SPECIAL ISSUE

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Keep Calm And Field Service On

here is a vast amount of both transformation and innovation taking place in field service. Is that exciting and invigorating? Yes. Is it also incredibly overwhelming for many organizations? Yes. Take a deep breath. This issue is intended to accomplish a few goals:

- Provide you with an overview of some key analysts' predictions and insight
- Show you how your field service initiatives, challenges, and technology use stack up amongst your peers
- Give you some practical advice and food for thought on how to advance and modernize your field service organization in 2018

The insight shared in this issue is a combination of interviews with some of the best field service analysts, the results of a survey of our readership on their strategic initiatives and technology use (with 219 participants), and anecdotal insight from some leading field service organizations on how they are approaching field service modernization themselves.

With all that's going on in the industry, it can be hard to know where to start. It can be frustrating to find ways to innovate while still keeping day-to-day operations running smoothly. Determining what steps you need to take to modernize, and in what order, can be overwhelming. As you read through the valuable material in this issue, here are a few tips to keep you from getting information overload.

Start With The Basics

It's easy to get caught up in the latest buzz — augmented reality this, artificial intelligence that — and for some advanced organizations that is their starting point to further innovation. But start with the basics. Do you have appropriate field service KPIs in place so that everyone in your company is working toward the same goals? Are your field service operation's workflows and processes optimized? Have you mastered the use of mobile devices and field service software? Before you get into the internet of things (IoT), augmented reality (AR), artificial intelligence (AI), or anything else that everyone is talking about, you need to have the basics under your belt. A clear understanding

of your objectives, clean processes, and the elimination of manual methods is the starting point for any field service organization.

Learn From Your Peers

You can't copy what any one company is doing, because each company is different. But there

is a lot to be learned from understanding how your peers are tackling some of the same problems you have (hence the idea of this issue). Read case studies, ask vendor partners for referrals, reach out to others in your industry to talk with them. You won't be able to follow anyone else's blueprint, but you can get some really great ideas by looking outside your own organization.

Find Your Own Way

While you want to learn from others, ultimately you have to create your own path forward. The keys to doing so success-

fully are to focus on your business challenges and what will solve them — versus what's cool, what other companies are doing, or any other criteria. Define your strategic objectives and prioritize them in order of what will create the biggest impact — then start there. Beginning with a project that will bring quicker business value will allow you to snowball momentum as you move through those strategic objectives. There will always be that balance of looking forward without letting yourself become overwhelmed by too much, but tackling the next biggest opportunity in front of you is a surefire way to keep making progress.



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Analysts Weigh In On Where Field Service Is Headed In 2018

he field service space is rife with very intelligent individuals researching and analyzing the challenges organizations are facing and the ways in which leading companies are tackling those challenges. I asked some of the industry's leading analysts to join me in this special issue to share with you their thoughts on where the field service industry is currently at and where you can expect it to go in 2018.

While each of these analysts has different areas of expertise, their focuses combine nicely to give you a well-rounded grouping of perspectives and information. Beyond the thoughts they are sharing here with us, each of these analysts is conducting research on a regular basis that is worth checking out on their individual websites.

The 3 Biggest Challenges Field Service Organizations Currently Face

So we all know that field service organizations are under a lot of pressure right now and have numerous competing priorities that make many leaders feel they are pulled in a million different directions. You would likely be able to quickly list your top five or even 10 challenges, but do you ever wonder how your list would stack up with the lists of your peers?

I asked the analysts to list their thoughts on the top three challenges field service organizations are facing right now based on the research they are conducting and conversations they are having with field service leaders.

There were certainly some commonalities in their responses. The fact that field service organizations are facing increasing demands from multiple sources was brought up repeatedly. First, there is the internal demand to create more revenue. "The mantra of gaining more revenue from aftermarket service is being sent from the board level. Service organizations, challenged already by trying to manage costs and improve efficiency, now need to respond to this new imperative to transform services into a revenue-generating, value-added operation," says Heather Ashton, research manager for service innovation and connected product strategies at IDC.

Beyond those internal pressures, increasing demands from the customer base are being felt as well. "Customers want better, faster service when their equipment breaks down — and field service organizations are being tasked with meeting heightened customer demands around timeliness and information sharing without breaking the bank," explains Jeanine Sterling, industry director for mobile and wireless at Frost & Sullivan.

Aly Pinder Jr., director of member research and communities at The Service Council, echoes Sterling's thoughts, adding that "Customers are demanding more value and better service in their interactions. The value desired demands that the service organization go beyond



Heather Ashton research manager for service innovation and connected product strategies, IDC



Spencer Gisser research associate, VDC Research



Aly Pinder Jr. director of member research and communities, The Service Council



Jeanine Sterling industry director for mobile and wireless, Frost & Sullivan



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ANALYST Q&A



"The mantra of gaining more revenue from aftermarket service is being sent from the board level. Service organizations, challenged already by trying to manage costs and improve efficiency, now need to respond to this new imperative to transform services into a revenue-generating, value-added operation."

Heather Ashton, IDC

what's agreed upon within the service level agreement to deliver more value-added interactions (such as training, consultation, reporting)."

While the revenue-generating and customer interaction demands are newer to field service organizations, those pressures are being felt on top of the longstanding — and arguably increasing — pressure to maximize the efficiency of field operations. "There is an increasing pressure on the sector to make the most out of every technician. This means making sure that each technician is getting to jobs in the most efficient manner possible, increasing the efficiency with which each job is completed, and enabling technicians to complete more jobs on the first visit," says Spencer Gisser, research associate at VDC Research.

And that's just challenge number one! The second major challenge mentioned by the analysts is the fact that many field service organizations are dealing with an aging workforce nearing retirement age. "While the aging workforce is something we've been talking about for some time, what is different now is that the talent pool for the next wave of workers is shrinking and thus becoming more costly, and therefore, the impact of lost knowledge and customer relationships built over the years and decades by retiring technicians is keeping service leaders up at night," says Pinder.

While the aging workforce raises a multitude of concerns, the loss of their knowledge is at the top. "There is a justified concern that many of the most experienced service technicians are approaching retirement, and many companies have not been able to capture their 'tribal knowledge' in a systematic way, risking the loss of valuable insight into service operations and a negative impact on customer experience," adds Ashton.

The rush that many field service organizations are experiencing to replace aging workers results in a compounded challenge of how to train new workers quickly but also effectively. "The pool of field service technicians is shrinking as the older generation of field service technicians retire. While new technicians used to be able to take the time to work with more experienced technicians, the retirement of older techs and the demand for efficient deployment have reduced the level of dedicated training that new technicians can receive," explains Gisser.

Finally, the analysts agreed that the successful use of technology is another big challenge field service organizations are up against, for a few different reasons. "Determining the field service organization's relationship with technology is a major, ongoing challenge. Are field service management solutions viewed by the organization as a help, or a hindrance? Just how innovative does the organization want to be? What level of back-end integration is just right? Should the organization use a solution that is pre-built, or do they need something customized? When is the right time to begin leveraging augmented reality or artificial intelligence? This is an exciting and innovative time, but it can also be overwhelming to keep up and determine what's truly best for your specific operation," says Sterling.

While most field service companies have embraced the use of mobile at this point, many struggle with getting the benefits expected from the technology and translating that into positive customer impact. "Customer satisfaction is a massive priority for field service organizations. In fact, 42.7 percent of organizations specifically point to customer satisfaction as a key motivator behind mobile solutions. However, 55 percent 'somewhat' or 'completely' agree that their organization struggles to effec-



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ANALYST Q&A



"Did you know that only 9 percent of North American companies involve the end user in approving the deployment of new major mobile workforce apps? ... The service tech — the person who is actually going to use the solution — is rarely involved in choosing it."

Jeanine Sterling, Frost & Sullivan

tively engage customers using mobile solutions," says Gisser.

Data is another roadblock preventing field service organizations from getting the most of this "connected world" of service. "Field service leaders are dealing with a data problem. It's not necessarily about capturing more data — they are challenged with ensuring the data captured from machines, equipment, customers, and the field team can be integrated within their enterprise systems to allow that data to help with insights and shared knowledge," explains Pinder.

While there are certainly more challenges that could be added to this list, these seem to be three of the biggest and most common that companies like yours are trying to work through.

The Most Interesting Research Of 2017

I was curious to ask the analysts what they felt was the most interesting piece of research they conducted this year. Since they all have different areas of expertise, it was fascinating to see what each had to say.

Ashton says, "The most interesting piece of research I conducted this year looked at the rise of the gig economy and its potential impact on field service. I was fascinated by the broad scope of the gig economy across all areas of work, including service, and I believe this trend will begin to penetrate certain verticals that have service technician workforces."

Pinder says, "When we dove into the analysis of our field service benchmark study and looked at what the field service champions [top 25 percent performers] were focused on, workforce development was one of the top initiatives in their strategic plans. This highlights the impact that the aging or retiring workforce is having on strategy for field

service leaders. Concepts like mentorship, building a talent pool/bench, and engagement are now top of mind for the field service executive. It's interesting, because if you look back five or 10 years ago, I don't think we could say workforce development, training, or engagement were the first words to come to mind when thinking about field service."

Gisser says, "One key takeaway from our most recent research is that the core of field service, the technician's visit, is the aspect least addressed by field service management solutions. These solutions tend to work from the outside in, focusing on capabilities such as scheduling, route optimization, and invoicing before addressing remote assistance and technician checklists. It seems so paradoxical that so few field service management solutions focus on these aspects of field service; however, we found compelling explanations as to why this is the case."

Sterling says, "Did you know that only 9 percent of North American companies involve the end user in approving the deployment of new major mobile workforce apps? According to our annual enterprise apps survey, the service tech — the person who is actually going to use the solution — is rarely involved in choosing it. That boggles the mind."

Take Notes: The Biggest Opportunities For Field Service Organizations In 2018

While field service organizations are under some immense pressures, the opportunities for those organizations to transform in 2018 are vast. One of the key themes the analysts brought up in terms of areas to advance is in the shift from reactive to predictive service. "2018 will be a critical year for organizations and field service leaders to take the leap from a reactive service model to one that creates 'wow' experiences for customers through the



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ANALYST Q&A



"2018 will be a critical year for organizations and field service leaders to take the leap from a reactive service model to one that creates 'wow' experiences for customers through the delivery of field support and issue resolution."

Aly Pinder Jr., The Service Council

delivery of field support and issue resolution," says Pinder. "Predictive analytics presents a significant opportunity to improve the quality and timeliness of service calls," adds Sterling.

There are a number of technologies that come into play in this shift to predictive service. "We anticipate that 2018 will be filled with opportunities for field service companies to test and adopt innovative technologies like augmented and virtual reality," explains Ashton. "We expect 2018 to be the year when AR goes mainstream and service organizations make significant investments in wearable devices that deliver actionable instruction, information, and intelligence to technicians in the hands-free manner that has been missing in earlier generations of AR for field service."

For the shift to predictive service to be successful, the key is achieving real-time operations. "The transition to having a real-time understanding of job status, technician location, and device condition is transformative for field service operations," says Gisser. "In particular, understanding real-time operations is crucial for minimizing asset downtime."

The migration to predictive service plays into the second opportunity for field service organizations in 2018, which is better utilizing today's technologies to address customer expectations and demands. "We see the rise of artificial intelligence being applied to the service life cycle, enabling things like routing and schedule optimization or chatbots that can communicate with technicians to surface the information they need in the moment," says Ashton. "This infusion of intelligence across field service processes will transform the customer experience and deliver greater productivity to service organizations. Our research also shows a steady increase in the percentage of installation-based equipment that is IoT-enabled, which opens up tremendous poten-

tial for field service organizations to offer new, value-added, and eventually outcome-based services."

Technology options are varied, but the field service leaders who excel will be the ones focusing on how to use these tools to improve the customer experience. "The big opportunities are in turning cool technology into better customer service experiences — using customer data and analytics tools to empower the field team with the ability to better understand how to create 'wow' experiences at the point of service, and use those valuable engagements to drive revenue opportunities," says Pinder.

Which leads us to the third biggest opportunity in 2018 — working to strategically increase service revenue. "With the proliferation of embedded connectivity and sensing solution in many critical assets, companies are exploring a variety of new business models to better engage with customers. At the forefront are 'X-as-a-Service' options that transform asset ownership from a capital investment to an operating expense," says Gisser. "Right now, field service organizations have the opportunity to lay the groundwork for providing 'Product-as-a-Service.'"

As field service moves toward that more predictive model, natural opportunities to create new service revenue streams will surface (if you know what to look for). "2018 will bring new revenue streams for the field service organization," says Sterling. "There are opportunities to monetize many of the capabilities being built into field service management solutions — for example, charging a company for the ability to directly track/locate their assigned service technician themselves."

Now that we've learned from the analysts' experiences, we're going to take a firsthand look at end users' perspective of their biggest challenges, strategic initiatives, and technology plans for 2018.



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Field Service Shared Struggles

hey say misery loves company, and while I wouldn't go so far as to say these challenges are causing field service leaders misery, I would say they are causing their fair share of stress and probably some sleepless nights. So take solace in the fact that you aren't alone in your struggles — your peers are up against the same challenges you are, and are alongside you in the trenches looking for ways to conquer them.

What strikes me most about the challenges field service organizations are facing today is how interconnected they are. When you read through the top challenges of our survey respondents, you begin to think about how one really ties in with the next. This in and of itself is a challenge because it can make it difficult for service organizations to determine a strategy for tackling one problem at a time and then identify the best solution for doing so. However, it is important to get to a point where you can evaluate both the interconnectedness and the singular impact of these different areas because, while related, different factors can influence each.

The field service leaders who took our survey were asked to rank some of their top challenges, and the number one challenge, shared by 53 percent of respondents, is ensuring mobile workers are at optimal efficiency/productivity. I think as long as I've been at *Field Technologies* that has been the number one challenge — and I think it remains so because it is an issue that can be detrimental to the service organization. It is also a pain point that bleeds into a number of other challenges, including the second biggest challenge on our respondents' lists — meeting growing customer demands/expectations (at 46 percent).

These top two challenges really illustrate the interrelatedness of these issues. You're going to have a very difficult time making your customers happy if your field workforce isn't operating at optimal efficiency and productivity. That said, again, you need to be able to examine these issues alone as well as in terms of how they intersect. Efficiency and productivity can make customers happy (through things like being on time for appointments, accomplishing first-time fix, and so on), but there are a number of other factors that will play in to meeting your customers' expectations (such as the technician's demeanor and knowledge while on-site, how information is shared with the customer, the ability to self-service, etc.).

The fact that meeting growing customer demands/expectations is the second biggest challenge makes sense based on what we've heard from field service organizations all year —

that they are struggling to keep up with what their customers want and how they want it. The need and desire to better understand, incorporate, and meet the customers' expectations has been a major theme in field service this year. As we approach 2018, this focus area will only grow in importance.

Next on our respondents' lists is employee engagement, training, and incentivizing, which 34 percent of respondents list as a challenge. As field service business models change (from reactive to predictive, from break-fix to contractual, etc.) to modern-

The Top 5 Challenges



ize and better meet customers' needs, organizations struggle with how to successfully bring their employees on board, and how to teach them to master the new ways of business. This issue again factors in to meeting customer demands, because a disengaged or frustrated employee isn't going to help you accomplish that goal. It is also compounded by the fact that many field technicians are reaching retirement age. As this happens, field service organizations are facing recruitment issues along with the need to determine how to effectively manage/train/motivate/incentivize a disparate workforce of older techni-

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FIELD SERVICE CHALLENGES



"My three biggest challenges are dealing with legacy systems, managing data, and balancing multiple priorities."

Johnny Johnston, National Grid

cians and their millennial replacements simultaneously.

Eliminating repeat trips (i.e., improving first-time fix) is a challenge for 30 percent of our survey respondents, which again ties in with both the efficiency/productivity and customer expectation challenges. This metric, however, needs to be able to be examined on its own because many issues can factor in to the reason a first-time fix isn't achieved.

Twenty-seven percent of respondents cite remaining competitive in their industry as a big challenge, which makes sense as the industry as a whole is modernizing to address customer demands. This modernization includes the shift in perception of service as a strategic initiative, the move to create new streams of service revenue, and the use of technologies to better meet customer needs.

Finally, 25.5 percent of survey respondents are having issues with standardizing processes/technology among multiple operating locations. Not only is the standardization of processes and technologies difficult, when it's combined with the transformation of the business model as well, this challenge is significantly compounded.

Field Service Leaders Share Their Challenges

I asked a handful of field service leaders to share some anecdotal perspective with us for this issue so that we can see how it stacks up against the survey data. The first is Jack Rijnenberg, director of global customer service at Markem-Imaje (Markem-Imaje is a Dover Corporation company that specializes in printing and marking technology. The company operates in 30 countries direct, employs more than 3,000, and has a team of 700 field technicians). "Our company's current biggest challenges are improving our service response times, hitting our service profit margin targets, and standardizing our processes and technologies across 30 countries," Rijnenberg shares. I interviewed Rijnenberg not long ago about Markem-Imaje's global standardization, and thinking about that degree of a process and technology transformation is really intense.

Chris Smith, VP of service innovation at Otis Elevator (the world's largest manufacturer and maintainer of people-moving products, including elevators, escalators, and moving walkways), says that "our two biggest challenges are scale and scope.

Scale because we approach change across a global team of mechanics. For instance, right now we're deploying a common mobility platform and apps to our global team of mechanics, while continuing to maintain the 2 million units in the Otis service portfolio. Scope in the sense that our investments are about more than just mobility — it's about new, common service tools, connectivity, and using data to service customers in an entirely new way." What Smith is saying aligns with what I alluded to earlier — the magnitude of this type of change isn't so much the introduction of a new technology or tool, but in the shift in mindset you're asking of your workforce as you migrate to a brand-new way of providing service.

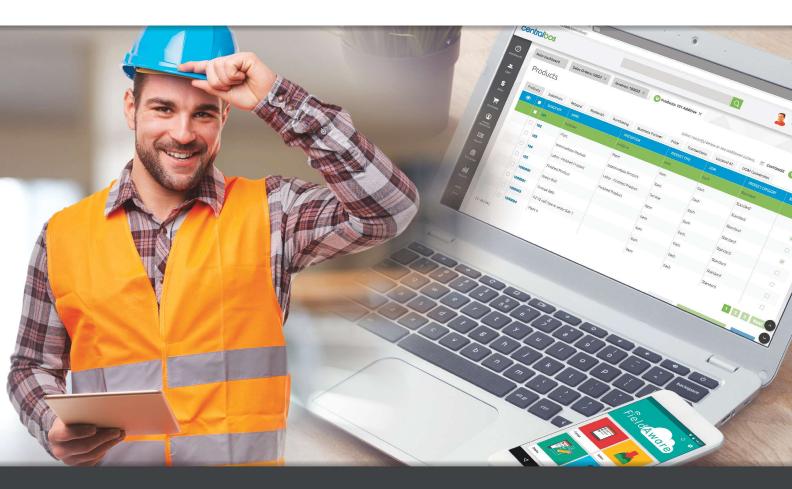
Johnny Johnston is the SVP of business enablement at National Grid (one of the world's largest investor-owned energy companies). "My three biggest challenges are dealing with legacy systems, managing data, and balancing multiple priorities," he says. The issue of juggling multiple priorities — often competing priorities — is something I hear often from field service leaders I speak with. It can be difficult to strike an appropriate balance between determining your organization's path to innovation and growth (which can mean a bevy of projects) and keeping day-to-day operations running smoothly.

T. Scot Harnish is the senior manager of field services at FedEx Office. Harnish echoes Johnston's woes of trying to do too much at once. "Some of the struggles I'm facing are obtaining funding for projects, gaining cross-department support for implementations, and finding time to accomplish all I have on my plate," he says.

Kevin Chlopecki is the VP of service operations for Konica Minolta Healthcare Americas (Konica Minolta, Inc., is a large Japanese technology company headquartered in Tokyo, serving over 150 countries worldwide. Konica Minolta Healthcare Americas, Inc., headquartered in Wayne, NJ, is focused on imaging technologies including digital radiography, ultrasound, healthcare IT, and service solutions). "My biggest struggle currently is dealing with the lack of single-source, cost-effective technology solutions," he says. For field service leaders already taxed with trying to accomplish so much, having to piece together point solutions to accomplish their objectives can be very frustrating.







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Prioritizing Top Field Service Strategic Initiatives

ith the pressures field service organizations are facing, most are working diligently to prioritize the strategic initiatives they feel will help them address those challenges, remain competitive, and maximize revenue. Just as the challenges facing field service are often interrelated, many of the top strategic initiatives are, as well. However, the companies having the most success with advancing their service operations are doing so by determining which of these initiatives will have the greatest impact on their company, starting with that, and then moving down the list.

We asked our survey respondents to rank their top strategic initiatives. Number one on this list is to increase the efficiency of their field technicians. This is the top strategic initiative for 74 percent of survey respondents (an increase from 56.8 percent of respondents in last year's survey). Efficiency is paramount because without it, most of these other initiatives are very difficult to make progress on. We live in a world where efficiency is expected and rewarded, and ensuring your field technicians are operating at peak efficiency is an important first step toward optimizing your service operations.

Next on the list is improving the customer experience/customer satisfaction, which is a priority for 71.8 percent of respondents. To me, the fact that this initiative is almost as important to companies today as efficiency really illustrates how far the field service industry has come — and where it is headed. We've moved beyond the phase of just "cut costs, cut costs, cut costs" to really understanding that how we are addressing our customers' needs is the real key to success. In other words, most field service organizations have conquered the shift in mindset from service being a cost center to a profit center.

Increasing service revenue is number three on our respondents' lists, at 48.9 percent. It's good to see that this falls after improving the customer experience, because that is a necessary step before being able to begin looking for opportunities to increase service revenues. Understanding precisely what your customers expect and want is the first step – from there you can begin to brainstorm different ways you can monetize offerings to grow service revenue. For some companies that is shifting to contractual service work versus break-fix, for some it is offering paid services for specific insights and data, and for others it can be working to integrate intelligent offerings into the service process to provide upsell opportunities.

Forty percent of our survey respondents point to better utilization of data to enable companywide decision making

as a strategic initiative. Whether this data is developing and monitoring KPIs to focus on service improvement, leveraging internet of things (IoT) data to change service processes and make product decisions, or gathering customer feedback to determine what direction to take your service operation, the fact of the matter is that there is a lot of information at your fingertips. Successful collection and use of that data can help you to align your service team to work toward company goals, ensure you are on track with meeting customer demands, and

The Top 5 Strategic Initiatives

- Increasing efficiency (74%)
- Improving customer experience (71.8%)
- Increasing service revenue (48.9%)
- Better utilization of data (40%)
- Leveraging technology (33%)

make more informed decisions as you migrate to a more modern service model.

Thirty-three percent of the survey respondents are focused on learning how to optimize mobile operations with the latest technologies. Technology is a great enabler, but the issue is that there are so many choices it can be difficult to determine both where to start and what investments make the most sense for your organization. With the appropriate due diligence, however, using some of the modern tools available (devices, automation software, IoT, augmented reality [AR], etc.) can



You've already got the best drivers and vehicles. Now how do you instill best practices to maximize your potential efficiency and profitability?

According to a study by Aberdeen Group about the impact of technology on business, automated dispatching and improved routing provided by GPS fleet tracking can lead to a 23% increase in total jobs completed per day, as well as a 15% reduction in average time per job and 10% decrease in overtime pay, significantly improving revenue through increased efficiency.

In addition, the gathering of previously inaccessible data, including driver behavior, speed and idle time, not only improves safety, but also reduces fuel consumption.

Read on for details on four ways business owners and fleet managers use GPS fleet tracking solutions to help with productivity and payroll issues*.



GPS fleet tracking can increase:

- · Jobs completed per day
- · Safe driving behavior
- Employee retention



GPS fleet tracking can decrease:

- · Average time per job
- Overtime pay
- · Fuel consumption



1. Improved Dispatching and Routing

With GPS fleet tracking, dispatchers know the precise location of each vehicle in near-real time. This can help improve efficiency in several ways.



Benefits can include:

- Efficient routing of vehicles to the most appropriate job site. Some solutions also feature the ability to automatically locate vehicles nearest to a given address, which can be especially helpful in an emergency situation.
- Near real-time traffic reporting, which can help identify the most direct route to a job site and quickly re-route drivers. Be sure to scrutinize the mapping functions of any GPS fleet tracking solution – powerful mapping functionality is of paramount importance.
- Lower fuel consumption.
- · Reduced vehicle wear and tear.

2. Monitor Inefficient Employee Practices

When drivers know their vehicles are being monitored, they tend to drive more safely and work more efficiently. A GPS fleet tracking solution gives fleet owners the ability to virtually ride along with their drivers, at any time to virtually any location.



Other benefits can include:

- The ability to monitor vehicle idle times and engine status.
- An alert function to quickly identify idle or inoperative vehicles, helping to address issues immediately and avoid unnecessary downtime.
- Elimination of personal use of company vehicles, since drivers deviating from a direct route to a job site are immediately identified.
- Increased productivity, thanks to business owners and fleet managers receiving quantitative measurement of employee performance.







3. Automate Timesheets and Payroll

Manual timesheets can be problematic. They can be imprecise, inaccurate or even falsified. By using GPS fleet tracking, businesses pay for actual work done. This helps protect employers from overpaying and workers from being underpaid.



Benefits can include:

- Automated tracking and logging of vehicle time on the clock from start-up to shutdown, providing a precise accounting of employee hours.
- Shut-off and restart times during the day that can be used to record time spent for breaks and meals.
- Extensive reporting functionality that automatically compiles all information in a user-friendly format that can be used as an electronic timesheet. Integrating this information into back-office applications can further reduce business inefficiencies through reduced administrative costs.

4. Eliminate Unauthorized Vehicle Usage

GPS fleet tracking solutions can help ensure employees limit use of company-issued vehicles solely for authorized purposes, during authorized times.



Benefits can include:

- Customized alerts report when vehicles enter restricted or dangerous locations.
 An example would be anywhere known to be where drivers congregate, wasting valuable company time.
- Advanced solutions notify business owners and fleet managers when vehicles are used during unauthorized hours.
 This can help detect vehicle theft and lead to rapid recovery of stolen vehicles or equipment.
- Reduction, or even elimination, of workers moonlighting with company vehicles, as vehicle use during unauthorized hours or trips to unauthorized locations can quickly be identified.



When choosing a GPS fleet tracking solution, be sure to look for:

Near real-time tracking

Tracks vehicle location a minimum of every 90 seconds, while providing regular updates to the mapping function.

Management reports and alerts

Multiple and varied data reporting, including identifying violations in near-real time, helps keep full control of driver operations.

Traffic reporting

Creates more efficient routes for your drivers, freeing up time previously stuck in traffic for more productive use.

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STRATEGIC INITIATIVES



"Our first strategic initiative is remote connection using IoT to enable predictive maintenance. This will give us the ability to improve time to resolution and response times and also contribute to continuous improvement through the data mining of connected machines."

Jack Rijnenberg, Markem-Imaje

have a significant impact on each of the initiatives listed thus far — efficiency, customer experience, increasing revenue, and better decision making.

Finally, 25.9 percent of survey respondents list migrating service work from break-fix to scheduled or contractual as a strategic initiative. Doing so positively impacts both the customer and the service organization. As companies use remote monitoring and IoT to offer more predictive service and ensure uptime, the customers benefit from fewer equipment failures and more consistent use. The service organization benefits because work becomes easier to plan for and schedule, and revenue becomes more consistent.

What Leading Field Service **Organizations Are Focused On**

So what does our panel of end users have to say about their own strategic initiatives? Jack Rijnenberg, global director of customer service at Markem-Imaje, shares his top three. "Our first strategic initiative is remote connection — using IoT to enable predictive maintenance. This will give us the ability to improve time to resolution and response times and also contribute to continuous improvement through the data mining of connected machines," he says. "Second, we are working to create a pool of crowd-sourced service professionals to help cope with the increasing service demand created through remote connection and IoT. Finally, we are working to increase efficiency through our LEAN service transactional value stream deployment initiatives to ensure we continuously provide value-added services and eliminate waste in the processes."

Johnny Johnston, SVP of business enablement at National Grid, summarizes what I think are truly three of the most transformative shifts field service organizations are making today. "Our top three field service initiatives are to better align our processes, to replatform our technology, and to modernize our operating model," he says. These initiatives are stated simply, but really require monumental change of deeply rooted field service practices.

Otis Elevator is focused on using modern technology to positively impact the customer experience. Chris Smith, VP of service innovation at Otis, says, "First, we're working to empower our frontline employees with technology and common mobility service tools to make their job easier and allow them to spend more time with our customers. We're also working to better connect our people — customers, employees, and riders - to the information they need and want. We're using cloud-based technology, analytics, and machine learning to turn equipment data into real actions and predictive customer care."

Kevin Chlopecki, VP of service operations at Konica Minolta Healthcare Americas, shares his company's top field service initiatives. "Number one is the implementation of augmented reality for field engineer support. We need to be able to support less-trained engineers with higher-educated engineers to solve problems quickly for our customers. Number two is technology training — traditional classroom training was fine for the early 2000s, but now products and technologies change so quickly that we need to find new ways to accomplish our training objectives. Finally, we are working toward field revenue generation in an IoT environment. We are seeing more IoT-enabled devices create the ability to enhance our remote services and decrease the need for field visits and are working to create revenue under that model," he explains.

For T. Scot Harnish, senior manager of field services at FedEx Office, the initiatives are slightly different because his team provides field services to internal stakeholders (the FedEx Office stores) versus external customers. "I am working to increase the business value of my team [to improve efficiencies and service levels while taking on a broader scope]. My organization is a large support cost, so ensuring we continue to provide significant business value and ROI is important to the sustainability of our team. I am also working on improving the communication and professionalism of my field team, working to shift the perception of them from field technician to trusted partner. By understanding operational procedures and strategic objectives, the team can consult on the use of the technologies they service, improving adoption and helping their store partners achieve their goals." This concept of working to help your field technicians be seen as consultative, knowledgeable, trusted advisors is a key theme among many companies I've spoken with recently and ties directly into meeting customer demands and being able to grow service revenue.

DEVICES

The State Of Mobile Device Use In Field Service

hile there are still some field service organizations that have yet to automate paper-based field work, the results of our survey indicate that most have incorporated the use of mobile devices into their field operations. Ninety-one percent of our survey respondents say their workforce relies on a mobile device to do their jobs.

Now, the question from there becomes how extensively are they using those devices? Mobile devices can be used for very simple and still largely manual tasks, like checking and replying to email and interacting with dispatch — or they can be used in a truly automated fashion to help field workers efficiently and intelligently complete tasks. The goal of all field service organizations should be working toward the latter. FedEx Office technicians, for example, use Samsung Galaxy phones for email, calendar, and calling but are working toward deploying laptops or tablets to eliminate the need to take notes and complete work at a desktop after the fact.

Of the 91 percent of respondents whose workforce uses mobile devices, we asked what devices are currently being used by their organizations. Thirty-six percent of respondents indicated that their workers actually employ a combination of more than one device type to do their jobs. Beyond the 36 percent whose workforce uses multiple devices, the remaining 64 percent reported:

- 18 percent using iPhones
- 18 percent using Android phones
- 10 percent using rugged tablets or laptops
- 10 percent using iPads
- 5 percent using rugged handhelds
- 3 percent using (consumer-grade) Android tablets

Konica Minolta Healthcare Americas selected the iPad in part because of its augmented reality (AR) capabilities. "The iPads allow us to leverage AR to help technicians on-site diagnose and resolve issues. We can actually log in to their iPad, we can see what's going on at a customer's facility, and we can get information quickly to Japan or the manufacturer, wherever they may be, and solve problems faster," Kevin Chlopecki, VP of service operations at Konica, explains.

We then asked the survey respondents to share the most important criteria they use for mobile device selection, shown in the pull-out box on this page. Portability being a top consideration makes sense because to really benefit from the use of mobile devices, the workforce needs to be able to carry the device along for real-time updating, access to information, and point-of-service interactions. National Grid is in the process of deploying a more portable option — the company currently

uses truck-mounted laptops, but is rolling out tablets.

Cost is a top consideration for almost every organization I speak with. While it is important to consider not just initial acquisition cost of mobile devices but also ongoing support costs, replacement plans, and downtime issues, finding a solution that fits your budget is a must.

Operating system is third on the list. Some organizations are comfortable supporting multiple OSs; others prefer to standardize on one OS companywide. Our end user contributors illustrate both sides of this preference with Markem-Imaje currently deploying its field automation solution on both iPhones and Android phones, while Otis Elevator is standardizing on iPhones for its 31,000 service technicians.



The durability of a mobile device for field use is important to almost all field service organizations but with varying requirements. Some service environments demand especially rugged or durable devices, while other less stringent conditions can be fine with a protective case.

I was happy to see field worker familiarity/recommendation make the top-five list. This has historically been an underprioritized criteria, but field service organizations have begun to realize that soliciting the input of their frontline workers in technology decisions helps significantly with adoption and intended use.

Finally, we asked our survey respondents if they are happy with their current device use, and 90 percent said yes.

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FIELD SERVICE SOFTWARE

Just How Automated Is Field Service?

here is a field service software solution on the market today for every type and size of field service company. That is largely a good thing, but the breadth of solutions can also cause stress for some field service leaders to answer questions like:

- Exactly what functionality do we need?
- Should we automate one piece at a time or all at once?
- How are each of these solutions actually different from one another?
- What's the best fit for our company?

Selecting the best software solution for your organization is a process, and because there are a good number of options to choose from, that process requires due diligence. We'll start here with your getting a feel for where your peers are at in terms of field automation and software use, but I'd also suggest reading analyst reports, talking with companies about how they selected their solutions and what their results have been, and asking any vendor you're considering for references you can speak to directly.

According to our survey, 65 percent of respondents are currently using some sort of field software solution within their organizations (35 percent are not at this time). That 65 percent, however, represents everything from mobile forms to basic scheduling to more advanced automation tools that incorporate things like optimized scheduling and Internet of Things (IoT) data.

According to respondents, here is a list of the most common functionality their current software solutions provide:

- Service/work order management 74 percent
- Dispatch/work order assignment 72 percent
- Basic scheduling 63 percent
- Customer history access/knowledge management 51 percent
- Ability to accommodate emergency/urgent work — 50 percent
- Routing/navigation 50 percent
- Tech-to-tech communication 44 percent

- Parts and inventory management 42 percent
- Contract and warranty management 32 percent
- Dynamic scheduling 31 percent

Field Service Software Use Evolves

What we've witnessed this past year is a movement toward more advanced use of field service software solutions. Companies that have had basic functionality in place have begun to expand into

The Top 3 Software Selection Criteria

Ability to integrate with back office systems

Software provider proven experience

Ability to support multiple objectives

more advanced features to drive greater business benefits, and field service software providers have continued to introduce new modules and functionality to address growing field service priorities such as the incorporation of IoT data, customer self-service capabilities, and more intelligent analytics for improved companywide decision making.

National Grid is one such company that is migrating to a more advanced system. National Grid is in the process of replacing a disparate group of legacy systems with a more modern, standardized, cloud-based field service software solution. "Due to most of our legacy solutions reaching their end of life, we had a great opportunity to implement a whole new platform," says Johnny Johnston, SVP of business enablement at National Grid.

Konica Minolta Healthcare Americas has also

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"With the implementation of a robust coding system linked back to products and then the opportunity to go mobile with our field force and provide real-time information back to Japan through our call center, our field force mobility solutions have completely changed the way we do business today."

Kevin Chlopecki, Konica Minolta Healthcare Americas

recently undergone a field service software transformation. This investment in a new field service software solution was part of the company's larger strategy to move its field service business to a prescriptive service model. The bigger-picture strategy incorporates IoT and augmented reality and also included a major overhaul of the company's device trouble coding system. "With the implementation of a robust coding system linked back to products and then the opportunity to go mobile with our field force and provide real-time information back to Japan through our call center, our field force mobility solutions have completely changed the way we do business today," says Kevin Chlopecki, VP of service operations at Konica.

Preference For Cloud-Based Solutions Grows

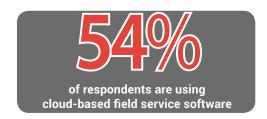
We've also seen a growing preference for cloud-based field service software solutions. Fifty-four percent of our survey respondents are using a cloud-based software solution, up from 47 percent of last year's survey respondents. When asked for the reasons a cloud-based solution was selected, the top three responses were:

- Faster deployment 39 percent
- Less strain on IT 32 percent
- Lower up-front cost 15 percent

While faster deployment is clearly an important consideration, and a good thing, you do want to be careful that regardless of whether the solution you choose is cloud-based or not, you ensure deployment is not rushed and that the system is deployed properly. There's a difference between taking advantage of a cloud-based solution's rapid development framework and rushing to get a solution deployed. Cloud-based

solutions do alleviate IT strain, and that's a large benefit that many field service leaders mention in conversation — leveraging cloud-based software allows their IT resources to stay focused on core competencies and other company IT needs or initiatives.

Otis Elevator, on the other hand, has the internal resources to take on a DIY software approach. "We



are designing and deploying a suite of Otis-built service apps that allows our mechanics to have a more seamless experience on the job," explains Chris Smith, VP of service innovation at Otis. While a DIY approach may not be realistic for every organization, some who can take on such a project prefer the complete control.

We also asked survey respondents to share their most crucial software election criteria. The top three responses were:

- 1. The solution allows for integration with current back office systems 42 percent
- Vendor has proven industry experience 26 percent
- 3. The solution supports multiple functions/objectives 23 percent

Eighty-six percent of the survey respondents said they are satisfied with their company's current field service software solution.







1. Acknowledge Your Organization's Risk Profile

According to GSMA, cybersecurity cost businesses \$400 billion globally in 2015, a number the organization expects to grow to \$2 trillion by 2019. It is critical that IoT security be viewed as a priority as opposed to a hindrance to deployment. While many businesses pride themselves on being agile with swift speed-to-market, this means nothing if the IoT application is vulnerable to security breaches.



2. Design With Security In Mind

Although many focus on the data and application or communications layers of security, the device layer is equally as important. Ensure that your connected device – such as a tablet equipped with Mobile Device Management software – is built to withstand any potential attacks.



3. Stay Abreast Of Emerging Standards

The US Government recently introduced the IoT Cybersecurity Improvement Act of 2017 as part of a massive drive within the IoT ecosystem to develop technical standards for IoT security. Although this may not be finalized today, expect to see traction with this legislation and others like it in 2018.

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IOT & AUGMENTED REALITY

IoT And Augmented Reality Take Hold In Field Service

hile there are a number of "up-and-coming" technologies in field service, the two we've heard the most about this year are the Internet of Things (IoT) and augmented reality (AR). IoT is certainly further along in adoption than AR is, and we are seeing that many companies have successful IoT deployments, migrating to predictive service models, using IoT to make better business decisions, and even leveraging IoT to increase service revenues.

Based on the results of our survey, 41 percent of our respondents are currently using IoT technology. Twenty-two percent are using IoT to monitor equipment at their customers' sites, 16 percent use IoT to monitor equipment within their own organizations, and 3 percent are using IoT in some other way. Eighty-five percent of respondents using IoT are happy with their current solution. Of the 59 percent not using IoT at the moment, another 23 percent have that on their list of "next investments."

Markem-Imaje is one such company in the midst of IoT evaluation and deployment. "There's a clear movement in the service industry toward predictive service, and that's the direction we need to move in," says Jack Rijnenberg, director of global customer service at Markem-Imaje. With the company's recent major initiative to standardize its service

processes and delivery as well as automate those processes, Markem-Imaje is primed to begin using IoT to migrate its service process from a reactive, break-fix model to an IoTconnected, predictive service model.

We asked the survey respondents using IoT what their most important selection criteria was:

- 1. A solution that was simple to deploy
- How easy-to-consume the solution presents the IoT data collected
- 3. The ability to integrate the IoT data into other applications
- 4. A partner with experience in their specific industry
- 5. A cloud-based solution

Otis Elevator has a cloud-based IoT solution in place. Chris Smith, VP of service innovation at Otis, says, "We are creating a connected digital landscape with technologies like IoT that enable real-time, comprehensive equipment health monitoring as well as predictive maintenance care via machine learning and Big Data insights. Our cloud-based IoT infrastructure enables remote elevator monitoring and allows us to improve and expand the service we provide to our customers."

Augmented Reality Gains Traction In 2017

While the use of AR in field service is still in its early stages, what I've noticed most this year is the shift from companies speaking of AR as purely hypothetical to far more tangible with many beginning pilots or even early deployments.

Currently, 17 percent of our survey respondents are using AR. Eight percent are using AR to provide remote support from internal technical experts to field technicians or other remote employees, 6 percent are using AR to enable experienced field technicians in the back office to train less experienced technicians in the field, and 3 percent are using AR to provide remote support from internal experts to their customer base. Eightyseven percent of those using AR are happy with the solutions in place. Sixteen percent of the companies not using AR have that earmarked as their next area of investment.

"There's a clear movement in the service industry toward predictive service, and that's the direction we need to move in."

Jack Rijnenberg, Markem-Imaje

We asked the companies using AR to share their solution selection criteria, and the top five were:

- 1. Cost
- 2. Security
- 3. User interface
- 4. Reliability/clean transmission of information
- 5. Ease of deployment

Konica Minolta Healthcare Americas recently rolled out iPads to its field force, specifically with AR use in mind. The iPads allow Konica to leverage AR to help technicians on-site diagnose and resolve issues. "We use AR to connect to our field engineers, and we can actually log in to their iPad. We can see what's going on at a customer's facility, and we can get information quickly to Japan or the manufacturer, wherever they may be, and solve problems faster," Kevin Chlopecki, VP of service operations at Konica, explains.

Markem-Imaje is one of the companies that has AR flagged as a significant area of opportunity for its business and a next area of investment. I think 2018 will be an exciting year to watch AR pilots and deployments in field service unfold.

FIELD SERVICE LIGHTNING

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BARRIERS TO INVESTMENT

Overcoming Barriers To Invest In Further Field Service Innovation

There are more advanced technologies to enable business transformation than ever before. Sounds like a simple equation, right? For most companies, it isn't. There are some significant barriers to technology investment that make forward progress anything but simple.

According to our survey respondents, limited resources for technology evaluation, deployment, and support is at the top of the list (49 percent). In larger organizations, there are sometimes dedicated resources whose entire job is researching innovative technologies, but in many cases this task is left to field service leaders themselves — and is on top of keeping up with their "day jobs." The delicate balance of day-to-day versus innovation can cause technology projects to keep getting put on the back burner, regardless of the opportunity that exists.

Forty-seven percent of survey respondents cite building a business case or justification of the expenditure as a barrier to technology investment. Building a business case can be especially challenging if you don't have ample time to dedicate to the process, if you're unclear on what is most important to the necessary stakeholders, or if you are starting at a very unclear point (without any benchmark metrics to use).

This issue is of particular importance to T. Scot Harnish, senior manager of field services at FedEx Office, since his field service team doesn't generate revenue. "Proving the ROI is

of respondents cite limited resources for technology evaluation, deployment, and support as a barrier to investment

the biggest challenge we face. As a service group that doesn't generate revenue, it requires a significant effort to show an increase in efficiencies gained by investing in technologies, especially when there is an existing system that 'mostly' works," he shares.

Jack Rijnenberg, director of global customer service at Markem-Imaje, shares his approach to creating a solid ROI. "The cost savings will often show over the long term, so you can focus the business case more on the revenue growth that

the investment can bring," he says.

Thirty-five percent of survey respondents say that concerns of employee training or adoption get in the way of technology investments. This is a valid concern, because without well-thought-out and effective training and change management strategies, the business case you did create will often be thrown out of the window due to resistance and/or improper use.

If you've ever had a technology deployment go wrong, these issues can be compounded by a negative perception. "Overcoming organizational inertia, predominantly driven by unsuccessful previous efforts, is our biggest barrier to technology investment," explains Johnny Johnston, SVP of business enablement at National Grid.

The battle to get buy-in from all necessary stakeholders is a problem for 34 percent of survey respondents. This issue can surface in organizations where service still operates as a silo or with a technology investment that reaches across multiple business units or functions.

Thirty-three percent of respondents said that keeping pace with the rate of technology change is a barrier to investment. It can seem as though by the time you've completed your research, built your business case, and evaluated your options, you need to start over because so much has changed already. This more rapid technology life cycle is forcing companies to become more nimble in technology evaluation and selection.

Chris Smith, VP of service innovation at Otis Elevator, says, "I wouldn't necessarily call it a barrier per se, but agility is something that industrials like Otis are learning. Technology changes fast, and that means we need to be even faster. We need to anticipate technology trends and learn to adapt where appropriate so that the result is useful."

Twenty-eight percent of survey respondents report they have trouble finding a solution that fits their company's specific needs, and another 28 percent said they struggle with competing company initiatives taking precedent. Finally, 11 percent say that the evaluation of all of the options is overwhelming.

Reading this, you quickly get a feel for the uphill battlefield service leaders face in pushing for continual improvement and innovation with technology. These statistics and stories may even make you feel less alone if you didn't realize your organization isn't the only one with these hurdles. Despite the barriers to overcome, today's field service leaders know that technology is a key aspect of moving their organizations forward and they continue to work to break through these barriers. •

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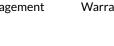
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A Look Ahead: Field Service Leaders Share Their Next Technology Investment

e asked our survey respondents what technology is next on their road map for 2018. Fifty percent of respondents plan to invest in new mobile devices.

Thirty-two percent of respondents have mobile apps next on their technology to-do list, and 32 percent are also planning on a new mobile security solution. Thirty percent of respondents will be investing in a field service software solution, and 23 percent in the Internet of Things. Twenty percent of respondents plan to invest in wearable technology, and 18 percent are evaluating fleet management solutions. Finally, augmented reality (AR) is next on the list for 16 percent of our survey respondents.

Let's see how our field service leaders' plans fit in with these statistics. National Grid has plans to update its devices from truck-mounted laptops to tablets, and is working on a major field service software deployment. "We are re-platforming dozens of legacy work management and asset management solutions onto a standard enterprise platform to cover work management, asset management, and customer engagement," says Johnny Johnston, SVP of business enablement at National Grid. "Wearables, artificial intelligence (AI), and AR will be things we leverage in due course, but we need to focus on building this strong foundation first."

FedEx Office also has plans to invest next in new mobile devices. "Our field team currently takes notes while conducting work and then goes to find a workstation after the fact to key in data," says T. Scot Harnish, senior manager of field services at FedEx Office. "We are looking to invest in either laptops or convertible tablets to allow the team to complete reporting work in real time."

Once Markem-Imaje completes its major field service standardization project, next on the list is the integration of AR. "Our next step will be to invest in AR and more advanced planning tools," says Jack Rijnenberg, global director of customer service at Markem-Imaje.

Konica Minolta Healthcare Americas is focused for the time being on fine-tuning the applications it has already implemented. "We love the Google Glass concept for our customers, but we feel our best technology tool may be provision of the IoT-enabled device information to improve productivity, performance, and asset management," says Kevin Chlopecki, VP of service operations at Konica.

Otis Elevator plans to keep its digital transformation

momentum going. "It's all about creating a more personal experience," explains Chris Smith, VP of service innovation at Otis. "To do that, we're constantly evaluating technology solutions based on our customer, passenger, and employee needs. We plan to continue to use digital to advance safety on the job with the goal of digital technology acting as another set of senses to keep our mechanics out of harm's way."

The Analysts Weigh In

I asked our analyst contributors their thoughts on what technology will make the biggest impact on field service in 2018, and here's what they had to say. "AR will have the biggest impact on field service in 2018. While field service organizations have been evaluating this technology for a few years now, we are finally seeing wearable devices that can support the rigors of the service technician's environment reach commercial availability," says Heather Ashton, research manager for service innovation and connected product strategies at IDC. "We expect 2018 to be the year AR goes mainstream and service organizations make significant investments in wearable devices that deliver actionable instruction, information, and intelligence to technicians in the hands-free manner that has been missing in earlier generations of AR for field service."

Jeanine Sterling, industry director of mobile and wireless at Frost & Sullivan, says that mobilization will have the biggest impact in 2018. "The biggest impacts in 2018 will come from using wireless, location, and other technologies to locate, manage, automate, and optimize remote field technicians and their work processes," she says. "Being able to access an array of real-time capabilities via a field worker's smartphone or tablet or wearable has had tremendous impacts and promises to provide more over the coming months as new and innovative capabilities such as augmented reality are mobilized."

Spencer Gisser, research associate at VDC Research, agrees that remote assistance will play a growing role in 2018. "Remote assistance solves two of the most important problems in field service: How to train incoming field service technicians, and what to do with technicians who are aging out of the industry," he says. "Remote assistance enables field service organizations to continue to leverage their most experienced technicians without them having to travel or physically conduct repairs."

Connected Field Service



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Your Field Service Peers Offer Their Best Advice

ach field service organization is different, every strategic initiative unique. However, as we've learned throughout this issue, there are some very common struggles shared among service-related industries and a lot to be learned from your peers (even if they are in a different vertical market) who have experienced different processes or projects you have not yet. I asked the field service leaders I interviewed for this issue to share their words of wisdom on field service optimization.

Keep It Simple

"The best advice I can offer is to keep it simple," says Johnny Johnston, SVP of business enablement at National Grid. Field service optimization is anything

but simple, but Johnston's point is to not overcomplicate things. It's important to try not to take on too much at once (like when Johnston said that while wearables, artificial intelligence, and augmented reality will all play a role at some point, his key objective is building a strong foundation first). Create a plan by prioritizing your initiatives with what will have the greatest impact first, and then set clear steps toward execu-

tion. As you accomplish one goal, move on to the next. Kevin Chlopecki, VP of service operations at Konica Minolta Healthcare Americas, discusses the importance of making sure you review the impact of each project you complete. "In my experience, field service leaders miss the most important part of the project — impact assessment," he says. "Make sure you create a KPI before you start the project so that you can successfully measure the impact. Doing so helps you achieve a true understanding of what was accomplished in comparison with your plan and can assist in setting you up for success getting funding for future projects."

Involve Your Field Workers

One surefire way to set yourself up for failure when introducing a new business model, a process change, or a new technology is to leave your field workers out of the loop. "You have to start by better understanding what

your frontline field priorities and challenges are," says Chris Smith, VP of service innovation at Otis Elevator. Getting this input should be a step you take as you're defining your strategic initiatives and areas of opportunity — not once all decisions have been made.

When you introduce a new concept to your workforce, be sure to communicate not just the "how" or the "when" but the "why." "Ensuring your team understands the strategic objectives allows them to be more involved and feel they are contributing more to the business," says T. Scot Harnish, senior manager of field services at FedEx Office. Developing a change management strategy in advance of any major project is a must. Many companies find success in leading their communications efforts with how said project will positively impact the workers themselves.

"You have to start by better understanding what your frontline field priorities and challenges are."

Chris Smith, Otis Elevator

Put In The Work

"It's imperative to have patience," notes Chlopecki. "Many implementations don't go perfectly at first. You need to be a learner, not a knower. If a project goes wrong, learn everything about how it went wrong so you can make future improvements." Chances are, if a project seems "easy," you are likely missing something. The changes field service organizations are making today are anything but simple, and patience is required to navigate the complexities.

As Jack Rijnenberg, director of global customer service at Markem-Imaje, points out, to achieve true success in field service optimization, there is no cutting corners. In fact, shortcuts will almost always backfire and set you back significantly. "At the end of the day, these projects are hard work. You have to do that hard work and realize there's no free lunch," says Rijnenberg.



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