AN XOi WHITE PAPER

Next-Level Field Service Management

Advanced knowledge management and field service data automation will help companies and technicians make the next big leap in service evolution

PART 1

Introduction

The field service market is evolving, with an increased focus on customer retention and the need for service to drive new revenue growth. Existing field service management technology stacks will need to evolve as well — and the existing mix of solutions may not provide the degree of visibility, consistency, and agility required to support service as an engine of revenue growth.

The 2023 Salesforce.com State of Service survey found that "86% of decision makers whose organizations have field service call it critical to scaling their business, and 84% see major returns from their field service investments." Further, 85% of service leaders believe there is a direct link between the employee experience and the customer experience.

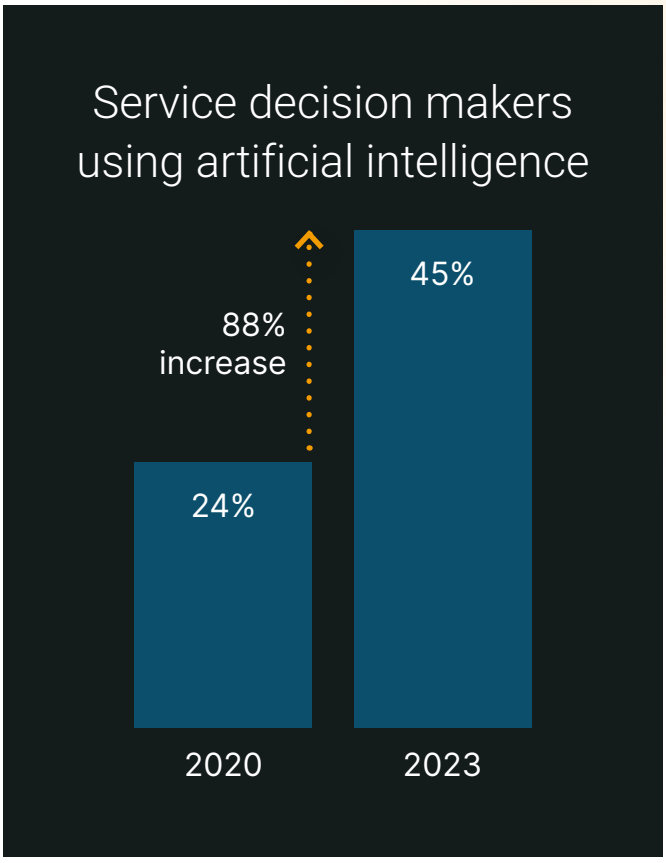
A recent ServiceTitan report on residential service trends also highlighted some of these needs. According to the research, repeat customers drove 58% of work orders and 39% of revenue in 2022, and word-of-mouth referrals account for 71% of business volume.

This shift will require moving away from the reactive break/fix service model to a more proactive approach built on preventative maintenance, contract work, and helping technicians improve their productivity and effectiveness at the job site. It will also require an investment in technology that can break down organizational silos around service data.

According to the Salesforce.com survey, 58% of service organizations are using some sort of automation to balance customer expectations for empathy, speed, and quality, with 88% deploying field service-specific solutions. The share of service decision makers using artificial intelligence (AI) has increased by 88% since 2020 (from 24% of respondents to 45%).

Standard field service management (FSM) software solutions automate key functions of field service and help technicians and their organizations gather critical data about jobs and customers, but this data frequently either resides in specific silos or is not shared across the entire service ecosystem.

For example, most field service organizations have deployed some mix of dispatch/routing automation, mobility tools, and an FSM solution that helps manage job assignments, on-site data collection, billing, parts ordering, SLA compliance, and more.



Source: 2023 Salesforce.com State of Service survey

Using these FSM solutions has helped companies improve responsiveness and SLA compliance, provide better information to technicians before they arrive on site, and replaced time-consuming manual data collection and ordering processes.

In most cases, however, technicians do not have full visibility into the data and institutional knowledge created during previous service visits. Current service bulletins, repair procedures, and other information is also frequently not part of the FSM suite. If these FSM tools are paired with an overlaying technology that can create a centralized data hub for technicians, dispatchers, managers and other stakeholders, the benefits of these solutions can be exponentially increased.

This approach to knowledge management is critical for field service organizations (FSOs) because the solution is primarily focused on making the technician's job easier. While many previous field service technology efforts were typically customer-focused (improving response times, efficient/more visible dispatch, improving time-to-resolution, etc.), improving the experience of technicians ultimately results in happier and more satisfied (and loyal) customers.

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Technicians are frontline decision makers, and take their role in customer service seriously. The Service Council report, Voice of the Field Service Engineer, found that when asked about what they like most about their work, 50% of respondents cited solving customer problems, followed by 40% fixing or repairing things, and 20% learning new skills.

Their top dislikes, on the other hand, included paperwork/admin tasks, and time spent looking for information.

Leveraging technology to improve employee satisfaction is particularly important now, as most service companies have an aging workforce and face an ongoing shortage of skilled technicians. The Service Council survey also found that 34% of technicians are considering changing professions, that roughly a quarter are dissatisfied with their career opportunities, mentoring and guidance, and learning/development opportunities.

Technicians are also faced with higher customer and management demands; the need to repair increasingly complex products; and the need to acquire greater technology knowledge to do their jobs.

If they encounter a problem while on a job site — despite the fact that most of them have access to a mobile FSM solution — the majority of technicians will call another technician or a support line; more than 70% of respondents in the Service Council survey said they phone other technicians to solve problems.

Clearly, technicians crave better training and faster access to repair information, but lack the right tools to solve these knowledge sharing issues, despite widespread FSM deployment.

What technicians say they enjoy most about their work:

- **50%** Solving customer problems
- **40%** Fixing or repairing things
- **20%** Learning new skills

PART 2

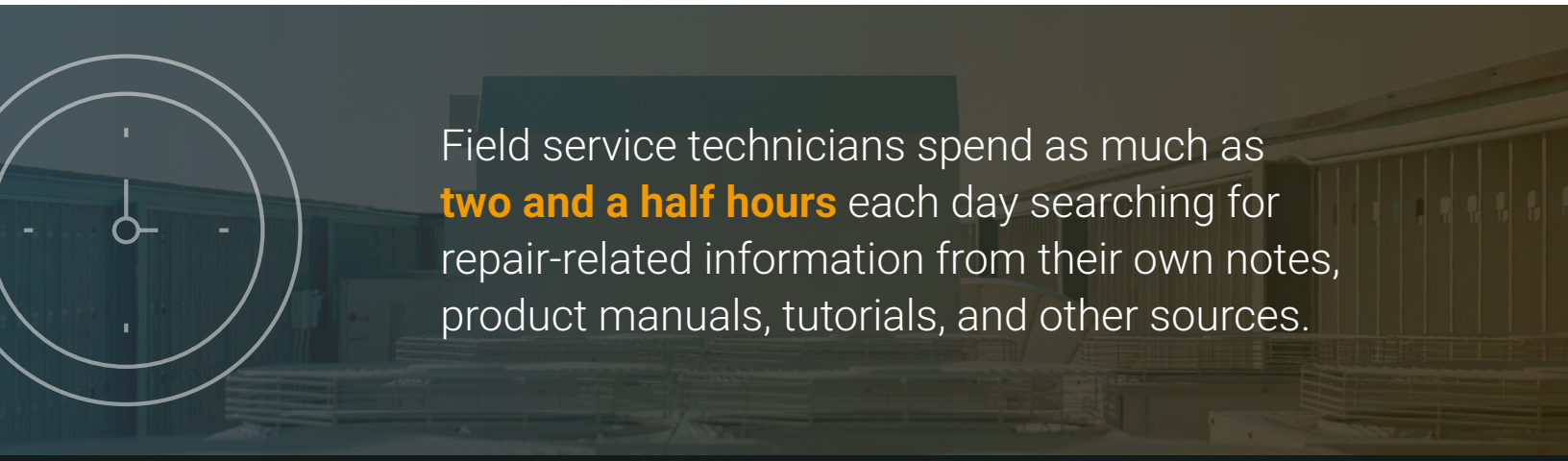
Unlocking the Power of Jobsite Data

By providing a technicians with a jobsite tool that connects them to a central data hub and the resources the they need, field service organizations can eliminate time-consuming phone calls and information searches, and improve technicians ability to complete repair tasks the first time by ensuring they have all of the technical information, parts, and support they need. It can also help address labor shortages by making it easier to train and support new hires.

A technician-first approach that zeroes in on jobsite activities and data can potentially be a game changer for field service organizations. Field technicians are becoming multi-purpose growth engines for many companies as service transitions from a cost center to a revenue center. Putting the right technology in their hands can maximize these opportunities while removing friction from service delivery.

Field service technicians spend as much as two and a half hours each day searching for repair-related information from their own notes, product manuals, tutorials, and other sources. Senior technicians spend as much as seven hours per week supporting younger technicians. The information is scattered throughout internal and external sources, and can be difficult to search. That's why so many techs wind up just making a phone call. Software that leverages advanced artificial intelligence, machine learning, and data collection can create a comprehensive knowledge base of this information, which ensures consistency and predictability while saving hours of unproductive labor.

Such a solution should support integration with key applications that the FSO is already using, and make it easy and intuitive to share information across these systems.



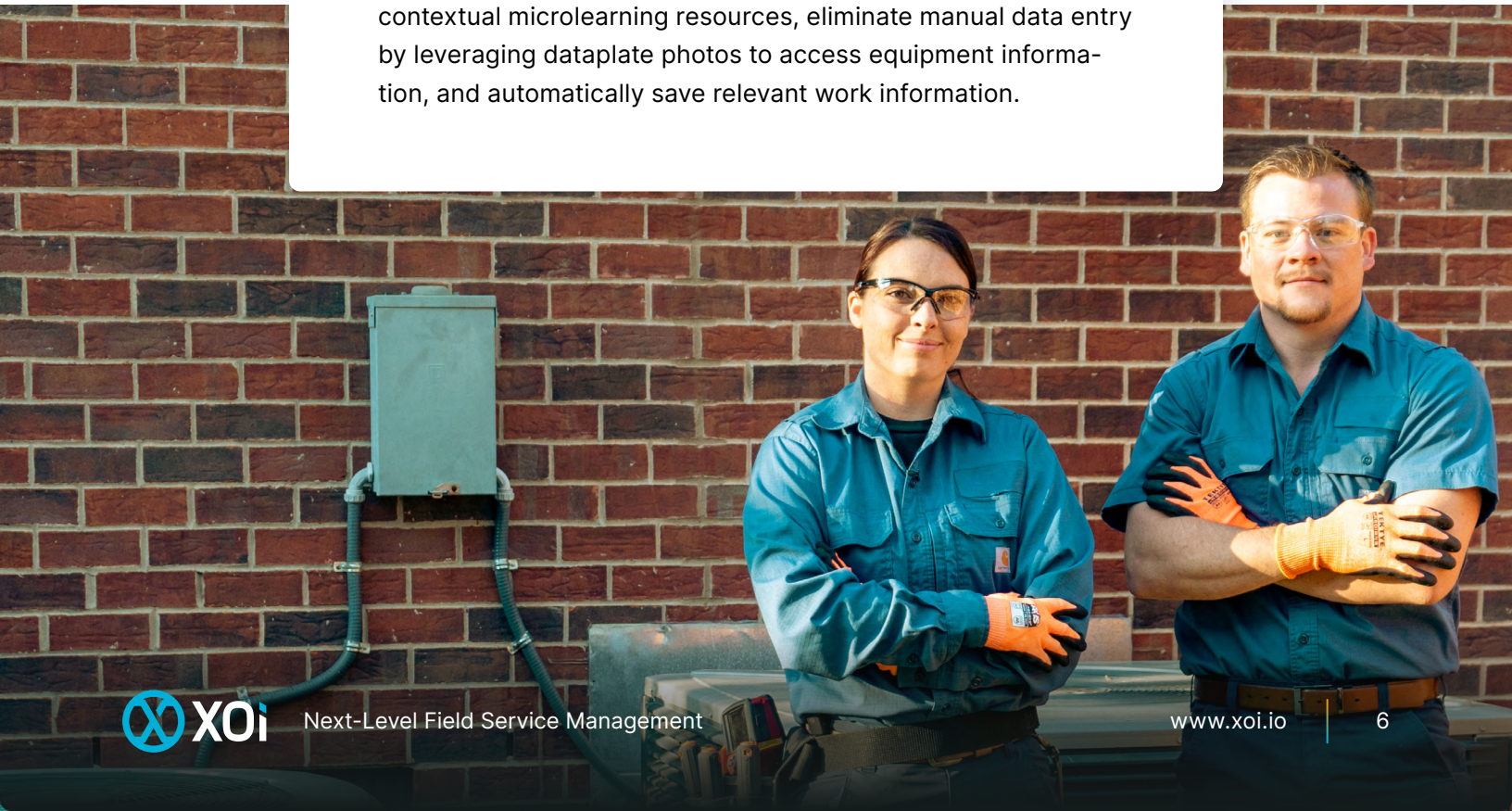
Top-level FSOs emphasize data collection at the job site to gain better understanding of the work performed, update equipment histories, identify potential upselling opportunities, and better plan for the future of their business. With comprehensive data at their fingertips, and the ability to quickly collect new data and act on it in real time, technicians can improve their own performance, boost customer service, and provide valuable insights to other parts of the company.

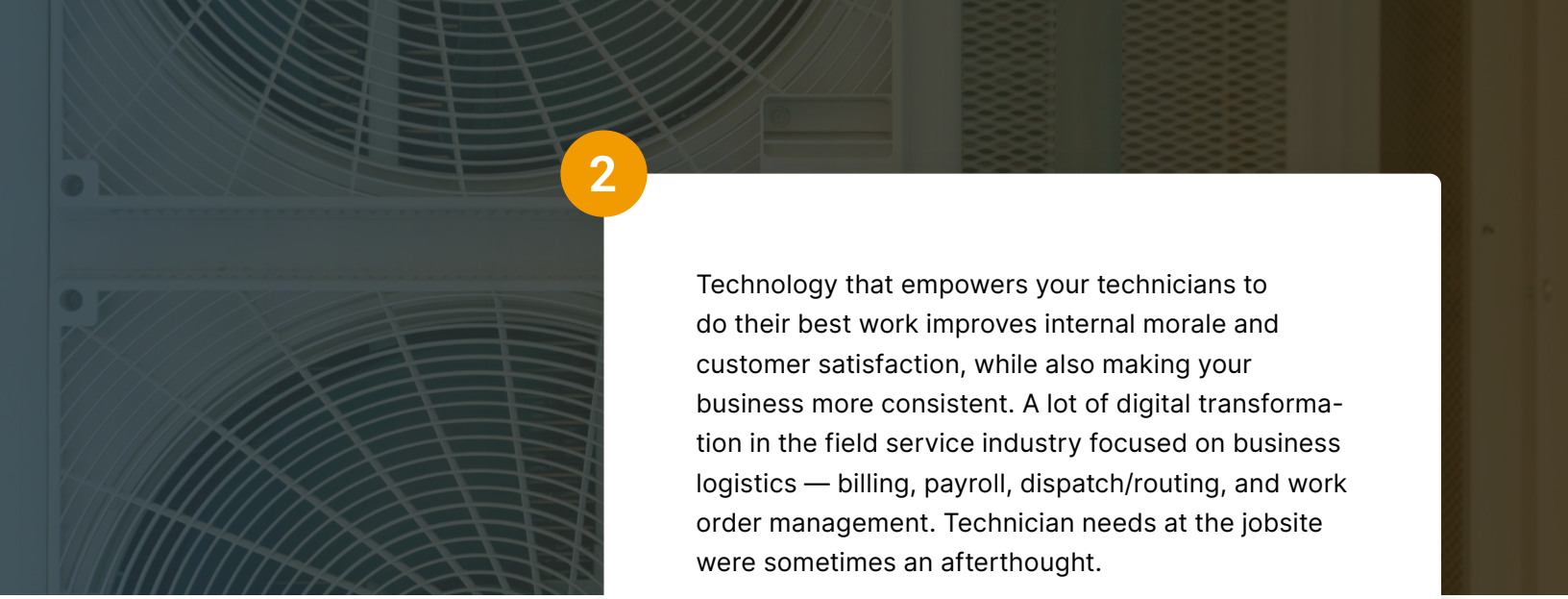
The benefits of a technician-first technology system include:

1

Gain a better understanding of on-site work. While FSM solutions do a good job of tracking worker order information, parts consumption, and other data, they do not necessarily capture a comprehensive view of the repair process. Technicians typically access multiple applications and resources to complete a single assignment. The ability to incorporate video and images collection on site as well as information on outside resources that were useful to complete a specific job can give FSOs a more holistic view of repair activities.

A tech-first knowledge solution will help employees provide greater transparency to managers and customers, access contextual microlearning resources, eliminate manual data entry by leveraging dataplate photos to access equipment information, and automatically save relevant work information.





2

Technology that empowers your technicians to do their best work improves internal morale and customer satisfaction, while also making your business more consistent. A lot of digital transformation in the field service industry focused on business logistics — billing, payroll, dispatch/routing, and work order management. Technician needs at the jobsite were sometimes an afterthought.

A tech-focused knowledge management solution makes it easier for technicians to easily identify and order replacement parts on site, access repair videos and tips, review equipment histories, and share questions, photos and videos with other technicians, and search for and find repair information.

3

Leverage technician data collection to make smarter business decisions. With the ability to access real-time data about equipment failure history, end-of-life timing, usage, and more, technicians can identify new business opportunities at the job site, and then quickly respond to quote requests from customers — a critical capability, given that 78% of the time a technician requests a quote, they believe it is urgent. Management will also have a much clearer view of potential opportunities for new business (including replacement purchases and preventative maintenance sales), as well as operational bottlenecks that could potentially save the company time or money. According to data from XOi, technicians identify additional work that needs completed 40% of the time when they respond to service calls; the ability to access and collect data at the jobsite and share it makes it much easier to turn those moments into new business.

Technicians identify additional work that needs completed 40% of the time when they respond to service calls

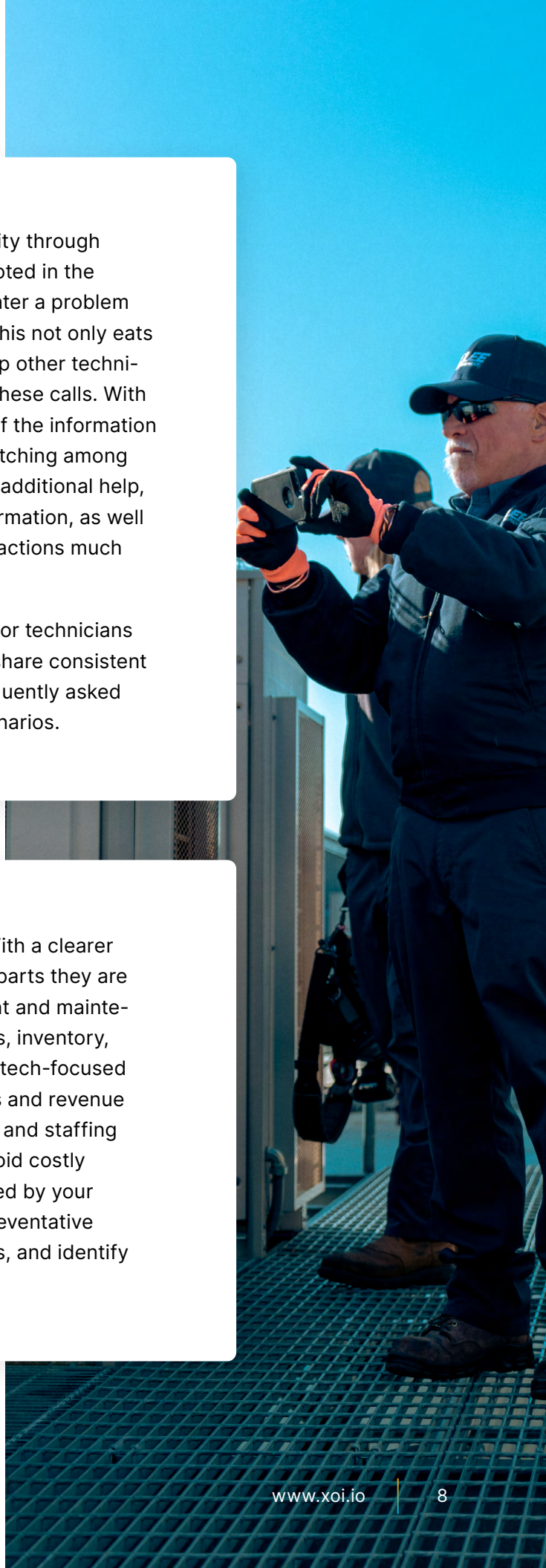
4

Improve technician data collection and productivity through ease-of-access to information and support. As noted in the Service Council survey, when technicians encounter a problem most of them literally phone a friend to solve it. This not only eats up valuable time at the job site, but can also tie up other technicians who have to stop their work to respond to these calls. With the right technology, technicians can access all of the information they need through a single interface (without switching among multiple apps and websites). When they do need additional help, they can be prepared with machine and part information, as well as live video and photos, to make their peer interactions much more efficient and productive.

These solutions also make it much easier for senior technicians to support new hires, since they can create and share consistent tips, videos, and other information to resolve frequently asked questions and frequently encountered repair scenarios.

5

Improve your capital planning with better data. With a clearer picture of what your technicians are fixing, what parts they are using, and what equipment is due for replacement and maintenance, you can more accurately budget expenses, inventory, staffing, equipment and incoming. Data-rich and tech-focused field service platforms can make service budgets and revenue projections more predictable. Accurate inventory and staffing forecasts will also save money by helping you avoid costly expedited shipping or overtime. The data collected by your technicians will also inform how you approach preventative maintenance opportunities and renewal contracts, and identify clients or business lines that are not profitable.



The Role of AI in Field Service

Artificial intelligence (AI) and machine learning will play a key role in field service knowledge management solutions. Natural language processing queries and algorithm-based analytics are at the heart of these systems — making it easier for technicians to gather data and then intelligently search multiple data sources at the same time. AI can help technicians perform at the highest level by augmenting their ability to identify, diagnose and repair equipment quickly.

Selecting a knowledge management solution means finding a platform that can analyze the right data using service-specific prompts to arrive at reliable and predictive answers. The results technicians get are only going to be as useful as the data on which the AI solution is trained.

The solution should not just leverage historical data — which will need to be organized, scrubbed, and properly annotated to be useful — but also have the ability to incorporate data gathered in real time so that the tool can continuously improve based on technician engagement.

AI has received a lot of attention since the launch of ChatGPT in 2022, and also generated a lot of anxiety in industries where it is being adopted. This anxiety is typically centered around employee replacement (Will the algorithm take my job?) and a lack of trust in AI-based decision making (Will the AI engine lead us in a catastrophically wrong direction?).

The use of AI in field service management and knowledge management will require educating the workforce about how the technology works, and where it is best applied. AI is not, and will never be, a replacement for a skilled technician. But AI can be an important tool that helps technicians do their jobs faster and better.

A well-trained AI platform can help technicians sift through data faster to arrive at the correct diagnosis and repair procedure, for example, but the technician still makes the final call about how to proceed. By collecting additional data at each service call, the technicians will help make the knowledge management platform better by engaging the technology in a cycle of continuous improvement.

Technology Selection Best Practices

While there is clearly a need for additional technology at the job site, field service organizations have to carefully plan for a knowledge management deployment. As many companies learned when they first invested in mobile field service management, careless technology selection and poorly planned deployments can cost them both in terms of money and morale.

There are plenty of failed technology deployments that bear this out. According to the Standish Group's Annual CHAOS 2020 report, 66% of technology projects end in partial or total failure, and large projects are successful less than 10% of the time. The KPMG 2023 Technology Survey found that 51% of U.S. technology executives said they saw no increase in performance or profitability from their digital transformation investments in preceding two years.

> The problem is not the technology. Many projects fail because of change management challenges, cultural or organizational roadblocks, or lack of employee buy-in. At the root of a lot of these issues, though, is a failure to match the technology to specific pain points in the business.

For FSOs that want to successfully deploy knowledge management to their technicians, it is important to identify what problems you want to solve first, then find a technology platform that meets those needs.

Those pain points shouldn't just be ones management is worried about, either. Technicians should play a role from day-one to ensure that the new system not only fixes the problems they face in their daily work, but also does not create new ones. Because knowledge management solutions are data-hungry, it is tempting to overburden technicians with data entry tasks and checklists. Any technician-focused solution should automate as much of this administrative work as possible, and integrate data collection into natural service workflows.

Conclusion

To grow and remain profitable, FSOs will need to take a data-driven, technician-focused approach to service knowledge management. Overlaying an AI-based solution on the existing field service management technology stack will provide a centralized knowledge repository that will not only help technicians provide fast, effective service, but also guide business planning and development.

This next-generation field service technology can help organizations make the shift to a more proactive and agile service delivery model, which can improve customer loyalty and ensure consistent growth in the future.

XOi, the leading provider of technician-first technology for commercial and residential field service companies, arms the field service industry with a digital tool that connects people to equipment.

XOi technology is the hub in which every part of the job—from the field to the office—connects to facilitate a transparent experience for the OEM, contractor, technician, and customer. XOi provides remote support, visual documentation, training resources, asset and team management functions, a comprehensive knowledge base, and immediate revenue-producing insights leveraging data from current and historical projects. Beyond this tool that manages efficiency, consistency, and communication, XOi's goal is to create future-focused technology that modernizes the field service industry as a whole, and helps to overcome the issues that threaten the livelihoods of the hard-working people in the trades. For more information about XOi, visit xoi.io.

XOi