

ENERGY AUTOMATION

Case Study
Utility Smart Grid

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About GridPlex Networks

GridPlex provides advanced automation products and technology for the management and conservation of energy and water. The Company has developed a package of hardware, software and services designed for broadband deployment, including utility, end-user and public safety applications.

The GridPlex Energy and Utility Services portal delivers real-time information to customers to manage their energy.



www.gridplexnetworks.com

CENTERPOINT ENERGY OPENS HOUSTON DEMONSTRATION LAB TO PROMOTE SMART GRID DEPLOYMENT AND SUPPORT DEMAND RESPONSE INITIATIVES

THE PROJECT

CenterPoint Energy decided to convert the first floor of its South Houston field office into a state-of-the-art Smart Grid Technology Demonstration Lab. The Lab's purpose is to showcase the benefits of Smart Grid for the customers and stakeholders of the Houston-based energy utility – providing Internet web-surfing, Voice over IP, a Community Network, and other communications, automation and entertainment services – plus internal Utility Applications including AMR Meter Data display, Demand Response and Grid Monitoring.

The system demonstrated at the CenterPoint Smart Grid Lab is unique in that all of the the services delivered, as well as the Broadband and IP communications, operate over the Utility's own broadband network. CenterPoint, like many electric utilities, is testing Smart Grid applications for broadband, using the Demo Lab as the focal point of those tests, to prepare for future deployments.

CenterPoint contracted IBM Global Services to integrate the network system, and IBM came to GridPlex's Broadband Energy Group to implement the complex task of combining Demand Response, Automated Meter Reading, Load control and HVAC automation, in addition to developing innovative services to maximize the use of the broadband network. The finished system clearly demonstrates many benefits that can be delivered to a Community by Smart Grid.



CenterPoint Energy Houston, TX

About CenterPoint Energy

CenterPoint Energy serves approximately 5 million metered electric and natural gas customers, and is one of the largest publicly-traded combined electricity and natural gas delivery companies in the US.

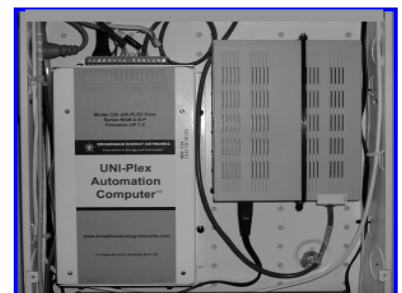
CenterPoint provides electricity, transmission and distribution service for the entire Houston metro area, is the third largest energy employer in Houston, and the third largest natural gas delivery company in the nation.

THE SOLUTION

The GridPlex Broadband Energy team installed its unique Energy Automation Computer, the C2k, as the central core of the System, combining it with Smart Meters, Communicating Thermostats, Lighting Controls, remote-controllable Cameras and Air Quality monitors. The UNI-PLEX Network Operating System, IOCS – an open platform using XML and .Net Web Services – constantly monitors and controls the C2k Automation Computer, along with all of the local operating devices in the local network.

Utility Applications are implemented by the same C2k-equipped broadband network, enabling CenterPoint to monitor and control Demand-side conditions on its local grid. The resulting automated energy network permits CenterPoint to test, demonstrate and deploy applications for Demand Response, Energy Management, Life Safety and Security in commercial and industrial facilities, buildings and homes.

The system also included a Utility Services portal that displays and analyzes Energy Information and related critical data, for end-use customers as well as for the Utility, viewed over a secure Internet link, inside or outside the Lab. The GridPlex team developed and supplied the software applications and services for Energy Management, Life Safety Monitoring and Remote Camera Security in the Houston Lab.



The GRIDPLEX Energy Automation Computer, the UNIPLEX C2k Utility Gateway, manages the complete system