Water

Utility Management

Client
City of Phoenix Water Services Department

Location
Phoenix, AZ, USA

MAPS delivers an enterprise mobile computing solution for improved utility field service and maintenance operations.

Mobile Application Program Solution (MAPS)

Project Description

- Increased the City's operations & management efficiency through improved technology, work practices, and asset information management.
- Implementation of a field computing solution to improve field crew efficiency and management of field activities. Ruggedized laptops provide work order information and GIS maps to the field and submit work order and field data to an office-based system.

The Water Services Department of the City of Phoenix retained CH2M HILL in association with Spacient Technologies, Inc. to develop a requirements analysis for a mobile information system for the Water Distribution/ Wastewater Collection (WD/WC) Divisions. The overall objective of the Mobile Application Program Solution (MAPS) project was to deliver essential data and information to field service crews—enhancing customer service and improving operational efficiency. Through in-depth collaboration with the Water Services Department staff, CH2M HILL developed a mobile computer application from Spacient Technologies for the water distribution and wastewater collection divisions. Each crew leader is equipped with a rugged laptop and uses an application designed and developed for the City, to reflect work practices and management needs. The system delivers work order information and GIS maps to the field and returns work order and other field data, previously collected on paper, to a central database.

The initial implementation included a staff information/communications program, a detailed assessment of user needs and business practices, evaluation of alternative hardware devices, communication infrastructure, middleware, and application integration issues. Detailed functionality definition and design phases preceded a prototype, developed for trial implementation, to demonstrate functionality and potential to the field crews and to get their early reactions and suggestions. Better information on customer issues, infrastructure at the call site, and the maintenance history all help the crews to react more promptly and professionally, and allow the City to interact with the customer more effectively.

One of the great successes of this project was the positive reaction from the crews to this new technology. An incremental approach was adopted, with initial functionality based on user needs, return on investment analyses, and potential future developments, including integration with other Divisions and applications within the City. As the project progressed, more users were provided with the system and the functionality gradually expanded.