

# MOBILE WORKFORCE OPTIMIZATION: MISSTEPS TO AVOID

After a tumultuous start to its mobile initiative, cable provider Knology is now reaping the benefits — including a 14% increase in field tech productivity.

by Sarah Howland

According to Weldon Feightner, regional VP of Knology, there are seven keys to success in the service industry: time, tools, training, expectations, accountability, communication, and visibility. When boiled down to this level of simplicity, it sounds easy, right? It's not — Feightner will be the first to tell you that finding the perfect combination of those seven ingredients is no easy feat. And while leveraging technology has become imperative to success in today's service organization, it can sometimes further complicate things before benefits are realized. Luckily, Feightner is willing to share the lessons Knology learned during its mobile workforce optimization initiative so that you don't have to make the same mistakes.

Knology is a provider of cable TV, Internet, and phone services with annual revenue of more than \$550 million. The company's field force of 350 technicians services more than 320,000 customers in nine states. Historically, Knology's field technicians fell into one of two categories — installation techs or service techs. Since the company began as only a cable service provider, it started with only cable install and service techs. However, when Internet and phone services were added, the company added install and service techs dedicated to those services specifically. Over time, as business grew, Knology realized that having three sets of two different types of technicians was a scheduling and dispatching nightmare — and created a myriad of inefficiencies. “We had different scheduling systems for cable, for Internet, for phone. Having separate systems meant that we'd often send a technician there one day to install cable, then another technician would go back to the same customer the very next day to install Internet,” explains Feightner. Schedules and routes were completed and printed the day before for each technician, and trouble calls requiring immediate attention were dispatched to field techs over the phone — equating to large

amounts of time spent on the phone between dispatch and the field techs.

## **Field Service Inefficiencies = Customer Woes**

For Knology, the issue wasn't just operation inefficiencies, but also the impact the organization's structure was having on its customers. “We were intimidated when the business changed from just cable to Internet, and we felt we had to hire Internet expert technicians. Same when we added phone. But we got to a point where we were hearing from our customers the frustration the segregation of the technicians was causing them,” explains Feightner. “They were frustrated that one tech would show up at 11 to install cable, another at 2 to install Internet, and yet a third at 4 to install phone. They began asking us why, and we didn't have an answer.” Knology's need to streamline its operations came to a boil when Knology announced it was replacing its billing system, which had been used by the call center to create paper work orders up to this point which were then handed off to the various scheduling systems. It was essential to replace the billing system, because the current version didn't enable Knology to bill for all three types of service on one bill — customers were sent one bill for cable and Internet and another for phone.

Knology developed a long-term goal of introducing a CST (customer service technician) program not only to improve the quality of their performance, but also to incentivize techs with raises for advancing their skills across product sets (cable, Internet, phone) and type of work (install, service). The CST program would help Knology enable each technician to do any job. As part of the long-term plan, Knology intended to introduce a mobile solution to its technicians to streamline dispatch and to automate the taking of notes on-site and the closing out of work orders. However, Knology was faced with an immediate need to find a solution with which to create



Weldon Feightner,  
regional VP, Knology

photos by Mika Fowler

## Feature Article

work orders and knew it also needed a centralized scheduling solution (for all types of techs). Knology chose to deploy Clarify SMS (service management system) along with ClickSchedule, an optimized scheduling solution from ClickSoftware. Now, work orders would be created in Clarify and then routed automatically to ClickSchedule to be scheduled in an optimized, automated fashion. Here's where the lessons learned begin.

### Lesson #1: Don't Rush Technology Selection

Because of the situation with the billing system being replaced, Knology was under pressure to evaluate and roll out a new SMS and scheduling solution quickly. While the company still did its due diligence in selecting the right vendors, it is best to avoid — if at all possible — putting yourself in a position where you're racing against the clock because that rush contributed to the other lessons learned throughout the deployment. To select the best-fitting technology, Knology put together a team of six that included representatives from the field, operations, IT, finance, and upper management. The team evaluated three different scheduling vendors and visited a utility in Canada that was currently using Clarify and ClickSchedule together. "This company provided gas service where they dealt with a lot of different types of appliances, so it was a similar scenario to ours with the cable, Internet, and phone product mix," explains Feightner. "ClickSchedule allowed them to differentiate between different types of techs and send the right tech with the right skills on the fly. We also talked with them about the fact that the solution enabled them to go from something like 130 dispatchers down to 30." After seeing the solution in action firsthand, Knology was ready to move forward with the implementation.

### Lessons #2, #3: Speak The Same Language, Fully Understand The Solution

As Knology began its deployment of ClickSchedule, it quickly realized there was much that was getting lost in translation. The company had to work with ClickSoftware to get all the data it would need to work effectively entered into the solution — including a profile for each technician (technician names, skill sets, schedules, certifications, etc.) and information about each type of job they perform (type of job, average length of each job, etc.). The good news about this is that once the solution was set up, it would automatically schedule the most appropriate technician for the job based on their capabilities, availability, and the location of other jobs in their schedule. The bad news is that Knology made the initial rollout of ClickSchedule a bit more complicated than it needed to be. "Our terminology was so vastly different from ClickSoftware's," says Feightner. "ClickSchedule is an advanced technology, and we were coming from a manual, paper-based world. We just didn't understand their language." One example of this is that Knology measured jobs in points (i.e. this job takes one hour, which equates to four points) where ClickSchedule measures jobs in minutes. While this may seem like a minor difference, it becomes challenging

## Build On Your Optimized Scheduling Solution

When cable TV, Internet, and phone service provider Knology set out to find a more efficient means to schedule its 350 field technicians, the company chose ClickSchedule optimized scheduling software from ClickSoftware. This decision was made largely on ClickSchedule's ability to handle the complexity of Knology's mobile workforce, which at that point included separate techs for cable, Internet, and phone as well as for installations versus service calls. Keeping track of all these factors became cumbersome and inefficient with the manual system Knology had in place, and ClickSchedule automated that process by scheduling the right tech with the right skill set for the job in real time. In addition, ClickSchedule accommodated the need to dynamically change schedules throughout the day when same-day service calls come in.



Knology's field technicians receive work orders from ClickSchedule on their HP Netbooks, eliminating the need for them to carry paper schedules or call in to dispatch regularly.

ClickSchedule is one of a suite of mobile workforce optimization tools that ClickSoftware provides — and while it can be used successfully on its own, it can also be used alongside the other tools that all provide different value. For instance, ClickLocate is designed to work with ClickSchedule to add LBS (location-based services) to the solution — so you know where your field techs are in real time and can respond more quickly to incoming calls. ClickPlan is forecasting software geared directly toward field service resource capacity planning that can help you improve customer service and control budgets by staffing appropriately. ClickMobile mobile workforce management software enables field techs to interact with the back office in real time, providing greater visibility into the work techs are completing throughout the day.

ClickSoftware's solutions are available both on-premise and on-demand via the Web, giving companies the ability to choose the software solution that best fits their needs. In addition to the stand-alone solutions mentioned above, the company also provides varying levels of prepackaged software solutions, or suites. For more information on the solutions ClickSoftware provides, visit [www.ClickSoftware.com](http://www.ClickSoftware.com).

when many small differences all add up — and was compounded by Knology’s pressure to get the system in place quickly.

While Knology did the right thing by having field techs in the group of people working on the project (a good step for creating employee buy-in), Feightner points out that having them there doesn’t provide much value if you don’t listen to what they’re saying. “We did a lot of good, up-front talking about the solution,” he explains. “But, when we got into the specifics of setting up the parameters in the software, I don’t think we actually listened very well to the input the field techs were providing. The IT experts and the field representatives didn’t listen to one another well.” Because of this, Knology experienced some rebelling when the solution was first introduced. The dispatchers and field techs felt they could perform their jobs better than the software could, so they would circumvent the system by manually rerouting the jobs on their own. “The lack of understanding we didn’t handle at the beginning prevented us from fully benefiting from the capabilities of the technology,” adds Feightner.

**Lessons #4, #5: Create Employee Buy-In, Prepare For Culture Change**

For the field techs, not much had changed at this point of Knology’s rollout of Clarify and ClickSchedule — while the tools directly impacted the productivity of the mobile

workforce, they were almost entirely used by the call center and dispatch employees. That said, Knology’s failure to home in on the feedback of the field representatives during the preparation and rollout of the solution had a direct impact on its effectiveness. “We did a fine job of training the field techs on how to read and use the materials that were coming out of ClickSchedule [their optimized schedules], but we didn’t do a good job of teaching them the why behind the whole project — and that is what led to their lack of adoption,” explains Feightner. What advice would Feightner apply to the rollout if he had it to do all over again? “We needed to work with them more one-on-one and address their concerns individually,” he says. “We knew ClickSchedule was the most effective tool we could have chosen, but we needed to spend more time making the field workers see that. For example, we needed to ask them how they’d route a list of jobs and then show them that ClickSchedule would do it the same or better than they had.”

It’s important to remember that when you’re introducing a technology like this into your organization, you may see the benefits loud and clear and have a perfect vision of the good it can do for your company — but your employees may not. You have to show them. “We didn’t think of this project as a culture change from the beginning, but our employees did,” explains Feightner. “If we’d have known we were changing the entire culture,



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we'd have communicated differently with our employees than we did. You really have to think about how what you're introducing can be interpreted by those workers and prepare to handle that cultural shift." While Knology made some missteps up front in implementing Clarify and ClickSchedule, the company was wise enough to recognize and learn from those to improve the use, and therefore effectiveness, of the solution over time.

### The Evolution Of A Mobile Workforce Optimization Solution

With the initial deployment behind it, Knology set out to accomplish its goal of getting all technicians trained across skill sets and getting a mobile solution rolled out to those techs. Providing the techs with mobile computers would enable Knology to stop providing them with a day's worth of work at a time, which has two big benefits: The techs no longer have the ability to circumvent the system because they're only being fed a job at a time, and Knology is able to fully leverage the dynamic nature of ClickSchedule (meaning jobs can be added and schedules optimized in real time versus a day ahead of time). As field techs became cross-certified (by product — phone, Internet, cable — and by type of service — installation or service), their profiles were updated in ClickSchedule so they'd be scheduled and routed efficiently based on their current skill set.

Knology chose to roll out HP Netbook computers to its field techs, on which they'd be able to access work orders one at a time as well as input job notes and close work orders once they left each location. For the rollout of the Netbooks, Knology used a phased approach by division. The core group involved in the selection of the technology worked with each division head individually in a train-the-trainer approach, and that person went on to train the rest of the techs at that division. The entire rollout took about 60 days. This time around, Knology was prepared to deal with the cultural shift. "The IT team was instrumental in the success of the rollout. The team and I spent time in the field ourselves and listened to techs explain why the technology wouldn't work. We handled those conversations one-on-one, just like we should've the first time," says Feightner. "We also monitored each field tech's use of the solution by measuring the number of times they called in to dispatch to close a work order versus doing so on the Netbook, and we held them accountable. You have to start on their side — start by explaining the technology and addressing their concerns. If you just tell them I told you so, they won't use it when you walk away. So you work with them — but when it comes down to it, if you're telling them that this is part of the job, they have to understand that if they don't do that part of the job they may not be right for it anymore."

Soon after the Netbooks were rolled out, Knology completed an upgrade of ClickSchedule that has added to the functionality of the solution. Not only is Knology able to keep up-to-the-minute profiles of every tech's

skill set and capabilities, but it's also able to weigh them based on experience so that more experienced techs, who may work faster, get more jobs than less experienced techs. ClickSchedule automatically prioritizes service jobs that need to be done immediately and will dynamically change schedules in real time to compensate. And, because techs are now fed one work order at a time, they never know the difference.

### Mobile Deployment Pays Off

The benefits Knology is experiencing are due to a combination of the initial Clarify and ClickSchedule deployment, as well as the recent upgrade and mobilization of the solution. Obviously, the initial ClickSchedule rollout had some impact on the manual work the dispatchers were doing before, and that was compounded when the solution went mobile because dispatchers no longer had to manage work orders a day in advance — that process is all automated now. All said, that has led to a 58% reduction in the number of dispatchers Knology has.

The ability to feed techs one job at a time has drastically reduced the time they spent juggling and rearranging their schedules. In addition, they no longer take manual notes on-site that they then have to enter in later or hand off to the back office — job notes are now entered directly into the Netbooks, and work orders are closed upon completion of the job. These capabilities have led to a 14% increase in the number of work orders a technician completes per day. In addition, Knology has reduced its repeat trip rate by 21% and has improved its on-time percentage by 20%. Further, the solution seems to have had a large impact on employee satisfaction — the turnover rate for field technicians has been reduced by 47%. In total, Knology has reduced its operating budget by 5% — or \$4.8 million — over the past three years. In the near future, Knology is looking to upgrade the mobile device its techs use in the field and is investigating tablet PCs that would incorporate signature capture (which would eliminate the very last piece of paper Knology techs deal with).

While Knology didn't have the easiest start with its mobile workforce optimization initiative, it learned from the mistakes made early on — and that education has paid off big time for the company. Hopefully for you, reading about Knology's missteps means you won't have to learn these same lessons the hard way. •



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