

>> TECHSYS enables city ordinance department to go wireless

This municipality realized the benefits of upgrading their paper-based compliance system to an automated one by creation of a code compliance application. Efficiencies could be gained by inspectors working wireless and real-time in the field instead of the current dependence on paper forms and obsolete systems. TECHSYS helped the city to implement this vision. Today, the Code Compliance department of this city uses this system for capturing, maintaining, and tracking code violations citywide.

TECHSYS was able to deliver where other consulting companies could not.

The business issue

More than 222,000 people live in this city, making it the 10th largest city in Texas, and the 83rd largest in the United States.

Traditionally, this municipality relied on paper documents and phone conversations to track and enforce its code compliance and city ordinances. An antiquated application was also used for some facets of code compliance, but it was client-server based and not scalable. This process proved to be very inefficient due to the fact that it was paper-based and data had to be manually input after the fact to the existing application, resulting in timing issues, tracking problems, and reporting problems between dispatchers, inspectors, and managers.

What the city needed was a modern, efficient system for coordinating and tracking its compliance violations – one where inspectors could capture the data in the field when violations were identified and immediately transmit the data to the central office. This would control costs and place the inspectors where they needed to be – in the field – instead of behind the desk inputting information. Although the City of Garland attempted an implementation with another consulting company, the results were far from acceptable. So TECHSYS joined forces with the city to implementing a Code Compliance system, which would help minimize the city's cost burden while maximizing the efforts of its employees. Due to successful and cost beneficial implementations of previous systems, the city looked no further than TECHSYS.

Services featured:

- Project Leadership
- Logical and Physical Database Design
- Business Analysis
- Requirements Gathering
- Application Design
- Application Development
- Testing
- Training and Mentoring
- Maintenance

Technology used:

- HTML
- JavaScript
- ASP.NET 1.1
- ADO.NET
- SQL Server 2000
- Crystal Reports

Our approach

Since TECHSYS was to control the project, a project manager was assigned to oversee and administer all aspects of the implementation. The first step in providing for a successful solution was to identify the scope and complexity of the project. Analysis was performed on the existing system to determine the current capabilities, and new requirements were captured to identify the current shortcomings. After interviewing the user community, Use Cases were created to formulate the specifications of the system. The application that was previously attempted was investigated to see if any fragments could be salvaged. The system had to be re-architected and the database design had to be remodeled, and all implementation of the system was created from scratch. The system was built on a distributed framework to allow for scalability and ease-of-use, with wireless capabilities to allow for real-time updates from the field to be stored on a centralized server. The project was created using ASP.Net 1.1, SQL Server 2000, and Crystal Reports. An interface to the Court System was also designed that was XML based to be implemented in the future. The application was developed in a timely manner with emphasis on code reusability and ease of maintenance. TECHSYS expertise was transferred to the city's employees throughout the project through one-on-one mentoring.

The results

With the new Code Compliance system, inspectors no longer have to capture code violations by paper and manually enter them in later – all violations can be entered in from the field when the violation is identified and transmitted via wireless technology to the city's centralized servers, allowing up-to-date information to be scheduled and reported against on a citywide basis. A workflow process implemented with the system allows the violations to be managed as work orders, whereby the items can be administered to on a periodic basis to isolate when compliance has been met and abatements can be issued. In addition, reports assist the staff in identifying problem areas that need further attention. Information is immediately available to all levels of city government.

Now, this municipality employees can access thorough, up-to-date data at any time. This allowed the inspectors to increase the number of inspections performed daily while reducing their desk time. Additionally, the application enabled the city to greatly simplify operations. Thanks to TECHSYS, what used to be a time-consuming and complicated process has become an efficient and easily managed operation.

Contact

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