



[A Special Report]

Field Technologies

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5 Critical KPIs For Field Service Success



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The Importance Of KPIs In Achieving Field Service Success



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Field service is becoming an increasingly competitive industry. More and more, companies are looking for ways to outperform the competition to retain and win customers. It is impossible to accomplish this — and to run a successful field service business in general — without leveraging KPIs. Maybe back when all business was done on paper and products were the true differentiators, you could get away with just rolling with the punches and accepting the status quo. Those days are long gone.

The reality is, today's field service landscape is one of constant and continual improvement. And KPIs are crucial in the improvement process. How do you manage or improve what you don't measure? You can't. When set and utilized well, KPIs enable a service organization to keep a steady pace of forward progress — from which the ultimate goal is satisfied customers and growing revenue.

In this special report, we have identified five KPIs we feel are critical to field service success. Does this mean these are the only KPIs or the best KPIs? No, every business is different — so you may very well have to pay attention to KPIs beyond these or prioritize your top five a little differently. But generally speaking, these are five KPIs that are absolutely critical to most field service organizations. Understanding the importance of each, and how to measure each, will go a long way toward that continual improvement process.

Don't Let Data Overwhelm You

Another reason we landed on what we feel are the five most critical KPIs, versus 10 or 20, is

that if you aren't already a pro at setting and measuring KPIs and using the data you're collecting to make informed business decisions and to drive improvements, it's best to start with a handful. Sometimes a company can get overwhelmed by all of the metrics they feel they need to track, monitor, and factor into business decisions. Focusing your efforts, at least initially, on these top five helps you to keep it simple and master the art of KPI use before you broaden your reach and include additional metrics and data.

If you feel your organization is already pretty well versed in KPI measurement and use, keep in mind there are always ways to take the data a step further, to dig a level deeper. Doing so is often what feeds that continual improvement process — finding new ways to leverage data within your organization. We've also included a checklist of KPIs beyond our top five that should be regularly monitored or may play a role in measuring the KPIs we're discussing in this report.

Again, the metrics we cover in this report are ones we feel are universally applicable for most field service organizations. As you're reading the report, you'll want to be thinking about your business's initiatives, strengths, and weaknesses to put this information in context. But one thing is for sure — there is no long-term future in field service for companies that aren't embracing and using KPIs to drive performance. ●

Sarah Nicastro

Critical KPI #1: Customer Satisfaction

Customer satisfaction is rapidly moving up the priority list for C-level executives at service organizations, particularly as the service landscape becomes much more competitive. In Aberdeen Group's *The CSO's Field Service Agenda: Managing for the Customer* report, changing customer dynamics (63 percent) and increasing competition (53 percent) were top drivers in service organizations, outranking reduced service margins (46 percent). Aberdeen also noted that increasing customer satisfaction (62 percent) was listed as the top outcome desired for a new field service team, ranking higher than increasing revenue (60 percent) and reducing costs (48 percent). Further, in a July 2015 report (*Evolution of the Field Service Business: Optimizing the Field Service Chain*), Aberdeen found that customer satisfaction was listed as a critical service metric by 68 percent of respondents.

Field service plays a critical role in customer service because technicians act as a direct interface with clients. Customer satisfaction can be gauged a number of different ways, but truly quantifying it can be difficult because it is a "soft" or subjective measure.

How To Calculate Customer Satisfaction

The first strategy is to conduct customer satisfaction surveys both at the end of the service visit, and during any follow-ups or billing. Customers can be asked to rank performance based on a scale, and provide direct feedback on how they viewed their service experience. They can also voice any complaints at that point.

It's important that this feedback be properly catalogued, evaluated, and (most importantly) acted upon. It should also be regularly measured. If customers rank you on a scale of 1 to 5, you can easily track average scores across the company; you should also be able to analyze data by geography and by technician. This data will help provide direction for continuous improvement programs, and help set improvement goals.

There are other measures that can reflect customer satisfaction rates as well. Tracking customer contract renewals or retention can give you some insight into customer satisfaction, although the reasons for turnover

can vary — customers may be happy with the quality of service, for example, but may not like the price.

For companies that don't offer service contracts, tracking repeat business can help indicate customer satisfaction, but only if you have the tools in place to accurately manage customer data. Online consumer review services like Yelp reviews or social media input (Facebook comments, etc.) can also provide valuable insight — again, though, an infrastructure has to be in place to track this type of feedback and then put it to use.

63%

of CSOs list changing customer dynamics as a top driver

source: Aberdeen Group

Service contract attach rates are another important customer metric. This measures the percentage of product sales transactions that include a service contract. Aberdeen Group data indicates that a 5 percent increase in the attach rate can boost overall revenues by as much as 9 percent. If your attach rate is low, it can be an indication of customer dissatisfaction.

Improving customer satisfaction scores is a complex undertaking, because it requires determining exactly which features of your service offerings customers value the most. Even if you think you know what your customers want, survey data can be enlightening here. Some customers may value a speedy response; others may feel more comfortable waiting a bit longer for service, provided they can get help from an experienced or familiar technician.

Armed with this type of information, you can begin evaluating other metrics (on-time arrivals, first-time fix rates, mean time to repair, dispatch efficiency, etc.) that may be contributing to customer satisfaction problems.

Happy customers are loyal customers. Delivering value through field service interactions is a direct route to better customer satisfaction and, as a result, higher revenues, more referrals, and increased profits. ●

Critical KPI #2: Workforce Utilization

Your field technicians' time is a valuable asset, and managing it well can have a major affect on profitability for service providers. With that in mind, workforce utilization is easily one of the most important KPIs to monitor when it comes to reducing costs, increasing capacity, or boosting productivity.

Data from the Technology Services Industry Association (TSIA) shows an average technician utilization rate of just 73 percent, while Aberdeen has estimated that average technician idle time may be as high as 40 percent (*The Right Technician, Aberdeen Group, 2012*).

Generally speaking, the critical data to evaluate is how much time your technicians spend doing their actual work versus waiting at the parts depot, driving, talking on the phone, and other non-value-added activities. Improving this metric requires an investment in mobility and field service management software that can provide visibility into work order status, as well as intelligent scheduling and dispatch functionality. In many service organizations, the information needed to successfully dispatch technicians is often held in the brains of experienced dispatchers, making the entire process unsustainably dependent on specific employees.

How Field Mobility Enables Better Workforce Utilization

Field mobility solutions also make it much easier to measure performance. By requiring technicians to use their mobile devices to log their drive time, time at the depot, and time at the customer site, you can easily see where the bottlenecks are. There are a number of factors that erode technician utilization, but there are direct communication and technology fixes for most of them:

Drive Time: The longer the distance between scheduled stops, the more time wasted behind the wheel. Scheduling and dispatch optimization will help automatically select the closest technician to each job, and order the jobs to minimize drive time. This type of improvement can greatly improve utilization rates by allowing technicians to complete at least one more work order per day or more, in some cases.

Manual Scheduling/Dispatching: In organizations that still use paper-based or manual systems, requiring the technicians to stop at the depot before they begin their shifts and

shuffle paper eats into productivity. If there are changes in the schedule or unscheduled work orders, dispatchers have to spend a lot of time on the phone getting status updates from the service force before deciding who is in the best position to take the unscheduled call.

Workforce management solutions eliminate these steps by providing a real-time view of each technician's location as well as the status of their current work orders. Schedulers can easily add a new job to the schedule, and reshuffle lower priority work to accommodate the change.

Parts Management: As mentioned elsewhere, lack of repair parts is the leading reason for failing to complete a service call. If parts aren't ordered until after the technician arrives at the customer site, or if they have to wait for lengthy periods at the depot to pick up parts before arriving, utilization will take a nosedive. With a complete list of work orders available in advance, it is much easier for technicians to have the

right parts on hand before arrival, and for the parts depot to have those parts ready for pick-up ahead of time. Automated inventory management, either through the field service solution or a dedicated inventory system, can add dozens of hours back into the schedule.

Skill Deficiencies: Sending the wrong technician to the job can be just as damaging to technician utilization as drive time or inefficient scheduling. While assigning the closest technician to a job can cut down on drive time, if they don't have the right skills to complete the work the job will take even longer. Scheduling optimization tools can use data on technicians' abilities to make sure the right techs get the job so they can complete the work as efficiently as possible.

Paperwork: Paper-based work order processes also eat up time better spent working on the repair. Technicians often have to retrieve documents from a vehicle, obtain customer signatures, and then either fax or manually deliver the paperwork back to headquarters. Using mobile devices to manage documentation can eliminate paper and drive time.

Improving technician utilization has the dual benefit of both improving cost management for the service company and improving quality of service by allowing technicians to spend more time on the job site and by sending the right technician in the first place. ●

73%
the average technician
utilization rate is just 73%
source: TSIA

Critical KPI #3: First-Time Fix Rate

The first-time fix rate is a measure of how many service calls can be completed within a single visit or event. This KPI has always been important, but is rapidly emerging as a critical part of ensuring high levels of customer service. Aberdeen Group found that first-time fix rates were considered the third most important service metric (38 percent of respondents), just behind customer satisfaction and profitability.

Part of the reason that first-time fix rates are so important is that they affect customer satisfaction ratings directly. If a piece of equipment can't be fixed on the first visit because of a lack of parts, a lack of technician expertise, or failure to schedule sufficient time to complete the repair, you will wind up with a frustrated customer. More importantly, that equipment downtime is costly to your customer. The longer it takes to make the repair, the more those costs are compounded.

Measuring first-time fix rates simply requires visibility into the rate at which work orders are closed, as well as technician notes and other information.

Data from The Service Council indicates that the average first-time fix rate for service organizations falls around 75 percent. For large companies, that can mean thousands of service calls that require multiple visits, resulting in hundreds of thousands of dollars in additional expenses and a steady erosion of customer confidence.

The Challenge Of Narrowing Down First-Time Fix Failure Points

While it's easy to spot first-time fix failures, improving performance is a challenging task. That's because so many disparate factors can influence first-time fix rates: parts, logistics, inventory management, dispatch/scheduling capabilities, technician training, warranty management, fleet management, call center processes, and more.

Identifying the failure points that degrade performance is difficult, and making improvements typically includes a mix of process changes and technology applied across the entire service chain. To successfully complete a service call in one visit, the call center needs to be able to

work with the customer to accurately identify the equipment involved and the specific problem; dispatch has to be able to send a technician with the right skills to fix the problem; and the technician needs to be able to access customer and equipment histories, technical information and schematics, and warranty information, and obtain spare parts in a timely fashion.

First-time fix rates have a direct impact on customer

75%

the average first-time fix rate for field service organizations falls around 75%

source: The Service Council

satisfaction and competitive positioning. They also have a strong impact on service costs. Depending on the industry, SLA (service level agreement) requirements, warranty status, and other factors, the cost of each additional service visit can range from a few hundred to more than \$1,000. In many cases, those costs are completely borne by the service organization. Getting the right technician to the job armed with the right diagnostics information and correct parts can be the difference between a profit and a loss for any given contract (as well as the difference between keeping or losing a customer).

Another element that makes addressing first-time fix rates challenging is that improving this KPI can be at odds with other more efficiency-focused KPIs. Improving performance may mean sending more geographically distant technicians to sites because of their skillsets or customer relationships. An improvement in first-time fix rates may come at the expense of longer drive times, more fuel consumption, or fewer completed calls per day. Balancing those conflicts requires cost evaluation and prioritization.

Increasing first-time fix levels, however, will lead directly to improved customer satisfaction and help reduce costs and increase profitability per work order. ●

Critical KPI #4: SLA Compliance

Service level agreement (SLA) compliance is a measure that builds on any number of other key performance metrics. Those metrics will vary by industry and by the specifics of the contract, but measuring compliance will generally require tracking how often the service organization falls out of parameters of the contract.

KPIs that frequently fall under an SLA can include technician arrival times, equipment uptime, first-time fix rates, asset warranty compliance, routine maintenance schedule completion, and other items, as well as defining the scope of contracted services. The SLA sets customers' expectations for service, and holds the service provider accountable to providing a predefined standard of performance.

Because the SLA is a contract, it can also include penalties for the service provider. Those can range from discounted or free service to termination of the contract. According to Aberdeen Group's *State of Service Management 2015* report, average industry SLA compliance is roughly 80 percent. Top performers achieve a 90 percent compliance rate, while companies classified as laggards have an average SLA compliance rate of 63 percent.

Why SLA Compliance Is Crucial

SLA compliance is important for a number of reasons. First, SLA failures can indicate that there are systemic failures happening within the organization that are making it difficult, for example, for technicians to be dispatched in a timely fashion. SLA compliance also affects customer satisfaction. If your customers' defined expectations are not met, they are unlikely to be happy with your performance. That can lead to fewer contract renewals and more customer churn. Finally, the penalties associated with SLA failures can reduce revenue and profitability.

Effectively measuring and tracking SLA compliance, especially for high-volume field service operations, requires an automated work order management or field service management tool. This makes it easier to classify each work order based on priority (which may or may not be defined in the SLA), and easily track

the status of each job. By defining client- or contract-specific service parameters within the software, managers can be automatically alerted when a specific work order is about to fall out of compliance. They can then respond in real time by expediting parts shipments, re-assigning jobs on the fly, or providing additional assistance to a technician.

This visibility can even be extended to the customer, who will appreciate having real-time status updates about repairs to mission-critical assets.

Utilizing a warranty or contract management solution in conjunction with field service automation can also help technicians more appropriately respond to customer requests. Knowing whether or not a specific asset, part, or repair falls under the warranty, for example, will ensure accurate billing and help manage customer expectations relative to the repair.

For service organizations that are increasingly called upon to ramp up revenue through service contract sales and renewals, managing SLA compliance is critical for maintaining customer relationships and documenting contract performance.

SLA compliance data can also be mined to glean insights into workforce productivity, job completion, and contract profitability. The data gathered in the course of measuring these other KPIs can be used to create continuous improvement programs or employee incentive programs. Finally, SLA compliance is an important quality metric and can be a key indicator of the health of your service business. ●

80%

average industry SLA compliance is roughly 80%

source: Aberdeen Group

Critical KPI #5: Number Of Jobs Completed

Number of jobs completed per day is a critical productivity measure. For higher-volume, lower-margin operations, this particular metric is a crucial indicator of the health of the business. Measuring the number of jobs completed is as simple as tallying up the number of closed work orders. While this is more difficult to do in a manual/paper-based environment, it isn't impossible. However, data gathered manually will always be at least a few days (maybe weeks) old depending on how geographically dispersed your service force is.

With the help of an automated work order management solution, service organizations can easily see how many work orders are completed each day/week/month. More importantly, this data can be analyzed by geography and even by technician. If your jobs-completed numbers are low, relative either to industry standards, competitive analysis, or your own improvement goals, there are a number of contributing factors.

The first important measurement is mean time to repair (MTTR), or the time it takes to go from detection of a problem to resolution. Setting aside the amount of labor directly associated with the on-site repair, there are several areas of improvement that can boost the number of jobs completed per day without affecting repair quality or customer service:

- **Scheduling and Dispatching:** How long does it take to move a customer request from the call center to an actual dispatched work order? Paper-based or manual processes can bog this process down, or result in overbooking technicians.
- **Drive Time:** Depending on how you dispatch work orders, technicians may spend hours per day driving between distant customer sites. For service organizations who serve large geographic areas, scheduling and route optimization tools can help rationally group assignments to minimize drive time and match the right technician to the job.
- **Parts Logistics:** Delays in picking up or receiving required repair parts can drag out the time needed to complete each work order. Streamlining inventory processes can improve both the number of jobs completed and first-time fix rates.

As with other KPIs, this measure often has to be balanced against customer service. Your customers don't care how many stops the technician completes per day; they just want their issues fixed as quickly as possible. The goals you set for com-

pleted jobs also have to be realistic and safe. There will always be jobs that take longer than expected (that's why being able to dynamically shuffle and reassign work orders is so important), and unforeseen complications. If you reward or recognize technicians based on volume alone, you risk unsafe driving behaviors as they speed from one customer site to another — in effect, swapping one problem (lower productivity) for several others (accidents, higher insurance rates, speeding tickets).

However, by improving technician productivity and increasing the number of work orders completed each shift or week,

Additional KPIs Checklist:

- ✓ Service Revenue
- ✓ Service Profitability
- ✓ Service Costs (Overall)
- ✓ Customer Churn
- ✓ Serviceable Asset Uptime/Availability
- ✓ Mean Time to Repair
- ✓ Service-to-Cash Cycle
- ✓ Service Revenue as a Percentage of Total Revenue
- ✓ Drive Time/Distance
- ✓ On-Time Arrivals
- ✓ Missed Appointment Percentages
- ✓ Fuel Consumption
- ✓ Driver Safety
 - Speeding Incidence
 - Accidents
 - Harsh Braking/Acceleration Incidence

service organizations can have an immediate impact on their bottom lines. Even for small companies or relatively low-cost repair orders, an extra work order per technician each day can result in thousands of dollars of additional revenue. This productivity bump also helps companies add customers without having to increase their workforce or purchase new vehicles.

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