

Making the jump from AMR to operating Smart Grid

JEA leveraged their AMI investment into major gains--from operations to customer service

JEA is the largest community-owned utility in Florida and the eighth largest in the United States. It traces its origins to the electric system established in 1895 by the City of Jacksonville. JEA currently serves more than 417,000 electric customers in Jacksonville and parts of three adjacent counties. JEA's water system serves more than 305,000 water customers and 230,000 sewer customers in Northeast Florida.

Expanding from AMR to a smart grid platform with multiple applications

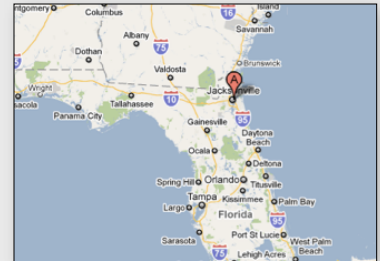
As a pioneer in the utility industry, JEA embarked in 2004 on a search for ways to extend the value of its smart metering investments beyond automated meter reading. After a thorough review and prioritization of business needs JEA management decided on requirements to address the following critical areas:

- Improve customer service and billing exception handling by providing customer care consultants with easy access to current usage history.
- Automate meter operations in order to reduce field service costs associated with physical disconnects, manual meter reading and meter re-reads.
- Significantly enhance outage management capabilities
- Provide multi-vendor support for meter reads from Landis + Gyr AMR network, Itron MV90 and Itron handhelds.
- JEA also set disciplined budgets for the initiative and aimed to minimize impact on existing IT infrastructure.

A platform to bring it all together

At the conclusion of the RFP process, JEA selected eMeter to help realize its vision. JEA deployed the EnergyIP™ platform to serve as a centralized usage data repository (MDMS) and foundation for applications for the smart grid. EnergyIP integrates with JEA's enterprise systems including customer information (CIS), mobile work management (WMS), outage management (OMS), handheld meter reading, transformer load management and distribution planning.

JEA's system also encompasses equipment, asset and administrative data storage; automated data, and service management processes as well as tools to enable utility business process improvements.



- Community-owned municipal power, water and sewer utility.
- Distributes power to 417,000 residential and C&I customers.
- Operates in Jacksonville and parts of three adjacent counties.

Goals

- Optimize operations by reducing field service costs
- Enhance customer service with online access to online data
- Support for multiple meter vendors
- Support for both water and electric

“ We are extremely pleased about implementing this new data and system management functionality with the experienced team of eMeter personnel. A system such as this is absolutely necessary to get the greatest value out of our fixed network AMR system. ”

Jim Dickenson
Chief Executive Officer
JEA

Customer Profile: JEA

An open platform brings applications to customer service

In order to increase customer service and satisfaction, JEA built a Customer Service Portal application to interface with the EnergyIP platform so JEA representatives can quickly and conveniently access all the relevant information for any customer at any time. Capabilities extend to both electric and water daily consumption for the last 14 months including graphs to compare month-over-month consumption.

Features of the MDM Customer Service Portal include:

- Daily or interval data for electric and water consumption
- Historical views of customer usage activity
- Real-time meter reading for validation and current usage status
- Meter event tracking including outages, theft indications and read used on bill

Reports for making good decisions

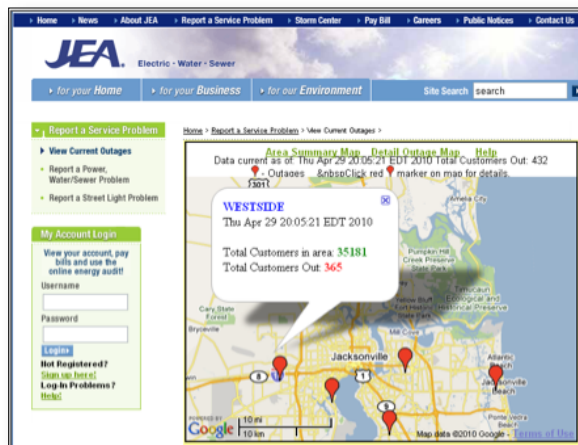
With EnergyIP providing centralized interval and daily read data to critical systems, JEA management is able to make better, more accurate decisions that extend into virtually all areas of operations. Examples of the visibility EnergyIP brings JEA include:

- Revenue protection reporting
- Meter performance exception reporting
- Excessive consumption reporting

EnergyIP unlocks the data and offers visibility to all departments at JEA, bringing critical and timely reporting to manager's desktops.

Getting it right the first time: confirming restoration and verification with one truck roll

Managing outages and restoration efficiently begins with knowing where



JEA customers have continuous Web access to the latest outage status.

they are--quickly. While minimizing outage duration is critical, costs can skyrocket without the right systems to confirm restoration and reduce time back in the field.

eMeter Products

- EnergyIP Smart Grid Data Integration Platform with real-time VEE (validation, estimation and editing)

EnergyIP Extensions:

- Data Aggregation

Application Modules:

- MDM/Meter-to-Cash
 - Advanced Billing Determinants
- Meter Operations
 - Remote Connect/Disconnect Automation
 - Deployment Planning and Management
- Outage Event Management
- Device integration: Itron, Landis +Gyr
- Enterprise integration: Oracle CIS CGI FMS/OMS/WMS, custom-developed TLM

Interval Data Reporting and Management Tools

Read Date	Read	Valid Station	No. Data	Partial Day	Short Day	Long Day	Power Out	Insert Time
5/20/2010 11:45:00 PM	0.44	VAL						5/21/2010 10:00:15 AM
5/20/2010 11:30:00 PM	0.37	VAL						5/21/2010 10:00:15 AM
5/20/2010 11:15:00 PM	0.41	VAL						5/21/2010 10:00:15 AM
5/20/2010 11:00:00 PM	0.50	VAL						5/21/2010 10:00:15 AM
5/20/2010 10:45:00 PM	0.64	VAL						5/21/2010 10:00:15 AM
5/20/2010 10:30:00 PM	0.43	VAL						5/21/2010 10:00:15 AM
5/20/2010 10:15:00 PM	0.69	VAL						5/21/2010 10:00:15 AM
5/20/2010 10:00:00 PM	0.68	VAL						5/21/2010 10:00:15 AM
5/20/2010 9:45:00 PM	0.68	VAL						5/21/2010 10:00:15 AM
5/20/2010 9:30:00 PM	0.88	VAL						5/21/2010 10:00:15 AM
5/20/2010 9:15:00 PM	1.68	VAL						5/21/2010 10:00:15 AM
5/20/2010 9:00:00 PM	1.65	VAL						5/21/2010 10:00:15 AM
5/20/2010 8:45:00 PM	2.45	VAL						5/21/2010 10:00:15 AM
5/20/2010 8:30:00 PM	1.82	VAL						5/21/2010 10:00:15 AM
5/20/2010 8:15:00 PM	2.53	VAL						5/21/2010 10:00:15 AM
5/20/2010 8:00:00 PM	0.74	VAL						5/21/2010 10:00:15 AM

Premise summary screen shot showing interval data for electricity

Customer Profile: JEA

For example, when a crew restores a transformer, JEA is able to verify restoration down to the meter by sending a request from EnergyIP to confirm restoration. Since this real-time verification happens while the crew is in the field, they are able to confirm the restoration and eliminate the need for a return truck roll for a fix that was unsuccessful.

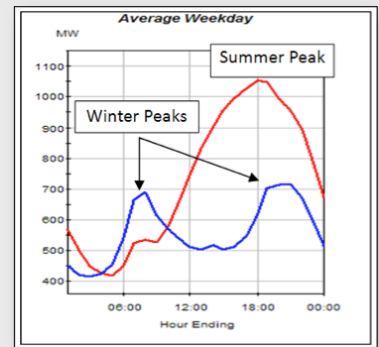
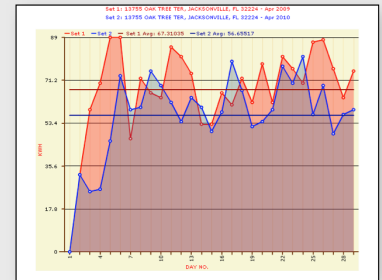
Getting results in all areas of the business

While AMI meter data is often considered a burden to tame and manage, JEA's approach to building out the Smart Grid was from a perspective of designing a system to leverage this critical information to benefit as many areas of the enterprise as possible. JEA's deployment began in 2001 and to date they've experienced the following performance gains:

- Lowered bill investigation costs.
- Higher customer satisfaction from improved zero-defect billing status, quicker response to inquiries, increased service flexibility, and on-line billing estimates.
- Reduced field service costs associated with physical disconnects, manual reads and re-reads.
- Increased effectiveness of service risk management through meter tamper flags, usage alerts, and on-demand reads.
- Increased utilization of distribution assets.

With compelling results thus far, JEA continues to innovate on their vision for the smart grid, with development proceeding on a self-service customer portal as a series of additional operational refinements made possible by their investments in the grid.

Interval Data Charting & Analytics Capabilities



Results

- Reduced bill investigation and field service costs
- Improved customer satisfaction
- Increased effectiveness of service risk management
- Increased asset utilization

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