

Field service is no longer just a byproduct of a product sale or equipment installation. The field service experience is a crucial interaction point with customers, and it requires technological capabilities that can turn data into insights and the right actions.

Generative AI and Mixed Reality Power the Future of Field Service Resolution

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Field Service Delivers Critical Customer Value

Field service is a critical opportunity to deliver enhanced experiences. Field service technicians and engineers consistently deliver value to customers at a time of need. Too often, though, the front-line service team has to search for information or work through paper-based processes to achieve resolution. This delay in resolution and inefficient work not only impact the service organization's bottom line but also negatively impacts the customer experience. As competition for a share of the customer's wallet ramps up in importance in terms of a company's financial performance, field service is primed to be a differentiator that cements customer relationships. It is not an afterthought.

Aftermarket Service Definitions

The aftermarket is made up of a number of processes that all contribute to an organization's ability to deliver resolution and service outcomes to customers, operators, and dealers. The following are a few of the key aftermarket service terms:

- » **Field service management** is the set of activities or processes to manage the field service operation, including work order management, scheduling optimization, route optimization, fleet management, human capital management, contractor management, augmented reality, and mixed reality.
- » **Augmented reality** is a technology that overlays digital information or objects on a person's real-world view of reality.

AT A GLANCE

KEY STATS

According to IDC, when organizations were asked about their current approach to generative artificial intelligence (AI) in 2023, the responses were as follows:

- » 28.72% are investing significantly.
- » 49.2% are doing some initial exploration of potential use cases.
- » 22.0% are not doing anything yet.

WHAT'S IMPORTANT

Service experiences are an opportunity to cement bonds with customers. Technology capabilities around generative AI empowers the field service team with real-time insights and collaboration tools to enhance the service experience and achieve resolution on a first visit.

- » **Virtual reality** is a technology that places end users into a completely new reality, obscuring the view of their surrounding real-world environment.
- » **Mixed reality** is a technology that can do both virtual reality and augmented reality, where real-world and digital objects interact.
- » **Artificial intelligence and machine learning** refer to the ability of computers to learn without being programmed and apply their learning to large sets of data for business advantage.
- » **Digital business** is a business where value creation is based on the use of digital technologies, including internal and external processes; the ways in which an organization engages with customers, citizens, suppliers, and partners; how it attracts, manages, and retains employees; and what products, services, and experiences it provides. Digital transformation is not over; we have just shifted to running a digital business.
- » **Connected products** are physical products that contain software, sensors, and IP-enabled connectivity.
- » **Generative AI** is a branch of computer science that involves unsupervised and semisupervised algorithms that enable computers to create new content using previously created content, such as text, audio, video, images, and code in response to short prompts. Generative automation applies generative AI to automate and augment tasks and workflows and to provide insights and recommendations

Faster, Better, Quality Service Outcomes

Technology capabilities such as generative AI and mixed reality empower the field service team with on-demand knowledge to excel at service resolution. In IDC's July 2023 *Future Enterprise Resiliency and Spending Survey, Wave 6* (n = 890), the use case identified as the most promising for generative AI was knowledge management applications (by 46.1% of the respondents). The field team's ability to have relevant and contextualized data, which can feed their next best action or prompt the response to improve customer outcomes in an automated manner, is transformative. Benefits include:

- » Faster issue resolution and improved service quality
- » Enhanced customer experiences and service
- » Remote resolution or improved triage
- » Improved field service technician engagement/satisfaction with work
- » Accelerated training for the field and faster time to productivity
- » Retention of service talent
- » Increased service revenue opportunities

Considerations

Service leaders across a variety of industries recognize that their businesses are being disrupted. Good levels of service from just a few years ago are now miles behind the expectations of today, as customers require increased value, visibility, and timeliness. Technology for technology's sake is a losing battle. The benefits of automation will be unrealized if value isn't communicated across stakeholders. Among the factors that organizations should consider are:

- » **Technician adoption of technology and buy-in.** The profile of the technician is changing quickly as the workforce ages. The workforce of the future is more technologically native. However, involving the field service team in the digital journey is still a requirement and is often overlooked. Technicians, like other functional groups, don't want or need another app to navigate. The field service team is likely to adopt new technology, whether it's generative AI or mixed reality, if from the beginning, they understand how the tools will improve their workday and integrate into the technology and workflow that already exists. The technician and service team shouldn't have added friction with additional technology capabilities; their days should be made easier and more productive.
- » **Data access, use, and sharing.** Not all data is relevant for each service employee or task. Technology tools need to address a specific need at a specific moment.
- » **Customer expectations for improved service, which requires access to data.** Each service interaction is an opportunity to deliver a wow experience. Service technicians need to have the right data to deliver the right customer outcome with the intent to exceed their expectations for resolution and support. Generative AI, in particular, has the ability to ensure that technicians have automated insight into what is best for a specific product, asset, and customer.

Field Service Becomes More Proactive, Predictive, and Prescriptive

Field service is shifting from being reactive to more proactive, predictive, and prescriptive. This shift requires field service technicians to evolve and provide a new set of experiences for customers. A few trends are creating both opportunities and challenges to this new field service model:

- » **The need for improved collaboration across the workforce – technician to technician, technician to remote experts, technician to customer, and service to other business functions:** As the workforce shifts because of the aging service team, the ability to share knowledge at the point of need is crucial. More organizations are leveraging third-party technicians who may service multiple asset brands or newer technicians who have never seen a particular type of equipment. The entire workforce needs to be equipped with the tools to solve problems, and mixed reality capabilities can ensure that expertise is shared for the benefit of resolution and customer experience.
- » **Increased adoption of mixed reality tools:** Real-time collaboration with a remote expert transforms augmented reality from an interesting technology to a powerful capability, which drives business outcomes such as first-time fix, worker productivity, and the customer experience.
- » **Rapid proliferation of the volume of data, which is a challenge to navigate to find the answer:** IDC's Product and Service research shows that about half of all products and equipment are connected today with a unique IP address for remote monitoring and support, with the goal to increase that ration to more than two-thirds in the

next three years. That is a massive amount of data that is produced across the service organization. Making sense of that data is a big challenge for many organizations that are just now dipping their toes in digital capabilities. The ability to turn all of this data into insights will require AI tools (especially generative AI tools) to provide intelligence around a variety of data points, both structured and unstructured.

Service Outcomes Matter

Field service is a complex set of activities that has a major impact on the customer. A defective product or down piece of equipment is not trivial. Service organizations need to ensure that the field service team has the knowledge, on-demand and personalized recommendations, and real-time insights to resolve issues at the point of need for the customer. Generative AI and mixed reality capabilities are more than just new technologies; these tools are at the forefront of turning each field service engineer into an expert at the right time for resolution. An outcome or environment where technicians don't have the knowledge or insights to solve issues on a first visit is no longer acceptable. The time is now for service organizations to deliver better service outcomes for customers and deliver contextual insights for the field team.

About the Analyst



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As research vice president of Aftermarket Services Strategies, Aly Pinder leads IDC research and analysis of the service and customer support market for the manufacturer, which includes field service, warranty operations, service parts management, and how these service areas impact the overall customer experience. Mr. Pinder establishes a road map for organizations to better understand how technology can transform service and support functions to drive exceptional customer experience and customer value, profitable revenue growth, and improved efficiency in the field.

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www.dynamics.microsoft.com/en-us/field-service/overview/



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