



WHITEPAPER

Mobile Technology Solutions For Today's Government

Whitepaper
Accela, Inc.

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Overview

In just a few short years the concept of the mobile workforce has dramatically challenged the traditional methods in which employees analyze documents and interact with data. As more and more workers become equipped with mobile devices, organizations enjoy a wide range of benefits including enhanced data collection and accuracy, improved data quality and flow, and more accountability for work processes and task assignments. Additionally, new form factors such as the Tablet PC and the 802.11b wireless networks are redefining our traditional workspaces, allowing office personnel into the front line to interact directly with customers.

With these kinds of benefits, there is an increasing demand for government officials to embrace new mobile technologies. Indeed, governments are continually under pressure to adopt a more user-friendly approach to interacting with citizens, aiming to respond more quickly to requests and provide a higher level of service. Giving agency employees better, easier access to data eliminates inefficiencies originating from outdated, paper-based processes that lead to information backlog and an unmanageable paper trail. In addition, budget conscious agencies are being pressured to take on more responsibilities and tasks without increasing headcount.

By placing convenient mobile computers in employees' hands, those employees who travel throughout a jurisdiction can spend more time in the field. Agencies can realize sharp productivity gains as well as increased customer service without additional staffing. As a result, more and more government agencies are examining mobile computing solutions to improve the exchange of vital information with field personnel, employees, and the public—and to automate critical business processes.

Mobile Workforce: Office in the Field

New technologies offer the promise of streamlining many processes so that organizations become more efficient and can serve the citizenry more effectively. One key technology that shows great promise in making government agencies more efficient is in the area of mobile inspections—allowing inspectors to communicate and interact with a property record database using wireless technology.

Until recently, government inspectors would travel throughout a jurisdiction, manually write up reports, and eventually return to an office where a clerk would input information into a computer system. Under this paper-based model, when an inspector leaves for the field, he or she is out of touch with the office. In fact, during most of the workday, contact with an inspector is very limited. The inspector has little or no access to data, and data gathered by the inspector is unavailable until he or she returns to the office. In short, inspectors are generally shut out of the network during the part of the day spent in the field.

Under an efficient new model, supported by mobile technology, inspectors using mobile devices such as a laptop, Tablet PC, or Pocket PC can file inspection reports directly from the field, interacting directly with the agency database in real-time. Some technology providers even offer systems with an off-line mode where

inspectors capture data in the field for upload later to a property record system—a solution that offers additional benefits for agencies that don't have full wireless coverage throughout the jurisdiction.

This new model eliminates paper forms and duplicate data entry, and can reduce data error. Information is more current and readily available. Last minute schedule changes can be easily accommodated because changes can be made from the central office without resorting to "telephone tag." In addition, inspectors can access information from the database to file reports, issue violation notices, and in some cases print information directly from the field.

Because "out of the office" no longer means "out of touch," governments adopting this new technology can achieve increased efficiency and a higher level of accuracy. With signoffs and notations communicated electronically, departments can more effectively manage logistics and speed up the flow of data to and from the field.

Mobile solutions also offer enhancements in productivity and service. With real-time access to all of the necessary data, inspectors can spend more time in the field because the property records they need to access are always available. This means that inspectors can handle more appointments per day and get more work done in less time. With remote data entry and electronic communication of last-minute schedule changes, coordination between the inspector and the central office is greatly improved, resulting in better, faster service.

Strategic Use of Key Property Data

A survey of the benefits of wireless inspection solutions would be incomplete without examining other strategic uses for property data. In fact, adopting wireless technology can offer a broader range of benefits by allowing additional departments to easily link to the system and access property records.

During emergency situations personnel from other departments—even those with limited technological experience—can use mobile devices to access case and parcel records, as well as enter data from the field. This allows additional inspectors and/or emergency response teams to be placed in the field to capture critical data on structural damage.

In addition, the data captured from the field can be used in conjunction with GIS to show, in real-time, where hazardous areas are located and where relief is most needed. This enables the staff to work with the most accurate, up-to-date information when creating a recovery plan. Indeed, putting property records on a mobile platform that can be utilized by many departments makes for a powerful database that can be fully leveraged throughout the entire jurisdiction.

Selecting a Mobile Solution: Important Criteria

Mobile wireless technology shows great promise in benefiting governments, but it is important that a solution be selected carefully, measured against the following criteria:

- **A solution should seamlessly integrate with backend databases and applications.**
The screens an inspector sees when using a mobile device should function as an extension of the backend database. When a screen field or label needs to be changed to meet specific requirements, integration with the backend database should give administrative personnel the capability to make changes to these forms, automatically updating what the inspector sees on the screen.

- **A solution must function in both on-line and off-line mode.**
On-line functionality provides a constant link with the office. When the inspector makes notations or changes to a record, those changes are automatically updated in the database. Off-line mode is useful when the inspector is in an area where wireless communication is not possible. In this case, the changes are stored in the inspector's mobile device and uploaded when a link is reconnected. A solution, therefore, should offer the ability to automatically toggle back and forth between on-line and off-line mode, especially in jurisdictions where wireless coverage is spotty.
- **A solution should offer a schedule for inspection capability.**
One inefficiency in the inspection process is that inspectors spend a great deal of time in the field, driving from one appointment to the other. Under the traditional approach, any changes to the daily plan would require a telephone call to the inspector. By adopting a wireless solution, a change to an inspector's schedule can be communicated simply by updating it to the inspector's mobile device. This eliminates the need to check-in by phone and creates an environment where the inspector's time can be used more efficiently.
- **A solution should include a user interface suited for inspections.**
A system should provide an on-line view of the inspection checklist similar to previously used paper forms, and should allow administrators to change these forms quickly and easily as needed. This streamlines the workflow as the screens are similar in "look and feel" to the paper forms the inspector is accustomed to. Drop-down menus that make full use of smaller screens, pre-configured messages and strategic uses of checkboxes allow inspectors to minimize typing and make the device far more usable in the field.
- **A solution should be built on an extensible mobile platform.**
Inspectors may not be the only users of property data. An extensible mobile platform creates a standard environment so that other departments in the agency—even other jurisdictions—can communicate with each other seamlessly and more effectively. Information is centralized and accessible by multiple departments in the agency.

Accela Wireless: A Complete Solution

Accela Wireless™ is a powerful, expandable system designed to meet the needs of inspectors by facilitating the inspection and permitting process. Built using XML technology, Accela Wireless saves time in the field because case, application, and permitting data, including schedule updates, are available to inspectors at all times.

On-line mode allows field inspectors to directly access data stored in the backend land management system. Using handheld devices, inspectors can add inspection activities to a case, create new cases, and print notices, all while in the field. In off-line mode, inspectors do not directly access the database, but they can still complete inspections on their mobile device. Any new data collected in the field is uploaded when the mobile device regains a wireless connection, or when an inspector returns to the office.

In addition, Accela Wireless offers:

- **Time-saving functions:** Pre-configured drop-down menus streamline operations by reducing data entry steps.
- **In-the-field reporting:** Notices and other documents can be printed in the field using infrared ports.
- **Customized labels:** Agencies have the ability to configure or customize field names to decrease training time and enhance ease of use.
- **Notebook support:** A solution that operates with various mobile devices for more options in hardware selection.
- **Checklist items:** Users can be given the ability to select failure codes and checklist items from pre-configured lists.
- **Signoff inspections:** Inspectors can input results as pass, fail, or partial fail and this information is available immediately in the backend system in on-line mode, or synchronized with the database later when using off-line mode.
- **Cancel, reschedule, and assign:** Inspections can be canceled or rescheduled from a mobile device to enhance scheduling flexibility in making last-minute changes to an inspector's schedule.
- **Complete administrative tools:** These controls allow you to modify labels, field widths, and checklists.
- **Multiple inspection lists:** Users can view the list of inspections assigned to them, not wasting valuable time scrolling through lists that do not pertain to them.

Mobile technology shows great promise in improving the field inspection process. Municipalities that are adopting this technology are enjoying enhanced data accuracy, more effective resource scheduling, and greater citizen satisfaction.