

## *Extended Retail Practice - Data Services Case Studies*

**Edgewater Technology** has partnered with retailers and supplier organizations to successfully combine data from legacy systems, software products, and real-time sources to transform the data into deeper insights about their business. These insights can provide the competitive advantage that is needed to thrive in an environment where customers have many choices.

Since our inception in 1992, Edgewater Technology has been helping organizations break through the barriers of technology by translating business goals into technology solutions (**Strategy**); identifying and documenting the specific design of a solution (**Design**); transforming business goals into IT solutions that maximize the use of technology for efficiency and cost effectiveness (**Build**); offering post-production application maintenance (**Maintain**); and delivering operations support (**Operate**).

### *Supply Chain Data Mart Design*

Edgewater conducted requirements identification for, and design of, a logical data model for a global retailer. The primary purpose of this supply chain data mart was to determine and improve shipping and ticketing accuracy.

**By leveraging Edgewater's analytic, strategic, and design skills, the client was afforded a design solution that provided a solid foundation for implementation.**

#### ***The Challenge:***

- Necessary data contained in multiple data sources
- Data element definition inconsistencies amongst the data sources
- A common set of reports that were needed by several individuals
- A need for better analytical and exploratory capabilities to facilitate decision making and sharing of information

#### ***The Solution:***

- Review documentation on existing systems, data, and requirements
- Meet with users to gather desired requirements and determine appropriate data elements for the data mart
- Development of an interim deliverable to provide client personnel the opportunity to review, verify, and adjust the data mart user interface and standard reports
- Completion of a final design document containing the user interface, reports, and logical database design

#### ***The Results:***

- A consolidated data repository providing a single version of the truth
- A data repository with a focus on a particular area of the business and user community
- A design document usable by internal resources to carry out the implementation

### *Targeted Marketing*

In order to more effectively market to a grocer's consumer base, Edgewater provided a platform to identify opportunities for more targeted promotions. Building on the client's ability to identify and classify consumer purchase behavior, Edgewater constructed the application and designed the repository to collect and segment the appropriate data. The database provided the foundation for integration with a third party analytic tool. Through this initiative, Edgewater enhanced the client's ability to more effectively know their customer base as well as meet their company goals for sales and growth.

**A separate database to fuel customer analytics provided an efficient mechanism for targeting customers with relevant promotions.**

#### ***The Challenge:***

- The organization wanted to acquire new customers, retain existing customers, and increase the amount of spend during each shopping experience
- An efficient mechanism for conducting market basket analysis
- A need for better analytical and exploratory capabilities to facilitate marketing decision making

#### ***The Solution:***

- Requirements gathering and analysis to determine key metrics and collect appropriate data
- Establish data repository separate from the production database to be used for analytical purposes

#### ***The Results:***

- Marketing and merchandising departments had a consolidated source for all customer purchases
- Facilitated promotions directed at customers to influence their buying decisions

**Consolidated Reporting Framework**

The leading provider of loyalty management services was meeting reporting requirements in a variety of ways. Edgewater analyzed how operational reporting was currently being conducted and collected departmental requirements for near-term and longer-term improvements. Once the analysis was conducted, Edgewater recommended a reporting strategy and platform to streamline operations and increase the efficiency of reporting activities. The framework was built with a combination of client and Edgewater resources as well as high priority reports.

**By leveraging Edgewater to provide strategic direction, establish the framework, and conduct knowledge transfer, the stage was set for client ownership of the reporting framework going forward.**

**The Challenge:**

- Impact to production system performance when users conducted queries against the production database
- Difficult to retrieve key data from certain data sources
- Too many internal resources generating reports, leading to unnecessary labor costs
- Reporting tool met the needs of super-users, but difficult for others

**The Solution:**

- Reviewed current technical and business processes and environment
- Provided findings and recommendations
- Constructed prototype to enable enterprise-wide understanding of the new reporting framework
- Joint development with the client to construct the framework and reports
- Set forth a Multi-Generation Strategic Plan to continually improve reporting capabilities going forward

**The Results:**

- Automatic generation of alerts and reports
- Redeployment of client labor efforts to other tasks
- Self service reporting
- Client ownership of the reporting framework going forward
- Improved reporting capability and insight into information available in less than 60 days

**Data Warehouse Development**

Edgewater conducted an assessment of a current data mart for a leading New England publishing firm. The assessment led to recommendations for a consolidated data storage, presentation, and analysis platform. This platform primarily supports the sales and distribution functions. By enabling the data to be available for analysis quicker and in a more complete fashion, the analysts and decision makers are able to more proactively make positive impacts on the business.

**An enterprise data warehouse provided the consistent collection and definition of data that fueled data marts that supported particular functional areas.**

**The Challenge:**

- In excess of nine hours to load data into a data mart focused on sales data
- The data mart did not include all distribution channels
- The data mart platform technology was not consistent with other tool sets being used

**The Solution:**

- Gathered and documented requirements for source system feeds, data correlation, update and refresh frequencies
- Design included:
  - ❖ Staging Data Store – For initial data storage and cleansing.
  - ❖ Enterprise Data Warehouse – For storage of data in 3<sup>rd</sup> normal form.
  - ❖ Star Schema Data Mart – For ad-hoc end user reporting
  - ❖ Extract Generation Processes to support Hyperion Analyzer analysis tool
- Development of reliable high performance Extract, Transform, and Load (ETL) methods and tools using native database technologies and utilities

**The Results:**

- Extensible meta data driven ETL processes for the staging data store loads in lieu of inflexible hard coding
- Improved load times by over 70%
- Ability to trace and prove all data elements in the data warehouse back to its origin in the production system
- Meets the corporate technology platform standard