

► **PORTFOLIO**
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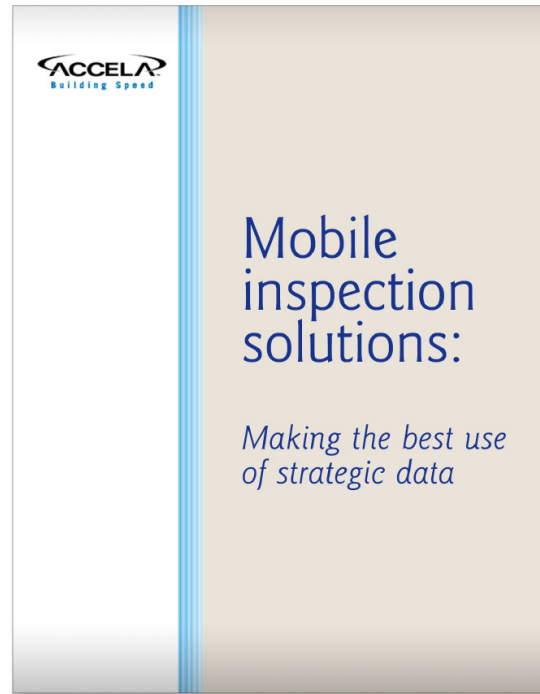
Client:
Accela Wireless

Media:
White paper

Objective:
*Present new technology ideas
to municipal governments*

Accela is a leading developer of integrated software, web-based and wireless solutions for state and local governments.

This white paper presented some new ideas on how municipal inspectors could best leverage new wireless technologies.



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**Mobile inspection solutions:
Making the best use of strategic data**

In just a few short years the concept of the mobile workforce has dramatically changed the ways in which employees work with documents and interact with data.

As more and more workers are equipped with handheld 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.

With these kinds of benefits, there is an increasing demand for IT officials to embrace these technologies. Indeed, governments are under pressure to adopt a more “consumer focused” approach to interacting with citizens to respond more quickly to citizen 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 Giving agency employees better, easier access to data eliminates inefficiencies originating from outdated, paper-based processes that lead to information backlog and an unmanageable paper trail.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 trim expenses. By placing convenient handheld computers in the palm of employees' hands, those employees who travel throughout the jurisdiction can spend far more time in the field. As a result, agencies can accomplish more without the need to hire additional staff.

As a result, more and more government agencies are examining mobile computing solutions to improve

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the exchange of vital information with field personnel, employees and the public -- and to automate critical business processes.

Mobile inspection:
“Out of the office” no longer means “out of touch”

New technologies offer the promise of streamlining many different processes to become more efficient organizations that can serve the citizenry more effectively. And 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 database of property records using wireless technology.

Until recently, government inspectors would travel throughout the jurisdiction, write up their 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 the data gathered by the inspector is unavailable until returning to the office.

In short, inspectors are generally shut out of the network during the part of the day spent in the field – a significant portion of the workday.

Under a new model, supported by mobile wireless technology, inspectors using handheld devices or tablet PCs can file their reports directly from the field by interacting directly with a database on a real-time basis. And some technology providers offer systems with an “offline” mode where data can be uploaded later, a solution that offers additional benefits for those agencies that don’t have full wireless coverage throughout the jurisdiction.

This eliminates paper forms, handwriting, duplicate data entry and possible errors. Information becomes more current and more available. Last minute schedule changes can be more 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 with no manual data entry required.

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 documents to and from the field. Reducing paperwork through electronic

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signoffs enhances the accuracy of the data, and because it is updated in real time, there is no manual entry into documents.

Mobile solutions also offer enhancements in productivity. Inspectors can spend more time in the field because documents are always available for review. This means that inspectors can work faster, handle more appointments per day and get more work done in less time.

Moreover, this type of the technology results in a faster decision-making process. With all of the necessary documents available at all times, inspectors are far better positioned to make decisions more quickly. Service is also faster because last-minute schedule changes can be communicated electronically.

A 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 together and access property records.

Through the use of an extensible mobile platform, personnel from other departments – even those with limited technological experience – can use handheld devices to access parcel records to respond more quickly to emergencies and enforce codes more effectively.

For example, police, fire, and other emergency response personnel can access property records to develop strategic plans for emergencies, enforce codes, and to identify potentially hazardous areas.

In addition, data captured from these records can be used to power a GIS application to show response teams, in real time, where the hazardous areas are located and where relief is most immediately needed. Damaged areas can be easily assessed enabling the staff to work with the most accurate, up-to-date information for creating a recovery plan.

Indeed, putting property records on a mobile platform that can be integrated with many departments makes for a powerful database that can be fully leveraged throughout the many departments of a jurisdiction.

Selecting a mobile wireless solution: Important criteria

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

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- A solution should seamlessly integrate backend databases and applications.

The screens an inspector sees when using the handheld device or tablet PC should function as an extension of the backend database. When forms need to be changed from time to time to reflect new codes or other changes, integration with the backend database gives 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 online and offline mode

Online functionality provides a constant link with the office. When the inspector makes notations or changes to a document, those changes are automatically updated in the database. Offline mode is useful when the inspector is not within an area where communication is possible. In this case, the changes are stored in the inspector's handheld device and uploaded when a link is possible. A solution, therefore, should offer the ability to toggle back and forth between online and offline mode, especially in jurisdictions where wireless coverage is spotty.

- A solution should offer route sheet update 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, an inspectors' route change can be communicated simply by updating it to the inspector's unit. 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 online 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 makes workflow more quickly as the screens "look and feel" like 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 language so that other departments in the agency – even other jurisdictions – can communicate with each other seamlessly and more effectively. Information in one database can be accessed by applications such as GIS systems, IVR systems and many others.

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Accela wireless:
A complete suite of solutions

Accela Wireless is a powerful, expandable system designed to meet the needs of inspectors, facilitating the inspection and permitting process.

Built using XML technology, Accela Wireless saves time in the field because all case, application and permitting data, including schedule updates, is available to inspectors at all times.

Designed to work through a wireless connection in online mode, Accela Wireless can also be used in offline mode.

Online mode allows field inspectors to directly access data stored in the backend system. Using handheld devices, inspectors can add activity workflow to a case, check and create new cases, and print modifications, all while in the field. In offline mode, inspectors do not directly access the database, but they can still import data into a handheld device. Any new data collected in the field is uploaded when the inspector returns to the office, places the device into a cradle, and synchronizes data.

In addition, Accela Wireless offers:

- Time saving functions: Operations are streamlined to reduce data entry requirements through the use of pre-configured drop-down menus.
- Reports that can be printed in the field through infrared ports, useful for updating permits and other documents.
- Customized labels: provide the agency with the ability to configure or customize names of fields to cut down on training time and enhancing 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 a pre-configured list.
- Signoff inspections to input results as pass, fail, or partial fail. This information is available immediately in online mode, or synchronized with the database later when using offline 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.

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- Complete administrative tools to allow control of labels, file widths and checklists.
- Multiple inspection lists: Users can view the list of inspections they are assigned, not wasting valuable time scrolling through lists that do not pertain to them.

Mobile wireless shows great promise in improving the field inspection process. Municipalities that are adopting this technology are enjoying enhanced data accuracy, more effective scheduling of an inspector's time, and greater citizen satisfaction. But even more importantly, the use of this technology shows promise in integrating entire municipalities so all departments can serve citizens more effectively and at lower cost.