

Knoxville Utilities Board implements Intergraph's consolidated system operations environment for both trouble and service-order work in a multi-service utility



INSERVICE™ PROVIDES OUTAGE AND MOBILE WORKFORCE MANAGEMENT FOR ELECTRIC, GAS, WATER, AND WASTEWATER FACILITIES

THE CHALLENGE:

KUB's decision to retire its mainframe outage management system (OMS) forced the multi-service utility to evaluate the existing workforce management system. Rather than consider the possibility of maintaining two systems, KUB wanted a consolidated operations center to manage service orders and outages for electric, gas, water, and wastewater utilities. They contracted with Intergraph to begin implementation of its InService solution in October 2001.

THE PROJECT OBJECTIVES:

- Improve analysis capability of outage and critical system events
- Be able to provide estimated restoration times to individual customers
- Provide system reliability metrics and reporting for each utility system
- Provide dynamic information from real-time applications
- Document and archive all system operation actions
- Provide mobile computing capabilities for all first responders
- Use current geographic information system (GIS) connectivity for trouble analysis and circuit tracing

THE SOLUTION:

KUB implemented Intergraph's InService suite for outage and mobile workforce management. This solution is used to manage electric, gas, water, and wastewater utilities, including software, services, support, and maintenance. Doug Miller, Coordinator of Systems Operations and Project Manager for KUB, stated, "Intergraph's response to our scripted demo and the ability to use our existing GIS data publishing process and connectivity greatly influenced KUB's selection of Intergraph and its InService suite."

PROFILE:

Name – Knoxville Utilities Board (KUB), Tennessee, USA

Web site – www.kub.org

Knoxville Utilities Board (KUB) provides electric, gas, water, and wastewater services to approximately 183,000 electric; 83,000 gas; 73,000 water; and 63,000 wastewater customers in Knoxville and parts of seven surrounding counties. KUB is one of the largest full-service regional utilities in the nation.

Size – Approximately 400,000 customers
– Approximately 800 square miles

KEY BENEFITS:

- Automatic outage prediction
- Enhanced ability to inform customers of outage status
- Real-time monitoring of crew locations
- Minimized use of paper forms in the field
- Reduced radio voice communication

PRODUCTS USED:

- InService™ Suite

The InService solution provides a seamless environment for dispatch, mobile workforce management, scheduling, crew management, and outage management, fulfilling KUB's vision of a consolidated operations environment from which to make informed decisions related to both trouble and service-order work. KUB's Ed Medford, Manager of Information Technology, said, "We expect that Intergraph's integrated solutions, when fully implemented, will reduce the risk, cost, and time required to implement a centralized system operations environment and mobile solution for both outage and workforce management." Currently, KUB has implemented the electric outage and related mobile workforce management components of the system.

InService tracks individual trouble calls from customers and associates the calls with an outage event for a specific device. This minimizes paper forms in the field and reduces radio voice communication. Using the global positioning system (GPS), operations personnel view each vehicle's location in real time on detailed map displays, enabling them to optimize assignments. InService also tracks the events that a unit (crew) has worked, the time spent on the event, and the resolution of the problem when the outage is restored. The amount of data currently varies with the number of electric outages. During KUB's largest outage event since the system went live, the system performed well in handling outages affecting approximately 43,000 customers.

The KUB project consists of 25 dispatch seats, 155 mobile seats, and Internet viewing seats. It also includes interfaces to Intergraph's FRAMME-based AM/FM/GIS, PeopleSoft's Customer Information System (CIS) for Public Enterprises (developed and built by SPL WorldGroup Inc.), TELEGYR's Supervisory Control and Data Acquisition (SCADA) system, and IBM's MQ Series as middleware. The system also provides dynamic information from the real-time applications, Interactive Voice Response (IVR), and High Volume Call Application (HVCA).

KUB's InService solution for electric outage, trouble, and mobile workforce management went live in April 2003. According to John Gresham, Manager of KUB Systems Operations, "KUB can now

improve communication of outage and critical system events to our own personnel and better communicate service restoration status to our electric customers."

FUTURE PLANS:

The implementation for gas, water, and wastewater management is currently underway. When this implementation is complete, KUB will be able to use InService for service delivery as well as outage management. The utility will use the InService suite fully, including the Web-based solution, for gas, water, and wastewater trouble response, new service requests, appliance repair, customer service requests, collection processes, and development of trouble analysis for the gas and water distribution systems.

For more information, visit www.intergraph.com.

ABOUT INTERGRAPH

Intergraph Corporation (NASDAQ: INGR) is the leading global provider of spatial information management (SIM) software. Security organizations, businesses and governments in more than 60 countries rely on the company's spatial technology and services to make better and faster operational decisions. Intergraph's customers organize vast amounts of complex data into understandable visual representations, creating intelligent maps, managing assets, building

and operating better plants and ships, and protecting critical infrastructure and millions of people around the world.



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