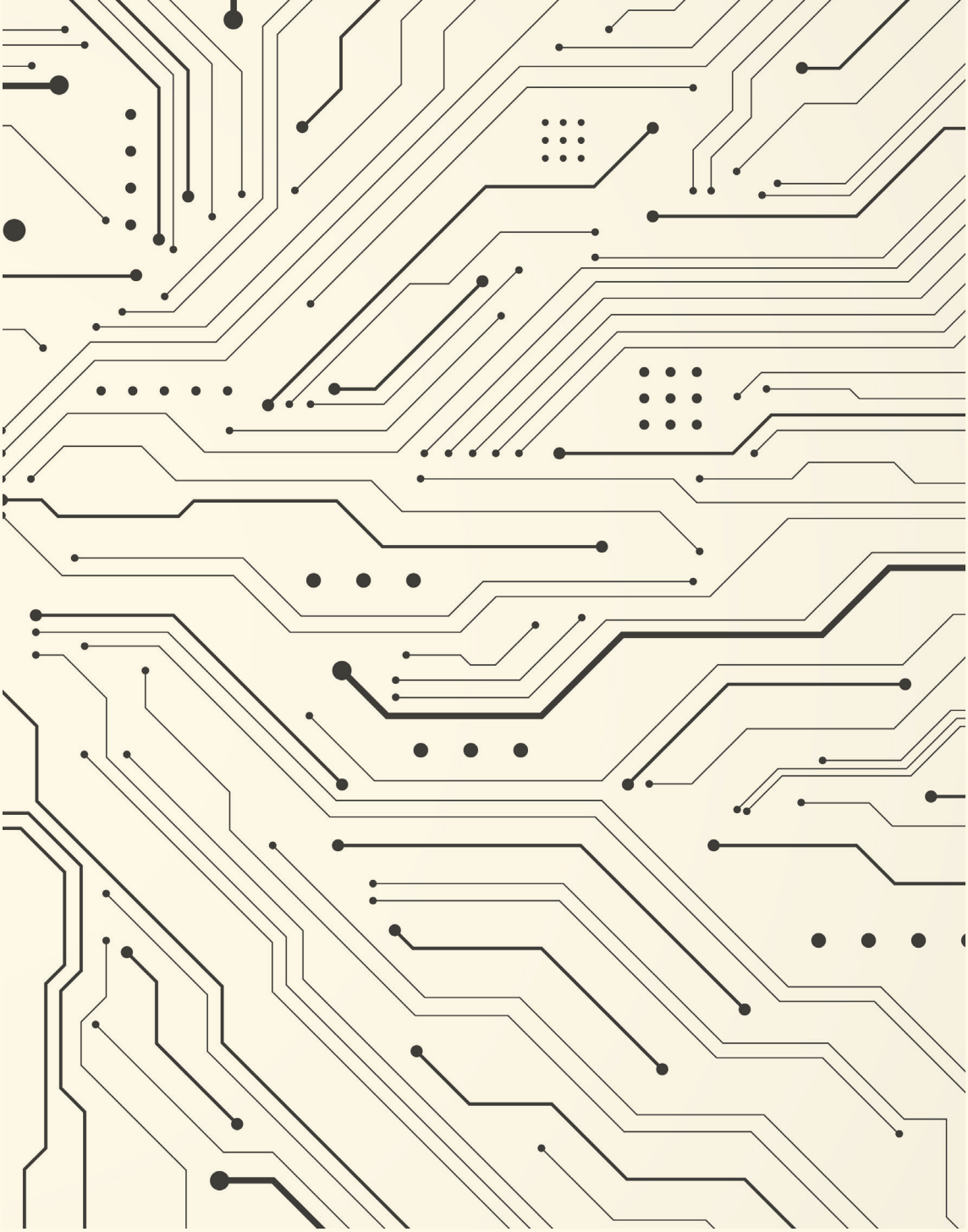
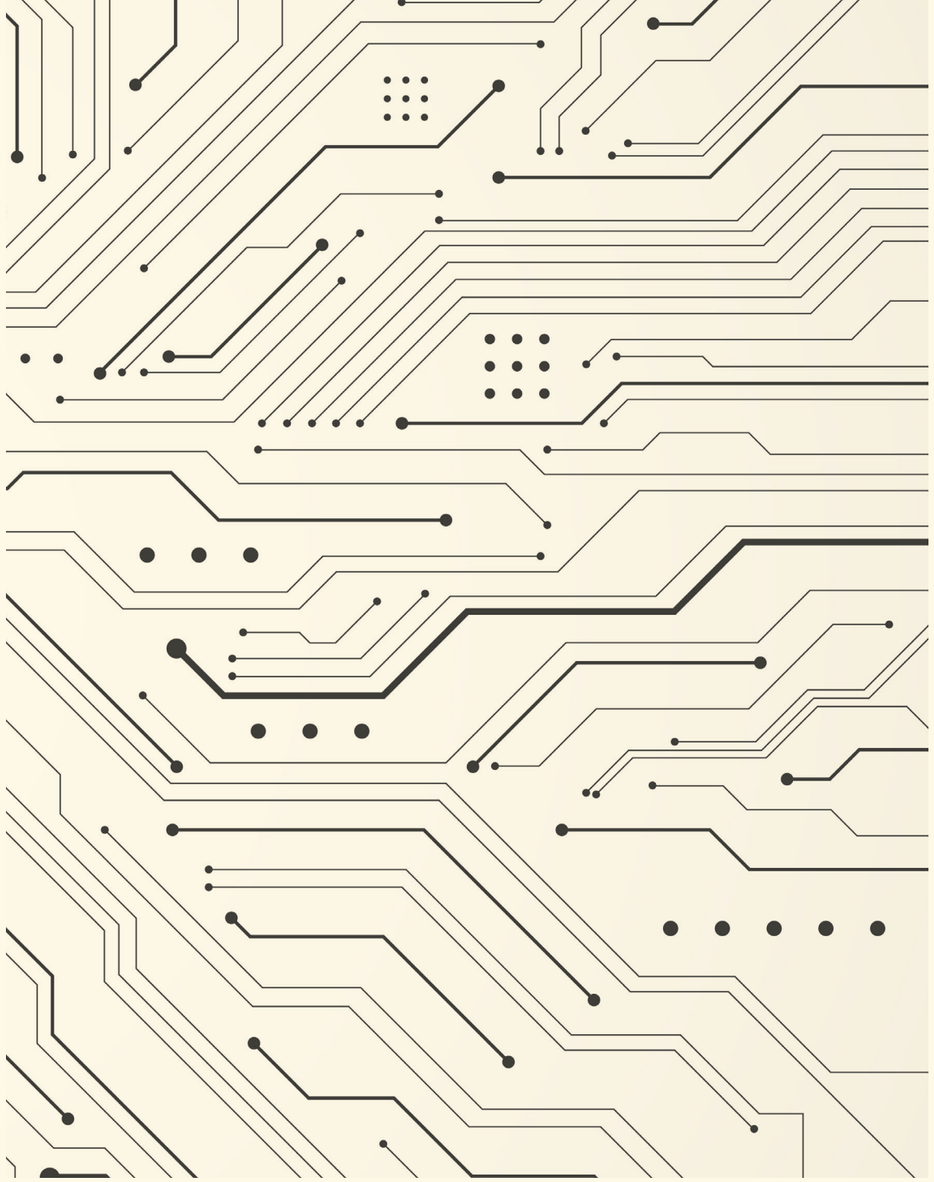


The State of AI in Field Service 2021

COPPERBERG SightCall

Content

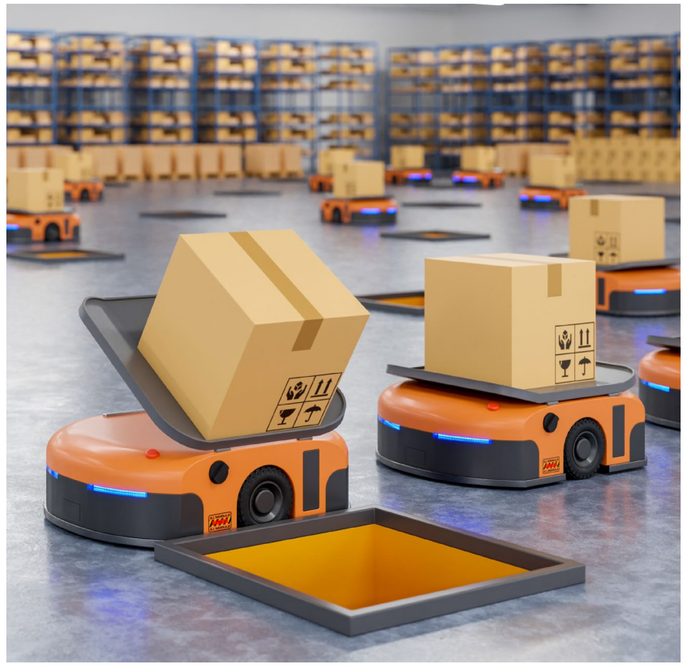


Introduction

The industrial sector has faced unprecedented changes driven by smart technology in recent years. With the advent of Industry 4.0, it was only a matter of time until AI was ready to work its way into the daily operations of field service organizations.

We've interviewed 110 field service leaders that serve almost every industry- from automotive (14.15%) and machinery (29.25%) to food and beverage (4.72%) and Marine (2.83%). With a field workforce of varying sizes, including 11-50 (24.53%), 201-500 (12.26%) and 501+ (33.02%), these organizations have given us direct insight into their maturity levels and have enabled us to determine if the field service industry as a whole is poised for wider AI adoption. We've compiled our findings in this comprehensive report, focusing on three major topics: the current state of AI in field service, how field technicians benefit from AI utilization, and how to deploy AI within your organization.

The industrial sector has faced unprecedented changes driven by smart technology in recent years.

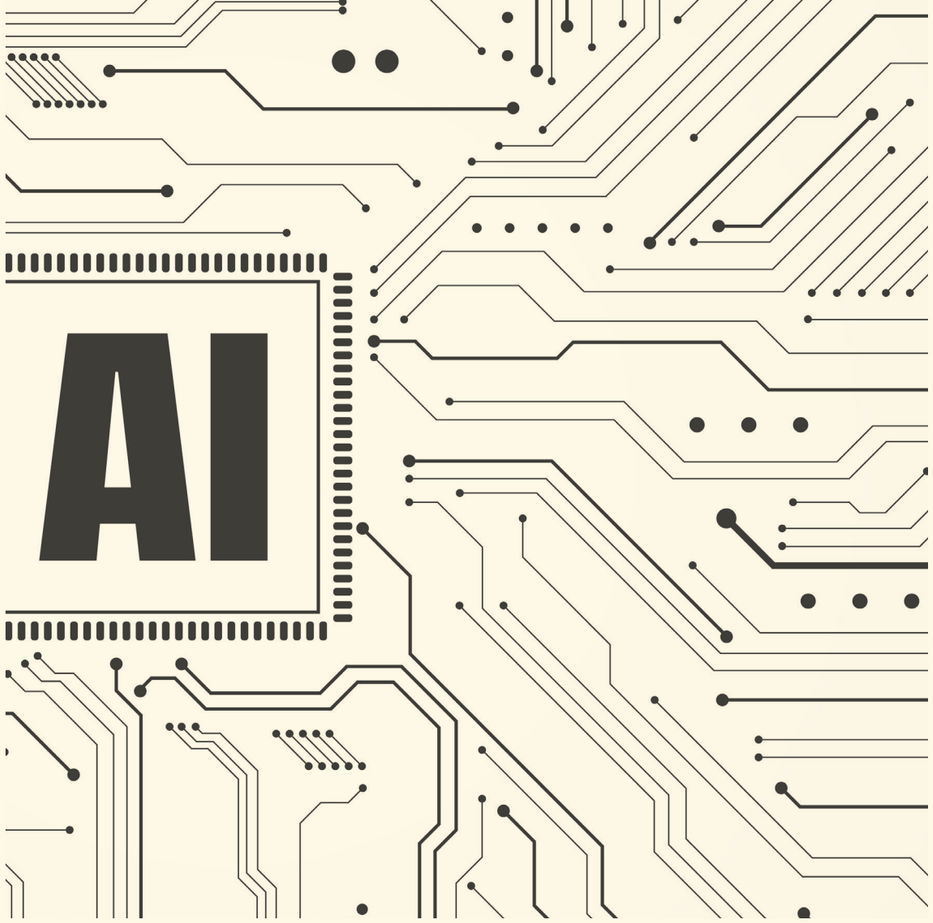


As field service organizations continue their digital transformation journey, they are starting to see how AI optimizes daily operations, becoming an essential component for increased field efficiency, predictive maintenance, customer satisfaction, and overall business success.

Furthermore, AI is helping companies create seamless employee experiences for field technicians who are trying to deliver excellent service while also striving to perfect their skills, traveling between repair sites, and more. Easing the burden on these agents is of utmost importance for businesses that want to ensure business continuity.

Last but not least, our research shows that today's field service organizations are craving for AI capabilities that can help them improve customer satisfaction, reduce human errors, share information more transparently, enhance employee satisfaction, and increase worker safety.

By implementing AI in the field, companies can address all of this and more in a way that saves them time and resources without compromising technician efficiency or wellbeing. —

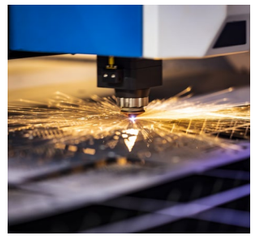


Chapter 1.

The State of AI in Field Service

Until a couple of years ago, artificial intelligence (AI) was considered to be the future for field service organizations (FSOs). That future is here and although AI has yet to become commonplace among FSOs, the industry is experiencing unprecedented adoption of AI and data-driven solutions.

We've turned to our field service audience to explore the current maturity level of most FSOs and understand their focus for the future, hoping to find out where AI solutions stand, how they are deployed, and the impact they're having on field service operations today.



Most of our survey respondents have a proactive approach to field service operations and try to schedule maintenance at regular intervals.

Trends among modern FSOs

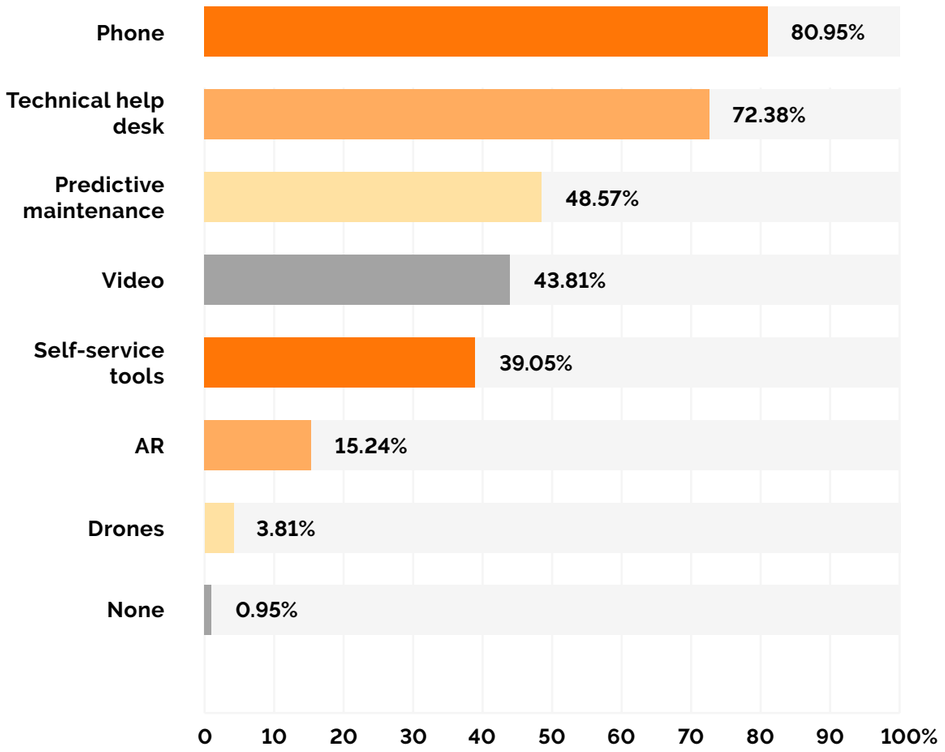
Half of our survey respondents (50%) have a proactive approach to field service operations and try to schedule maintenance at regular intervals. The remaining respondents are split between those who have a reactive approach (31.13%), meaning that they dispatch technicians based on fault reporting, and those who have a predictive approach (18.87%), meaning that they've implemented remote diagnostics and data solutions to fix problems before they occur.

As both the proactive and predictive approach becomes more widespread, FSOs need to consider the right technology to effectively support this type of service operation during the deployment, adoption and adaption phases.

As most FSOs haven't implemented advanced technology solutions like remote diagnostics to support a predictive model, what are the technologies and tools they use to proactively perform their daily field service operations?

To resolve or identify issues before the first technicians are sent onsite, FSOs deploy solutions such as phones (80.95%), technical help desk (72.38%), predictive maintenance (48.57%), video (43.81%), self-service tools (39.05%), augmented reality or AR (15.24%), and drones (3.81%).

What tools or technologies are you deploying to resolve or identify an issue before the first technician is sent onsite?



Soon enough, self-service tools alongside AR and drones will become just as important.

Not long ago, video solutions were considered nice to have but not necessary. Based on our data, we can safely say that today, video solutions have reached a different status, becoming vital for modern field service organizations to operate effectively and efficiently.

Soon enough, self-service tools alongside AR and drones will become just as important. Because they're still considered novelties and because the understanding of AI is not yet mature enough, these solutions have a seemingly low deployment rate. But, depending on the type of industries they serve, some FSOs will have to implement AR and AI-powered advanced technologies sooner rather than later. —

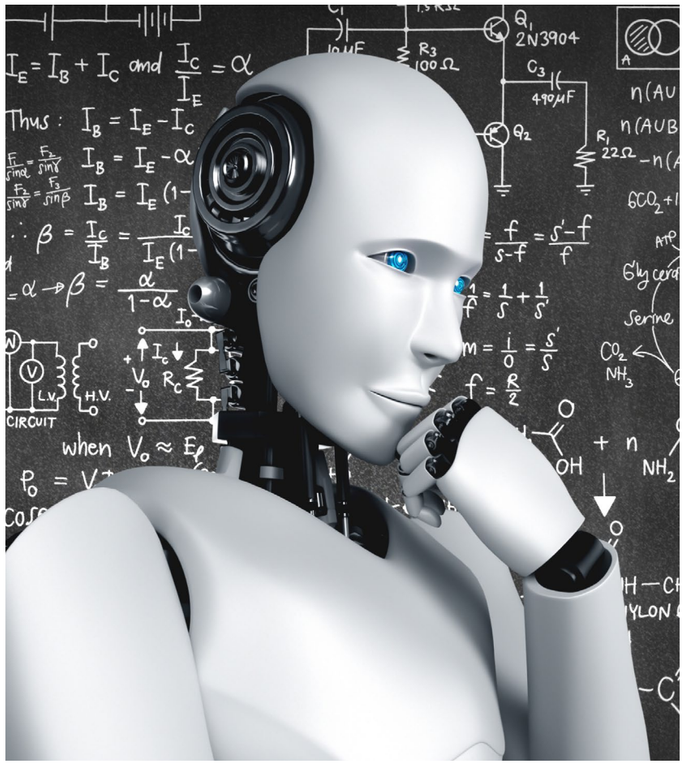
Chapter 2.

Increased Efficiency —The Role of Field Technicians with AI

One of the oldest myths in the industrial realm is that AI will rise to replace humans. Although AI is starting to disrupt the industry at an increased pace, it is not here to replace field service technicians. It is here to assist them.

AI solutions are generally designed to reduce human error, take over repetitive tasks, and perform in use cases that are considered too dangerous for humans. Also, it comes in handy when staff capacity is limited.

Now more than ever, it is increasingly difficult to recruit and retain field service technicians. Beyond the challenges created by the pandemic in this regard, FSOs are tackling the loss of essential skill-sets due to a retiring workforce and technician turnover.

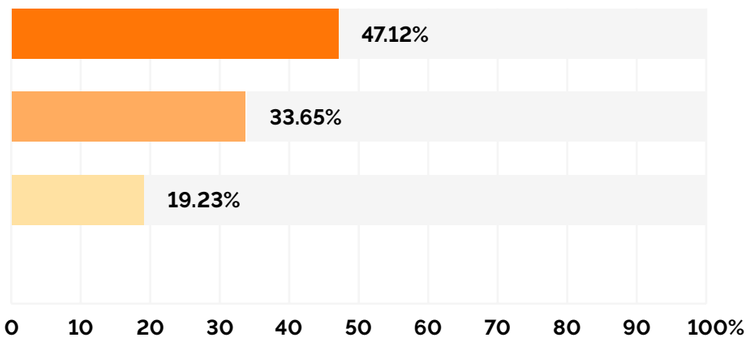


AI solutions are generally designed to eliminate human error, take over manual and repetitive tasks, and perform in use cases that are considered too dangerous for humans.

In fact, 47.12% of our survey respondents have revealed that they are already experiencing a lack and shortage of skilled labor today, while 33.65% foresee a shortage of skilled labor in the next five years.

These adverse circumstances make it close to impossible for FSOs to maintain business as usual. Luckily, AI is an ideal solution for easing the burden of field technicians, optimizing processes, and harnessing institutional knowledge to ultimately ensure business continuity.

When it comes to access to skilled field technicians in your industry, which statement is most accurate:



Equipping field technicians with AI

As the old workforce retires taking with it precious talent and incomparable experience, the industry has to manage unprecedented pandemic-driven changes, new technology, and a new generation of field technicians.

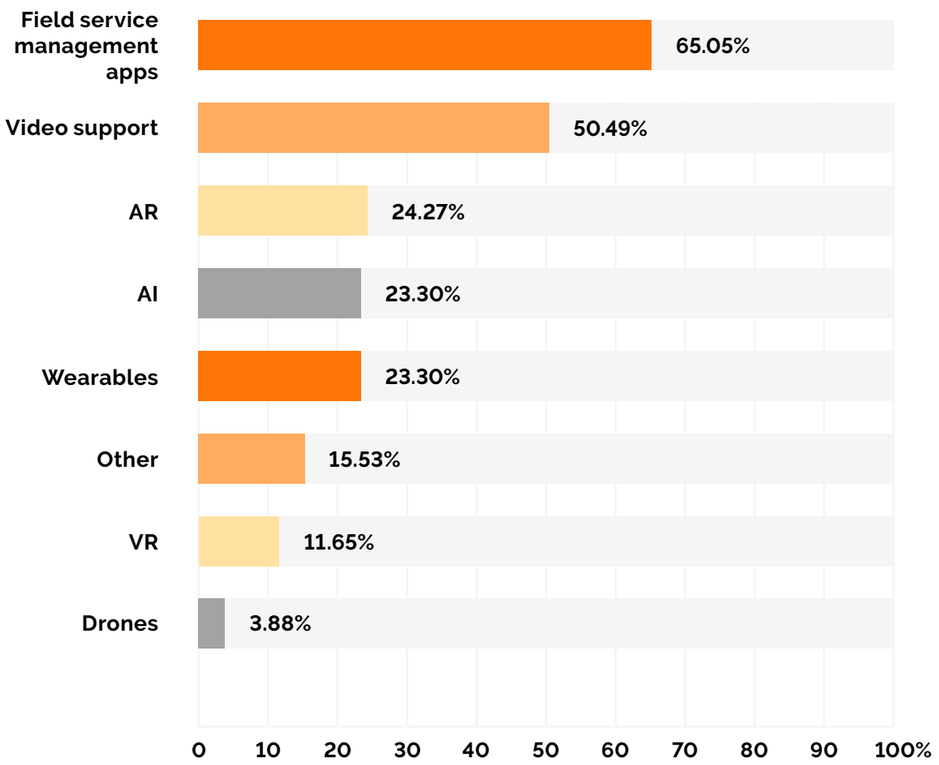
Fortunately, the new generation of field technicians are more digitally savvy, meaning they're far more comfortable with technology than their predecessors. Although they're not as knowledgeable as their more experienced colleagues, they can quickly close their skill gaps with the help of AI, field service management apps, and remote assistance

To enable field technicians to perform their jobs more effectively, our survey respondents are deploying solu-

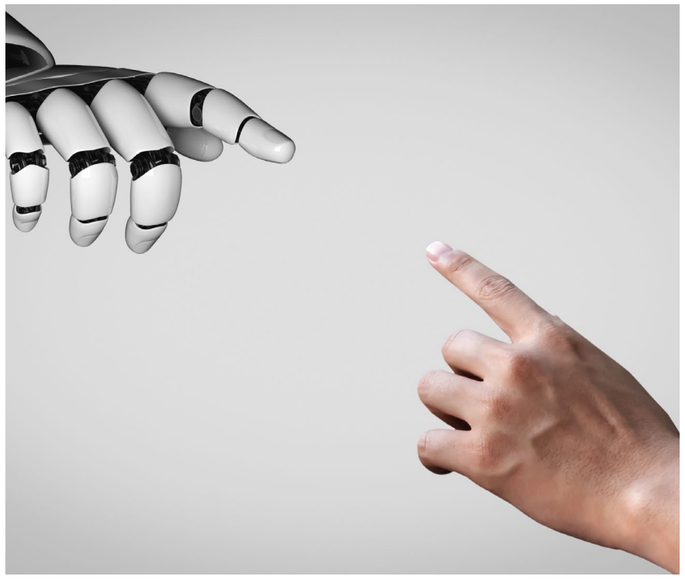
The new generation of field technicians are more digitally savvy, meaning they're far more comfortable with technology than their predecessors.

tions such as field service management apps (65.05%), video support (50.49%), AR (24.27%), AI (23.30%), wearables (23.30%), VR (11.65%), drones (3.88%), and more. This data supports Gartner's 2020 prediction which suggests that visual assistance platforms will experience mainstream adoption within the next two to five years.[1]

What technologies are you deploying today to help technicians in the field perform their jobs more effectively?



[1] Gartner, "Hype Cycle for Customer Service and Support Technologies, 2020" Drew Krause, 5 August, 2020



FSOs should focus more on investing in advanced technology in the near future to better support their technicians.

Investing in AI capabilities

To keep up and stay on track, FSOs should focus more on investing in advanced technology in the near future to better support their technicians. Regardless of what generation they belong to, field technician jobs are often stressful, overloaded and travel intensive.

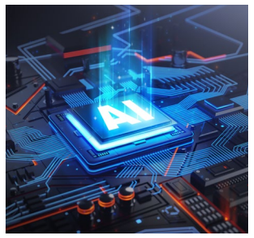
Raising salaries, although deserved, is often just a temporary solution that doesn't do too much in the long run in terms of overall job improvement. A long-term solution consists of investing in the right tools and AI-driven capabilities to reduce the burden on these workers and offer them a seamless employee experience. The right technology can help them perform more efficiently, save time, and perfect their skills while cultivating loyalty.

In other words, with the right AI solutions, FSOs can augment their engineers and technicians, easing their workload without greater personal output. —

Chapter 3.

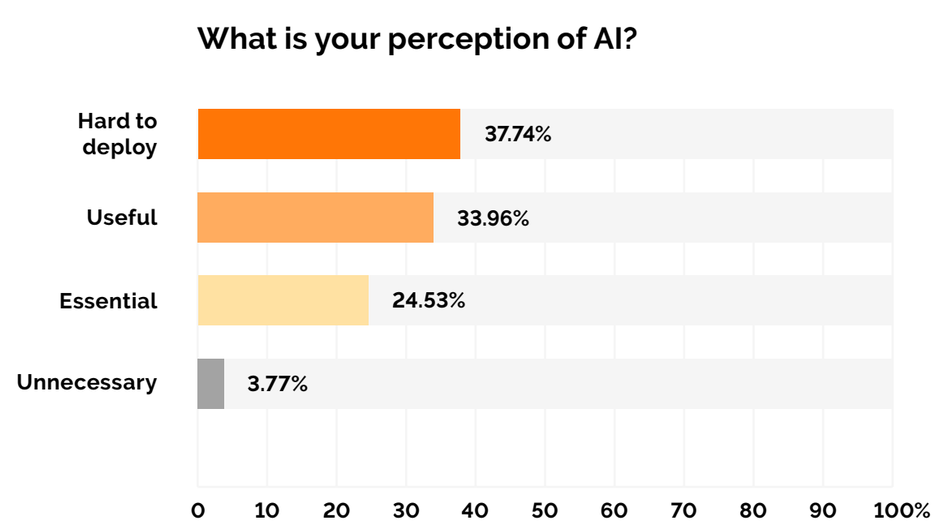
How to Successfully Deploy AI Within Your Organization

Although AI deployment within the industry has started to accelerate, many FSOs are still falling behind and missing out on maximizing their potential and profits. In fact, there are a few FSOs that perceive AI as unnecessary (3.77%) and don't seem to understand the risks of missing out on these capabilities.



However, other FSOs recognize that AI is useful (33.96%), some even consider it essential (24.53%), but most find it hard to deploy (37.74%). The majority of service leaders do understand the importance of implementing and deploying AI solutions but they acknowledge that doing so doesn't come without its own unique set of challenges.

The majority of service leaders do understand the importance of implementing and deploying AI solutions.



Getting support for your AI initiatives and maintenance by partnering up with the right provider is essential.

To truly experience the rewards of AI, FSOs need to feed quality data to their AI engine and apply it holistically throughout their organization. This requires having a long-term vision for smarter FSOs that also understand the impact of AI on automation, process evolution, autonomous field workforce, outcome-first machine learning (ML), mobile, user experience, remote assistance, and service intelligence.

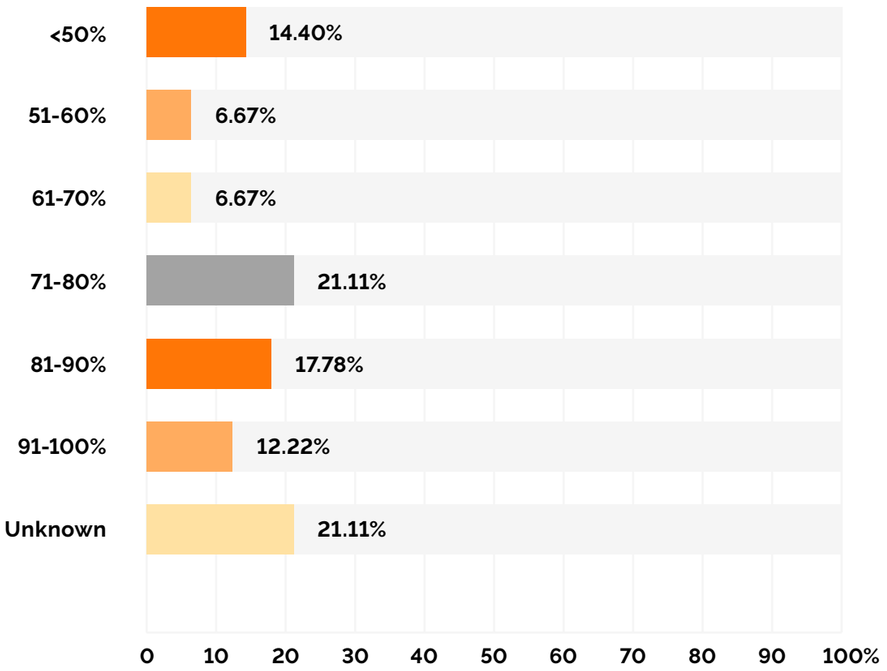
Although this may sound difficult, it's important to remember that, as an FSO, you don't have to do everything alone. Getting support for your AI initiatives and maintenance by partnering up with the right provider is essential.

Key considerations for deploying AI

Perhaps two of the most important metrics for FSOs are the first-time fix rate and the engineer utilization rate. These two KPIs reflect how well field technicians are performing and indicate shortcomings that need to be addressed with viable, sustainable solutions.

When it comes to the first-time fix rate, not all of our survey respondents track this metric. Those that do have an average that falls somewhere between 50% and 90%. Very few of our survey respondents have their average first-time fix rate over 90%, suggesting that high-performance on the first visit is not a frequent occurrence for most FSOs. While some are happy with their target between 60%-90%, the average field service program needs to increase their first-time fix rate by 15.7% to hit their desired goal.

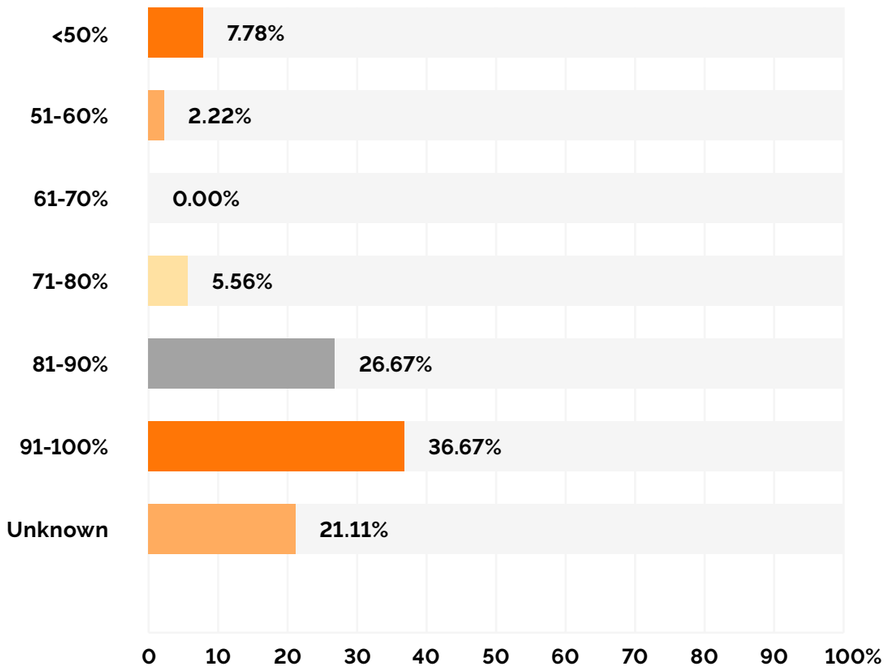
What is currently your first time fix rate average ?



For 14.29% of our survey respondents, the engineer utilization rate is less than 60%, which is below average. However, most of our survey respondents (27.55%) have an 81%-85% engineer utilization rate, which is good news for the service community. Increasing this rate is possible by using an AI-powered visual assistance platform like **SightCall** that helps to drastically reduce the number of unnecessary on-site visits, for technicians.

Likewise, a visual support platform like SightCall will also help increase the first-time fix rate as technicians

What is your first time fix rate target?



can see an issue in real-time, triage and provide remote expertise. With first-hand visibility into the problem, an expert can guide a technician or customer on how to resolve the issue remotely, or ensure the right parts are ordered and distributed, along with the right engineer, to help ensure a first-time fix on-site. Both metrics can get a boost from equipping field technicians with AI solutions and advanced technology that have been proven to enhance field efficiency and agent productivity.

Today, FSOs use AI to improve service delivery through chatbots (25.00%), sentiment analysis (22.83%), and image detection (22.83%). But the majority of our survey respondents, up to 44.57%, don't use any AI solutions with only a few of them implementing AI capabilities such as knowledge databases, AI connectors to BI service applications, condition-based monitoring, anomaly detection, smart sensors for predictive maintenance, data analytics, or mixed reality and wearables.

Many FSOs are utilizing AI in some capacity be it within chatbots or other systems and tools that are already implemented within organizations. But with so many ways of applying AI capabilities to a myriad of use cases, how can field technicians utilize it in the field?

Today, FSOs use AI to improve service delivery through chatbots, sentiment analysis, and image detection.

Our survey respondents have high hopes for AI within their service organizations.

AI Image recognition supports field service technicians in several ways. It can automatically identify products and pull up related resources such as instructions for maintenance and troubleshooting steps, and common problems specific to the equipment. AI assistance can also list the most common problems with a particular piece of equipment and how to resolve them. It also helps compliance with privacy policies by automatically detecting and blurring faces captured in images during video sessions.

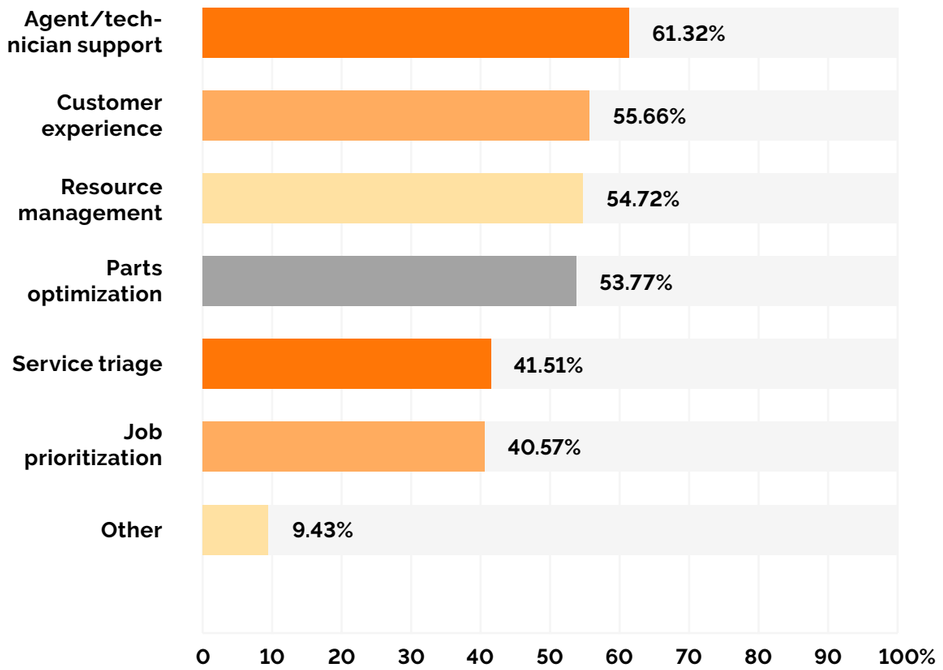
AI-powered live translation removes language barriers and ensures that the technician with the most applicable skills can complete tasks anywhere. Real-time translation works for both speech and visual text, including labels, instructions, and product information.

Automatically generated transcripts provide a text-based record of visual assistance sessions that can be used for quality control, verification processes, and technician performance evaluations.

Our survey respondents have high hopes for AI within their service organizations. Up to 61.32% of them believe that AI can be used for agent and technician support within their organization, as well as customer experience (55.66%), resource management (54.72%), parts optimization (53.77%), service triage (41.51%), and job prioritization (40.57%).

Luckily, utilizing AI for all these applications has never been easier. With support from platforms such as Sight-Call, implementing AI for customer experience, agent support, resource management, and service triage can be quick and effective. And this is an ideal solution for the 20% of our survey respondents that want to deploy AI within their organization in the immediate future.

How do you think AI can be used in your service organization?

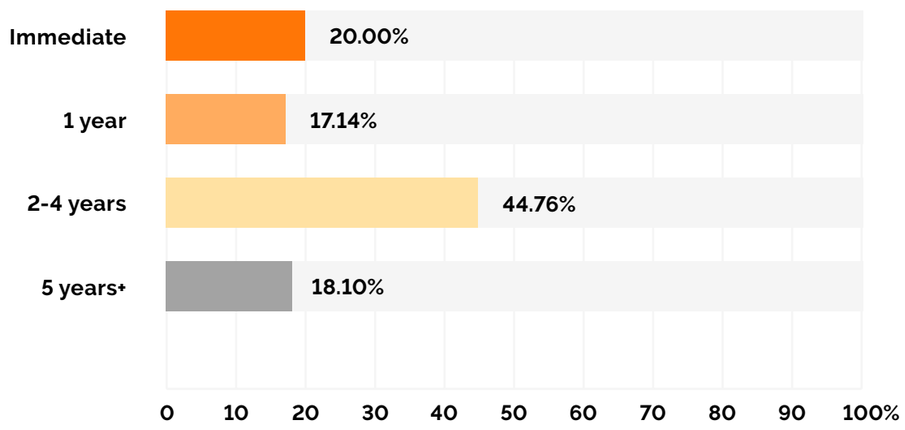


Looking toward a smarter future

Despite the clear benefits of implementing and leveraging AI capabilities sooner rather than later, most FSOs (44.76%) are looking to deploy AI within the next 2-4 years, followed by those who are looking to deploy it within the next 5+ years (18.10%), and a few others who want to deploy it within the next year (17.14%).

Overall, this data reveals that there's a real hunger in the field service industry for deploying AI and adoption is increasing significantly. And although the majority of our respondents plan to deploy AI within the next 2-4 years, the time to start thinking about refining AI models is now, as this can be a time-consuming process. By doing so, FSOs can properly implement and leverage their AI capabilities within the desired timelines.

What is your timeline for deploying AI in your organization?

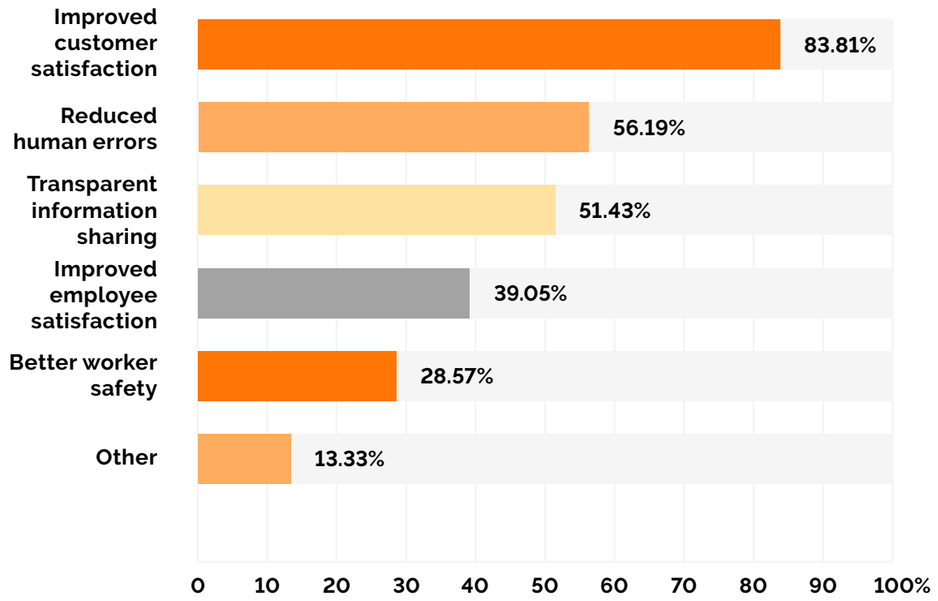


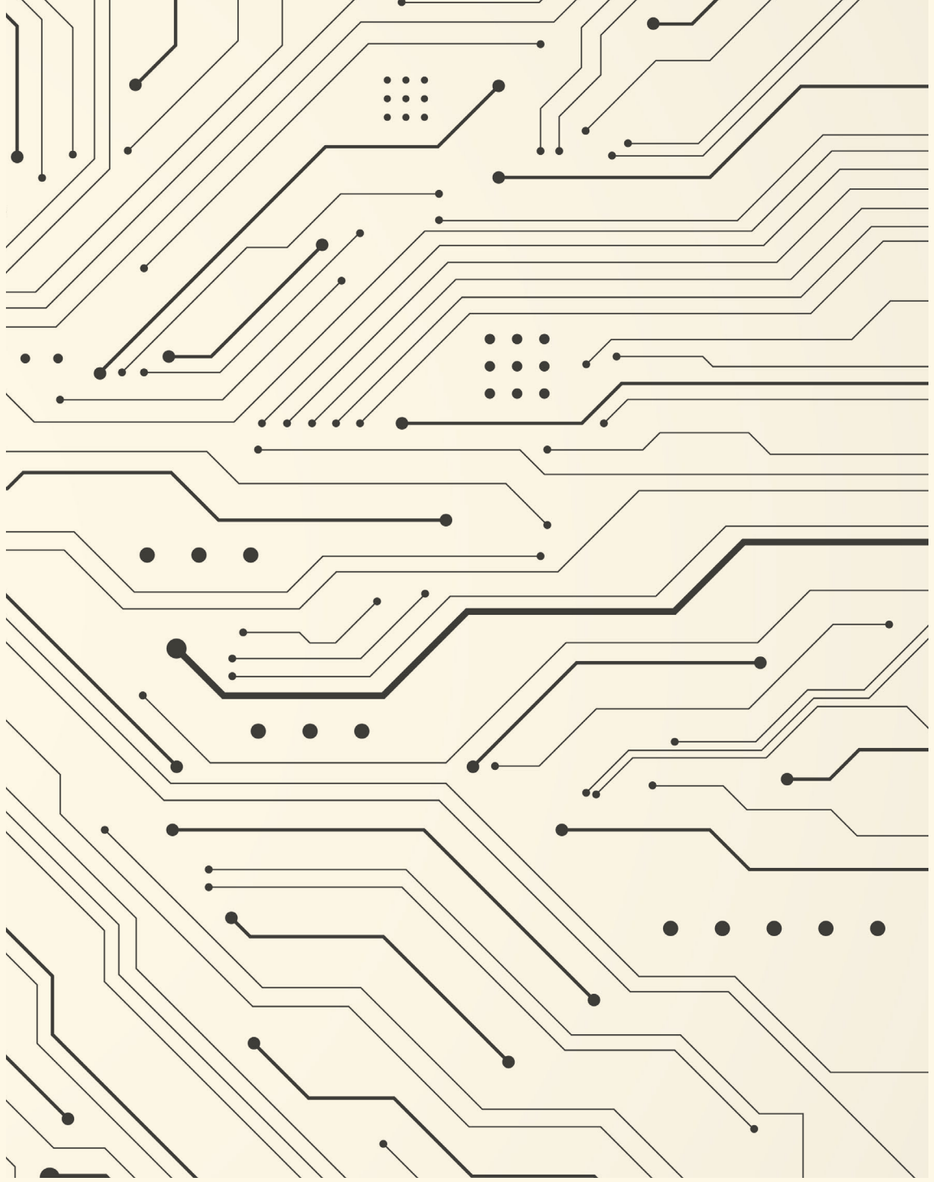
“The time to start thinking about refining AI models is now.

Moving forward, our survey respondents believe that AI will have a great impact on improving customer satisfaction (83.81%), reducing human errors (56.19%), transparent information sharing (51.43%), improved employee satisfaction (39.05%), and better worker safety (28.57%).

All service-based companies want to improve customer satisfaction since serving customers is the core of their business. It only makes sense for them to see it as a high priority and envision leveraging AI primarily for this goal. —

In what way do you think AI could have the most impact on your service organization?





Interview

Thomas Cottereau, CEO and Founder, SightCall

Since 2008, SightCall has been improving the communication of world-class service organizations with the transformational power of AI and AR-powered visual assistance. Through their cloud platform, digital and physical worlds are blended to create a collaborative environment empowering field service organizations to accomplish tasks, no matter how challenging, with confidence and new insight.

Thomas Cottereau co-founded SightCall as a way to unleash real-time communication and bring it into the field to deliver new experiences in service. We sat down with him to learn more about his thoughts on the future of AI and how it will evolve to optimize technician experiences.

AI is arriving in field service not in one giant deployment, but through a myriad of features and systems that all work together to empower your technicians and supercharge your service offerings.

Q: In the survey, 37% of field service leaders indicated that they perceive AI as hard to deploy. Do you agree with this perception and what do you think can be done to make it less challenging?

A: It's interesting to see that so many survey respondents, more than half, identified AI as either useful or essential to field service, but a large number also indicated that it was hard to deploy.

Rather than thinking of AI as a weighty additional platform or technology that needs to be built from the ground up, companies can select solutions that already embed AI as part of their offering. This means the solution provider is doing all of the hard backend work to integrate AI into their platform. Now it is easier for you to consume and you benefit from all of the AI capabilities without having to deploy it yourself.

A platform like SightCall gives you the benefits of AI without the AI headache. Now imagine that every time your technician arrives at their job site, they know exactly what work needs to be done and have all the correct skill and tools to complete it. That's what the right AI achieves. It eliminates skills gaps and even language barriers. It gives technicians smart resources at the touch of a button that can help with predictive analysis and recommendations.

AI is arriving in field service not in one giant deployment, but through a myriad of features and systems that all work together to empower your technicians and supercharge your service offerings. If service leaders keep this in mind and continue to bring AI-focused partners into their technology stack, they'll be poised for greater success. Not only will you begin to benefit from AI across your workflows, but you'll also benefit from experts that

are continuously improving AI capabilities and are on hand to help you implement them.

Great technology partners, including SightCall, can also help with the most intimidating parts of the process – like feeding your AI engine with the data they need to recognize the products and equipment your technicians use daily, enabling automated processes and predictive maintenance.

Q: How does visual assistance leverage AI to empower field service organizations?

A: Visual assistance with AI technology uses continuous data evaluation and processing to streamline scheduling, dispatch, and maintenance processes.

With live translation, language barriers are removed, allowing the technician with the most applicable skills to complete tasks no matter where they are located. AI translation works for both speech and visual text which also empowers on-site technicians to easily interpret relevant signs, labels, instructions, or product information.

Image recognition can provide technicians with live recommendations based on images extracted during visual support sessions to identify products, diagnose problems, and propose solutions. Data and photos taken from the session can be identified and fed back into an AI engine to improve future insights and recommendations.

We've already seen that visual assistance can eliminate unnecessary truck rolls and reduce parts wastage. With AI features we ensure that technicians have everything they need to provide excellent service quickly and efficiently the first time.

With AI features we ensure that technicians have everything they need to provide excellent service quickly and efficiently the first time.

Q: 43% of FSOs reported that they are using video to resolve issues remotely. For service leaders who haven't considered visual assistance yet, what are the benefits they can expect to see?

A: Visual assistance platforms like SightCall improve both the customer and technician experience to allow organizations to deliver better service. Our platform helps organizations collect, share and deliver service knowledge so all technicians can work at their maximum potential, regardless of their experience level or expertise.

By empowering technicians to perform their tasks through a streamlined remote process, we've seen increased efficiency realized through truck roll reduction, parts optimization, improved fix rates, improved equipment uptimes, reduced training times and an increase in customer satisfaction.

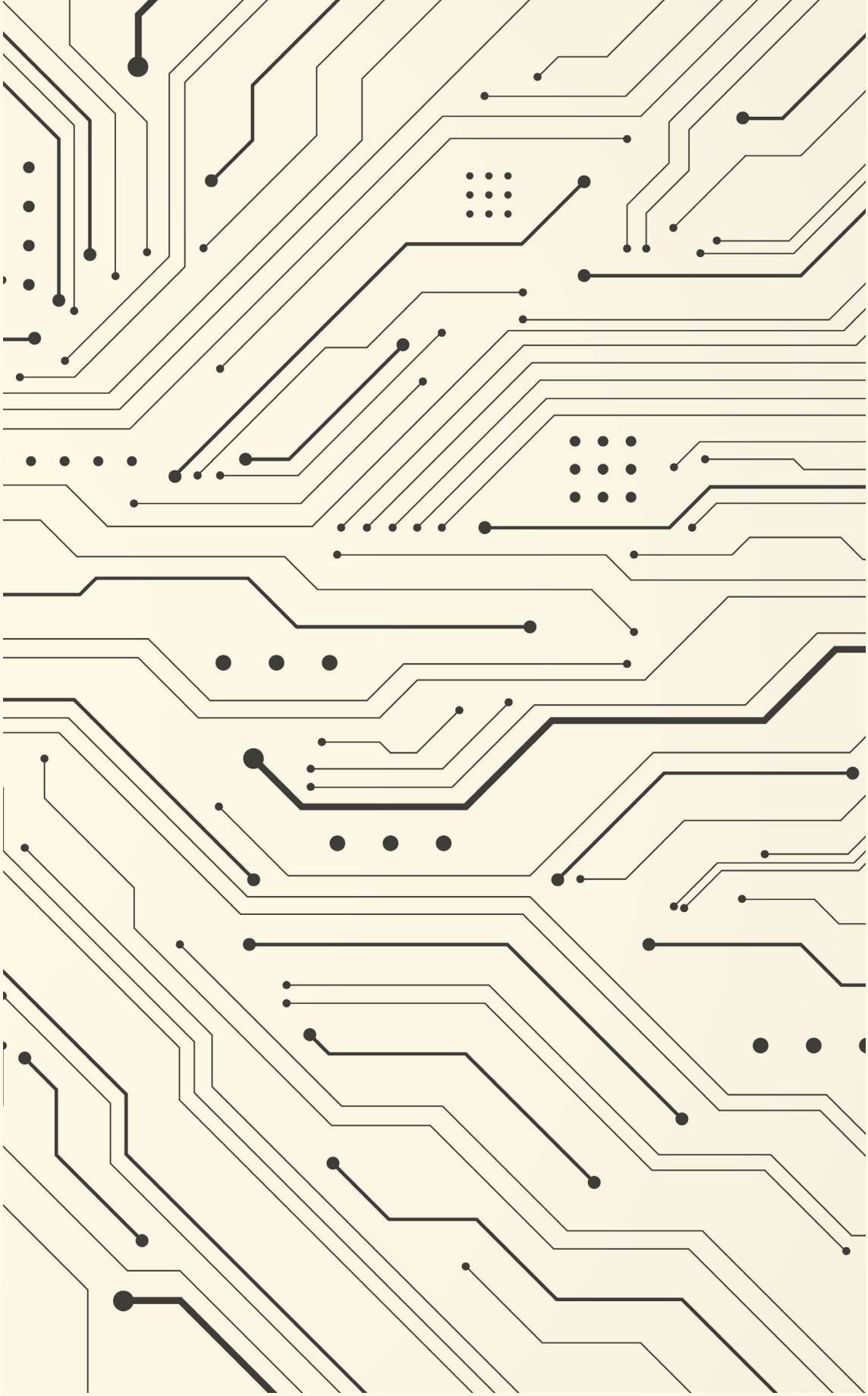
As AI adoption increases and customers continue to demand faster service, we see a move towards more predictive and automated maintenance.

Q: What do you see as the future of AI in field service and where do you think AI can take us?

A: I have no doubt that the future of AI in field service is a future where technicians and service agents are augmented by technology to perform at their absolute best. This study shows how many field service organizations already see the value in AI to help them with improving customer service and technician satisfaction along with reducing errors and increasing safety and transparency. Many are already starting to deploy AI in parts of their organization or planning on doing so soon.
For organizations who are just starting on this journey, it's important to understand that integrating AI into a field service organization is a process, one that can start with features that eliminate barriers to performing service tasks and moves towards providing analysis and recommendations.

As AI adoption increases and customers continue to demand faster service, we see a move towards more predictive and automated maintenance. There are times where a human doesn't need to be involved, and in those cases, some aspects of service can be automatically triggered, such as ordering and shipping a replacement part or scheduling an onsite inspection.

Far from being sidelined or replaced by AI technology, service technicians will increasingly find themselves at the heart of more responsive and efficient organizations, empowered to do what they do best: help people and solve problems. —



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