competitive advantage.

Capgemini and SAS combine system integration with the best in analytics technology to provide a holistic solution for fraud management. We can help you to achieve faster and more effective fraud detection and higher visibility of exposure across channels, leading to:

- Increased customer retention through improved customer confidence and a better customer experience
- Reduced financial loss due to fraud through real-time fraud detection using advanced analytics – leading directly to improved financial performance and greater value for shareholders
- Protection of brand and reputation by finding potential fraud faster and more accurately with real-time integration and on-demand scoring
- Reduced total cost of ownership by consolidating disparate systems, enhancing staff productivity and reducing the total cost of fraud activities

Why Capgemini & SAS?

The effective partnering between Capgemini and SAS can help ensure a bank's fraud transformation achieves targeted business objectives. We bring a market leading solution that leverages the SAS Fraud Framework, deep financial services knowledge, and a breadth of experience in financial crime management processes. Clients benefit from our combined experience of over 20 years working on various banking systems and thousands of projects delivered in the banking industry. Our proven solution has delivered tangible results for many financial institutions across the globe:

- **Helping to achieve highly effective detection rates** with clients reporting increases in detection rates from 50% to 90%, whilst reducing overall alerts from tens of thousands, to under a hundred
- **Greatly reducing false positives** with up to 95% improvement in false positive rates
- **Significantly improving investigator efficiency** with investigation time for each referred fraud case being reduced by up to 70%
- **Driving significant process efficiencies including** reduction in time taken for overall credit approval processes from one day to fifteen minutes

Our approach is quite different from that of our competitors, who often approach the problem from a technology perspective. We see this as a business problem that is solved by business solutions supported by technology. We have designed our approach to be non-prescriptive, allowing us to take advantage of our clients' existing investments (whether systems, technology or people, such as data warehouses, analytical teams, case management systems or compliance rules), thereby reducing cost, accelerating change and reducing time to benefits. Our commitment to collaboration is evidenced by the fact that Capgemini is currently a partner to 8 of the top 15 global banks and 6 of the top 10 consumer finance companies. And with over three decades of experience working with financial institutions across the globe, SAS serves more than 3,100 customers within the banking and capital market areas worldwide.

IN PRACTICE

Capgemini performed a global roll-out of SAS® Enterprise Fraud Management for credit card transaction fraud management for a major multi-national bank. We steered the first ever deployment of SAS® Enterprise Fraud Management and developed a global version to deliver faster deployment across multiple countries

Capgemini implemented a fraud reporting solution for a leading financial services company in the UK. It provided a unified view of fraud across various portfolios and faster ad hoc reporting capabilities.

Capgemini implemented world-class fraud analytics for a large mortgage group of a Dutch bank. We used models based on quantitative analysis developed in SAS to improve fraud detection capabilities.



A series of use cases, a Fraud Management process model as a reference framework, and templates covering the bank's operating model, enterprise compliance, fraud and error help us expedite the delivery of business value. Our accelerated assessment helps banks jump start their fraud transformation program and our delivery via our RightShore® model optimizes implementation cost. Once implemented, our solution enhances staff productivity and increases the efficiency of the bank's ongoing fraud management.

To learn more about how Capgemini and SAS can help your organization transform fraud detection and prevention.

contact us

at banking@capgemini.com or at fraud.solutions@sas.com
or visit us at www.capgemini.com/resources/fraud-solution-for-financial-services/.

About SAS

SAS is the leader in analytics. Through innovative software and services, SAS empowers and inspires customers around the world to transform data into intelligence. SAS gives you THE POWER TO KNOW®.

For further information, visit us at

www.sas.com

About Capgemini

A global leader in consulting, technology services and digital transformation, Capgemini is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. Capgemini is driven by the conviction that the business value of technology comes from and through people. It is a multicultural company of 200,000 team members in over 40 countries. The Group reported 2017 global revenues of EUR 12.8 billion.

Learn more about us at

www.capgemini.com