



MILLENNIAL MANAGEMENT

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FIELD AUTOMATION

A power service company has increased productivity 10 percent with the help of field service software, p.15.

May/June 2017

Field Technologies

OPTIMIZE FIELD WORKERS, SERVICE & ASSETS

The Next Step In Cox Communications' Mobility Journey

The cable/broadband giant has seen more than a 50 percent increase in its NPS (net promoter score) since its major mobility initiative began in 2013, and expects further gains with its most recent iteration, p. 6.

Brian Batista, field service technician,
Cox Communications



A woman wearing a blue knit beanie with sunglasses perched on top, a light blue and white outdoor jacket with a "CASCHER" logo, and dark pants is kneeling on a rocky shore. She is holding a ruggedized tablet computer with both hands, looking at the screen which displays a map or data. In the background, there is a large, snow-dusted mountain peak and a body of water.

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Covering front-end to back-end enterprise IT integration, *Field Technologies* shows growing organizations how to capture, generate, and retrieve data at all points of work and service. We educate IT decision makers about leading-edge technologies and applications that drive business performance — and revenue — by eliminating boundaries of time, distance, and scale.

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Cover Feature

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Service Is Becoming Increasingly Strategic — Are You Ready?

Sarah Nicastro, Publisher/Editor In Chief,
sarah.nicastro@fieldtechinfo.com



While attending Field Service USA in April, one of the interesting sessions I sat in on was that of Frank Bibens, president of global services at Vertiv. Bibens was speaking about the state of service, and specifically about why — at least for Vertiv — service is becoming increasingly strategic. At this point, for many — if not most — service organizations, the view of service as a cost center is long gone. Organizations have come to recognize the service function's ability to contribute to revenue, but what Bibens was say-

ing is that service isn't just a contributing factor of profits — it is a strategic force behind them.

For Vertiv, Bibens said that the company sells eight to 12 dollars of service for every product dollar. So, as you can see, service is a highly profitable aspect of Vertiv's business. It is also the face of the business — service is Vertiv's (and your) way to control the customer experience. Service, when done well, enables you to develop loyalty and repeat product sales, as Bibens points out. For these reasons, and others, today's industry leaders are viewing service as a strategic differentiator.

So how do you do this? First, be sure you are looking at service for the opportunity it is. While sitting in Bibens' session, Field Service USA did a live poll of the audience — 91 percent in attendance said that service is now a strategic priority. Assuming that 91 percent includes some of your competition, you do not want to be left behind. Bibens pointed out commoditization as a crucial reason to invest in service. According to him, "upstream investments deliver downstream dividends."

Words Of Wisdom On Service Strategy

Some words of caution Bibens provided were about the need to create a separate profit and loss center for service. He advised against making blanket decisions by lumping service in with the rest of the company. He gave the example of not cost cutting on service during the Great Recession even though the company was cost cutting as a whole, because they realized that in that situation customers would be looking to service to extend the life of their equipment. Sometimes your service operation does need to be viewed differently from the other arms of your business.

Bibens also touched on the increasingly popular topic of self service — enabling your customers to have access to more information and to participate in their service more actively through portals, apps, and other methods of communication. While self service can have an overwhelmingly positive impact on your business, Bibens also warns that — if not thought through correctly — it can have a negative effect too. The more complex the service operation is, the more room exists for misinformation and miscommunication. In Bibens' opinion, there is such a thing as too much information, and you want to do your due diligence in thinking through if — and in what form — self service is right for your business.

Sarah Nicastro



Publisher/Editor In Chief
Sarah Nicastro
(814) 897-9000, Ext. 325
sarah.nicastro@fieldtechinfo.com

Managing Editor
Angel Clark
(814) 897-9000, Ext. 285
angel.clark@jamesonpublishing.com

Editorial Director
Dan Schell
(814) 897-9000, Ext. 284
dan.schell@jamesonpublishing.com

Production Manager
Lynn Netkovic
(814) 897-9000, Ext. 205
lynn.netkovic@jamesonpublishing.com

Circulation Director
Melinda Reed-Fadden
(814) 897-9000, Ext. 208
subscriptions@jamesonpublishing.com

Dir. Of Online Development
Art Glenn
art.glenn@jamesonpublishing.com

Corporate Office Address
Knowledge Park
5340 Fryling Road, Suite 300
Erie, PA 16510-4672

Contact Information
Corporate Office PH: (814) 897-9000
Sales Department FX: (814) 899-5587
Accounting FX: (814) 899-5587
email: info@jamesonpublishing.com
website: www.jamesonpublishing.com

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The Next Step In Cox Communications' Mobility Journey

by Sarah Nicastro

Cox Communications is the third largest cable company in the United States, serving approximately 6 million customers. The company provides digital video, internet, telephone, and home security and automation services.

The cable/broadband giant has seen more than a 50 percent increase in its NPS (net promoter score) since its major mobility initiative began in 2013, and expects further gains with its most recent iteration.

es over its own nationwide IP network. Cox's field force is 3,000 employees strong, and the company prides itself on being an early adopter of technologies to enable that mobile workforce.

Our history of covering the company through editorial in *Field Technologies* magazine supports that claim. In June of 2010,

we featured Cox's deployment of SaaS-based routing that decreased field technician drive time by 13 percent. During that interview, we learned that the company had been using mobile devices in the field since the late '90s/early 2000s. Then in November of 2012, we covered the company's "Cox Conserves" program, which included a rollout of GPS that saved Cox more than 1 million gallons of fuel each year and reduced its carbon footprint by more than 25 million pounds of CO₂.

In 2014, the company deployed its award-winning, internally developed CX Connect software solution and mobile application. CX Connect is Cox's primary customer information and work order management platform for the field service workforce. When CX Connect was rolled out, Samsung tablets were selected as the mobile device. Present day, Cox has just completed a device upgrade to address some shortcomings that presented themselves as the Android tablets neared end of life.

Cox Communications' Key Field Mobility Objectives

Throughout all of these projects and technology decisions, Cox keeps three primary objectives top of mind. First, a focus on improving the customer experience. Second, a desire to continually enhance the employee experience. And third, the need to drive operational efficiency. For Cox, these three tenets are at the heart of the company's ongoing



Brian Batista, field service technician,
Cox Communications



“We have to keep a foot in today, but we are always taking a long view and looking at how technology is evolving and what those implications are for our business. We are in a process of continual research and evaluation.”

Janice Roberts, Cox Communications

evaluation of technology needs and trends. Janice Roberts, senior vice president of field service at Cox, is responsible for developing a multiyear strategy and road map for the company. “This includes what technology projects we’re going to implement to enable both our front line and back office,” says Roberts. “It also includes initiatives to help us standardize, so that we operate as one Cox field service entity.”

Roberts and her associate Mike Horton, executive director of workforce enablement at Cox, stress that a focus on continual improvement — and therefore continual technology research and evaluation — is critical. “We never stop researching — that is key to our strategy,” explains Horton. “The speed at which technology is evolving today means you have to be continually searching for what is next.”

This process of ongoing evaluation and research allows the company to readily identify areas for improvement. One such revelation led to the company’s recent mobile device project. According to Roberts, one of Cox’s primary goals with mobility is to equip its field force with the right tools so that they are as self-sufficient on the job as possible. “Our technicians are in trucks every single day. They are visiting a number of customers each day, and we know that for them to be able to get their jobs done effectively, we need to find the right tools to provide them with access to the real-time information they need at the point of need,” says Roberts.

Consumer Tablets Can’t Keep Up

Through its continual improvement process, what Cox found was that the consumer-grade tablets the company initially deployed could not keep up

with the changing needs of the field technicians. “In order to drive self-sufficiency in our field force, we really focus on the hardware the technicians are using,” says Horton. “Is it the right kind of device for the job they’re performing? Will it perform to the requirements of the job? The goal is to reduce their dependence on upstream organizations (back office support, etc.) to serve the customer. To do this, we really try to make their job as easy as possible — we focus on minimizing the number of screens they have open, maximizing connectivity, etc. We do everything we can to drive fast, efficient service through presenting pertinent information at the right point in time in the workflow of their job.”

One of Cox’s high-speed internet offerings is Gigablast — marketed as 100 times faster than average internet. What the company found was that the consumer-grade Samsung tablets were not capable of testing the Gigablast internet speeds — the processing power to do so just wasn’t there. If you think about that from a customer experience perspective, the change was necessary because Cox had customers purchasing technology from the company that the field technicians were unable to test from their mobile device. Furthermore, the devices had been in the field for a couple of years — and the reality is that for many of today’s devices, that means they were nearing end of life. Deploying an updated version of the Samsung tablet was not a consideration, not only because of the processing power needed, but also because the manufacturer was phasing out the Ethernet dongle Cox uses to read wireline speeds.

“As our business evolved and new products with higher speeds and data were introduced, the con-

sumer-grade tablets were not able to keep up with our needs for testing,” explains Roberts. “This is why we constantly reassess what our technology needs are through a process of device evaluation versus the technical and functional needs of our product offerings. Through this process, we made a determination that we needed to pivot to a different type of tablet.”

Cox’s Methodical Approach To Technology Selection

With the decision made that a new mobile device was necessary, the research, evaluation, and selection process was kicked into high gear. First, Cox’s field service team partnered up with the company’s technology product team to explore the company’s product road map to be able to clearly define the technical requirements of the project. This helped to ensure that upcoming product releases wouldn’t land the company in the same situation (mobile devices that can’t keep up with internet speeds/testing needs). “Partnering with our technology organization first helped us to define our specific business and functional requirement so that we knew from a technical standpoint what we needed from our next mobile device,” says Roberts.

Once the specs were clearly outlined from Cox’s technical team, the company began testing mobile devices that met those criteria. The approach Cox takes when evaluating technology for its field force is one many companies should take notes on. The company is very employee-focused in its selection process, involving the field team early on to weigh in on decisions and voice their thoughts on what features and functionality are needed. When Cox developed its CX Connect software, technicians were heavily involved in the design, and as the company set out to evaluate new mobile devices, the techs were first in line to test them and provide input.

“The way we go about vetting devices is to put the users — our field technicians — first,” says

Horton. “The employee experience and the way they perceive and work with these devices is our number one selection criterion.”

The company began small field tests of a few different mobile devices. “As we’re going through our selection process, we score their opinion of a device on a weekly basis,” says Horton. “If it doesn’t meet a certain threshold, we don’t move forward. Putting the employee first and making their feedback the focal point of your device selec-

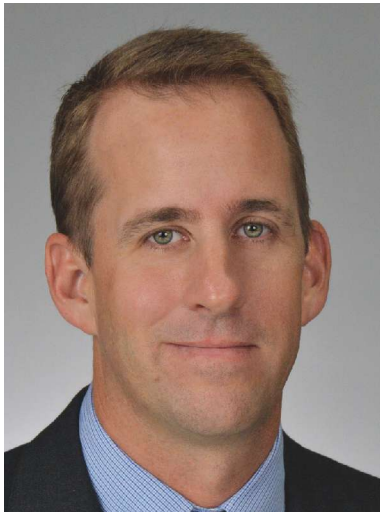


Cox Communications’ field technicians, like Darryl Eppinger above, use Cox’s internally developed, award-winning CX Connect platform via Dell Latitude two-in-one devices to complete jobs in the field.

tion process are critical.”

From those smaller tests, a front-runner emerged and was put into a larger field test. That device was the Dell Latitude 5175, which is a made-for-business two-in-one device with features geared specifically toward making enterprise IT management of the devices simple and secure. The Dell device can be used stand-alone as a tablet, or along with the optional keyboard. For the purposes of Cox’s project, the most critical criteria for its device selection were met with the Latitude’s processing power.

“The Latitude device is a high-performance device that allowed us to achieve critical levels of perfor-



“The way we go about vetting devices is to put the users — our field technicians — first. The employee experience and the way they perceive and work with these devices is our number one selection criterion.”

Mike Horton, Cox Communications

mance when it came to testing our Gigablast and other data products,” says Horton. The portability of the device and its ability to withstand a variety of operating conditions were two additional marks in its favor. “We were looking for a device that had the flexibility to be easily taken into the customers’ homes,” says Roberts. “We tested the device in the heat, in the cold. We looked at battery life, all of those things that are pertinent to making a device selection.”

The field trial of the Latitude lasted about six months before full-scale deployment began. During this time, Cox was gathering real-time feedback and input from its field force to ensure the full-scale rollout was successful. That full-scale rollout was completed in April of 2017 through Cox’s IT department’s standard procedure. Early feedback on the devices has been overwhelmingly positive. “Our employees are ecstatic about the device upgrade,” says Roberts. “We pride ourselves on capturing the voice of the field. We hold focus groups and town halls to make sure that we understand exactly what our frontline resources are saying about the technology we roll out to them.”

The field team is especially happy with the improved processing power because it makes it far easier for them to meet customer expectations while on-site. “As we were completing the pilot, our VP of field services sent us an email saying that the field force feels like it is Christmas in July,” says Horton.

The Major Impact Continual Improvements Can Make

Since Cox introduced its CX Connect platform in 2014, there have been multiple updates to keep the application fresh and relative to the evolving

needs of the field service team. However, with this specific device refresh, no changes to the CX Connect platform were made — this project was specifically to ensure that the mobile device in the hands of the field techs was up to the tasks being asked of them.

The biggest change with the new devices in place is that the technicians are better equipped to test the Gigablast speeds while at a customer site. With the prior device, technicians were unable to test the highest tier products. “Customers largely look at our data products through the lens of performance, which is based largely on speed and throughput,” explains Roberts. “With the device upgrade, the technicians can now show the customer very easily — up to our highest tier of service — that the service they are paying for is being delivered.”

This improved capability gives field technicians the ability to work with customers to optimize their homes. If there is an opportunity for improvement or additional service offerings, the technician is now in a position to make suggestions based on real-time data.

The improvements that Cox has made on the customer experience are reflected in the company’s NPS (net promoter score). Since its larger field automation initiative with CX Connect in 2014, the company has seen more than a 50 percent increase in NPS. Since just Q4 of last year, when this device upgrade rollout began, the company has seen an uptick of more than 10 percent. Cox believes part of that increase can be directly tied in with the way the updated tools empower its frontline workforce.

Cox has also witnessed an improvement in employee experience. With the new devices in place, the company is experiencing approximately

15 percent fewer inbound calls to the support centers. “As we stated, one of our key objectives is to maximize our field technicians’ ability to be self-sufficient at the worksite,” says Horton. “The reduction in support needed that we’ve witnessed shows that this rollout has been effective in accomplishing that goal.”

Words Of Wisdom From Experienced Field Service Leaders

As early adopters, Cox has been at the mobility game for a long time. Along the way, the company’s leaders have learned a lot about what it takes to be successful when leveraging technology for field enablement. When I asked what insight they could pass along to their peers, the first piece of advice they provided is to continue looking forward. “We have to keep a foot in today,” says Roberts, “but we are always taking a long view and looking at how technology is evolving and what those implications are for our business. We are in a process of continual research and evaluation so that we are readily prepared to evolve as needed and migrate to the best, most current technologies that support our business needs.”

Another critical point that Cox stresses is involving employees early on in all projects and decisions. “Engage your front line early on. Our technicians are very sharp, and they are the ones in customer homes, on the front lines, getting the job done,” says Roberts. “By listening to our front-line workforce, we get priceless firsthand insight into the needs that are emerging from the field.” At Cox, no technology decision is made without getting the input of the employees who will ultimately be using it, and this is an important practice that all companies should take note of. While it may seem intuitive to involve your frontline workers, not every organization makes technology decisions with the actual users top of mind.

Cox of course has plans to continue to put these principles to work to further improve its field operations. The company is currently looking into various knowledge management and augmented reality applications to determine how they fit the organization, and will keep on with its continual updating of CX Connect and evaluation of new mobile devices to maximize the experience of both its workforce and customer base. •

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Q&A: Embracing (And Excelling At) Millennial Management

Publisher/Editor In Chief Sarah Nicastro talks one-on-one with Shawn Connelly of Dyson to glean insight on the best ways to attract and retain today's workforce.

At Field Service USA in Palm Springs in April, I listened in on a panel on best practices for managing millennials, and the input of panelist Shawn Connelly, national director of services at Dyson, stood out to me. I asked Shawn to share some of his insight with you here because the reality is, you need to hear it.

Whether you like it or not, millennials are your future technicians — and they have different needs, habits, and communication styles than your incumbent workforce. I think sometimes organizations tend to ignore the need to understand millennials better because they are in denial that they are their future workers, or that they require a different approach. They are, and they do, and we are here to help. Shawn manages a third-party service network of 500 service centers, as well as 24 Dyson owned and operated service centers. He has valuable firsthand experience with millennials and is here

social media post away, so they do not have the same definitive lines between personal and professional lives the same way previous generations did.

Field Technologies: How do these characteristics translate into management challenges for service companies, and what tips can you provide for overcoming those challenges?

Connelly: Many millennials will push for feedback and communication at a rate most businesses have not historically shared or welcomed. This may lead to the impression of being impatient, when in reality they simply don't know a world where feedback and communication is not immediate. Service leaders need to embrace technology and how it enables them to provide data and feedback as close to real time as possible. This can actually be a classic win/win, because not only is the millennial generation accustomed to receiving real-time feedback, but they also have no resistance to providing it back. For instance, if you ask for daily feedback in a friendly electronic format, your veteran technicians may bristle at another daily task, where a texting-friendly millennial may look at their phone and be surprised you don't want the feedback until the end of the day.

Field Technologies: What is your advice for making your company attractive for millennials who are job searching?

Connelly: The millennial generation researches new employers through the technology they have been raised with. Recruiting through social media outlets that contain both professional and personal networks is a must. Business cultures that are task-completion (versus time-clock) oriented and support collaborative environments are going to be more sought after by the millennial generation. A potential crucial mistake to avoid is to advertise a culture that your team won't or can't deliver on. Not only will the word get out about your culture not matching what is

shawn connelly



Shawn Connelly
national director
of services,
Dyson
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to share some advice.

Field Technologies: How would you describe the unique characteristics of the millennial workforce?

Connelly: The millennial generation is accustomed to information at a greater rate of speed than any generation before. Answers to any question are literally at their fingertips, and they do not have a memory of the world before Google or YouTube. They have also grown up with social media and real-time texting, which means they have an expectation of instant feedback. Finally, millennials have grown up with both their personal and professional networks always one

advertised, which will steer other candidates away, but millennials can quickly be nomadic and a mismatched culture will be a surefire path to retention issues.

Field Technologies: What tips can you provide for most effectively communicating with millennials?

Connelly: Effectively reaching and communicating with any worker today can seem to have such obvious solutions with the technology we all have access to. The trap we can fall into is best seen through the example of that daily or weekly email that so many of us all too often skim through at best. First, millennials are used to immediate communication — so why wait to drop a message at a routine time? Also, diversify communication by not always providing it in the same delivery method. We have so many tools, and we are best off as leaders to leverage many media formats. Try that weekly email as video content, either live or recorded. The best way to ensure effective communication is to provide a platform for discussion within your team — make it an active communication versus a passive one. Whether through group texts, internal blog posts with comments sections, or open chat ability between team members, a communication discussed is more likely to be remembered and acted upon than a message simply delivered.

Field Technologies: Are there differences in how to best incentivize millennials? If so, what have you found works best?

Connelly: Much has been written about how the millennial generation blends work and personal life in an increasing manner, as well as the fact that they value work-life balance at times far more than financial progression. These tendencies can allow leaders to incentivize staff in a manner that can be a true mutual win. Motivating employees to finish a project and using time off as an incentive can lead to not only a timely project finish by a motivated millennial, but also a reward of time off that they highly value. Many times this time off is not as much of a concession as it seems, because efficiencies gained with the proper incentive will lead to a trade-off between quick project completion and gained personal time off.

When using more conventional financial incentives or contests, consider gamification. There is plenty of research around gamification and the impacts using it can have. Millennials have not only grown up competing for individual ranking in gaming worlds, but like no other generation before, have operated in specific game roles driving to objectives in collaborative gaming environments. They have always known gaming “guilds,” and can relate to collaboration through a

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“Ensure that you are being honest with yourself and recruits about your company’s culture. Nothing can start a millennial nomadic journey quicker than misaligned culture expectations.”

Shawn Connelly, Dyson

competitive but collaborative environment that — if harnessed properly — can lead to them enjoying doing their part for the team, delivering results, and eagerly awaiting the next project.

Field Technologies: How does a company balance managing a multigeneration workforce that has different needs?

Connelly: A well-balanced service team should celebrate a diversified workforce in all manners. The energy expended meeting the differing needs of the team can come back with an even greater reward with the multifaceted strengths that the team brings to the table. Ensure you constantly get feedback on the communication methods and motivational tools you are using. Do not get caught in a cycle of communicating or rewarding in any single manner. Rotate deliveries so that different groups in your team have needs met.

A powerful tool to consider is the practice of two-way mentoring. The term “reverse mentoring” is occasionally mentioned, but my experience is that the true results come from two-way mentoring. Technical skills and knowledge in the service field have long been passed down generationally through mentoring. In today’s workforce, millennials hold a level of comfort with some skills that are very valuable to their more experienced colleagues, and vice versa. Two-way mentoring can lead to a valuable trade-off where a baby boomer teaches their patience level over many hours on how to properly dress wires during a specific repair, and in turn the millennial provides insight on how to use video messaging for tech support, how to set up an effective LinkedIn page, or how to use YouTube technology to share a service best practice. They each have a skillset the other can benefit from, and a two-way mentoring model can help you enable that knowledge transfer.

Field Technologies: Millennials are known to change jobs far more frequently than other generations. What is your advice for retention?

Connelly: As I touched on before, ensure that you are being honest with yourself and recruits about your company’s culture. Nothing can start a millennial nomadic

journey quicker than misaligned culture expectations. Field service often brings specific challenges in that the service employees often work remotely either individually or in small teams. Leveraging technology to encourage camaraderie among colleagues can help build support networks to ensure a more fulfilling work environment. Provide and encourage the use of group chat functions and group texting to share experience and build community.

Field Technologies: What is one lesson you’ve learned the hard way when it comes to millennial management?

Connelly: The most common mistake made is to assume this generational transition is a new or unique phenomenon. I was struck by some comments at a recent service industry event about how many service industry executives used the word “terrified” when describing their feelings on the growth of millennials in their workforce. I encourage service executives to not only embrace the evolution, but also to look back and consider that this phenomenon isn’t new. Each generation has had a level of stress at the change involved in incorporating and understanding the next generation. Perhaps you yourself once progressed as a more senior executive leveraged your leadership to bridge the gap. If you self-identify as stressed on this issue, seek out those with the strengths you need and find leaders to help you bridge the generation gap.

Field Technologies: If you had to summarize one golden rule of millennial management, what would it be?

Connelly: Passionately avoid negative stereotypes. As a leader you must be resolution-oriented, find a way to see the opportunity in every situation, and turn any perceived adversity into an advantage. Be sure to remember that at the same time millennials enter your team, they are also entering your customer base. Learning to communicate with and work alongside millennials on your team now will get you a step ahead as they become your customers at a growing rate in the coming years. •

How To Scale To Meet The Demand Of Rapid Field Service Growth

The CEO of Power Pro-Tech Services (PPT) shares how the company has managed growth of more than 20 percent per year for the past five years.

Power Pro-Tech Services (PPT) specializes in the service and installation of distributed power systems. The company has more than 200 employees, 105 of which are field engineers and electricians servicing customers in 22 states. For the past five years, the company has grown at a rate of more than 20 percent per year (and at the time of print, PPT had just been acquired by PowerSecure International due in part to its ability to provide “outstanding service”).

President and CEO of PPT, Bob Byrne, has dealt with all of the growing pains since founding the company in 2002. One of those growing pains, of course, was finding the best ways to manage and optimize the company’s field force.

In the 2004 time frame, PPT acquired a company called the American Generator Company, which had a homegrown field management system that PPT decided to adopt and invest in. “At that time, we couldn’t find an off-the-shelf field service management system that met our needs,” says Byrne. “So we decided to put our efforts into leveraging this homegrown system.”

PPT’s business is 85 percent service, and the service operations are fairly complex. It is an emergency-based business, so rapid response is critical. The company’s service level agreements (SLAs) are typically from 2 to 4 hours and, according to Byrne, only getting tighter. About one third of PPT’s business is preventative maintenance, about 15 percent special projects, and the bulk of the business is emergency response repair work.

As service calls get moved to accommodate the emergency work, it creates a downstream effect of moving jobs and technicians around. In this sort of dynamic environment it is very difficult not to lose track of things. While the homegrown system was good in that it was very customized to PPT’s business, it was lacking some key features — namely, integration into the company’s financial system and more advanced scheduling and routing capabilities.

When A Homegrown Platform Just Won’t Work

“As we got bigger, the complexity of the company grew just by scale. We just started to feel it was too risky to rely on a homegrown platform,” says Byrne. “Furthermore, we needed additional functionality. As we began to do our research, we realized that there were more advanced off-the-shelf solutions that offered the capabilities we were looking for.”

PPT focused on finding four key features in a new field service management system. First, the company wanted

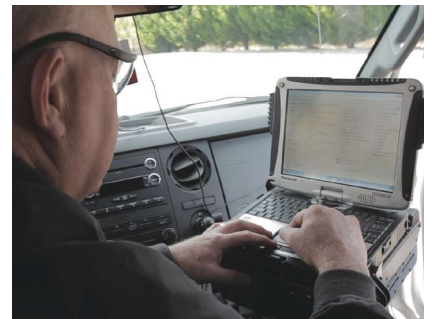
more advanced scheduling and routing functionality to increase its ability to accommodate the growing volume of emergency work. Second, the company wanted a solution that could tie directly in with its ERP system (Microsoft Dynamics 365) so that invoicing could be automated. Third, PPT wanted a solution that provided more sophisticated inventory tracking capabilities. And finally, the company wanted a mobile solution to enable the field technicians to complete work in the field with less paperwork and manual effort while updating the system in real time.

“From the conception of the company we had our technicians using laptops and electronic work orders,” says Byrne. “But it wasn’t real automation — they would then print the work order out, take it into the work site on a clipboard, fill out the paperwork, and go back to their vehicle to scan them in.” There was a lot of redundant data entry and time wasted that Byrne knew could be streamlined and vastly improved.

Field Automation Attempt #1 Fails

Unfortunately, PPT had what Byrne refers to as a “false start” when it deployed a software solution it thought fit the bill. “The due diligence we’d done on this particular vendor looked very good,” says Byrne. “But they didn’t tell us they planned to rewrite the program. Unbeknownst to us, we were a beta site. We started making accommodations that were basically compromises to what we set out to achieve with their solution. I just lost trust in that company. We terminated the agreement, which is an expensive thing to do.”

PPT then asked Microsoft for recommendations on other vendors to evaluate, and began the process over. Ultimately, the company chose VServiceManagement from Vertical Solutions. “They were working with other companies that had a similar level of sophistication to their business, which gave us a good comfort level,” says Byrne. “We also felt like the relationship was the right fit, which was something that was clearly missing our first time around.”



The increased mobility and automation provided by the VServiceManagement FSA solution has resulted in sizable productivity gains for PPT, allowing the company to redeploy resources to accommodate its growth.

by Sarah Nicastro

Case Study

To ensure success with its second attempt at deploying field service management, PPT senior management got far more closely involved. “No one knows your business as well as you do, so you really have to just commit as a company to engage very extensively with the solution provider,” says Byrne. “There’s an opportunity cost to having your COO and CFO spending their time on this type of project, but we felt it led to us getting the solution we were looking for.”

Why Process Mapping Is Critical

The other step PPT took to maximize the benefit of its technology investment was to put time in up front doing process mapping. As Byrne put it, a system is just a system — it’s the people and processes behind it that make the real difference. “The first thing we did was a process mapping exercise. We asked all the questions — what exactly is it we do? What does a day in the life of a technician look like? What is the work order process? How are invoices opened, and processed? How are work orders created?” says Byrne. “You have to do the systems side right, or you will fail. You aren’t just automating all of your processes — you need to take the time to examine them and think about what you need to do differently and what you can do better.”

PPT took an additional step in this process by hiring a consultant that specialized in business process mapping to assist. “She had come from a big Fortune 100 company where she did systems implementations, so she really knew how to sit with people, understand what they are doing, create process flows and map out how we were doing things, and then examine what was working and what could be improved upon,” explains Byrne.

Only after its process mapping exercise did PPT begin to work with Vertical Solutions to determine how the product could be mapped to its business. The company looked at what out-of-the-box functionality would work given its processes, and what aspects of the solution may need to be modified or customized.

Be Realistic About Change Management

Once the process mapping was complete and the solution customized as needed, the rollout began. PPT’s strategy for successful deployment included a realistic approach to change management. “It is human nature to resist change,” says Byrne. “We anticipated that there would be some frustration or pushback, and we just focused on getting ahead of that and creating a sort of campaign that went around the deployment of the solution.”

That campaign was geared mostly toward the field engineers, because, according to Byrne, he was less concerned about managing change with the back office staff. “The office workers, generally speaking, are pretty facile at systems and can adapt quite easily,” he explains. “We were more concerned about the field, because we were introducing something brand new to them — they were going to be required to complete a lot of tasks using the mobile solution, and that wasn’t the way they were used to doing things.”

PPT went into each of its regions and invited field engineers to meetings to introduce the technology. The campaign they created was focused not only on the functionality of the solution, but the benefits it would provide both the field workers themselves and the company overall. Of course, it went perfectly smoothly and as planned from there — right? Wrong. “There are always tweaks you have to make in the first phases of deployment,” says Byrne. “A point of work flow missed, a processing speed running slow. Whatever it is, you just have to stick it out and make sure they know there is no going back — this is the future.” Byrne suggests anticipating and planning for the worst, and make sure you have a solid feedback loop — you’d rather hear firsthand what your employees are thinking than have them vent to one another or on social media.

Reap The Benefits Of Deployment Due Diligence

While PPT’s false start with field automation was a rocky beginning, the company’s due diligence its second time around has paid off. The VServiceManagement solution is proving to be a good fit to help the company achieve its four key objectives, and there have been some notable changes so far.

First, the company has increased the productivity of its field force by more than 10 percent. Second, the company’s open work orders have been reduced by more than 50 percent. Byrne explains that emergency repair work often requires multiple visits. Parts may not be readily available on the first diagnostic trip, and as a result, work orders remain open as parts get ordered and are awaiting delivery. Without the discipline of a system, work orders would sometimes fall by the wayside or remain unresolved due to neglect. Now, the system tracks the age of work orders and provides alerts as they get past a reasonable time frame so that PPT can make sure jobs are being completed in an efficient manner.

Data entry is no longer needed to re-key data from the field or to create invoices, because these are now done automatically. Those resources have been redeployed to other functions to accommodate the company’s growth. As a result of streamlined invoicing, PPT has improved its cash flow. Byrne estimates that the billing cycle is about 5 percent faster.

Going forward, PPT plans to develop integration with some of the portals its customers use to publish and manage purchase orders (its customers use their own systems to send work orders to PPT, which the company has to go and retrieve — the idea is to integrate directly with those systems so the work orders are collected automatically).

Byrne’s advice, in closing, is to use technology as an enabler but to always keep the focus on your processes and your people. “Technology can help you better manage your processes and people,” he says, “but it’s also the skills you need to change as you get larger. You always have to reassess the people on the bus and ask yourself if they are in the right seats. It’s more about the people than the systems, but when you get those two things right, it makes a world of difference.” ●

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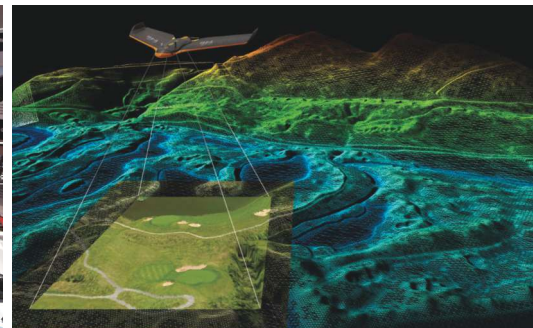


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GPS Fleet Management Provides Loss Prevention Benefits

By recovering assets after theft, this construction company saved \$300,000 in one day by using GPS fleet management.

Kline Construction is a New Jersey-based, family-run, utility support contractor that has been in business since 1945. The company, one of the largest utility support contractors in New Jersey, provides services to companies such as Comcast, South Jersey Gas, and Pepco, and has more than 300 assets in the field between company vehicles and other construction equip-

wasn't up to snuff. We quickly learned firsthand that selecting technology based on price alone wasn't a good idea."

GPS Fleet Management Growing Pains

Prior to considering GPS fleet management, Kline's processes for keeping track of employees and locating assets were less than efficient. Management regularly had to make calls to its workforce to try to locate various pieces of equipment. It was a time-consuming and error-prone process, which is why GPS fleet management seemed appealing. However, Whitlock says, "Five years ago, GPS fleet management was an expensive technology for a business like ours to leverage."

While trying to be cost conscious, the company rolled out not one but two different GPS fleet management solutions that didn't really meet its needs. The first, according to Whitlock, just "wasn't ready for prime time. The technology just wasn't there yet."

The second solution the company tried used onboard diagnostic computers, and Whitlock explains that the company learned — the hard way — that onboard computers don't work well in the construction industry. "We found out over a period of six months that in the construction industry, these computers are not reliable because the equipment bounces around and the computers would literally bounce out of the socket they were plugged into."

Kline also had issues with technicians not reconnecting the devices appropriately after using them, which meant the GPS data wasn't being collected or communicated. Through this experience, the company learned that a hard-wired GPS fleet management solution was going to be necessary.



Kline Construction learned through experience that, in the construction industry, a hardwired GPS fleet management solution works best.

ment. While the company's start with GPS fleet management was rocky, Kline is now reaping the benefits of leveraging the technology.

Bruce Whitlock, an IT specialist at Kline, explains the company's history with GPS fleet management technology. "We initially considered investing in GPS fleet management about five years ago," he says. "Unfortunately, like many companies, we were very cost conscious and as a result, the technology we tested just

“Unfortunately, like many companies, we were very cost conscious. ... We quickly learned firsthand that selecting technology based on price alone wasn’t a good idea.”

Bruce Whitlock, Kline Construction

Fast forward to today, and Kline has finally deployed a GPS fleet management solution that is not only affordable but working well for the company’s needs. The biggest reason it has become possible for Kline to get the functionality it needs at a price point it can afford is that since the company began its search five years ago, GPS fleet management has become more widely used. As a result, the cost for an SMB to use GPS fleet management has come down significantly. This allows companies of Kline’s size to reap the same technology benefits as far larger organizations.

Choosing An SMB-Specific GPS Fleet Management Solution

For its “third time is the charm” deployment, Kline selected SkyBitz Local Fleets. SkyBitz Local Fleets is a GPS fleet management solution geared specifically toward SMBs that enables companies to gather location data and other information on its vehicles and assets in the field.

“The SkyBitz GPS fleet management solution provided the functionality we had been looking for — the ability to know where each of our vehicles and equipment is at any given time,” says Whitlock. “It was also an affordable option for us, and the support SkyBitz provides has been excellent.”

When Kline discovered the SkyBitz GPS fleet management solution, the company did a quick 30-day test with 10 units before diving in head-first to a full-scale deployment and has been rolling out since.

With various types of equipment in the field and in different locations, the installation process has taken some time but is almost complete. With the solution up and running, Kline finally has the visibility into the assets that the company has been working toward over the past five years. This

new wealth of data enables the company to make more informed decisions, better utilize its equipment, and eliminate the need for time-consuming phone calls to track down assets.

Unanticipated Rapid GPS ROI

Beyond some of the expected benefits of the SkyBitz GPS fleet management solution, Kline quickly experienced an unanticipated benefit that paid dividends — theft protection. One night around 2 a.m., two would-be thieves climbed the fence of a Kline facility in Williamstown, NJ, and roughly 90 minutes later, burst through the front gates at the wheel of a hotwired, Kline-owned \$100,000 crash truck and towing a brand-new \$150,000 Ditch Witch underground trencher with \$50,000 worth of drill missiles attached.

With the GPS fleet management solution in place, the thieves didn’t get far. “Within 2 hours, we were able to locate the vehicle, which was approximately 40 miles away. With law enforcement involved, we were able to retrieve our truck, drill, and missiles — totaling more than \$300,000 worth of gear,” says Whitlock. “Based on this experience alone, the GPS fleet management solution more than paid for itself in a matter of hours.”

Plans To Expand The Use Of GPS Fleet Management

Kline has also been able to deter unauthorized use of company vehicles. Many technicians take their company vehicle home, and the solution enables Kline to monitor those instances to be sure the vehicle isn’t being used for nonwork-related purposes. Going forward, Kline plans to expand the use of its GPS solution by monitoring additional vehicle data, such as mileage and engine wear to automate maintenance. •

Exploring The Value Proposition Of AR In Field Service

The use of AR in field service is shifting from a hypothetical to a reality.

I've personally witnessed a shift in how AR (augmented reality) is being discussed in the field service industry. A year ago, the conversation was very hypothetical. From the mouths of field service organizations, the value opportunity — while acknowledged — seemed a little far off. And from a vendor standpoint, it seemed like a lot of hype. Fast forward to today and much has changed. At the Field Service USA event in April, there was much talk of AR — but this time, the conversation centered on actual use cases and early deployments driving real business benefit.

According to analysts such as Digi-Capital, the AR industry is only going to continue to boom. Digi-Capital expects the AR market to reach upwards of \$80B by 2021. I selected a few of the AR companies that were exhibiting at Field Service to share some thoughts with us on where they see the adoption of AR at the moment — and how they expect it to develop as 2017 goes on.

"At the Field Service event, 26 percent of attendees expressed that they are looking to invest in an AR/VR solution in the next 24 months," says David Nedohin, president and cofounder of Scope AR. "In addition, 61 percent of attendees said they were planning to invest in a knowledge management solution in the next 24 months. This indicates that FSOs are ready to invest in solutions that address knowledge transfer, with an increasing eye toward AR."

While the use of AR is still in its infancy, it is picking up speed. "The introduction of new technologies usually follows a

three-stage cycle: the first being skepticism about need; the second is when the technology begins to be used but the perception is that the technology does not/cannot work for widespread use; and the third is where users cannot live without it," says Evyatar Meiron, CEO of Fieldbit. "AR today, in field services, is between the first and second stages."

Is AR Ready For Prime Time?

While AR adoption is still in the early stages, it does seem inevitable at this point that the technology will hit that third stage Meiron mentioned. My confidence in the fact that the use of AR will continue to take off is due to the technology's strong value proposition. "Huge value can be realized by transporting immediate expertise to the right place, at the right time, in the right format — which is what AR enables," explains Marc Guthrie, COO of Help Lightning. "We are already seeing examples of how AR in field service can reduce first time fix rates, eliminate truck rolls, and improve customer satisfaction."

There are two primary ways AR makes these types of benefits possible. First, it enables remote support and/or remote resolution, and this can involve your field force and your customer base as well. For instance, you can leverage AR with your customers to walk them through certain problems in an effort to remotely diagnose and resolve, so that a truck roll isn't even necessary. Or, you can use AR with your own field force to help them diagnose and repair an issue using expertise that resides elsewhere,



David Nedohin
president and
cofounder,
Scope AR



Evyatar Meiron
CEO,
Fieldbit



Marc Guthrie
COO,
Help Lightning



Johan Castevall
CEO,
XMReality

“AR unleashes experience and knowledge that, until recently, has resided in the minds of a limited number of experts. Now, this knowledge can be made available to the entire organization and beyond.”

Evyatar Meiron, Fieldbit

which helps to maximize first-time fix and, in turn, customer satisfaction. “AR unleashes experience and knowledge that, until recently, has resided in the minds of a limited number of experts,” says Meiron. “Now, this knowledge can be made available to the entire organization and beyond: technicians, suppliers, operators, and end users.”

The second way AR is making a big impact for field service organizations is for training. Field service organizations are facing some major workforce challenges — namely, the majority of the workforce reaching retirement age, combined with the fact that the millennial workers replacing them are far more transient in nature. What this means is that organizations have a wealth of knowledge that resides in the minds of their aging/retiring workers, and no real streamlined or effective way to transfer that knowledge to the younger/less experienced technicians. AR holds a strong value proposition here, because the technology enables companies to more effectively and efficiently harness the knowledge of those experienced workers to train the incoming generation of techs. For example, a company can have a handful of experienced techs in one office location training dozens of younger techs in the field. “The growing skills gap is driving up the cost of service, reducing customer satisfaction, and even contributing to high unemployment. There is a dangerous combination of aging workforce that is retiring at staggering rates, and a younger workforce that changes positions quicker than ever,” says Nedohin. “AR is uniquely positioned to help close this skills gap by enabling ‘on-demand knowledge transfer.’ Using AR, organizations can leverage their experts without sending them into the field, and can have field technicians do better, faster work with less training.”

Is AR A Fit For Every Field Service Organization?

While the value proposition for AR is strong, at this point it is better positioned to be used by certain companies versus the masses. Because the technology is in its early stages, there is still room for the cost of solutions to come down and for the ease of deployment to improve even further. As it stands right now, the experts indicate that AR is the best fit for organizations that have a critical need for knowledge transfer — such as scenarios where downtime is extremely expensive, or where customer satisfaction is imperative. As the technology continues to mature, costs will come down and deployment will streamline, which will make it a fit for many more field service organizations.

Another aspect of determining an AR fit is the mindset of the organization. “The interest in AR for field service is increasing at a furious pace,” says Johan Castevall, CEO of XMReality. “But the change management processes of implementing new technologies are still far behind more mature IT technologies such as enterprise resource planning and field service management applications.” Not knowing how to successfully deploy AR and manage the change that comes with it can be a deterrent for some companies — but luckily there are more and more use cases becoming available to learn from.

“AR is the best fit for companies that are open to challenging the status quo — who are looking to differentiate themselves from their competitors,” says Meiron. “Companies willing to embrace new technologies are the ones we see first adopting AR.”

A solid mobile strategy and already optimized workflows are two additional essentials before

“There is a dangerous combination of aging workforce that is retiring at staggering rates, and a younger workforce that changes positions quicker than ever. AR is uniquely positioned to help close this skills gap.”

David Nedohin, Scope AR

beginning an AR project. “All valuable AR solutions require a solid corporate mobile technology strategy,” says Guthrie. “Also, organizations that have a well-defined workflow process in place will have a much higher probability of success integrating an AR solution.”

As more companies choose to deploy AR solutions, which the experts expect will progress significantly this year, the cost of the technology will come down, making it attainable for more field service organizations. “The biggest bottleneck in the adoption of any new technology is making it easy, as well as not requiring organizations to add significant resources to deploy and support it,” says Nedohin. “We are seeing AR move from cumbersome and expensive service proof-of-concepts to scalable products that can be easily deployed and supported on current hardware devices.”

How AR Will Progress In 2017

Meiron points out that, “it’s worth mentioning the difference between two types of AR for field service: The first is static, predefined AR knowledge content that needs to be prepared in advance and the second is AR knowledge content that is built online in real time.” The latter is what field service organizations are having success with today. “AR applications that are creating content in real time, without the need for preparations, are ready to implement as we speak,” adds Castevall. “Applications where data models need to be prepared are in general more immature.”

The other aspect of AR that is still in very early stages is the use of smart glasses. “Many solutions that rely on hardware such as smart glasses are not quite ready for mainstream adoption,” says Guthrie. “But there are smartphone/device solutions that are available now that can pro-

vide significant ROI in field service.” Nedohin adds that, “One common objection you might hear against AR is that smart glasses are still very expensive and their performance is lacking. Despite that, most field technicians today have smartphones or tablets, and those technicians can take advantage of today’s AR solutions with just those devices.”

While AR applications using smart glasses may not be ready for prime time in field service at the moment, the experts do expect technology advancements this year. “Smart glasses are definitely going to hit the field service market with new, more advanced models that combine either camera, see-through AR, or optical see-through AR,” says Meiron. “Next-generation smart glasses like Microsoft HoloLens and the like with built-in SLAM engines will pave the way to MR [mixed reality], which will allow the field service worker to collaborate at even higher levels.”

“We expect to see some major advancements this year in the AR hardware available to field service organizations,” adds Nedohin. “With more 3D camera technologies like Google Tango and Microsoft HoloLens coming onto the market, we will see better, more affordable AR technology that will lead to wider adoption. For industrial applications, there are also more rugged devices and wearables being released in the coming year as well.”

With these expected technology advancements, it is important to keep in mind not just your current needs but also your long-term strategy as you research and evaluate AR for your business. “It is critical to select a solution that offers an incremental value proposition,” says Guthrie. “One that provides value right now, but also is positioned to increase value exponentially as the hardware and networks improve.” •

The Service Operation Is A Business

For service to be successful, you need commitment from the top down.

Numerous elements must fit seamlessly together to develop a service operation that is recognized as a “top quality” service provider. Putting it all in place can be daunting. Getting it all up and running like a well-oiled machine can be a management and logistics nightmare.

We all want and need similar things — well documented processes, qualified people, rapid responsiveness, quick resolutions, and detailed metrics to identify root causes of process and product failures. But today, even all of this is not enough! Truth is, service management can achieve all of the above and still fail if corporate commitment to the service operation is not present.

Though traditional mindsets have slowly been changing, service is still seen as a necessary evil rather than a strategic part of the business and a critical element to the success of a corporation. Often, when business takes a downturn, service is the first to reduce headcount or slash budgets.

Some important indicators that show a company is committed to its service organization:

- Service is included in strategic planning and goal-setting sessions
- Strategic direction statements include service
- Effort is put into analyzing the needs of the service organization
- The service organization receives appropriate headcount and technology funding
- Service management participates in quarterly reviews
- The company culture is such that all departments focus on what is best for the customer

Every business has a profit and loss (P/L) statement. Executives spend substantial amounts of time on raising revenues and lowering costs to make their company more profitable. P/L entries are the key metrics that corporate executives use to measure the progress of their business. Even though you may not be responsible for your service organization’s P/L, you should measure your service group business through analysis of service center metrics, your processes, and costs.

Identifying Costly Service Issues

Find the root causes of undesirable results that affect your service operations. Examine resolution time and poor response time on a product-by-product basis. Develop a metric for cost-per-call and cost-per-headcount to better understand your service costs. Analyze why the costs vary among products, regional field service teams, etc., and implement corrective actions to reduce your costs.

As a businessperson, you’ve taken a magnifying glass to your operations. You’ve studied the results and are actively seeking ways to reduce costs and improve customer service. Now it’s time to put on your salesperson hat and promote your service organization’s contributions companywide.

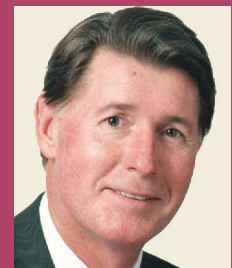
First, you’ll need to identify *sales* opportunities and leverage those opportunities throughout the company. You must listen very carefully to what the end user is saying and ask open-ended questions to understand what the user is trying to achieve with the application or project they are working on. Doing so will lead to opportunities. Because you and your service analysts spend the most time talking to clients in your corporation, you have the advantage of knowing the problems your customers are experiencing. Subsequently, you can identify consulting and sales opportunities long before others can. As you unearth those opportunities, notify your sales and consulting organizations.

The second part of wearing the sales hat is *selling* the accomplishments of your service group. Internally, set service center performance goals for improving key metrics. Present your metrics periodically as you continue to improve your *business* performance. Also be sure to let people know about the day-to-day achievements of your group. This can be difficult for service managers who deal with problems all

day and don’t take time to reflect on accomplishments. One way is to look for something good in what your team does every day. Use this information as input for a recognition program for your team. Present awards for outstanding performance at companywide meetings whenever possible, so that all employees see the contribution your group has made to the company’s success.

By wearing multiple hats, you will become recognized throughout the company as a mission-critical part of the business. You will also begin to develop an industry reputation as a “top quality” service provider.

As the performance of your service center gains attention, you will get the corporate commitment you need for funding and the service of your customers. It will take time, so be patient, as you’ll be expanding your knowledge and making yourself more valuable within your company, and in the marketplace. ●



John Hamilton
president,
Service Strategies,
www.servicestrategies.com

john hamilton



The Changing Field Service Landscape Is Powering Servitization

Here are some tips to stand out among the competition.

Low profit margins, increased competition, and growing consumer demand have contributed to field service organizations looking for innovative ways to maximize operational efficiency. As product-based organizations transition toward a service-based performance model, and as traditional field service organizations look to adapt and grow, the shift from commoditization to servitization has become evident.

Servitization — Why Is It Trending?

Despite being around for 50 years, it's only relatively recently that servitization has become a recognized growth opportunity. According to Markets and Markets' *Field Service Management Report*, key drivers behind the servitization "revival" for field service organizations are:

End-To-End: A New Approach Moving Away From Best-Of-Breed. Ten years ago, service organizations were simply looking to automate their existing processes. In the majority of cases, schedules were generated on whiteboards or spreadsheets, paper work orders were manu-

ally distributed, and communication between the field and back office was limited or non-existent. Best-of-breed solutions provided badly needed automation. Automation is now a given.

Today it is all about data. Where an automated solution provided process efficiency, an end-to-end intelligent service solution provides the seamless data flow required to optimally drive and scale the business while delighting customers.

Consumer-Driven Product And Service Direction. Now more than ever, today's consumers are empowered. The world has become smaller thanks to globalization, social media, and connectivity. Experiences are more important than ever as today's customers have a multitude of platforms available to make their voices heard. Customer engagement is now imperative.

In the traditional make-and-sell model, you design a product, engineer it, procure materials, manufacture the end product, market and sell it to customers, and then optionally provide aftersales support. Now, rather than selling products, the shift is toward delivering "product-as-a-service." A field service organization needs the right platform to facilitate this change.

Technologies Driving Change

With service opportunities opening the door to better customer outcomes and new revenue streams, the shift toward a service business model is a no-brainer. A study from the Cambridge Service Alliance in 2015 found consensus among capital equipment manufacturers (CEM) on five key technology requirements to enable servitization:

- Predictive analytics to anticipate specific failure modes
- Remote communications to resolve issues from a distance
- Consumption monitoring to create customer-specific service offerings
- Pushing information to employees/suppliers/sub-contractors/customers via mobile platforms or the internet
- Mobile platforms to access business software remotely for maintenance techniques and production outputs

The most innovative organizations are already using the technologies necessary to pioneer the servitization shift and enable continuous interaction with the customer. Connected devices enable organizations to predict and pre-emptively service equipment. They close the feedback loop from the customer, back to the organization to help product-based organizations continually improve their products and services.

For companies that have added service to their offerings, the benefits are significant, including:

- Enhanced revenue — reported growth between 2x and 4x
- Better margins — increases of 3 to 10 percent reported
- Sustainable business growth — increases of up to 5 to 10 percent reported
- Greater customer satisfaction — they are getting what they want
- Predictable income streams

How do field service organizations prepare for what's next in the industry? The first step is to ensure that they have a strong foundation. Core processes and systems should be running optimally to allow an organization the ability to effectively scale and adopt new technology. Organizations must embrace change with an enterprisewide change management strategy. Lastly, the most successful field service organizations have a clear understanding of the end-consumers' expectations for today and tomorrow, to ensure that these can be exceeded today as well as anticipated for the future. Value-added service is no longer optional; it is the very future of service. ●

mark brewer



Mark Brewer
industry director,
service,
IFS
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Transforming Field Service Using Live Interactive Video

Live video and augmented reality can have a big impact on customer support.

For any organization with customer support at its core, the complexity and cost of running said business only continues to grow — especially as customer expectations rise and products become more complicated.

But there's good news: Technology can help manage this complexity and trim costs while also enhancing the customer experience. New tools like live interactive video and augmented reality (AR) give field service organizations and partner networks the ability to share key information. This in turn lets reps more quickly resolve customer issues and reduce the need for onsite visits. Using this technology also opens the door to applying the expertise of your most knowledgeable agents across the field organization.

Rising Customer Service Expectations

It's a well-known fact of the digital era: Customer service expectations are on the rise across every product and service category, and in every industry. Customer service is now a competitive differentiator, with companies trying to outdo each other in speed and quality of support. As a result, it's no longer acceptable to give customers a 4-hour time window for when they can

expect a technician to arrive, or to keep them on hold for any length of time. In a word, any type of support contact represents crucial moments that can make or break customer relationships.

Customers often expect continuous service or operation and, when that's not possible, they may demand immediate restoration. Nobody likes to contact customer support, but if they must, customers want the flexibility to get in touch when it's convenient, 24/7, on the device or channel they prefer. It doesn't matter if customer expectations are contradictory or incur a cost to you — for every company that can't meet their expectations, there's one that can.

To further complicate matters, products and services are becoming increasingly technical and interdependent. There was a time when, for instance, an internet service provider could blame a service disruption on the customer's home router or modem and refuse to do anything about it. Customers will no longer accept this approach. They expect companies to service adjacent or

other products related to their own—in other words, to simply “make it all work.” If a customer has a problem connecting a new smart TV to the internet, for example, he doesn't want to call the TV manufacturer, the internet service provider, and the router service center. Their expectation: The TV manufacturer knows how to make its product work with every other product or service it touches, period.

It is often good to look at other industries for perspective on the evolution in technology trends, and much can be learned from consumer trends in social networks. Users today prefer the rich and real-time interaction of video that started on Vine and has grown to Facebook Live and SnapChat Video. Consumers are accustomed to sharing, and consuming, information via a video feed, which opens the door to a much richer level of interaction.

According to a Pew Research Center survey, 77 percent of Americans now own a smartphone, and half the public owns a tablet computer. What's more, we've become dependent on these technologies. The Centers for Disease Control found that more than half of American homes no longer use a landline phone. But consumers aren't just using their smartphones for voice calls. They're also using them for everyday tasks, like banking, shopping and, yes, taking images and video. According to Google, 400 hours of video are uploaded to YouTube every minute.

The bottom line: Most people know how to use a camera on a mobile device to take video, and they're comfortable with following directions shown on a screen, such as chat messages or annotations.

Benefits Of Live Interactive Video

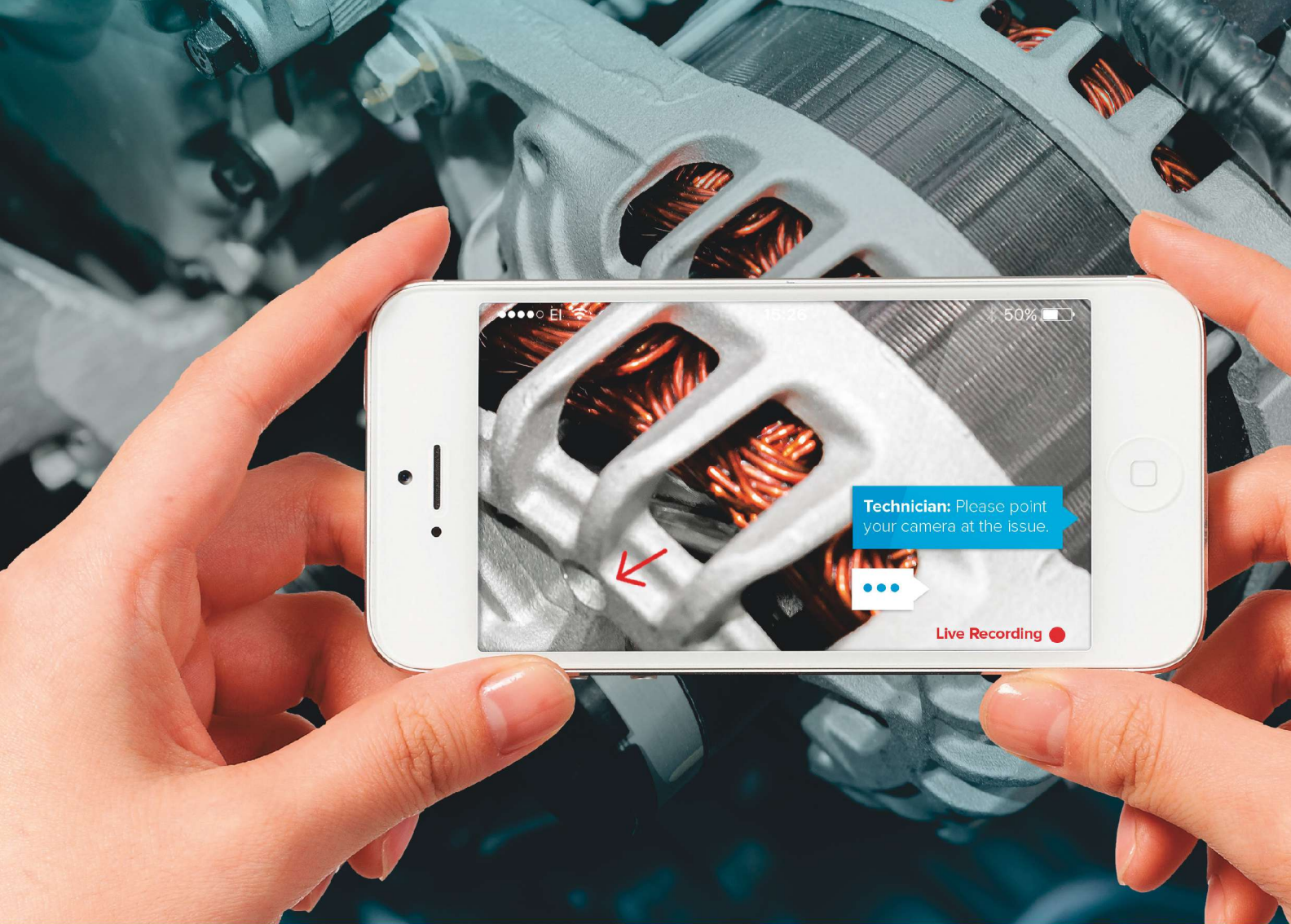
As overwhelming as these challenges seem, they are not impossible to overcome. Live interactive video and AR can effectively address these challenges, meaning field service organizations can meet their business objectives.

Live interactive video support with AR is just what it sounds like. This technology uses a live video feed, combined with augmented reality, to deliver customer support in real time. Video-assisted customer support uses the camera on a customer's iOS or Android mobile device to stream live images of the customer's problem. This live view lets the agent remotely guide the customer through the resolution in a personal and highly effective manner.

The market is telling us it is ready for live video engagement. The question is, who will be the leaders in this transformation? ●

ryan lester

Ryan Lester
director of strategy,
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Predicting Your Customers' Needs: Welcome To The Age Of Intelligent Field Service

How to navigate a connected service world.

It's not a surprise that we're living in a connected world. Customers are connected to everyone and everything by their mobile devices, apps, and connected products. They socialize, shop, and learn online and on the go. In fact, according to Cisco, by 2020, there will be 50 billion internet-connected devices on the planet — a 100 percent increase over 2015.

Now customers expect the same instant, connected experience from your business. According to Forrester, some 73 percent even say that valuing their time is the most important thing for good service. In fact, Gartner states, "The Internet of Things [IoT] will be the most game-changing IT initiative since cloud computing."

Today's customers increasingly rely on the IoT. Products are smart and getting smarter. The IoT knows where customers are, what they want, and even predicts what they'll need. So businesses must deliver a connected, end-to-end experience. But what's really surprising? Information Age reports that a full 52 percent of companies don't have connected field service. In fact, they're still using manual methods to handle field service.



Mark Abramowitz
VP, product marketing,
Salesforce
www.salesforce.com

Harnessing The IoT For Field Service

Customers now have dozens of channels to engage but they still expect your company to have a single view of them. From smartphones to tablets to embedded sensors, the explosion of data demands a single-platform solution to handle it.

Companies need an intelligent service platform that gets smarter as it gains data — one that connects with systems

across your organization and teaches itself to make decisions based on data and operating parameters, including best business practices. This machine-to-machine (M2M) learning is a key advantage in maximizing value and enhancing your relationships with customers.

Here's how intelligent field service can change the game for your company:

Smart asset tracking: Embedded sensors allow you to keep track of inventory that's out in the field to help resolve product issues faster, or track retail customers' previous shopping experiences to ping them with a voucher for savings on favorite past purchases.

Predictive support: Sensors can detect needed maintenance and product faults before they occur, so repair scheduling is streamlined. And wearable devices can even

alert healthcare workers about changes in a patient's condition, so they can deliver needed treatment before a situation becomes a life-threatening emergency.

Product development: Connected products give usage feedback, and issue alerts about repair issues. The service team can use such information to track possible problems, and manufacturing can spot strengths and weaknesses in product design for faster development of future products.

From the call center to the field, intelligent service delivers:

Mobile intelligence: Mobile devices aren't just contact points with dispatch. They allow remote employees and management to share work-related information, such as asset availability and customer histories in real time. And with insight into employees' schedules — and skills — dispatchers can better schedule their time to deliver service on time, the first time.

Deeper customer knowledge: In M2M learning, the computer platform recognizes a customer's likes and needs (even service-call time preferences), so that businesses can streamline the customer service processes and pinpoint the optimal use of field assets and personnel. A 360-degree customer view allows you to anticipate a customer's needs and deliver a more personalized experience.

Enhanced customer engagement: Dispatchers and agents spend less time on back-end scheduling and more time ensuring that customers' needs are being met and surpassed. Geolocation allows them to dispatch the closest tech, while mobile employees spend less time trying to figure out what they're supposed to do next. They arrive at customer appointments on time and with the right skills, tools, and information to complete the job, saving customers frustration, and your company service costs.

Increased visibility: Agents, supervisors, and business leaders gain insights into field service operations metrics, so they can troubleshoot problems more quickly and keep top-performing systems running more smoothly.

Why The Time For IoT Is Now

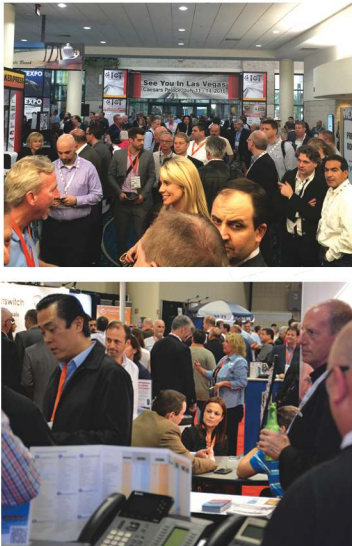
Americans lose an average of \$37.7 billion a year waiting for in-home service, according to *Time* magazine, and companies lose \$62 billion a year through poor customer service according to *Forbes*. Connected service is changing that for good. The IoT and AI allow businesses to serve up data to launch actions before customers even know they need service. Your field service team spends less time finding answers and more time servicing customers. So your customers spend less time waiting, and more of their money with you through more loyal, long-term relationships. •



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Key Factors Driving Revenue Growth In Field Service

Best practices for selling extended warranty and/or extended service programs are shared.

Given the enormous attention that field service organizations (FSOs) are placing on growing topline service revenue, Blumberg Advisory Group and Giuntini and Company recently partnered to conduct a study among service executives about best practices involved in selling extended warranty and/or extended service programs. A key finding of the survey is that the configuration of extended warranty and extended service programs has a tremendous impact on the sales of these programs. In other words, the length of coverage, level of customization, processes engaged, resources employed in delivering the warranty, and entitlement levels offered play a key role in driving sales. These findings suggest that the more distinctions a company can make about its service program, as defined through the configuration, the more effective the company will be at getting customers to purchase it.

The survey also validates the fact that field service executives need to pay close attention to contract attachment rates and renewal rates. These two

KPIs measure the effectiveness of a company's marketing and sales programs. They are also the most important metrics when it comes to determining service profitability.

Some field service executives may argue that KPIs associated with operational excellence such as a first-time fix, customer satisfaction, cost per service event, mean time to repair, etc. are more important to service profitability. However, without service revenue there can be no profits at all. Once a customer purchases an extended warranty program, there is a high probability that they will renew. Furthermore, a sizable percentage of customers who purchase a service contract require very little

service or no service at all. This means the service provider doesn't incur significant costs in servicing that customer.

At issue, very few companies have achieved superior performance when it comes to contract attachment and renewal rates. Only 20 percent of survey respondents experience contract attachment rates higher than 70 percent and renewal rates higher than 90 percent. In addition to warranty configuration, the factors that impact attachment rate include the customer's ability to customize the agreement, ability to terminate early, and ability to negotiate price. Companies that excel at contract renewal also allow for periodic invoicing and the ability to extend contract length. They also provide frequent notification about when a program is up for renewal.

Tips To Improve Service Contract Renewals

To dramatically improve contract attachment and renewals, service organizations must have the right systems and processes in place to market and sell service contracts. The current state of the art is effective in tracking entitlements, managing equipment histories, and notifying customers about when their contracts are about to expire.

However, a large majority of FSOs lack the systems to properly configure, price, and quote (CPQ) service contracts. Extended warranty/service programs are often treated as a line item on a price quote generated by a company's CRM/ERP systems. As a result, FSOs are limited to offering only standard programs. Almost 50 percent of companies surveyed rely on their CRM/ERP to perform CPQ functionality. Astonishingly, approximately one-third of the survey respondents utilize spreadsheets. Obviously, neither of these applications is ideally suited to CPQ. CRM applications can't deal with the complexities involved with customized service contracts, and spreadsheets are too time-consuming to manage. It is likely that CPQ will be the next major area of innovation for developers of field service management applications. ●

michael blumberg



Michael Blumberg
president and CEO,
Blumberg Advisory Group
www.blumberg-advisor.com



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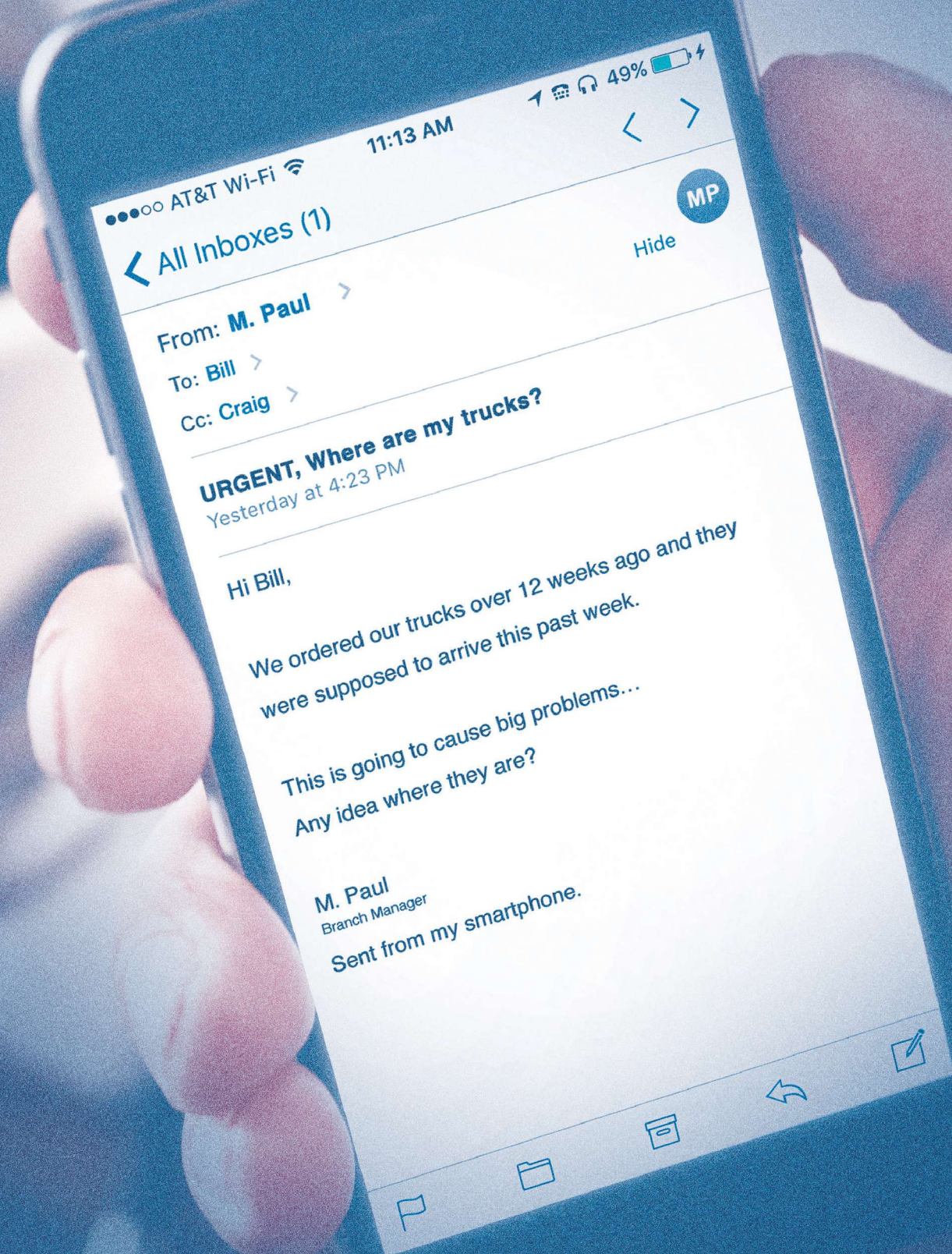
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