

**2008 North American Enterprise Fraud Detection & Prevention
Technology Innovation of the Year Award****SAS Fraud Management**

The 2008 Frost & Sullivan North American Technology Innovation of the Year Award in the field of Enterprise Fraud Detection and Prevention technologies is conferred upon Cary, North Carolina-based SAS, in recognition of its diligence in developing an innovative solution for vanquishing fraud crimes. The SAS® Fraud Management solution's noteworthy capabilities empower various institutions in the banking and finance sector to proactively combat debit and credit card fraud.

Fraud has evolved into an inexorable and pervasive issue in the banking and financial services domain. Thieves are constantly forging new ways to breach security measures and as a result, financial institutions are struggling to check losses due to fraud crimes. In this day and age, fraudulent activities are no longer limited to a single channel. Once an identity or account is compromised, they expand their targets to encompass all areas of a financial institution. Although most banks and financial services companies have fraud detection and prevention solutions in place, such solutions offer only reactive, after-the-fact analysis on suspicious transactions. Consequently, these solutions are handicapped against new fraud mechanisms that are constantly being innovated and deployed by today's crooks. Hence, banks and financial institutions are losing millions of dollars every year because of fraud related activities and crimes.

To keep thieves at bay, it is vital to identify deceitful behavior before a fraud is committed. SAS has taken this into account and developed an innovative technology that facilitates real-time account scoring by inspecting all available data from purchases, payments, and non-monetary card transactions. SAS Fraud Management is comprised of a range of technologies that integrate superior analytics, advanced decisioning capabilities, and sophisticated rules into a complete scoring and reporting system that enables accurate scoring of all transactions at the point of sale (POS). Using the calculated scores, fraudulent transactions can be identified before it is too late.

SAS' Fraud Management solution employs advanced analytics to offer robust security to banks and financial companies. It makes use of novel, multiple modeling techniques, supported by a champion/challenger facility, to ensure that the best approach is utilized to predict fraud. SAS' innovative hybrid modeling technology encompasses both custom and consortium methodologies to generate the best possible results. It integrates the data

available in the bank as the core model and the combines the gathered consortium data to create a single model equipped with the features of both a custom and consortium model.

SAS' neural network technology-based models help detect and analyze relationships that might be present in many pieces of data in order to obtain complete information of a cardholder's behavior. From this information, SAS Fraud Management expeditiously identifies uncharacteristic behavior. These neural network models are aided by SAS' proprietary model technique called the Self-Organizing Neural Network Arboretum (SONNA) that captures information on data irregularities.

While most solutions employ an algorithm-based method for expressing cardholder behavior, SAS Fraud Management uses raw data for articulating the same. It makes use of a unique "signatures" approach that captures cardholder behavior from all available sources and evaluates the behavioral patterns every time a transaction is scored. This aids in comprehending and evaluating the behavioral characteristics of the cardholder.

SAS has developed a number of supporting components to ensure that all functionalities required by customers are present in its fraud management technology. The Universal SAS[®] Connector links the fraud management solution with different types of bank transaction systems, authorization systems, and other bank environments. The SAS[®] OnDemand Scoring engine takes responsibility of firing the models and executing both user-written and system rules. Apart from that, the SAS[®] Rules Studio provides an interface for customers to write and test rules. Lastly, the SAS[®] Web Report Studio can be used for reporting, operation, and performance tracking.

One striking benefit in the SAS Fraud Management technology is the presence of a modeling tool that can enable a bank or a financial institution to develop custom rules in accordance to its business strategy. Unlike other competing solutions where the customer needs to buy rules and wait for the vendor to update it, SAS' solution provides facilities for customers to develop, manage, and customize their own rules. Another key benefit of this solution is its ability to paint a comprehensive picture of the cardholder and his behavior. Such detailed information can be utilized for getting insights into the customer's relationship with the bank and might prove vital for assessing a bank's prospects in the market.

SAS Fraud Management has been developed in collaboration with the Hong Kong and Shanghai Banking Corporation (HSBC). It has partnered with UK-based Detica to enlarge SAS Fraud Management into Detica's NetReveal solution for network investigation and analysis. SAS has been in the business of software development since 1976 and is the largest privately held software company in the world. It has focused on offering superior software solutions and better customer service right from its inception. Its solutions are

being used in 44,000 sites across 109 countries. SAS has more than 10,000 employees across 50 countries in 400 SAS offices providing local support for solutions intended for a global audience. In the future, SAS, which has five patents pending, is planning to expand its fraud prevention solution into different lines of business and problem sets.

Fraud in the market place is constantly evolving and new fraud methodologies seem to emerge at a very rapid pace. While institutions are equipping themselves with fraud prevention solutions, crooks are finding fresh ways to breach the barriers posed by these solutions and they are making off with a lot of people's hard earned money. SAS' innovative fraud prevention technology has all the credentials needed for conquering the volatile world of fraud. Frost & Sullivan is honored to bestow the 2008 North American Technology Innovation of the Year Award to SAS in recognition of its exceptional effort in bringing out the SAS Fraud Management solution.

Award Description

Frost & Sullivan's Technology Innovation Award is bestowed upon a company (or individual) that has carried out new research, which has resulted in innovation(s) that have or are expected to bring significant contributions to the industry in terms of adoption, change, and competitive posture. This award recognizes the quality and depth of a company's research and development program as well as the vision and risk-taking that enabled it to undertake such an endeavor.

Research Methodology

To choose the award recipient, Frost & Sullivan's analyst team tracks innovation in key hi-tech markets. The selection process includes primary participant interviews and extensive primary and secondary research via the bottom-up approach. The analyst team shortlists candidates on the basis of a set of qualitative and quantitative measurements. The analysts also consider the pace of research and technology innovation, and the significance or potential relevance of the innovation to the overall industry. The ultimate award recipient is chosen after a thorough evaluation of this research.

Measurement Criteria

In addition to the methodology described above, there are specific criteria used to determine the final rankings. The recipient of this award has excelled based on one or more of the following criteria:

- Significance of the innovation(s) in the industry, and across industries (if applicable)
- Potential of the products of innovation(s) to become industry standard(s)
- Competitive advantage of innovation vis-à-vis other related innovations
- Impact (or potential impact) of innovation(s) on company or industry mind share and/or company bottom line
- Breadth of intellectual property related to the innovation(s), that is, patents, scientific publications, and papers in peer-reviewed journals.

About Best Practices

Frost & Sullivan Best Practices Awards recognize companies in a variety of regional and global markets for demonstrating outstanding achievement and superior performance in areas such as leadership, technological innovation, customer service, and strategic product development. Industry analysts compare market participants and measure performance through in-depth interviews, analysis, and extensive secondary research in order to identify best practices in the industry.

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