Inside AT&T: Mobilizing Field Service Operations

Executive Summary

While every business considers its voice and data networks essential, there are some – like regional 911 emergency systems – for whom losing connectivity can mean the difference between life and death. AT&T Business Service (ABS) Field Operations Customer Premise Equipment service organization technicians support these customers and thousands more who cannot function without their networks. To improve their technicians’ ability to service these critical customers, ABS mobilized its field service operations with a dispatch solution utilizing its own AT&T Mobile Enterprise Applications Platform (MEAP); deploying the mobility application on AT&T’s next-generation 3G network greatly improved the application’s speed. The increased productivity generated an estimated savings of $8.2 million over five years* through improvements in productivity and the reduction of errors.
**Introduction**

AT&T Business Service (ABS) Field Operations is a leading provider of IP-based solutions servicing premises-based IP infrastructure, installing and maintaining equipment from top vendors. The division’s Customer Premises Equipment (CPE) service organization supports voices and data equipment like Nortel and Cisco routers and switches for customers across the United States.

To strengthen technicians’ ability to serve customers, AT&T mobilized its field services operations with an application that gets technicians to customer sites quickly. The fast new solution significantly reduced paperwork and improved communication between dispatch and technicians and between the technicians and their customers. Technicians are more efficient, because the solution features work order time reporting, updates to the host ticketing system, Internet access, corporate email access and wireless phone capability.

**The Challenge**

The 1,500 technicians of AT&T’s Business Service Field Operations CPE service organization support customers who cannot function if their voice and data networks go down. Losing connectivity can mean the difference between life and death for some, such as the many regional 911 emergency systems that AT&T supports. Servicing customers’ equipment effectively and efficiently has always been important to AT&T. To keep businesses operating smoothly, AT&T has established time-sensitive service level objectives (SLOs). Most critical are those promised to the numerous emergency operations centers AT&T supports, designed to help ensure that police, firefighters and EMTs respond quickly when emergencies strike. To support these time-sensitive SLOs, AT&T automates as many of its processes as practical.

Several years ago, AT&T sought to make its dispatching more efficient with a hosted wireless solution that delivered assignments to CPE technicians via BlackBerry® smartphones, said Mike Shipkowski, ABS Field Operations Service Development Manager. “We were doing a lot of manual paging of technicians and waiting for them to call back, and then doing follow-up paperwork to complete the order,” he remembers. Using smartphones to manage some of these processes better engaged field resources and gave technicians a wealth of information before they arrive at a customer’s site.

AT&T wanted to further improve customer service by giving technicians even more information; it also hoped to eliminate paperwork and streamline billing processes to generate a quicker turnaround on accounts receivable. “We were looking for a solution with some added flexibility that could accommodate sophisticated new dispatch applications,” he said.

**The Implementation**

AT&T created a totally mobilized field service operation with a dispatch solution that uses its own AT&T MEAP, a wireless application that improves CPE technicians’ ability to serve customers. Technicians now use AT&T’s mobile broadband 3G network smartphones to communicate in real-time with dispatchers and instantly access all job-related information, so they’re better prepared when they arrive at the customer’s site.

Diagnostic experts can enter most customer systems remotely to triage the situation before CPE field technicians are dispatched. “We can diagnose and fix between 40 to 50 percent of problems remotely,” Shipkowski said. If the problem requires a technician’s presence on site, the dispatch is made immediately; technicians receive the results of remote support team diagnostics on their handheld devices while en route to the customer’s location. “Before technicians get to the site they have the background information and some history of what potentially could be the problem so they can make sure that they have the parts available to do the job,” he said.

The hosted solution has enabled technicians to respond more quickly to all customers and meet demanding service level agreements. It has also reduced the number of calls between technicians and dispatchers. Technicians can even capture customer signatures on the spot to initiate billing processes immediately, reducing errors and shortening the billing cycle.

**The Results**

Equipping technicians with Windows Mobile® handheld devices and AT&T smart-phones, gave technicians easy access to work orders and diagnostic reports and integrated easily with AT&T’s field operations systems. All AT&T technicians use the AT&T MEAP Service, a wireless application that supports real-time communications between technicians and dispatchers. This middleware updates AT&T’s backend systems based on the technicians’ input to trigger activities and workflow.

Shipkowski said the solution puts more control in the hands of service technicians. “It allows them to get their list of jobs for the day, which they can prioritize based on the service level agreements,” he said. To help ensure that technicians receive all assignments, the AT&T MEAP application verifies message delivery so dispatch can tell when the assignment was delivered and make certain that the technicians read it.

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– Mike Shipkowski, AT&T Business Service Field Operations Service Development Manager

Deploying the mobility application on AT&T’s next-generation 3G network greatly improved the application’s speed. The fast new solution significantly reduced paperwork and improved communication between dispatch and technicians and between the technicians and their customers. Technicians are more efficient, because the solution features work order time reporting, updates to the host ticketing system, Internet access, corporate email access and wireless phone capability. They can easily view new work requests and pull customer histories for enhanced problem resolution, Shipkowski noted. If technicians run into unexpected difficulties that require more time at a site, the software enables them to reassign some of their work orders to help make sure all customers are served in a timely manner.

The reliability is impressive, he said. Even with recent hurricanes and fiber cable cuts that would normally hamper the division’s ability to dispatch field resources, the mobility solution continued to dispatch and to communicate with customers effectively.

The solution has greatly streamlined dispatch processes, he added. “Using a mobile device you can send and receive information in a very quick, orderly fashion so that folks in our centers know what’s going on.”
AT&T MEAP has helped AT&T increase customer satisfaction, Shipkowski notes; customers like receiving estimated time of arrival notification from technicians, as well as electronic signature capture and email delivery of signed work orders.

It has also reduced the cycle time on ticketing processes and improved billing. “The technician can capture a customer’s signature as the work is completed to start our billing cycle immediately,” he said. Rather than the 15 – 20 days it formerly took when it was a paper-intensive process, billing now takes only three to five days.

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Since the solution was deployed, AT&T has seen increased productivity in its dispatch operations, which saves more than 1,000 staff hours between technicians and dispatchers each month. There has also been a tremendous reduction in wait times in the dispatch queue, which has resulted in considerable time savings for technicians.

Additionally, technicians’ smartphones can be updated automatically over the air, eliminating the need for them to surrender the devices to have regular updates installed. Lost or stolen devices are not a problem – the solution boasts AT&T-grade security with a custom device management add-on that essentially renders the device useless if it goes missing.

The mobility solution paid for itself in 26 months and will provide a cost saving benefit of $8.2 million over five years with a staff reduction of 22 full time equivalents. Shipkowski said the biggest benefit from the point of view of the field services technicians is the need to carry only one device to receive work orders, make and receive phone calls to our customers, and keep up with email messages, all being performed wirelessly. “We have evaluated other devices, but felt that a handheld solution would be better for our technicians,” he said. Field services vehicles are equipped with laptops for troubleshooting customer’s networks, but most of technicians’ interactions are completed with the handheld devices.

AT&T’s Business Service Field Operations CPE service organization further enhances efficiency by installing Trimble Mobile Resource Management’s @Road® GPS devices in vehicles. Shipkowski said he plans to integrate the GPS information from those devices into the department’s future dispatching solution architecture.

“That will help the dispatching center quickly analyze which is the closest technician who can best resolve a customer’s problem,” he said. Currently some manual intervention by a dispatcher is required, he said, “but we hope to automate that so that our future system will make those decisions without any human intervention.” The department is in the process of moving to a “just in time” inventory system, and hopes to perform some integration to assist with automatic inventory replenishments in the future.

Very soon, the mobile dispatch solution will be deployed beyond the states served by AT&T’s Business Service CPE service organization to a number of states in the east and southeast. Shipkowski estimates this will mean adding another 600 handheld devices to department operations, more than doubling the size of the current deployment. He’s not worried about such a sharp increase, though, because the mobility solution will easily scale to accommodate the growth.

The Bottom Line
The mobility solution paid for itself in 26 months and will provide a cost saving benefit of $8.2 million over five years with a 22 FTE reduction. Shipkowski said the results suggest that companies should do whatever it takes to stay abreast of the most current dispatch solutions.

“It’s a challenge to keep a global workforce updated,” he said. “It’s important to try to keep on top of the technology because it changes constantly, so we evaluate our devices and applications on almost a monthly basis.” The result is a cutting-edge operation that keeps even the most demanding customers satisfied, and positions AT&T Business Service (ABS) Field Operations to continue to improve into the future.

About the “Inside AT&T” Series
This is one in a series aimed at sharing the lessons AT&T has learned within its own business about how next-generation wireless solutions can pay off: enhancing productivity and reducing total cost of ownership (TCO). Our own approach to integrating mobility in the enterprise is built on the principle that solutions must deliver value and enhance the performance of business applications. We use our wireless data network to track, monitor, assign our mobile assets and ultimately empower our workforce, removing the time and the errors that are inherent with paper-based systems. AT&T faces the same business challenges as other enterprises, and if a solution creates value for AT&T, it will for customers, as well.

Notes
*Savings and other results not guaranteed. Actual results may vary by customer.