Combat subscription fraud with advanced analytics

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Business Impact

"Subscription fraud was recognized as the primary fraud method by respondents of the Communications Fraud Control Association (CFCA) Fraud Loss Survey."[1]

[1] Communications Fraud Control Association - Fraud Loss Survey.

Challenges

- **Limited analytics capabilities.** Simple rules-based investigations that rely on traditional methods aren't real time and can't evolve to detect emerging fraud patterns.

- **High false positives.** A limited view of data lineage and reliance on outdated business rules make it hard to avoid false positives or get a single view of the customer.

- **Low ROI.** Multiple systems and solutions are expensive to integrate and maintain, and dependence on legacy systems increases vulnerability.

- **Excessive business costs.** Too many false positives create customer friction and damage reputation, while inefficient investigative processes drive up costs and lower productivity.

The Issue

In an era when traditional communication revenue streams are shrinking, there's increasing pressure on fraud departments to lower their risk appetite, or at least reduce false positives. This increases subscription and dealer fraud risks – particularly as device values continue to increase and the lure of sales commissions encourages aggressive sales tactics. Further, legacy fraud systems used to detect subscription fraud or network usage fraud are often business-rules based and are not real time.

Disparate solutions and analytical platforms hinder fraud detection because they can't present a single view of the customer or comprehensive data lineage. The cost and complexity of maintaining multiple solutions and platforms reduces return on investment and slows the pace of change. It's not unusual for simple business rules with high false positives to be in place for years without undergoing review.

Our Approach

Our solutions rely on the latest hybrid analytics techniques to combat subscription fraud, as well as dealer fraud, revenue share fraud, SIM boxing, credit card fraud, account takeover and more, for communications and service providers. The software scales to manage credit assessment, collections and revenue assurance. We deliver software and services to help you:

- **Take advantage of all your data** – whether it's historical, stored or on the fly – to identify risky profiles. Evaluate applicants in real time and understand in-stream events happening across products and channels.

- **Detect fraud faster and more effectively** using artificial intelligence and machine learning methods to recognize fraud links, behavior anomalies and high-risk activities.

- **Streamline and strengthen investigative work** via prioritized alerts, advanced searches, network links visualization and geospatial mapping, text analysis, and case and workflow management.

- **Track and monitor fraud** across the business and provide detailed reports of findings. Analytical feedback based on investigations helps tune rules and models to counter changing trends.

Advanced analytics solutions from SAS support the dynamic landscape of fraud challenges in the communications industry – ranging from in-store sales and support to transaction monitoring across digital channels. Our commitment to combat fraud is supported by innovation and strong industry expertise. SAS delivers:

- **Predictable capital expenditures.** Our modular design allows organizations to scale gradually while having flexibility to deploy components in phases as business needs dictate. SAS can also easily integrate with all major ERP platforms and in-house tools.

- **Revenue preservation.** Our hybrid detection approach combines business scenarios with multiple advanced analytic techniques. This approach blocks fraudulent subscriptions, with minimal false positives, before handsets and airtime are lost.

- **Lower operating expenditures**. SAS democratizes analytics, reducing the reliance on technical users. Our guided investigative interface enables rule writing without code. No longer is there a wait if stop-gap rules are needed. Automated data management, alert triage and prioritization promote optimal investigator productivity.

- **Streamlined customer onboarding.** Built-in automation of repetitive tasks and routing and orchestration of fraud decisions reduce customer frustration at key touch points.

Situation

A leading Asia Pacific telecommunications and technology company offered a full range of services for around 18 million mobile, 5 million voice and 4 million broadband subscribers. But each sales channel used a different mix of subscription fraud detection solutions and processes. This inefficient approach led to inconsistent results and unnecessary redundancies.

Solution

The provider chose a real-time, cloud-based SAS solution for subscriber fraud detection that included link analysis and machine learning techniques. The solution provided:

- Better identification of entity-linked fraud.

- More effective fraud prevention with machine learning techniques that were customized for each sales channel.

- Automated decisioning to reduce the likelihood of wrongly declined subscription requests.

- Streamlined processes for detecting and investigating fraud.

Results

- More than $50 million in savings in 2020.

- A 76% reduction in fraud losses and 35% reduction in never-pay losses.

- Bad debt lowered by more than 50%.

- Reduced fraud investigation resources due to automated decisioning and streamlined investigations.

- Links to other applicants identified in 54% of confirmed fraud cases.

- Links to other applicants detected in 32% of never-pays.

- Evaluate credit risk at the time of new applications using internal and external data sources for real-time decisioning?

- Identify and deny synthetic/fake identities from abusing the system and services provided?

- Reduce the risk of a transaction by using machine learning techniques for early detection and prevention?

- Create a visual flow for linking and investigating alerts by the use of risk tags?

SAS Facts

- More than 700 telecommunications companies in more than 84 countries (including 90% of the top 100 global telecom providers) use SAS to accelerate their path from data to decisions.

- SAS is a Leader in the 2021 Gartner *Magic Quadrant for Data Science and Machine Learning Platforms*.

- SAS is a Category Leader in the Chartis *RiskTech Quadrant for Enterprise Fraud Solutions, 2021*.

- SAS provides industry-leading advanced analytics and AI solutions for network planning, customer intelligence, churn prevention, fraud avoidance and more.

Learn how SAS helps fight subscription fraud.