REAL-TIME BIG DATA SOLUTIONS
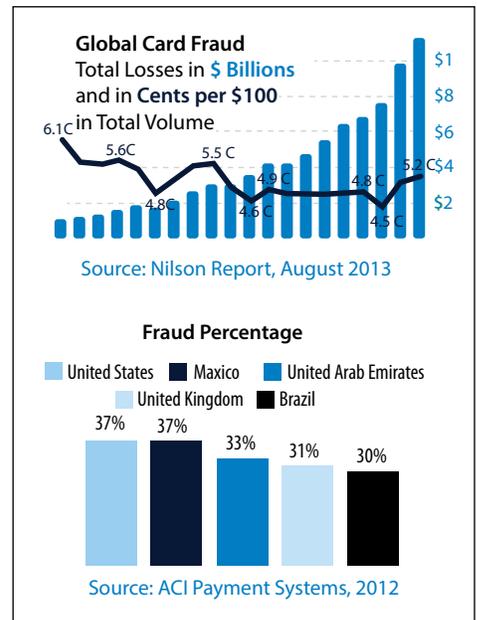
Real Time Fraud Detection Engine

Business Imperatives

Financial institutions and payment providers are on a constant watch to detect fraudulent transaction in real-time to minimize financial loss and damage. It enhances customer satisfaction and avoids legal implications.

- According to the Nilson Report, annual global fraud losses rose from USD$4 billion in 2005 to USD$11 billion in 2012

- Card issuers and merchants incurred 63% and 37% of those losses respectively

- 67% more Americans were impacted by financial data breaches in 2012 than in 2010 (Source: Javelin Strategy & Research)

- United States leads the chart with maximum percentage of fraudulent transactions (Source: ACI Payment Systems)

- US accounted for 47.3% of the worldwide payment card fraud losses but generated only 23.5% of total volume (Source: The Nilson Report)

Card issuer losses occur mainly at the point of sale from counterfeit cards while merchant losses occur mainly on card not present (CNP) transactions.

Leveraging the Infosys Real Time Fraud Detection Engine, merchants, acquirers and card issuers can safeguard against potential fraud happening in the cards and payment industry.

Global Card Fraud
Total Losses in $ Billions
and in Cents per $100
in Total Volume

Source: Nilson Report, August 2013

Fraud Percentage

United States | Maxico | United Arab Emirates
United Kingdom | Brazil

Source: ACI Payment Systems, 2012

Solution Overview

Infosys Real Time Fraud Detection Engine detects the fraud before the authorization and enables the issuer, acquirer, and merchant to take action on possible fraud. This enables quicker decisions in areas of portfolio management services, risk management, compliance and monitoring, and market sentiment analysis.

The solution helps to achieve the following:

- A suspicious or fraudulent activity is identified and action be taken while a transaction is in the process of being gathered, routed, authorized, and returned to the origination point

- It uses open source real-time framework for real-time processing, fault tolerance, and easy horizontal scalability

- A balanced data architecture that aims to provide latency-agile resources that can process any dynamic mixture of data at-rest and in-motion

- A batch layer would provide a pre-computed view from historical data

- A real-time stream computing layer would process data from incoming data streams

- In-memory caching layer allows fast data retrieval for processing

- Rich visualizations for event-driven, scalable, and non-blocking I/O model provided
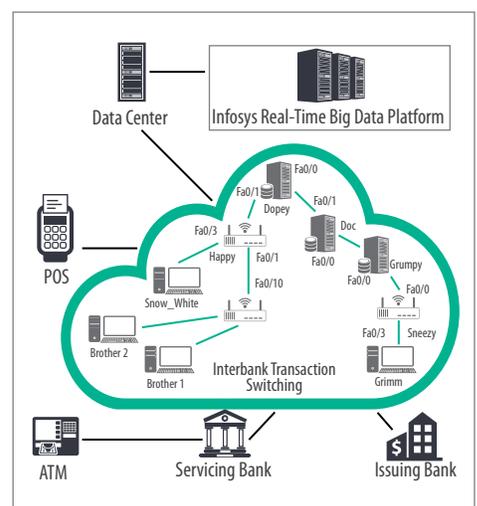
Solution Architecture
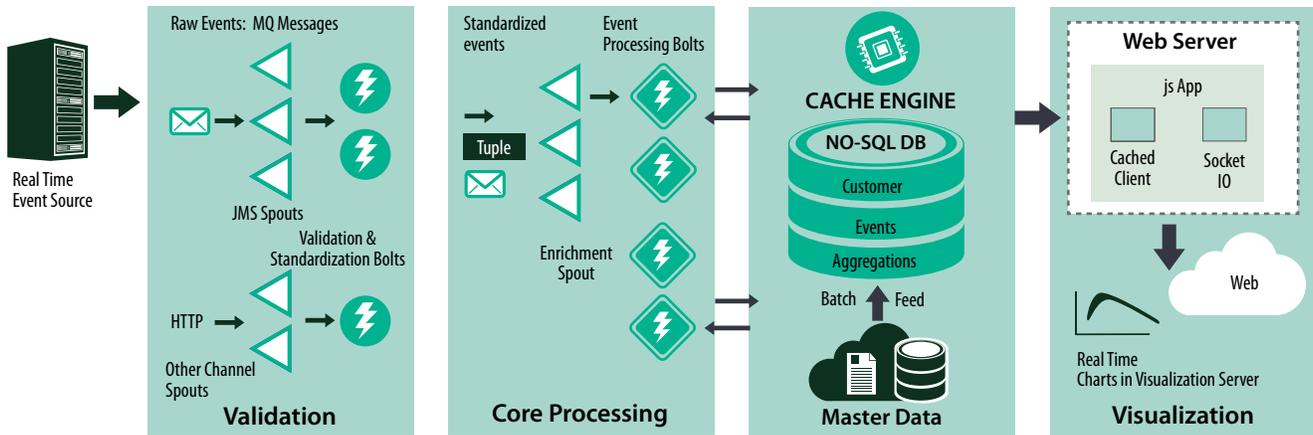
Client Benefits

- Reduce the fraud transactions by 20% by identification and detection

- Avoid financial loss for both the financial organization and the customer by 15%

- Sub-second latency and high throughput in the range of 900 transactions per second (TPS)

- Compelling low-cost alternative with approximately 50 to 60% lower TCO in three to five years against other providers

Case Studies

Leading US Based Money Transfer Company

Client is a US based, one of the world's largest Global Money Transfer Company having more than 275,000 agent locations spread across in 194 Countries and territories. Customer wanted to prevent Fraud and anti-money laundering arising out of following scenarios

- Splitting the amount and sending in multiple transactions

- One sender to multiple countries

- Multiple transactions between same sender and receiver

- Excessive receives

- Photo ID avoidance and Structuring

Infosys delivered real-time Big Data solution to identify potential fraudulent transaction and notify customer about the same. This resulted in significant reduction in Frauds and legal implications.

- More than 10% transactions identified as Fraud as compared to offline Fraud detection system earlier.

- More than 500 Transactions were processed per second.
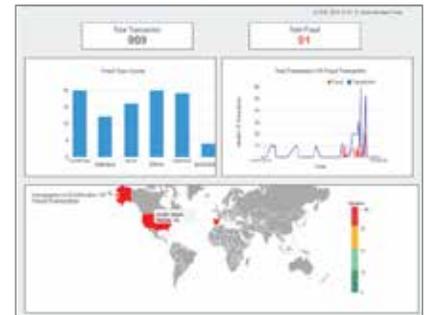
For more information, contact askus@infosys.com

Infosys®
Navigate your next