Tivoli software

City of Corpus Christi dramatically improves customer service with IBM Maximo software

Overview

■ *Challenge*

Establish an organization-wide framework to define, measure and improve services while concurrently improving efficiency

■ *Solution*

A comprehensive work and asset management system that can adapt to changing business requirements and easily connects with enterprise systems

■ *Key Benefits*

Improved efficiency and customer satisfaction; increased percentage of customers experiencing continuous utility service; established a City One-Call Center; inducted into Kaplan and Norton's "Balanced Scorecard Hall of Fame"; recognized by Public Technology Inc. as the winner in the GIS Technology Solutions category for "Using a Computerized Work and Asset Management System Interfaced with GIS to Improve Utility Infrastructure and Customer Service"

Like most municipal governments, the City of Corpus Christi, Texas—which is the largest city on the Texas coast with more than 280,000 residents—strives to improve the quality of life for citizens while keeping operating costs low. As a result, when City staff reviewed its management of water, wastewater, utility and storm water services, it decided to make some improvements in its management systems, with a view towards implementing improvements citywide.

Previously, citizen calls were routed to the appropriate department and recorded on index cards before being entered into a spreadsheet. Each utility department used its own separate system and procedures, with no citywide standards or procedures. Given the manual nature of this process, staff could not accurately track how long it took

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to respond to and fix problems. Additionally, staff had no way to view the work history for each site, making it difficult to identify recurring problems.

Although the City had already established a geographic information system (GIS), work orders were not interfaced with the geographic information system. Therefore the City lacked the ability to spatially analyze work requests. As a result, departments couldn't easily determine whether a customer request represented a site-specific problem or an area-wide issue that would require more extensive support.

"We had some customer service measures and some targets, but without a centralized system we didn't really know how we were doing and couldn't plan appropriately," says Stephen Klepper, administrative superintendent, City of Corpus Christi, Texas.

Leveraging technology for organizational change

In response, the City sought to reengineer its work and asset management processes so that it could:

- *Establish and manage its success against citywide standards.*
- *Spatially analyze work to improve resource utilization and enhance response times.*
- *Clearly define and measure actual service levels provided.*
- *Accurately track costs.*
- *Tie performance measures to City strategy.*

Working with IBM Business Partner EMA, the City of Corpus Christi implemented IBM Maximo Asset Management software to gain the visibility, control and automation it needed to achieve these goals. The City regarded Maximo as a tool that could be used to accomplish the organizational changes needed to better plan and manage work. Throughout the Maximo implementation process, City leaders emphasized what drove the need for change rather than the details of the underlying technology. "We viewed the Maximo implementation as a management project rather than a technology project," says Klepper. "With Maximo, we established a framework to define, measure and deliver 'good' service. This includes providing timely response to citizen calls, delivering continuous service and ensuring job completion. Our initial focus was directed towards improving customer service rather than first focusing on the more traditional aspects of maintenance and asset management."

Greater visibility, control and automation improves service

Today, Maximo Asset Management software supports all City public works and utility departments plus other areas of the City including Park Operations, Airport, and Traffic Engineering. This includes management of the following:

- *Approximately 1,250 miles of wastewater gravity mains*
- *Six wastewater treatment plants*
- *A water treatment plant with 170 million gallons a day capacity*
- *1,500 miles of water mains*
- *1,100 miles of streets*
- *80,000 utility customers and a gas distribution system.*

Citizen calls are now routed to a citywide call center where service staff can immediately record and track work orders and view work histories using Maximo software. Standardized location and priority codes help staff deploy resources based on urgency and service level requirements (e.g., maintenance crews must respond to gas leaks within 30 minutes, wastewater backup calls within four hours and water main breaks within one hour).

Leveraging the process automation capabilities of Maximo software, the City can efficiently manage each job to completion. If the Water Department tears up a street to fix a water main, a "child" work order is automatically created for the Streets Department to patch the street.

Additionally, staff can accurately measure the elapsed time for each job and associated work order and track it against the City's service level agreements (SLAs). Automated notifications are sent to City managers via their BlackBerrys so they can keep an eye on critical issues such as wastewater manhole overflows or water main breaks.

Identifying serious infrastructure problems
Because Maximo software is integrated with the City's geographic information system from ESRI, City staff can spatially view problem areas and planned work. This has helped service staff to avoid creating duplicate requests and better inform citizens of work in their area.

It has also enabled departmental staff to proactively identify areas with serious infrastructure problems. For example, using Maximo software, the Wastewater Department found that many wastewater backups were not caused by rain, signaling an issue with the pipes themselves. Staff members then used the spatial analysis capabilities to pinpoint which areas experienced problems in dry weather and implement a repair strategy.

The approach is setting a standard for other government organizations. During 2008 Public Technology Inc. (PTI) recognized the City as a winner in the GIS Technology Solutions category for "Using a Computerized Work and Asset Management System Interfaced with GIS to Improve Utility Infrastructure and Customer Service."

"The spatial analysis is very exciting," says Klepper. "For the first time, it enables us to really understand where service levels are not being met and why."

Improved fiscal management
As part of its implementation, the City also integrated Maximo software with its financial accounting system from PeopleSoft. This integration helps staff accurately track departmental costs as well as staffing needs.

For example, previously, when the City provided flood assistance to neighboring towns, the cost was simply rolled into the Water Department's overall operating costs. Now, with Maximo software, staff can track these costs separately and use the information to apply for federal funding when available. The City is now establishing cost standards for various categories of work, and is better able to track costs of performing core business.

Key Components

Software

- IBM Maximo® Asset Management

IBM Business Partner

- EMA, Inc.

"Balanced Scorecard (BSC) helps us see the entire picture of our operations so we can evaluate the consequences of every action. Maximo is vital to this process and the majority of metrics used for customer service and process efficiency are drawn directly from Maximo work orders."

— Saundra Thaxton, Balanced Scorecard Manager, City of Corpus Christi

Identifying trends for improved performance

Greater insight into operations has also helped the City identify trends to improve service and optimize efficiency. For example, Wastewater staff found in reviewing Maximo reports that nearly 33 percent of the department's effort was spent resolving problems at just 1.4 percent of customer sites. With this information, the City developed and implemented a repair plan to help resolve these ongoing issues and ultimately reduce costs.

"Improved customer service is the biggest benefit of Maximo," says Klepper. "Maximo software has been vital in helping us meet our SLAs, plan work and determine labor requirements to provide a timely response."

Measuring success

Supporting a skills-based pay model can be difficult without the right information. However, since implementation of Maximo software, the City's human resource staff has the data it needs to track employee training—including the skills learned, the number of training hours and the associated costs—and compensate employees based on their skill levels. Maximo was customized to provide a separate field on work orders used to track on-the-job training efforts.

What's more, the City can assess its own success effectively as well. Maximo software provides a significant portion of the data required to rate services against the City's Balanced Scorecard (BSC) initiative. This program measures City operations in four areas: customer service, financial management, process efficiency and sustainability.

The program received national recognition in 2008 when the City was inducted into Kaplan and Norton's "Balanced Scorecard Hall of Fame". The City of Corpus Christi is only the second city in the United States to be recognized for its Balanced Scorecard.

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For more information

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For more information about EMA, Inc., visit:
www.ema-inc.com

For more information about the City of Corpus Christi, Texas, visit:
www.cctexas.com

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