

# Retail Applications



End of day closing, inventory  
management, customer  
insight systems and  
forecasting.



## Solutions for Retail

- 🛒 Customer Care and Billing
- 🛒 Data API
- 🛒 Customer Data Portal
- 🛒 Customer Contact Management
- 🛒 Key Customer Insight
- 🛒 Key Customer identification

## Customer Care and Billing System

Major electric utility customer care and billing system transformation



### Problem

- + Billing system too complex to easily modify
- + Needed 360 view of major corporate customers
- + Give customers ability to self-service their data needs
- + Check each bill for 100% accuracy before sending
- + Give key account team flexible customer info

### Why Fractal

Delivered parallel solution with Fractal Programming.

Parallel application ran over 1,000 times faster, reduced storage 90%, and eliminated billing errors.

Utility was able to add new features in hours and days rather than months.

### Solution



Delivered parallel customer care and billing system costing 1/10<sup>th</sup> of legacy app

Reconciled every bill before being sent to customer



Delivered customer data portal to all customers

Entire solution in production in 90 days

Utility gained deeper understanding of its largest customers



Key accounts team and call center increased customer satisfaction

### Financial Impact



Eliminated need for \$35 million billing system rewrite



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## Data API

Web services data API for metering, billing, customer information.



### Problem

- + Customers increasingly requesting programmatic access to their data
- + Large customers want convenient access to their entire portfolio of accounts and associated information
- + An API is necessary In order to make many third party services available to customers

### Why Fractal

Delivered parallel data management system with Fractal Programming.

Make metering, billing, weather, and other customer data available without imposing any load on legacy systems-of-record.

Consistent interface and interaction for customers across all data types and data requests.



### Solution

Web services API's are exposed as components of parallel systems for managing meter data, billing, and customer information



Customers can access the data both via interactive web portals and via programmatic APIs



Multiple data format supported (JSON, XML, CSV) as well as custom data formats

### Impact



Increased customer satisfaction.

No additional load on IT resources.



Third party services easier to enable for customers.



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## CUSTOMER DATA PORTAL

Make customer bills, meter data, and rate plans available on customer's desktops and mobile devices.



### Problem

- + Customers want access to energy and billing data on digital devices
- + Customers want to do scenario analysis for rate plans
- + Customers want budget forecasts
- + Customers want visibility to solar and wind energy usage metrics
- + Customer want to supplement their data

### Why Fractal

Delivered a parallel customer care and billing system in 90 days at 1/10<sup>th</sup> the cost of legacy system.

App provides customer rate plan scenario analysis, budget forecasts, green energy metrics, and enables customer to enter supplemental information about energy efficiency projects.

Customers can self-service their information needs on web portal from their digital devices.

### Solution



Parallel customer care and billing system that is accessible from customer's digital devices



Instant customer visibility to their real time bill

Customer can test different rate plans in real time

Customers have easy access to budget forecasts



Customers can self-service their data needs which frees up key account and call center resources

### Impact



\$10 million development cost savings and customer support cost reduction for customer information portal.



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## Customer Contact Management

Critical loads, priority loads, and key account contact management. Automated email, text, and voicemail communication of information, alerts, and alarms.



### Problem

- + Contact information for notification of outages or other problems can be different than billing contact
- + The scale of customer base can make data management and automated communication challenging
- + Customers need to be able to update contact information and preferences to track changes in their internal organization

### Why Fractal

Fractal enables data portals to be easily built for both internal and external customer use.

Flexible database definitions enable easy addition of attributes for tracking critical, priority, and key accounts.

Native email, text, and voicemail communication for alerting and alarming

Solution scalability for entire customer base.



### Solution

Customer portal that enables customers to update their contact information and preferences



Internal support portal for use by call center and key accounts team to track and update customer contact information



Identification and classification of critical, priority, and key accounts loads for real-time detection of site-specific outages and other issues

### Impact



Customers proactively notified and updated on issues.



Changes in customer organization and contact points continually tracked and accounted for.



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## KEY CUSTOMER INSIGHT

Incorporate key customer insights from multiple data sources both internal and external to utility.



### Problem

- + Key customer insight data is often located outside of systems-of-record
- + Valuable customer information is located department-level computers or desktop spreadsheets that are not accessible by systems-of-record
- + Customer entered and customer maintained data needs to be incorporated into customer insight apps
- + Public domain information (eg. tax records) must be incorporated into customer insights

### Why Fractal

Fractal Programming enables continuous real-time data import.

Data import tools work with data sets internal and external to utility, including public domain data sets.

Data import tools work with desktop resources such as spreadsheets and text files in addition to data exports from systems-of-record.

Customer data entry / import supported.



### Solution

Implement continuous real-time data import from systems-of-record



Implement continuous real-time data import from department-level computers and desktop applications



Implement continuous real-time data import from public domain sources

Implement continuous real-time data import directly from customers

### Impact



Deeper key customer insight.



Enables all customer information, regardless of where it resides, to be incorporated into 360 degree view of customer relationship and customer activities.



## KEY CUSTOMER IDENTIFICATION

Identify key account customers based on consumption patterns, spending levels, program participation, and rules-based metrics.



### Problem

- + Key customer relationships are not always obvious – especially when customers have a portfolio of locations and multiple billable entities
- + Ownership of commercial properties frequently via special purpose vehicles, making it unclear who the portfolio customer relationship is with
- + Qualification for key account status based on spending levels and program participation can be complicated to identify and track

### Why Fractal

Fractal Programming enables flexible rules for assigning accounts to a customer based on multiple attributes.

App performance enables rule sets to be applied to entire customer base to identify key account relationships.

Automatic assignment of key account status based on qualification rules.

Both metered and non-metered attributes incorporated into rules.



### Solution

Implement qualification rules for key accounts



Implement aggregation rules to identify portfolio relationships

Classify every customer at both individual account and aggregate customer portfolio level



Enable utility profitability analysis by key account relationship

### Impact



Identify key account customers by evaluating total portfolio consumption and behavior.



Enables more focused programs by identifying impactful portfolio level decision makers in customer base.

