

## Guilford County GIS Department Case Study

SOTI MobiControl puts Guilford County GIS Dept 'on the map' for optimal GPS Data Collection



### About Guilford County GIS Dept

The citizens of Guilford County, North Carolina, depend on the Guilford County Geographic Information Systems (GIS) Department, to provide Countywide GIS planning, coordination and development. The department provides and coordinates data creation, maintenance, and support for multiple County Departments, on-line systems, and hard copy map production for both internal and external entities.

In addition, it supplies an array of geographic and demographic-related data, services, and support to the Guilford County governmental infrastructure. When needed, it is also involved with the GIS/GPS training and education of the County's employees and agencies. The GIS Department operates as part of the Applications Division within the Information Services Department.

### The Business Challenge

The Guilford County GIS Department was working with the Water Quality Group of the Public Health Department on a project to streamline and automate the data collection process for their field workers. One of the items of need was an efficient way to manage their mobile devices that would allow them to move away from the manual data management processes they were using and toward a more automated process. This mobile device management solution would need to eliminate the cumbersome and time-consuming methods that were initially being employed in this project. Without

this solution they were not generating the productivity levels necessary for this project to succeed.

One of the numerous responsibilities entrusted to a county's Public Health Department (PHD) in North Carolina is the inspection and permitting of water supply wells and septic systems. Included in the Environmental Health Division (EHD) of the PHD are various groups that are closely involved in the analysis of these systems and wells.

Each member of the Water Resources Groups collects field data into a shape file on their mobile GPS devices. These tasks are executed with the use of eighteen rugged 2003 Series Trimble GeoXTs and two 2005 Series Trimble GeoXTs. The chief software solutions running on the Trimble GeoXTs include the Pocket PC v4.20 (2003 Trimble GeoXTs), Windows Mobile v5.1 (2005 Trimble GeoXTs) and Windows XP sp2 (Panasonic Toughbooks CF29 & CF18) operating systems. Proprietary applications and third-party applications include ArcPad (Mobile GIS software developed by ESRI), and GPSCorrect, which work within ArcPad to establish the connection with the GPS and provides a user interface to adjust various GPS protocols and settings developed by Trimble.

As such, Mobile Device Management (MDM) had become a genuine concern for The EHD, particularly in the areas of time management. Notably, the moving of data on and off the mobile GPS units was one of the most problematic procedures to resolve. A Water Quality technical leader was tasked with the supervision of moving data on and off multiple GPS units (up to nine

**Industry Application Area:**  
GIS Planning, Coordination and Development

#### Mobile Devices:

2003 Series Trimble GeoXTs  
2005 Series Trimble GeoXTs  
Panasonic Toughbooks

#### Summary:

**Guilford County GIS Department**  
Provides and coordinates data creation, maintenance, and support for multiple departments as well as data maintenance and support for multiple online systems

#### Challenges

Data Collection, Device Management Costs, Software Deployment, Labour Costs, Mobile Device Support and Worker Productivity

#### MobiControl Solution

Affordable and Easy-To-Use, Centralized and Remote Control, Helpdesk Tools, Data Analytics, and Real-Time Device Information

#### Result

Reduced Device Management Costs, Increased ROI, Efficient Mobile Projects, and Streamlined Mobile Operations

***"We love it! We are very satisfied. The man-hours saved by using the SOTI MobiControl data synchronization functionality, was by far, the greatest ROI. Additionally, the availability and flexibility of the data being collected has also added to the value of this project."***

-Derrick Davis,  
GIS Analyst and  
Geodatabase Administrator

in each group). This was a lengthy process, taking over several hours to complete. This was an unrealistic timeframe in which to complete the necessary duties associated with the job. With all of these conditions in mind, there was a critical need for an effective MDM solution that could be deployed and operated in a semi-automatic capacity, thereby minimizing the costs and efforts associated with device support.

Having a MDM solution in place that could simplify device configuration and deployment procedures was a necessity. The Guilford County GIS Department additionally recognised the solution would have to be as automated and streamlined as possible, and directly integrated into the County's centralized enterprise GIS.

## The Solution

In 2005, the Guilford County GIS Dept.'s need for a mobile device management solution brought them to SOTI Inc., as they had recently been tasked with the responsibility of providing training to field workers using the 2003 Series Trimble GeoXT mobile GPS device. Training sessions were a challenge, as there was no way to connect the device to a projector in order to display the device and user controls on a large screen for training purposes. "After an extensive search, we found the perfect solution in SOTI's Pocket Controller-Pro for Windows Handhelds," recounts Stephen Dew, GIS Manager. "Once the Pocket Controller-Pro for Windows Handhelds agent was installed on a laptop, we were able to connect the 2003 Series Trimble GeoXT GPS device with a projector to display the GPS device on a large screen. This allowed us to provide some very good training to the end users," stated Dew.

This initial encounter with SOTI's comprehensive productivity, presentation and training tool led Guilford County GIS management to explore the myriad of solutions offered by SOTI. Realizing SOTI MobiControl would address the challenges they were facing with establishing a productive workflow for GPS data collection and management of their GPS devices on their existing networks, Eric Funderburk, GIS Analyst and GPS Mobile Device Manager for Guilford County, describes the discovery process.

"We were amazed at the functionality within the Pocket Controller-Pro application, and this sparked interest in other SOTI products. In 2006, we downloaded a trial version of SOTI MobiControl v4 and began to test it with a few of our

mobile GPS devices. Management was very impressed with the price and functionality of SOTI MobiControl and initially committed to 20 user licenses of MobiControl," said Funderburk. "Previously, a Water Quality technical leader would have to manually track and monitor data from multiple devices. For less than \$1,000.00, SOTI MobiControl has proven itself to be a great investment. MobiControl allowed for direct connectivity to the GPS devices over the County network."

## The Result

The SOTI MobiControl solution has proven itself the ultimate all-in-one MDM solution needed by the Guilford County GIS Dept. to maximize productivity, thus enabling them in the optimization of everyday practices, replacing the time-wasting strategies of the past.

With the addition of SOTI MobiControl, the Guilford County GIS Dept. now experiences the benefits associated with the solution, such as providing remote helpdesk support to field technicians, reviewing data showing individual activity on each device (useful in differentiating between pending and successfully delivered packages), and the speedy deployment of installation packages to large numbers of devices.

"The benefit regarding this project was considered substantial. The MobiControl product helped us to design and build a system that brought information out of paper file folders and into the digital age. Before, we had no way of productively moving soil, well and septic system locations data from field documents into a useable digital format. The combination of the Trimble GPS units and SOTI's MobiControl software allowed us to reliably, accurately and quickly collect and process field data into an instantly-useable digital format," explained Derrick Davis, GIS Analyst and Geodatabase Administrator. "We love it! We are very satisfied. The man-hours saved by using the SOTI MobiControl data synchronization functionality, was by far, the greatest ROI. Additionally, the availability and flexibility of the data being collected has also added to the value of this project."

Utilizing SOTI MobiControl has clearly proven to be a success, having delivered a timely and effective solution to The Guilford County GIS Dept., and has provisioned them with a centralized control and troubleshooting tool for management of their GPS devices. SOTI MobiControl has effectively given The Guilford County GIS Dept. a re-structured mobile device management process,

in part due to its ability to write file synchronization scripts, a helpful feature when setting read/write permissions, application termination, and most important, the prevention of field data loss. Using tools within the SOTI MobiControl solution, the Guilford County GIS Dept. was able to create software policies that would allow for the harmonization of files between the GPS devices and a centralized server. This tool played an important role in the moving of field data from the GPS units to a stable area on a server for GPS post-processing, a significant milestone in achieving a noteworthy increase in the group's productive workflow as it related to GPS data collection efforts.

## Solution Benefits:

- Quick device deployment and configuration
- Data synchronization
- Asset tracking
- Real-time remote support and control
- Detailed device information
- Software and data provisioning
- Flexible and scalable
- Reduced cost, time and resources

## About SOTI Inc.

SOTI is the world's most trusted provider of Enterprise Mobility Management (EMM) solutions, with over 10,000 enterprise customers and millions of devices managed worldwide. SOTI makes mobility work by developing industry-leading solutions for EMM, allowing organizations to support corporate-liable and Bring Your Own Device (BYOD) policies. SOTI MobiControl solves the unique challenges involved in managing, securing, supporting, and tracking mobile and desktop computing devices across all platforms.

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