



SATURN SYSTEMS

"Solving Complex Business Issues through Software Engineering"

Enterprise: Electric Cooperative Systems Integration

Situation... A Minnesota electric power cooperative serving over 5,600 members needed better access to their electrical distribution information, especially when managing outages. The customer used billing, meter reading and mapping/GIS packages to manage their operations; however, the separate systems were not integrated, and were not able to provide reliable online information regarding their distribution network. Instead, the co-op was relying on regular manual updates between systems to make decisions.

Saturn Systems was contracted to link their disparate systems, and provide a rich set of reporting tools across the database of customers, transformers, meters, phases and other devices.



Approach... Saturn Systems met with the customer to clearly understand the data elements in each of their systems and their relationship to each other; determining which systems were the originator and owner of each data element, how the data was currently manually maintained and the problems associated with the current process. Additional needs were defined along the way, including real-time accurate outage reporting.

Saturn realized the need for a central point of authority and designed a data dictionary to include all data elements, their relationship to each other and their data source and mapped the data from each of the systems to this repository.

A detailed specification of necessary data manipulation and reporting needs was produced in the process

The new process was tested by scheduling it to run in parallel with the current manual process, verifying data at each point. Only when the customer had verified that the new system was complete and accurate, was it placed into production.

Results... Saturn Systems met or exceeded all customer requirements for tracking distribution information, especially when working with critical outages and matching demand to hardware. The cooperative intends to expand the system to automate customer notification during power distribution problems.

Technologies... This solution was developed using the following technologies:

- ASP.Net
- Microsoft SQL Server database
- SQL Server Integration Services (SSIS)
- Crystal Reports

About Saturn Systems, Inc... Saturn Systems is a national provider of software engineering solutions in the areas of device integration and enterprise technologies through our Rural Outsourcing business model.

Since 1990, Saturn Systems has created success through innovative application of technical expertise, a disciplined approach to project management, and a command of emerging technologies. Saturn Systems is a private company headquartered in Duluth, MN. For more information, visit our web site at www.saturnsys.com. *Outsource To America!*