Merchant Data Platform Services Enhances Brand Value For A Leading Payment Network

Need for accurate and timely information

A leading payment network needed a merchant data platform to support their Marketing, Branding, Loyalty and Strategic Merchant Relationship Management initiatives. They were looking for an enterprise-wide solution that would provide internal and external customers accurate and on-time merchant information that could be leveraged by their downstream data services applications.

RS Software partnered with the network to build a best-in-class merchant data platform significantly improving the ROI of their Marketing, Branding and Loyalty applications. The platform provides enriched and accurate merchant data utilized by all of the network's enterprise-wide products and by external customers needing information to implement business use cases including Restricted Access Networks (RAN), marketing opportunities, Ad Attribution and Card Linked Offer enablement.

Managing data quality across enterprise systems

The platform supports three key business requirements:

- Provide correct geocoded merchant store locations to ensure high reliability
- Accurately brand all merchants by establishing their hierarchy
- Identify payment acceptance capabilities for each merchant store location

The platform leverages data from various internal network applications including Authorization, Registration, Clearing and Settlement, and then enriches and validates the data using external providers like Dun & Bradstreet (D&B), the United States Postal Service (USPS), and others. The success of the platform is driven by delivering a high degree of consistency and reliability achieving:

**Location Accuracy**: Identifying a unique merchant location requires data platform components such as:

- Data Quality - USPS Address Standardization, cleansing & standardization of other attributes, outlier identification, data quality metrics for quality measurement and system operations

- Entity Resolution (unique key generation) and sound relational modelling (data storage) to store location accuracy and associated attributes. In addition to identifying a unique merchant location, assessing the accuracy of the location helps internal and external product partners to choose data with specific level of accuracy for specific use cases. Accuracy can be measured based on parameters like:
  - Matching with external vendors - Argus, Radius and D&B
  - Custom Scoring normalized to scale of 1 -10

Brand Accuracy: The optimal approach to branding is to build a hierarchy internally with available brand details and then validate it against an external industry standard reference point. Based on our industry experience, we utilized D&B as the external partner for reference point checking and hierarchy information. Brands with high volume transactions that are not using D&B references are manually reviewed for accuracy and periodically refreshed.

Acceptance Capabilities: Identifying unique merchant locations proved to be a significant business differentiator. Data on related transactions for each location provided information on the payment acceptance capability of merchants by:

- identifying whether a merchant location is pre-authorization or partial authorization enabled

- identifying whether a merchant location accepts EMV Transactions, NFC Transactions, Apple Pay transactions, and/or Android Pay transactions

- identifying whether a merchant was active in the last 90 days

Platform Architecture
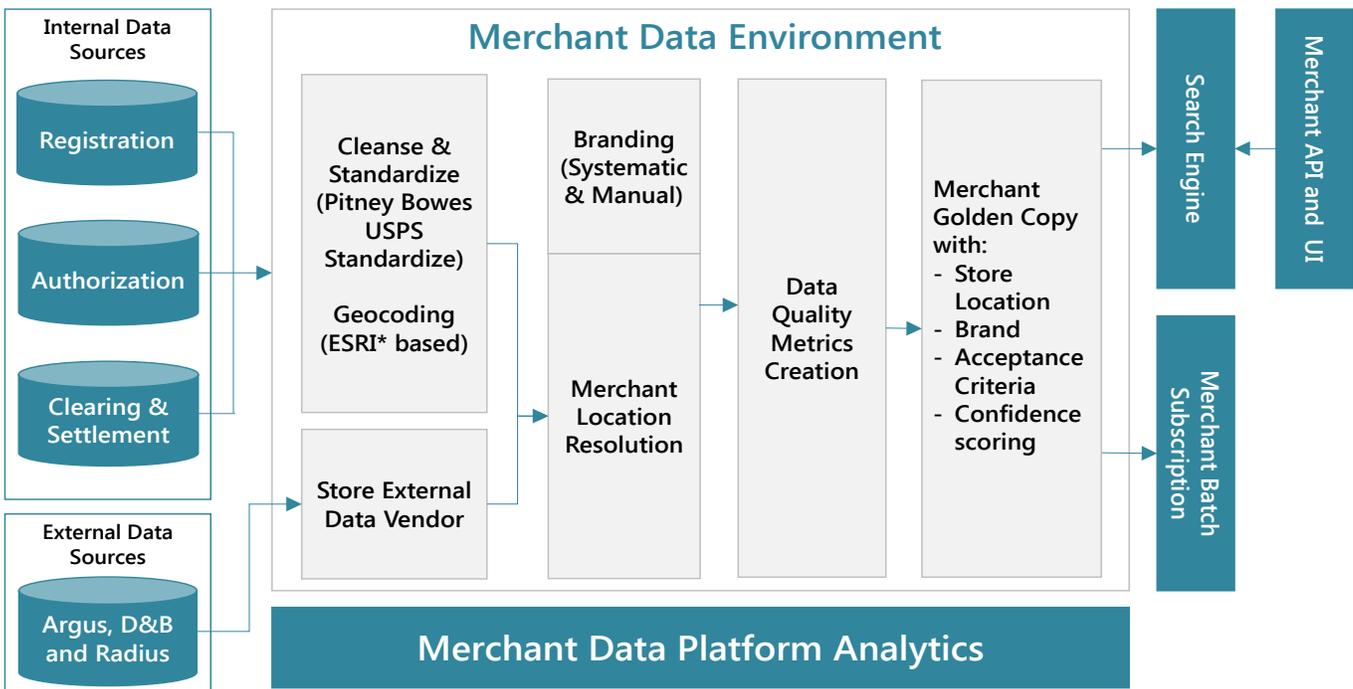
*ESRI: Environmental Systems Research Institute

Key Features

- Centralized repository for all Merchant Locations
- Qualify and score promotions like Nearby Location offer and Card Linked offer
- Provide accurate Brand Hierarchy for a Merchant Location
- Provide enhance attributes for a Merchant 360 Profile

Value Delivered

RS Software's domain focused capabilities in payment networks along with our enterprise data solutions competencies made this platform commercially viable within a year by enhancing the location and branding accuracy to more than 85%. This accuracy allowed multiple internal and external financial and merchant services organizations to use this data platform on a subscription basis to support their business use cases for downstream applications. It is estimated that the ROI for these applications increased by 30% and time to market reduced by 20%. This significantly enhanced the brand value of our customer and their partners who are subscribing to the merchant data platform and its services.

Why RS Software?

RS Software's exclusive focus on payments and proven track record has made it the partner of choice for leading payments providers seeking to accelerate their time to market for solutions, generate additional revenue and reduce costs. By working with customers to analyze the quality of their data, establish best practice data governance, select data mining solutions and implement big data solutions, RS Software has helped a variety of companies convert data to information and information into a competitive advantage. We have repeatedly delivered end-to-end solutions to keep our clients current with the dynamic landscape in the payments industry.