AT&T Mobile Solutions

A Government Guide to Driving Efficiencies, Enhancing Effectiveness

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The economic recession has hit state and local governments very hard – FY 2010 budget gaps are estimated in the billions of dollars.[1] During these tough financial times, state and local governments can take advantage of mobile solutions to achieve efficiencies in their line of business operations. The potential savings can help governments not only recover the cost of the deployed mobile solution in a short period of time, but also control ongoing costs.

AT&T is committed to connecting people with their world, everywhere they live and work, and doing it better than anyone else. AT&T solutions have helped countless government agencies take advantage of technology to drive efficiencies and enhance effectiveness.

The guide is intended to highlight some of the key challenges facing government agencies today and provide information on proven AT&T solutions.

Overview

Improving the productivity of employees who work in the field – law enforcement officers, social workers, utility technicians and many others – has long been a challenge, especially for cash-strapped government agencies. Many of these organizations, however, have discovered the benefits of mobile resource solutions that let them take advantage of real-time data and worker/vehicle location information to become more efficient and effective.

Mobile resource solutions can help agencies support their workers and the public by providing information in near real time. This improves their decision-making abilities and drives productivity, so agencies can save money and better serve their communities. In recent years, many of the barriers to adding mobility to field processes have been removed.

Cost-effective, easy-to-implement solutions are now available thanks to software, dramatically improved networks and a broad selection of business devices.

AT&T has assembled an unprecedented set of resources to fulfill the promise of real-time communications. Our goals are to deliver tangible, measurable business value from mobilizing field service business processes, and to make every implementation a success with comprehensive support at every step of the way.

This handbook is designed to make you more familiar with AT&T's mobile solutions and the advantages these can provide to federal, state and local government agencies.

Overcome Government's Biggest Communications Challenges

With an understanding of the government market that comes from a long history of serving government agencies, AT&T has developed a range of solutions that meet the following specific needs. The examples below have been taken from case studies describing how government customers benefit from AT&T mobile solutions.

Stay in Touch With Workers in the Field

- Equipping staff with wireless Smartphones or laptops with data cards enables agencies to dispatch, route and communicate with field service workers.
- Because supervisors can dispatch staff while they are in the field, workers no longer have to return to the office after every visit. This lets existing staff handle larger case loads and spend more time in the field, potentially reducing personnel costs. Efficient routing can reduce driving time, thereby saving fuel and reducing vehicle wear.

Track Vehicles and Increase Driver Efficiency, Security and Policy Compliance

- Solutions with integrated GPS capabilities provide map coordinates and time stamps of vehicle locations and locate lost or stolen vehicles.
- Drivers freed from completing paper logs may make more service calls each day.
- Agencies may improve driver safety by monitoring driver compliance to speed limits and agency vehicle policies.

Update Individual Case Files in the Field

- Wireless Smartphones or laptops with wireless data cards enable data entry from the field.
- The ability to quickly enter information into the system allows social workers, for example, to assess a child's environment and quickly reassign the child if necessary.
- Solutions connect workers to agency applications that let them access important information.

Manage Traffic

- Wireless units in vehicles let agencies receive driver information and transmit sensor and message board data.
- Vehicle data is transmitted automatically to databases, enabling agencies to monitor and manage traffic efficiently.

Keep Citizens Safer

- Enabling wireless access to mobile applications gets potentially lifesaving information quickly to first responders.
- Wireless data entry reduces dispatcher workload and makes incident information available in near real-time to all field units.

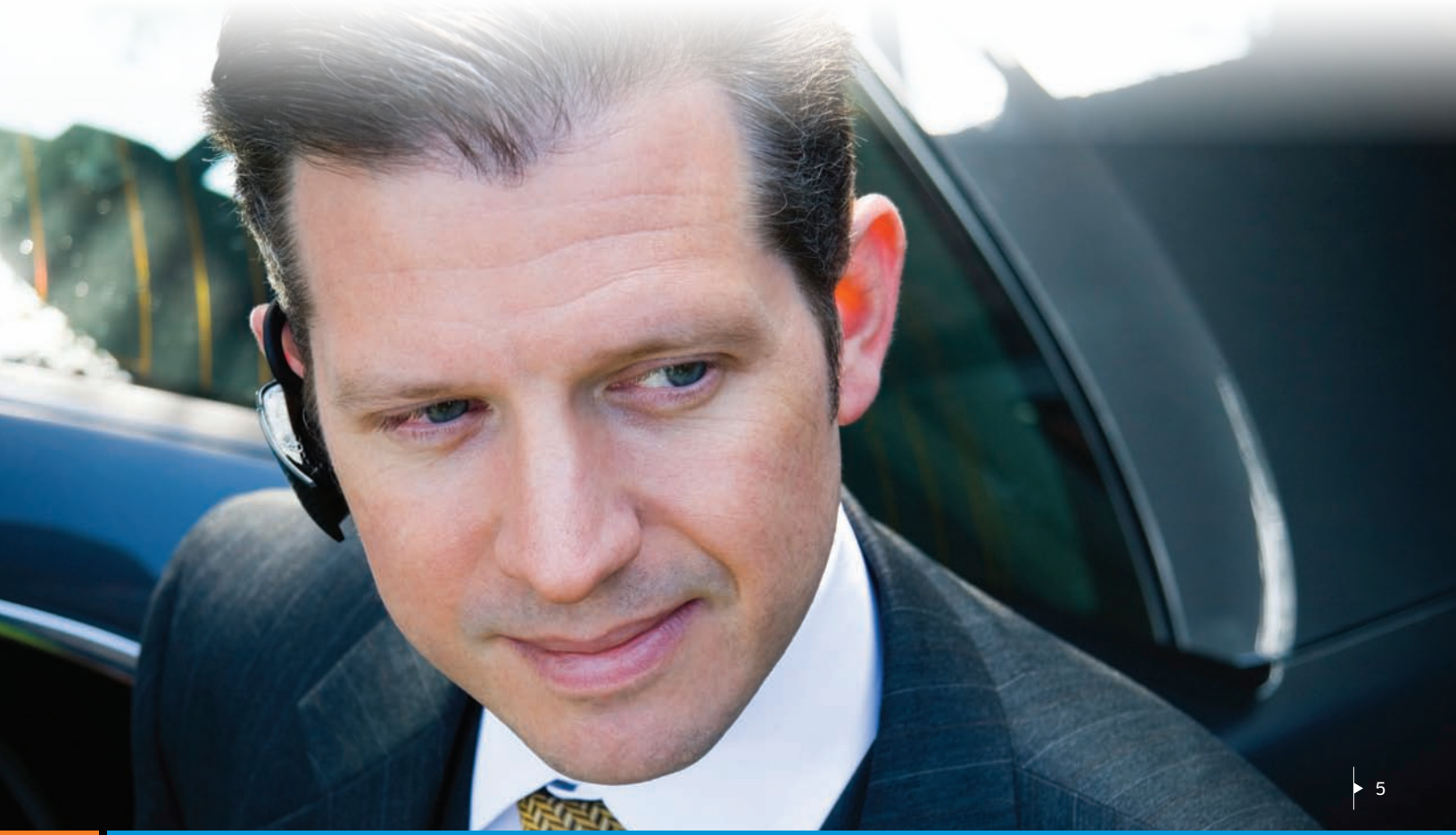
Improve Utilities' Effectiveness

- Automated meter interface lets agencies monitor meters wirelessly, reducing employee time in the field.

Understanding the Technology

AT&T mobile solutions help keep employees in touch, boost daily productivity and even enhance disaster preparedness. This expertise includes:

- Data solutions that allow people in the field to gather, access and transmit information where it's needed most
- Wireless security solutions with multiple firewalls, intrusion detection, device authentication and end-to-end encryption
- Integrated cellular-satellite solutions that help solve the critical communications and business continuity challenges faced by government and emergency responders[2]
- Continuity of Operations Plan (COOP) and disaster recovery solutions that help keep agencies connected during a crisis
- Public works and transportation solutions to track fleet vehicles and give mobile personnel access to information
- Law enforcement and public safety solutions that enable communications and give first responders access to vital databases
- Secure hardened solutions including rugged laptops and Secure Mobile Environment Personal Electronic Devices (SME PEDs) that provide data access in extreme environments



Use Case:
Code Enforcement and Building Inspection

Efficiently dispatch, route and communicate with field service workers

Hurricanes are part of life for the building inspection department of a large Gulf Coast city. After every tropical storm, the department is responsible for inspecting structural damage to make sure each home and workplace is safe. This often means assigning extra stops each day – and paying overtime wages – to building inspectors already scrambling to keep up with the workload.

Department inspectors say managing the workload is only one of their ongoing challenges. They also have to complete and file extensive paperwork as part of every inspection – data that must be keyed into city computers back at the office. In addition, if they get an assignment while in the field, they don't have access to the maps they need to conduct a property inspection. Forcing them to return to the office in search of up-to-date documents reduces the number of inspections they can make and increases fuel and vehicle costs.

The department needed to find a way to streamline work processes to increase efficiency, reduce redundancy and enable the city to meet residents' needs by posting inspection results quickly.

Wireless Solution Saves Time and Money

City building inspectors now use wireless Smartphones or laptops equipped with data cards to receive assignments, maps and other documents while they're in the field, and can even sign wireless timecards without having to return to the office. Thanks to GPS locators, supervisors know where all inspectors are, which increases accountability and enhances their safety.

Inspectors can now enter reports directly into city databases, reducing paperwork and errors, since clerks back at the office no longer have to interpret inspectors' handwriting and enter data manually. Giving inspectors more time in the field to perform inspections each day increases inspection fee revenues for the city. The city found that the solution also cut fuel and overtime costs and reduced vehicle wear and tear.

The Bottom Line

Mobile solutions can make city employees safer, more efficient and more accountable on the job. In case of emergency or a priority assignment, supervisors can locate employees quickly. The solution eliminates paperwork, reducing data entry errors and freeing workers to spend more time in the field performing more inspections per day. Existing staff can handle more work, which helps the city serve its constituents well while holding the line on personnel and automotive costs.

Use Case:
Municipal Water Department

Effectively track vehicles and increase driver efficiency

Water is a precious commodity in the dry southwest, where Tim W. manages the water department for a growing city. Dealing quickly with leaks and waterline breaks is a must to conserve water, but outdated paper processes often made it difficult to dispatch water technicians quickly to the scene of a break. Each morning Tim's 25 employees got a clipboard listing the day's assignments, but they often had to return to the office to pick up new assignments, which delayed response time and caused staff to put a lot of extra miles on city vehicles. The system also made it difficult for them to complete their regular work assignments.

The department's difficulties multiplied as the city's population doubled. The budget didn't allow Tim to hire additional workers, so his staff had trouble keeping up with assignments, and overtime costs skyrocketed. Tim believed he could hold the line on costs, provide better customer service and save water if he could find a way to deploy his employees more efficiently and make them more productive.

Faster Emergency Response

The city chose a mobile work management solution that enables water department technicians to work more efficiently in the field. Dispatchers send their new work orders wirelessly to the workers' Smartphones, creating faster response to emergencies and reducing trips back to the office during the work day.

GPS capabilities let dispatchers see where each technician is in near real time, enabling them to deploy the technician closest to an emergency situation. If the emergency is a waterline break, for instance, faster response time means shutting off the water more quickly, minimizing damage and saving water.

Workers can use their Smartphones to document incidents in the field, photographing a nonstandard valve or pipe to make sure the operations department supplies the correct replacement parts. The solution also provides turn-by-turn directions to give workers the best route to every assignment; it also time-stamps and records vehicle location data and archives it for future reference, and sends managers alerts if vehicles travel outside pre-defined routes.

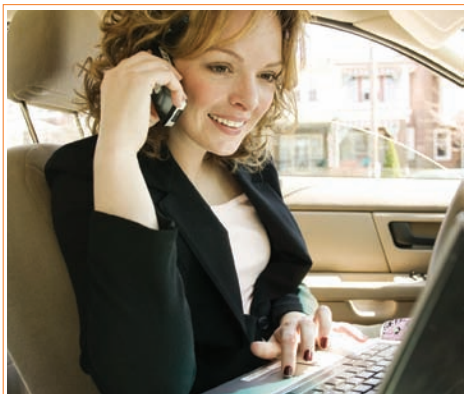
The solution gives the city the ability to answer liability claims by providing precise vehicle time/location data – making it easy for supervisors to see if a city truck was at the scene when a resident claims his property was damaged. The solution also eliminates paper driver logs and increases the number of service calls an employee can make in a day. Tim estimates that the city saves more than $250,000 a year in fuel costs and increased productivity.

The Bottom Line

Mobile applications can improve operational efficiencies by wirelessly dispatching work orders and providing turn by turn directions, creating quicker response in emergencies and routine situations.

Use Case:
Regional Social Service Agency

Update case files in real time in the field to help social workers protect children



The tragedy made headlines around the nation[3] – a little girl in foster care went missing, but her disappearance wasn't noticed for two years because her case worker had falsified records of her visits to the home. State officials scrambled to prevent another such disaster, mandating that welfare workers see each child in foster care at least once every 30 days.

Agencies increased case worker assignments to meet the state mandates. Rita M., who runs a non-profit child welfare agency, began looking for ways to document the case workers' visits; she also wanted to reduce paperwork to give the workers more time with children and families.

Protecting Children and Case Workers

Rita equipped her case workers with wireless Smartphones tethered to laptops connected to AT&T's network. The solution enhanced the speed and accuracy of department audits by enabling case workers to document each child's condition and access departmental agency resources while they were out of the office.

Case workers in the field now have wireless phone and Internet access, GPS navigation to help route them quickly to each foster home, mobile access to resource files, and case management tools that make it easy for them to document services and enter other data during home visits. Workers use the PDA to photograph foster children on each visit; time and date stamps increase accountability, so Rita knows when case workers see each child every month. There's even a panic button that can be used to alert authorities if the case worker perceives imminent danger.

Because they can enter standardized data in real time, case workers reduce transcription errors and the need for multiple data entries, which decreases the agency's operational costs. The streamlined processes give case workers more time to spend with foster children and their families, and the accountability helps Rita and her staff better protect the children.

The Bottom Line

Mobile applications enhance privacy and security by keeping users safely connected to agency networks. On each visit, case workers can take a picture of the child that is GPS-stamped to document the location, and date- and time-stamped to validate the visit. The mobility solution helps workers navigate efficiently to children's homes and monitors travel, automatically compiling mileage reimbursement reports.

Use Case:
State Department of Transportation

Manage traffic and keep drivers informed to enhance public safety

Transportation departments need information to manage traffic flow, especially during rush hours and emergency conditions. The sudden appearance of a sinkhole, icy conditions or a massive accident can create havoc in seconds. Carlos J. of the Department of Transportation of a busy West Coast state knew that quick notification of incidents can save lives and make highway travel less frustrating for drivers. However, his legacy hardware wasn't able to gather and transmit the type of data required to provide instructions to traffic signals, update public road signs and manage incidents.

Carlos leased some telecommunications circuits to collect data and inform the public through electronic message boards, but the costly solution was only available in limited locations. He needed a statewide solution that would enable him to stop traffic and notify police and EMTs in case of emergencies.

In addition, to understand what caused traffic to snarl when there was no accident or other emergency, Carlos often dispatched supervisory vehicles along highways or assigned individuals to sit on bridges and count traffic manually. The process was a cumbersome and unscientific way to gather information.

Data Reduces Traffic Congestion

The Department of Transportation for which Carlos works now uses wireless technology to improve the reliability of traffic data. The department installed wireless units to collect and transmit information on AT&T's wireless network, enabling near real-time analysis of roadway traffic. As traffic slows by even one-half mile per hour, the units begin sending information directly to the department's decision-makers.

Carlos and his team are now able to reduce traffic congestion in near real time, wirelessly updating electronic road signs to give drivers traffic information and alerts. Wireless temperature sensors in the road alert officials of icy conditions, so the department can warn drivers electronically and proactively dispatch salt trucks.

Finally, by the time many roads are built, traffic has increased so much that the roads are already inadequate. The data that the Department of Transportation collects can help prevent this; understanding traffic patterns will enable the state to plan roads to handle the demand and place traffic lights to better manage traffic. It also helps officials with long-term planning, determining, for instance, how long pavement will last.

The Bottom Line

Mobile applications can enable agencies to automatically measure traffic flow and store the information in databases. The use of wireless technology allows for more detection loops, faster implementation and added capabilities; it can also help reduce expenses.

Use Case:
County Sheriff's Department

Improve public safety across jurisdictions

The sheriff's department of a large western county covers thousands of square miles. Most deputies use laptop computers in their patrol cars to connect with national crime databases, but deputies who patrol the county on foot, motorcycle or horseback were unable to connect to these resources. They carried two-way radios, but often hesitated to use them as eavesdroppers regularly monitor police channels. Sheriff John D. wanted to give all his deputies the ability to access potentially lifesaving information.

Seamless Access to Rich Resources

AT&T helped Sheriff D. connect his deputies and law enforcement officials throughout the state with vital information, making it possible for deputies to use Smartphones equipped with the law enforcement applications to connect seamlessly to state and federal resources.

The solution enables deputies to log in to national crime databases, the state Department of Motor Vehicles, and many other agencies. Officers have access to crime databases to query suspect warrants, license plates and driver's licenses from virtually any location; first responders can also download floor plans, photos and other resources to give them all the information they need to do their jobs.

The solution proved so valuable that Sheriff D.'s county made it available to officers throughout the state; more than 1,200 officers from 38 police departments now use the county infrastructure to improve their safety and effectiveness on the job.

The Bottom Line

Mobility applications give officers patrolling the beat on foot, motorcycle or horseback access to the same potentially lifesaving resources available to officers in patrol cars. The solutions enhance public safety by improving the investigative capabilities of law enforcement officials in the field.

Use Case:
County Department of Natural Resources and Parks
Improve public safety and agency effectiveness

The rains and melting snow of spring mean big headaches for Andre H., who manages one county's Department of Natural Resources and Parks, as he tries to keep the public informed about potential flooding. As streams and rivers swell, Andre regularly dispatched his team to monitor water levels, sometimes putting them in dangerous situations as the possibility of flash floods increased. The county needed a better way to gather information and keep the public informed of floods and other natural disasters.

Saving Time, Saving Lives

Andre's team deployed hundreds of sensors that automatically record water levels of streams, rivers and dams, and transmit them to headquarters via AT&T's wireless network.

The solution helps keep county employees out of harm's way and gives officials real-time information on water levels – which helps give the county the critical time needed to order evacuations.

The solution measures downstream flow, which lets officials better predict floods; they can close roads and divert traffic away from affected areas to increase public safety.

Andre's agency enjoys a lower cost of doing business by relying on the AT&T network rather than sending employees into the field to collect data. AT&T provides and manages the smart grid communication network, so the agency can redeploy capital and assets to its core business.

The Bottom Line

The self-monitoring solution can help replace labor-intensive manual processes. Minimal human intervention can reduce agency payroll costs and keep employees out of potentially dangerous situations. It also reduces vehicle costs and fuel consumption.

Potential Savings Analysis

Mobility is a tool that can produce savings and create efficiencies that may translate to additional revenue. Although every case is different, it is clear that every organization can benefit from business process improvements. Consider three examples.[4]

Example 1: Case Managers/Inspectors

Many field workers have to start and end their days at administrative offices. While they are in the field, there is no control over their productivity and they have no access to the data they need to perform their jobs. Giving field workers wireless access to headquarters enables them to start their day directly at the first assigned site, and wireless applications can provide information about the number of visits and the time spent at each location. The workers have remote access to case histories; because mobile solutions can reduce the need for paper forms, they save time and money while reducing errors.

Potential ROI

- Assuming 100 mobile workers with a $25/hour overtime wage, saving one overtime hour per day per worker could generate savings of $550,000 a year for an agency.
- Saving an average of 25 miles per day per worker in this workforce could result in savings of $300,000 a year.
- Saving two hours per day on 20 administrative clerks (making $15 per hour) performing back end support represents savings of $135,000 per year.
- A single paper form costs an agency between $30 and $165 to be printed, distributed, captured, processed, filed, stored and destroyed. Eliminating two forms per worker per day represents $675,000 per year in savings.

Example 2: Maintenance/Construction Crews

Department of Transportation supervisors rely heavily on paper forms to document progress and incidents. They are unable to effectively control actual hours worked by contractors and have no real-time project status or project management capabilities. Mobility solutions give supervisors digital forms, with digital photos and video automatically uploaded to back-end systems. They also get over-the-air control of time cards and real-time project and asset information status.

Potential ROI

- Deploying a device with a built-in camera eliminates the need to acquire digital cameras. Assuming an agency had to purchase 100 cameras at $400 each, the agency could save $40,000 plus the cost of replacing lost or broken devices.
- Enabling 50 mobile supervisors who make $35/hour to save one hour per day by checking online project status, materials and wirelessly documenting crew time represents $400,000 saved in a year.
- Eliminating 30 minutes per day of unproductive time per supervisor (one unnecessary trip to the office) at $35/hour saves $200,000 in a year. Additionally, mileage saved on a 25 mile trip could eliminate spending of $150,000.

Example 3: Fleet Management

Unauthorized use of units and excessive idling are expensive problems for many organizations. Mobility solutions can monitor actual miles driven and provide strong theft deterrent and recovery abilities through real-time vehicle tracking. Supervisors can monitor each driver's speed, stops and real-time location to help ensure that drivers stick to their established routes.

Potential ROI

- By monitoring that drivers adhere to their assigned routes and eliminating unnecessary trips, it's possible to save 20 miles per vehicle per day; in a fleet of 1,000 units, this could represent potential annual savings of $2.5 million.
- Theft deterrence, location, and recovery capabilities for five percent of the fleet could represent savings of $300,000.

Notes:

1. Center on Budget and Policy Priorities Policy Points, updated January 28, 2010 http://www.cbpp.org/cms/index.cfm?fa=view&id=1283.
2. Expected launch Q3 2010.
3. New York Times http://www.nytimes.com/2003/04/27/us/crisis-mentality-at-families-agency.html.
4. These scenarios represent how some current AT&T customers created workplace efficiencies and saved money. Your savings may differ from those reported by these customers.

To learn more about AT&T State and Local Government Solutions visit our State & Local Government website at http://www.corp.att.com/stateandlocal/.

Important Information

Coverage not available in all areas. Availability, security, speed, timeliness and uninterrupted use of service are not guaranteed. Compatible device required. Additional hardware, software, services and/or network connection may be required depending on selected solution. Potential benefits (including without limitation, ROI and savings) may vary by customer and with selected solution. Offers subject to change. Additional restrictions apply.

09/09/10 AB-1885-01