

Tablet PCs Mean More Time, Less Paper

This mechanical services contractor improves efficiency by 15% with the deployment of field force automation software on rugged tablet PCs.

Paperwork and manual processes can be productivity killers for a field service operation. Technicians have to spend time filling out forms to record their work. Those forms then have to be manually entered into a billing system by other staffers, hours or days later. Field staff have to rely on time-consuming phone calls to manage their schedules and exchange information with dispatchers.

Washington, D.C.-based commercial mechanical/HVAC contractor CTS Services has significantly boosted its efficiency in the field, using a tablet computer-based field service solution to eliminate paper work orders and lengthy phone calls. The company first began evaluating automated solutions for its field force in 2009, as part of an effort to improve productivity and eliminate paper work tickets the company used to track its work orders.

Paper Tickets Drain Field Efficiency

The paper tickets were creating a drag on efficiency in both the field and office. Once technicians had filled out the tickets, they would provide a carbon copy to the customer and then mail or deliver the tickets to the service department so they could be manually input into the company's operating system for invoicing. "It could be as much as a week and a half later before the tickets were turned in," says Steve Wells, president of CTS Services. "That created a lag time in communication of information to the customer as well as delays in billing."

In order to automate its field operations, the company purchased Data-Basics TechAnywhere field service software. CTS approached reseller Allegiance Tablet PC Experts (part of Allegiance Technology Partners) for help in selecting a Windows-based rugged tablet

computer that included signature capture, bar code scanning, and a digital camera.

Allegiance recommended Motion Computing's F5v Tablet PC. In addition to meeting CTS's other requirements, the tablet computers include a hot-swap battery feature so that batteries can easily be replaced in the field, integrated Gobi mobile broadband that supports multimode 3G Internet access, and a durable display — all important considerations given that CTS technicians often work outside and in remote locations.

"It's a user-friendly unit, and it stands up to the weather well," Wells says. "It's also lightweight, and we didn't want a laptop that had to be opened and closed. It had to be easy for the technicians to operate."

CTS deployed the software on the Motion devices for a month-long trial in 2010 and then deployed 23 tablets across its workforce. Although CTS employs 70 field technicians, only about a third of them actually perform maintenance/service work. These technicians were targeted for the first phase of the mobile deployment because the automation would provide greater return on investment than in other divisions of the company.

"We implemented the tablets slowly at first," Wells says. "We brought in two technicians for training and let them use it for a week; then they became support for the other techs as we trained them. I was concerned about acceptance because we have a lot of technicians who have been at this for many years and old habits are hard to break, but I was pleasantly surprised at how well the implementation went."

Mobile Solution Boosts Productivity

Each day, dispatchers transmit work requests to the technicians' tablet computers. Technicians acknowledge that they received the call, send an alert when they reach the site, then enter all repair information directly into the tablet. After the customer signs the work order on the tablet screen, the technicians can send the completed job ticket back to the office wirelessly. The tablet computers provide status updates on upcoming jobs, and technicians can get directions online and even take photos of any part or structure, using the built-in camera.



Motion Computing's F5v Tablet PC and Data-Basics TechAnywhere software by Allegiance Tablet PC Experts have eliminated paper for CTS Services' field technicians.

by Brian Albright

Technicians can also email a copy of the record to the client, eliminating the need for printouts and carbon copies. “It also allows them to look up the history of the equipment, so they can see any background on previous repairs,” Wells says. “We can attach all the service work orders to specific pieces of equipment in our database, which has helped us substantially.”

Elimination Of Paper Improves Cash Flow

Use of the mobile application has sped up the billing process and improved the company’s cash flow. The company has seen a 15% productivity improvement by eliminating the paper tickets and by saving time in the dispatch and billing processes.

“We no longer have to deal with paperwork,” Wells says. “The technicians aren’t waiting on hold for someone to issue their next call or when they’re closing a call. Before, if one of the dispatchers went on vacation or was at lunch, and we had six technicians calling in, they might have wound up on hold or just got a busy signal.”

CTS has also installed the SageQuest GPS solution on its trucks and uses that system to track the whereabouts of the technicians and reconcile their fuel usage. SageQuest has been integrated with the Data-Basics system, so the dispatchers can see where all the drivers are before issuing new calls during the day.

The company has continued to expand the functionality of the solution. “We’re constantly increasing the utilization of the system by adding new forms,” Wells says. “For instance, if someone calls in and asks for additional work while a technician is on-site, they can complete an estimate electronically and send it to the office for quoting. That’s a feature that we added to the system, and it has really helped us in the field.”

Now that the service technicians are up and running on the solution, Wells says CTS plans to deploy the solution for another 20 technicians in its facilities division in Beltsville, MD. “We’re very pleased with the system,” Wells says. “It has saved us time and continues to add value in the field.” ●

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