

Edifecs delivers up to 100% data accuracy for large renewable energy company



CASE STUDY

EDIFECs CUSTOMER CASE STUDY

Edifecs XEngine improves transaction accuracy up to 100% and provides reliable transaction flow between systems for tracking changes in customer enrollment and obtaining accurate records of customer meter usage for forecasting electricity needs.

INDUSTRY

Energy

Objective

- Improve flow of transactions between systems. Increase accuracy of customer enrollment and customer meter-usage data needed for forecasting electricity needs.
- Eliminate custom code development and create a stable, scalable system that requires fewer resources to maintain.

Adopted Solution Approach

- Implement an out-of-box solution that validates enrollment and usage transactions, eliminates redundant files, and extracts relevant data required for forecasting energy demand.
- Set up a stable, high-performance system that is flexible for accommodating potential system changes and business requirements.

Customer profile

The company is a subsidiary of a large competitive power generation business and is the fifth-largest purchaser of wind-generated electricity in the United States. Their activities include planting and mining, wholesale marketing and trading, and development operations. The company's wholesale marketing and trading business optimizes the purchases and sales of energy to its parent company, and provides related services to other market participants.

Challenge: Complicated data processing compromises the ability to forecast customer demand

As the parent company's marketing and trading business arm, the Edifecs customer optimizes the purchase and sale of energy by collecting energy demand and meter usage data and providing forecasting information that is used to balance inventory against expected demand. The company receives information on energy demand from Transmission Distribution Service Providers (TDSP) via the state's electric-market operator. This operator receives the EDI transactions from the TDSPs, consolidates all residential and commercial customer EDI transactions (814 Direct Access Service Request and 867 Historical Meter Usage) by market participants and then makes these transactions available to market participants, including the parent company.

The company processes the EDI transactions, along with their attachments, thereafter sending this data to an internal forecasting system for analysis and reporting. Before using Edifecs XEngine, the company depended on a legacy translation engine that supplied inaccurate and redundant data to their forecasting system. This posed several challenges for the company as the inconsistencies in transaction processing and filtering would result in inaccurate transactions reaching the forecasting system or valid transactions getting lost.

The prior system used for processing business transactions relied heavily on custom coding to correctly identify appropriate fields within the customer-usage transactions and to obtain the values needed for forecasting electricity. The custom code did not focus on the overall semantic correctness of the entire usage transaction. Inaccurate data would therefore pass through the translation engine's processing and reach the forecasting system. Additionally, custom code changes were needed whenever the EDI transaction format changed, or when a value from a different field was desired due to business requirement. Furthermore, one transaction attachment that did not provide any relevant data to the back-end system (historical usage data) was needlessly processed during translation because the legacy translation system could not remove the file attachment.

The lost, inaccurate, and redundant data compromised the company's forecasting systems. The core forecasting system was unnecessarily processing between 25,000 to 50,000 redundant file attachments per month, and its IT staff's time was consumed with researching and resolving errors within incoming transactions. This reduced the stability of the processing system and introduced uncertainty into the company's energy forecasting capabilities. In addition, the resource drain and inflexibility meant that the company was not able to respond to changing business needs.

Solution Approach

Reliable validation is key to accurate forecasting

To achieve its objective of having reliable and accurate data flows for forecasting energy demand, the company needed a new approach that would:

- Eliminate noncompliant data from entering back-end processing flows; extract only the relevant data from incoming energy usage transactions, and provide accurate information to the forecasting system.
- Increase stability of the system to handle large transaction files.
- Enhance flexibility of the system to accommodate potential changes to new transaction formats (i.e., Flat File, XML, etc).

Edifecs Solution

Streamline demand forecasting and eliminate redundancies with Edifecs XEngine

The company selected XEngine over other validation/translation solutions. It did so because of its ability to provide unmatched performance to validate and process EDI transactions while enabling comprehensive transaction management at the front-end by acting as the company's transaction gateway.

XEngine delivers unparalleled performance to validate transactions for syntax, semantics, and custom business rules, thereby ensuring operational integrity of information exchange with trading partners. In addition, XEngine enables splitting, routing, aggregation, enrichment of transactions and translation between multiple standards. XEngine is therefore an appropriate solution for improving transaction processing, accelerating error resolution and enabling high levels of data accuracy. XEngine also provides the company with the capability to audit the flow of transactions to ensure zero transactions fell through the cracks.

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XEngine's ability to catch and filter faulty transactions helped us to identify the receipt of many invalid enrollment transactions coming from one company. The ability of Edifecs to pinpoint the erroneous payload data has helped us to process clean data.

– Manager,
Technology and Vendor
Management

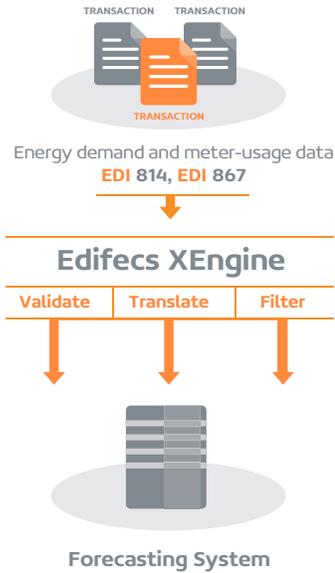


Figure1: Edifecs XEngine Streamlines the processing of Energy Demand files.

Edifecs Products Used For Energy Demand Forecasting

Edifecs XEngine

- Server- based compliance application.
- Fast, comprehensive, and accurate validation for both. syntax and business content.
- Intelligent splitting, routing, aggregating, and enriching transactions.
- Comprehensive error reporting, including HTML, XML, and standard industry acknowledgement reports.
- Versatile integration options.

Figure 1 shows a schematic of how Edifecs XEngine enabled the company to shield its internal forecasting system from invalid/incorrect energy demand and use transactions. XEngine also ensured that the forecasting system received only the data that was required for predicting energy demand.

Key Features that led the customer to select Edifecs were:

- **Performance:** The ability to process, at minimum, 3.0 million EDI transactions for customer ownership and electric energy consumption; with transaction sizes ranging from 10 kilobytes to 2 megabytes.
- **Robustness:** The ability to process and reject invalid transactions without failing the entire batch of incoming transactions.
- **Validation:** Accurately interpreting and parsing demand and usage data, at both syntax and content levels.
- **Integration:** Ease of integration with the existing messaging framework.
- **Error Management:** Faster resolution of identified erred transactions.
- **Versatility:** The flexibility to create unique inputs required by the forecasting system, based on changing transaction formats and business conditions.
- **Maintenance:** The previous code-based system was fragile and expensive to change. XEngine provides the ability to effectively respond to the business as changes are required.

Use of Edifecs XEngine has resulted in:

- High transaction throughput equaling 2.6 to 3.0 million transactions per month.
- Higher productivity through the elimination of up to 50,000 redundant files from the processing queue.
- Improved quality of data for electricity forecasting.
- Elimination of costs and resources required to maintain custom coding.
- Improved error resolution.
- Better agility for responding to changing business needs.

Conclusion

Accurate forecasting enables finer balancing of energy resources against customer demand

Edifecs XEngine has dramatically enhanced the company’s approach to pre-processing energy demand and use transactions and providing clean data to its forecasting system. This has resulted in a system that efficiently responds to changing business conditions, provides better throughput performance, saves money through the elimination of custom-code development, and, overall, provides cleaner data.



Edifecs is a leader in developing innovative, cost-cutting solutions to transform the global healthcare marketplace. Since 1996, Edifecs has provided technology that automates many administrative functions in order to trim waste and reduce costs as well as increase revenues, collaboration and operational performance. Customers who have benefited include healthcare providers, insurers, pharmacy benefit management companies, and other trading partners. More than 250 healthcare customers today use Edifecs solutions to simplify and unify financial, clinical and administrative transactions. They also use Edifecs technology to automate manual business processes (e.g., enrollment, claims and payments management) and to support compliance for HIPAA, Operating Rules and ICD-10 mandates. In addition, Edifecs develops supply chain management solutions to support worldwide customers in non-healthcare industry segments. Edifecs is based in Bellevue, WA, with operations internationally. Learn more about us at edifecs.com.