



# Payment Scheme combats fraud from 15+ digital channels with a first of its kind multichannel Fraud and Risk Management platform

## Background

The customer, a federal organization for retail payments in India, had an existing Fraud and Risk Management (FRM) system that catered to a limited number of digital channels and was not compatible with the new digital products launched in the country. The existing FRM system could not scale to match with the YoY growth of digital transactions. The system had heavy timeouts and latency resulting in business losses for the customer. Moreover, there was no analytics or machine-learning capability to capture evolving fraud patterns. The customer floated a global RFP to build a new FRM system for all its digital channels which would blend business rules and machine learning models. RS Software was selected to create the system envisioned by the customer.

## Customer Requirements

The customer required a scheme level horizontally scalable Enterprise FRM (EFRM) system for 1200+ banks and 15+ digital channels. The system was required to be benchmarked at 2000 transactions per second (TPS) with < 200 milliseconds response time. The system had to be built on commodity hardware with open source components. RS Software was also invited to set up the infrastructure at the Customer Data Center and build a Data Lake to store the monthly processing of 5 billion transactions for 6 months. RS Software was engaged to operate the application with 24 X 7 support for 5 years.

## RS Solution

RS Software leveraged its analytics platform RS IntelliEdge™ to implement the EFRM system within 6 months, using commodity hardware and open source components. The system was benchmarked with response time of < 200 milliseconds and sustained load of 2500 TPS for 8 hours. The new EFRM resulted in a convergence of all customer digital channels under a single platform so that the customer received one view of the Banks from the scheme level.

RS Software successfully completed the Vulnerability & Penetration Testing (VAPT), Information and Application Security testing of the system within the stipulated timeframe. Customer timeouts were drastically reduced. RS Software collaborated with top academicians for building machine learning models on static (settlement) and streaming (online) data.

In addition to the required functionalities, RS Software delivered a payment focused Rule Editor and a Rule Simulator that allowed the customer to create channel specific, cross-channel, custom, categorical or global rules and simulate the performance before activating them in production.

## Value Delivered

EFRM went live with POS and ECOM channels in May 2019 and was subsequently integrated with the other digital channels. The system returned risk scores to decline high risk transactions and alerted suspicious transactions through a Case Management System. The system was able to segregate confirmed non-fraud (CNF) transactions from the entire transaction set thus giving superior performance for authentic customer transactions while putting checkpoints in the path of risky transactions. EFRM reduced False Positives (FP), thereby protecting customer brand value against denial of service for legitimate transactions. With negligible time-outs and response times less than the blink of an eye, the customer business grew in the form of increasing TPS.

The spectacular success of the current EFRM implementation leveraging RS IntelliEdge™ has given confidence to the customer to reengage with RS Software for extending the EFRM load to 4000 TPS. The customer also plans to horizontally scale up the system to 10000 TPS within a year of implementation.

## About RS Software

RS Software's exclusive focus on payments and proven track record has made it the brand of choice for leading payments providers seeking to improve time to market for solutions that can generate additional revenues and save money. We have repeatedly delivered end-to-end solutions that include ongoing testing, enhancements and support to keep our clients current with the dynamic landscape in the payments industry.