WennSoft

Mastering Mobility:

What to Consider When Mobilizing Your Field Technicians

Executive Summary

Today, mobile technology gives companies a competitive edge. Deploying a smart mobile strategy for your service operations results in decreased days to cash; accurate, timely completions of service calls; reduced data entry; increases in "new" work; and improved customer loyalty.

Mobile technology is no longer a wish-list item for a field service organization; it's a critical reality in business today. Mobile solutions allow technicians to be more effective at their jobs because of improved scheduling, dispatching, routing, communication and asset information. Technicians can secure "new" work and deliver the right service and delight customers.

This paper presents both opportunities and challenges for today's field service operations. On one side, the use of mobile devices and the expanding applications provides significant opportunities to streamline workflow, improve collaboration and ultimately increase employee productivity. On the flip side, a number of new challenges emerge, particularly when it comes to adoption, IT management and security.

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Introduction

Whether you're one of the nearly "60% of best-in-class field organizations who have invested in mobile tools," (Aberdeen Group) or you're in the 40% not currently using mobile, but likely thinking about it, here are five critical areas for consideration when developing your mobile field service strategy:

- Business Process Changes
- Device Selection
- Stay Connected: Network Options
- The Plan: Deployment, Training & Adoption
- Measuring Success

When field service organizations invest in mobile technology, all facets of the organization get better connected. Field technicians can access the most up-to-date information about the customer such as location information, equipment and asset details and tasking—from wherever they are—and they can update the call status, charge labor and parts, add expenses, complete and record tasks, invoice the order, secure additional "new work" and update the customer information for the team back in the office. And they can do it all without returning to the office, calling in the status or shuffling through piles of paper. There are a lot of pieces involved in delivering competitively-superior field service. The solution is to automate processes to remove inefficiencies and reduce the chance of errors. Enter mobile technologies.

Enter mobile technologies.

Business Process Changes

Introducing a mobile strategy into your organization presents a unique opportunity to evaluate the processes you're using today and you must find ways to stand out from the competition. Deploying mobile field service solutions for your technicians is one way to accomplish that.

For example, with a paper-based system, technicians have no history of prior work orders and are usually lugging around heavy paper manuals. Finding a solution to the problem is typically very time consuming and often requires a second visit.

With mobile field service management solutions, technicians have access to the company's knowledge intelligence database and the Internet at their fingertips, plus a complete history of past services performed for the customer. Consider the difference: while your technicians are finding solutions in minutes on a smartphone, tablet or computer, your competitor's technicians are fumbling around and wasting time searching through bulky paper manuals.

The workflow processes that could be maximized by mobile devices are endless and the resulting productivity gains and overall process improvements are significant. Identify which of the following processes are appropriate for your business to evaluate:

- ☐ Eliminating paper forms: Many companies still using outdated methods of scheduling—technicians get a service call on their cell phone, pull out a blank, carbonless form, and then have to painstakingly fill out every detail, from the work order number to the customer's address to a description of the problem. Too much time is wasted filling out forms, a process that today can be streamlined with mobile devices. You can eliminate most paper forms from your processes by using a smart phone or tablet—the service call shows up immediately on the device and no one has to fill out cumbersome paper forms. The goal is the elimination of paper resulting in faster invoicing and better cash flow.
- ☐ Capturing asset information: The ability to review asset history and details, as well as capture intelligent information and statistics from an asset while in the field enables technicians to gain more insight into that asset's function and performance. This allows technicians to make proactive recommendations for repair or replacement.
- ☐ Improving communication: Having any mobile device in the field that can transmit real-time updates to the office adds value and reduces the cost of a manual processes – both paper and phone calls. You must also consider the environment where your field technicians will be working which may include indoor locations, basements, equipment rooms or remote locations both of which impact connectivity. It is prudent when reviewing the mobile application you understand how the solution synchronizes data, and whether there's flexibility for technicians to work off-line.

☐ Capturing additional work: If technicians are able to capture additional work found while on-site, communicating those extra jobs to the back office is easier with mobile technology. Those opportunities can be captured and sent in the office with an automatic notification to the salesman so they don't get lost in unanswered phone calls or misfiled paperwork. The opportunity to drive unplanned revenue grows exponentially and the customer views it as better customer service.

☐ Decreasing unbilled work: Mobile service solutions with integrated and defined tasking can prevent technicians from doing more work than the customer is obligated to receive under a preventive maintenance plan. The visibility in the field of tasking and preventive maintenance commitments also can prevent technicians from missing billable activity.

☐ Collecting part information: Logging parts can also be ensured through mobile field service management. When parts are tracked manually through a paper-based system, sometimes parts are forgotten, technicians may get interrupted in the middle of filling out their paperwork or if they fill out the work orders at the end of the week.

☐ Replacing text with pictures: Capturing a picture of the components on a piece of equipment allows the tech to show the problem to the customer or, in more challenging cases, the tech's supervisor. A picture could also capture the system's data plate so the tech doesn't need to write it down. Mobile capabilities can also allow for photos to be attached to a work order or service call information from the field.

☐ Re-work the Data Flow Process: When a manual process is automated, it is key to re-work the process and check each aspect of the prior process to see if it is still necessary. Some of the areas consideration include:

- The dispatch process and assigning work daily vs weekly or monthly
- Collect data from the field every day not weekly to improve accuracy and to get billing cycles reduced to a few days
- The review process upon completion of the work order - How many people have to touch each invoice before it's sent?
- How additional work found in the field is quoted and sent to the customer for approval?

Field service organizations should also consider making workflow adjustments for more efficient data entry. There are plenty of mobile field service applications available today that can simplify data entry. Predefined drop-down fields for the most widely used content often makes inputting notes much quicker. Carefully consider what changes will give you the greatest return and identify ways to measure those gains.

Surround Solutions

When you complement workflow changes with "surround solutions," you can realize even greater improvements. Some solutions you may consider include:

Voice recognition—Voice recognition has come a long way in the past few years making it better and easier to capture the technician's verbal notes. By simply talking into a built-in microphone on your device, your notes are then translated and placed in the field you were working on.

Bar-coding—Through bar-coding technology connected to the mobile devices, techs can pull up inventory and apply it to the work order. This allows for immediate costing. It also improves the accuracy of part selection to ensure no parts are missed in the billing process.

GPS—Today's GPS tools make technicians more efficient as the tools can provide routing and point-to-point directions. These features make it easy for technicians to arrive at the right location using the most efficient route.

Remote Management Solutions—Whether you support Bring Your Own Device (BYOD) or provide devices to the team, protecting the sensitive customer data as well as your business data is imperative. This is especially important for devices like smartphones given how easily they can get into the wrong hands. Mobile management providers such as AirWatch, Good Technology and Sybase all deliver an extensive selection of applications to protect and manage your organizations' mobile data, including the ability to remotely lock misplaced devices and if necessary, wipe sensitive data and files from the device itself.

To think outside of the box, the company's leadership must be on board with implementing a creative approach. Management must be fully committed to an organization-wide philosophy of going above and beyond providing standard service.

Device Selection

Mobile solutions have to work for the technician in the field. So here's the most important question to ask: What are you trying to accomplish with a mobile solution? Everyone wants something different: Company executives want the solution to move the business forward and differentiate the organization from its competitors, the service department wants error-free documents and the technicians want a simple solution that can be at their fingertips whenever necessary. The key is to take all of that feedback and create an all-encompassing vision from every department. That will result in a much better mobile technology deployment that's better accepted and benefits the whole organization.

Understanding the field team. A critical first step is to understand the demographics of your technicians so you can tailor devices for the greatest success. There are many different options regarding device type and model and while an early adopter may be more comfortable with the touch-screen technology of smartphones and tablets, you must also consider technicians who have been slower to adopt mobile technology. They may not like swiping a screen, but may prefer typing on a keyboard. Fortunately, there is a plethora of device options based on the skill level of technicians and the requirements of their role and the tasks of their job. In fact, you don't need to put the same device in everyone's hands for mobile deployment. Select a device that meets each individual's comfort level with technology. Likewise, you don't need to limit your company to one mobile make and model. One of the hottest areas in mobile field service is the use of tablets. Tablets today are replacing traditional ruggedized laptops that were often used to perform diagnostic analysis of complex machinery. The ability to use more than one device on a single license allows you to provide devices that "Work the way the technicians do". Some technicians have to carry a laptop to commission systems but find that hard to move around the site when working. Having the option to use their smart phone or a tablet provides flexibility and productivity.

Consider multiple devices. Having the ability to use multiple devices allows for techs to work in various conditions on the job while still maximizing the ease of navigation and data entry. For example, a tech could be using a smartphone when climbing up a ladder or using it on a rooftop to capture meter readings, notes and pictures, and then using a larger device to complete the full work order. Having the freedom to use multiple devices allows that flexibility. One caution, make sure the mobile application has a user interface that is similar for each operating system and device. This will increase acceptance and allow you to change devices with lower training costs.

TIPS:

Identify a vendor who provides licensing for multiple devices per technician to accommodate all service situations.

Be sure to consider the implications of mobile devices on your labor agreements, if applicable. The use of a device after hours for something like checking e-mail may technically be considered overtime.

Be sure to protect yourself by prohibiting after-hours use of the device or by gaining an exemption for BYOD in your employment contracts.

It is best to test with your selected carrier(s) a few devices before you make your selection.

Of course, not everyone is an early adopter. That's why it's so important to ensure that mobility applications are as simple to use as possible. These tools need to fit seamlessly into a technician's everyday schedule and work how they work. Once technicians see how much easier mobile tools make their job, they'll understand why technology is so valuable.

Evaluate update and replacement plans. When selecting your device(s), be sure to understand and compare the update plans, device operating systems as well as the replacement policies. To truly benefit from a mobile strategy, your technicians need their devices and the assurance that they can quickly be fixed or replaced should they be lost, stolen or damaged on the job.

Embracing BYOD. The concept of BYOD (Bring Your Own Device) is widespread in many companies today and understanding its role in your mobile strategy is key. BYOD does not have to mean that all devices are welcome, but it may be a win-win for your technicians and your company. Employees appreciate not having to manage two devices (one for work and one for personal use) and you may choose to absorb some of the costs of the device given its dual purpose. If the employee also pays a portion of the mobile device and plan costs for personal use, some of the organization's costs are equally defrayed. If you choose to go this route mitigate risk by creating a set of sound policies for BYOD to balance the technical demands on your IT department with the productivity gains and satisfaction of your workers.

TIPS:

Always test the field tech software on the device under consideration to ensure it not only runs, but also that the form factor is suited for the process.

Fit the device to the technician as well as the business application for optimal adoption. Think about using more than one device!

Tablets offer more real estate but can be bulky and more expensive to operate but the larger screen makes working on them much easier for many technicians over a smart phone.

Stay Connected: Network Options

The need to maintain the right set of information with technicians in the field is often what triggers an organization to seek out a new service solution. Whether the reason for a mobile field service solution is to ensure service call accuracy, minimize redundancies or to bill faster, a mobile system must allow for work completion and data capture, in order to be an asset to your business.

Be aware of the shortcomings of some mobile solutions

Many "mobile solutions" are nothing more than web-based systems for completing electronically what was previously done on paper. Organizations using these systems face the same challenges as those using paper-based systems. The mobile solution is a stand-alone application and not integrated with the overall service system and the data must be re-entered back in the office. Duplicate data entry and wasted time remain significant issues. The cost of the integration is often more than the software and has to be revised with each product when updates are released.

An alternative is a mobile solution option that is integrated with the organization's service solution. Many are structured as web-based systems. An organization and its technicians are able to capture information in the field, but are stuck in a tough place when technicians are working in an area where they do not have connectivity. It's great to have 90% connectivity, but what happens when you are in the 10% area that does not get coverage? Do you go back to completing paper work orders? How does the information get into the system? How do you know which tasks to complete? Ultimately, you're giving customers an inconsistent and sub-standard experience or you may be doing work that's not covered in the service contract which means you can't get paid. You limit your scope and ability as a service provider. The lost time and rework due to the 10% out of coverage can amount to a bigger efficiency loss.

The loss of coverage is not predictable and breaks the normal efficient process that is built into a store-and-forward application.

Another sub-par mobile option is to capture data, but to operate with only overnight data transfers between your mobile devices and your service system. Synching information solely at overnight upload intervals does not allow you to work off of real-time, up-to-date information.

Store and forward: get the mobile connectivity you need

A mobile solution that offers store-and-forward capability gives you much needed connectivity and flexibility. With a mobile solution, you should be able to work in the same way you always do. You should be able to:

- Complete a work order
- Log labor and expenses
- Charge materials & parts
- Capture signatures
- Complete tasks and record responses
- Log additional work found or create a new work order

Being connected is critical to business. Losing connectivity shouldn't mean losing the ability to work effectively. Your mobile solution should give you the flexibility to access information when outside the range of connectivity and to update information as you would if you were connected. A true mobile solution should give you seamless connectivity between the field and the office and give you the confidence that your information is always up-to-date and accessible.

The right data plan

When it comes to mobile devices and connectivity, cell plans and data plan considerations must come into play. The consumer rates that carriers charge to individual users are typically higher than those charged to organizations that aggregate a large volume of minutes and megabytes. Evaluate your wireless providers and seek to negotiate a plan that's most cost effective in meeting your needs, especially if your current plan has data limitations.

The Plan: Deployment, Training and Adoption

So you've sought input and selected your devices, you've identified processes that will be reconfigured to optimize for mobile devices and you're ready to deploy to your team. Here are some tips to help ensure a smooth deployment and more rapid adoption:

Selecting the pilot team

Begin by selecting a small, limited number of technicians—5 to 10 at first. Don't just seek out tech-savvy technicians for the trial run. Identify technicians that may also fall on the "laggard" end of the technology adoption spectrum to better identify adoption hurdles. And be sure that at least one of your most respected technicians (based on their knowledge, tenure or peer respect) is one of your pilot users. Their opinion will matter to the success of the full team deployment.

Additionally, the test team should include team members who are not in the field but are connected to the team's processes including members from dispatch, payroll and accounting and ensure they have a variety of skill sets—from the novice to the more experienced. Plan for the test period to run for three to four weeks before moving the team into production.

Once the pilot team has worked out the "kinks" in the system and are competent with the technology, you can begin to add additional users.

Start with limited features

If your pilot team has limited technology experience or is resistant to change, limit the features in the mobile service application you start with initially, complete the training and then roll out other features when the team is ready. Most likely, once they realize how the technology is improving their work life, they'll soon be asking for additional capabilities.

TIPS:

Get the device in the field techs' hands before introducing new applications for the job. They'll be more likely to embrace the application if they have a level of comfort with the device itself.

When rolling out mobile devices, secure a respected technician as an early user to improve overall adoption rate.

Begin with a TEST company Install the new functionality using a pilot or test company. This allows ample time to test devices and select capabilities for the field technician as well as your team in the back office. You can also test the new business processes you've chosen to optimize and fine tune new procedures before going live.

Go beyond technical training

The best-in-class service organizations today are investing in not only technical training but also soft skills training. Technicians must have more than just technical skills. They need to know how to talk to a customer who's angry or upset and how to admit when your company didn't do the right thing, without throwing the business under the bus.

Service technicians should also have the ability to sell in the field. In fact, field technicians may sell more add-on services or "new work" than a salesperson that is just a voice over the phone to the customer. Extending mobile functionality to your field service team equips them with the right information to quote on site and record additional work, so ensuring they understand the opportunity is a necessity and it is logged and tracked in the system. A word of caution, be careful on having the sales team quote the simple replacements and change outs as they stop looking for new work and live off what the technicians find.

Measuring Success

The fundamental role of technology is to make significant contributions to the bottom line, so as with any other technology initiative, field mobility programs must be attentively monitored and adapted as needed to ensure the utmost return on investment for the organization. In particular, organizations need to review both costs and benefits.

The cost side is pretty straightforward—you need to understand the end-to-end costs of delivering mobility services to your field staff from devices to data plans, and so on. Training is also a key ingredient to a successful implementation. Create training work sheets and exercises for the tech's to preform prior to using the live system. Ask a senior technician to assist in the development and roll-out of the training as it is better received by the team.

On the benefit side, enterprises with well-conceived and well-managed mobility programs can also expect to reap these benefits, although how they are measured will be unique to each organization:

- increased customer loyalty
- improved cash flow and profitability
- improved employee productivity and satisfaction
- increased "new work"
- accelerated processes that result in faster responsiveness to customers and new opportunities
- reduced errors through better access to information resources and improved collaboration and oversight
- improved employee recruitment and retention
- improved accuracy for parts used and charged to work orders
- reduces unbilled time to fill out paperwork and travel to the office to turn it in
- improves restocking of trucks
- improves reporting on unbilled time and lost time

A mobile solution that can deliver both elements is a winning solution that will lead to a quicker return on your initial investment.

Conclusion

WennSoft: A Field Service Partner That Gets Mobile

We can help get your field technicians mobile, fast. Whether you standardize on a single device or choose a variety of mobile devices, we can ensure that the app you want running on your technicians' devices are installed and configured correctly before they turn them on the first time. Working with your management team or IT department, we can design, plan, implement and support comprehensive mobile field service solutions built with your organization's needs in mind.

About WennSoft

Connections across the organization are key for those who want to better manage installation, maintenance and repair processes and WennSoft solutions help make them happen. Founded in 1995, WennSoft delivers innovative field service solutions that streamliine operations from sales to the field to accounting, arming customers with the insight they need to do their work more proactively, productively and profitably. Contact us and our team will work with you to explore the options that are right for your business.

WennSoft

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