Cleveland, Ohio Transforms its Community With Enterprise Land Management Solution

City places itself at technology forefront with integrated enterprise system and expanded mobile office suite

When the Digital Communities Initiative was launched in 2005, Cleveland, Ohio was recognized as one of the pilot cities that was using technology to help transform the way its community lives, works, and plays. Using wireless technology and innovative applications to expand and improve services for businesses and citizens, the city of Cleveland is fulfilling the vision of Digital Communities to:

- Significantly improve employee productivity by providing real-time access to information in the field, eliminating unnecessary travel time and manual or redundant data entry
- Dramatically improve agency's and mobile employees' access to information and processes
- Accelerate response to citizen requests
- Reduce cycle time and costs associated with inspections, reporting, permitting, and tracking land and resource use

THE CHALLENGE

Like many jurisdictions across the U.S., the city of Cleveland was in need of a major technology upgrade if it wanted to improve how it delivered services to its citizens. City departments that worked closely together were using more than 15 disparate systems and manual processes to manage activities including permit issuance, license renewals, inspection management, and plan reviews. These legacy systems tracked over 135,000 permits processed by the City per year, but they could not interact with one another. As a result, researching historical information, leveraging related systems like GIS, and responding to citizen inquiries became very cumbersome processes for staff.

Field staff faced additional challenges since their work took them out of the office for much of the day. Inspectors had to commute to City Hall twice a day—in the morning to collect job orders and again at the end of the day to submit completed inspection results. Since they used paper forms to complete inspections, data had to be entered manually once the paperwork was returned to the office. In addition, inspectors had to wait in queue to enter inspection results due to lack of data entry terminals and available personnel.

The City sought to implement an enterprise e-government solution that would bring multiple departments under a common database, provide online access to government services, and empower inspectors with tools to access information in the field using wireless PDAs powered by Intel® XScale™ technology.

THE SOLUTION

Cleveland's enterprise solution is comprised of application, computing, and networking solutions from the world's leading companies.

Automated Land Management. The City implemented Accela Automation® as its new Web-

based enterprise permit, license, and code enforcement management system. The system, deployed in 11 key departments and accessed by over 400 users, automates activities for permitting, inspections, workflow, project management, plan review, code enforcement, and other critical functions. The system consolidates the City's disparate databases into a central data warehouse and ensures that employees are always accessing the most up-to-date record.

Mobile Inspection Teams. An important component of Cleveland's solution was to deploy a mobile inspection team. Allowing the City's 140 inspectors to work more efficiently in the field would reduce travel time, expedite inspection processing, and eliminate duplicate data entry. Cleveland inspection teams were armed with HP iPAQ wireless handheld devices powered by Intel® XScale™ technology and running Accela Wireless™, a mobile inspection management application that has been optimized for the Intel platforms. Accela Wireless allows inspectors to input their inspection results, research parcel history, create new inspections, or sign-off on completed inspections. Depending on wireless availability, information could be uploaded to the City's central database in real-time.

Wireless Hotspots. Cleveland wanted to prove the value of a Wi-Fi enabled workforce. Working with Cisco Systems, the City installed Cisco Aironet 1300 Series access points with 802.11B/G capabilities and Cisco Aironet 1400 Series bridges throughout the City, creating hot spots that could be accessed by mobile inspection teams. Using GIS and historical permit data, the City identified which locations should be designated as hot spots. This approach allowed the City to implement a Wi-Fi network that could be expanded easily to allow for future growth of the City's mobile workforce.

Citizen Access Portal. In order to increase the number of self-service options that were available to Cleveland residents, the City implemented a citizen access portal that is tied to its land management system. Citizens can perform simple tasks such as application submission, inspection scheduling, fee payment, and license renewals would improve convenience for citizens, while automating routine administrative tasks.

THE BOTTOM LINE

Cleveland's enterprise solution has been live for less than one year but City officials are already beginning to see the benefits.

- **Improved employee productivity**—By automating workflow and providing access to real-time information from a central database, the City's new enterprise solution has streamlined operations and improved application processing time.
- **Anytime, anywhere access**—A Web-based solution with mobile computing capabilities means that even when employees are working from the field, they are never out of touch with the office.
- **Self-service options**—On-line access for submitting and tracking applications allows Cleveland's citizens to access the most current application status at any time.

"Cleveland's implementation of an enterprise e-government solution, complete with citizen access and mobile inspection capabilities, means that the City can serve its customers 24/7 and dramatically improve the permit approval process. We look forward to further developing our e-government solutions to provide even better customer service to our citizens," stated Chris Davis, GIS Systems Manager for the city of Cleveland.