IDC ANALYZE THE FUTURE

IDC ANALYST CONNECTION

Sponsored by: PTC

The emergence of innovative technologies has accelerated service transformation for manufacturers. Technologies such as augmented reality (AR) and the Internet of Things (IoT) help organizations evolve rapidly to meet the changing needs of customers.

Field Service Business Models Evolving for Manufacturers: AR and IoT Accelerate Transformation

January 2020

Questions posed by: PTC

Answers by: Aly Pinder Jr., Program Director, Service Innovation and Connected Products

Q. Are field service models changing, and if so, how?

A. Business models are rapidly changing across industries, and the manufacturing industry is following suit. Manufacturers understand a shift is occurring within their businesses, especially within service, which is driving them to be less reactive and to deliver proactive, enhanced services. The ability to resolve issues in advance of failure is no longer a "nice to deliver" but a "must deliver." In 2017, 26% of manufacturers were primarily break/fix for field service; in 2019, only 16.7% of manufacturers described their businesses as break/fix service. Customer expectations have risen to a point where the status quo of reactive and break/fix field service models is no longer good enough. Furthermore, competition has now been able to encroach on the service offerings that were historically the sole responsibility of OEMs or their service partners.

These two factors, along with the emergence of technological innovations, make it possible and critical for manufacturers to explore new field service execution models that ensure value and resolution can be delivered every time. The transformation of service business models has been on the horizon for some time now, but technologies such as AR and IoT are enabling manufacturers to accelerate this change. Such technologies provide real-time equipment performance data and on-demand collaborative capabilities to solve problems prior to failure and without decades of expertise.

Q. What barriers do service and IT leaders face that keep them from innovating and differentiating within field service?

A. Transformation and building a culture of innovation is a moving target with no finish line. As manufacturers strive to achieve success in delivering a differentiated experience to customers through service and field support, several barriers are leading to a level of stagnation. First, despite a drive for digital transformation that has seen a number of investments in technologies such as IoT, AR, and artificial intelligence (AI), a recent IDC survey found that less than one-third (32.64%) of products are connected today for manufacturers. This figure will rise to just under half (46.93%) three years from now.

Until products and equipment in the field are connected to provide real-time performance data, manufacturers will struggle to innovate. Products and equipment have become more complex, which demands better intelligence.

Lack of internal skills and resources, unclear or unproven ROI, and lack of budget have also hindered field service innovation. These barriers aren't impossible to get past, but they demand that organizations build a clear strategy around what technology investments can accelerate the right innovations and deliver value to end customers. This strategic vision to transform must come from a leadership team that prioritizes service.

Q. What key performance indicators (KPIs) have been impacted by innovative technologies such as AR and IoT within field service execution?

A. As organizations navigate the introduction and use of technologies such as AR and IoT, the metrics with the opportunity to reap the biggest improvements fall into three categories: customer-centric metrics, operational metrics, and profitability metrics.

The metrics with the opportunity to reap the biggest improvements fall into three categories: customer-centric metrics, operational metrics, and profitability metrics.

- Customer-centric metrics such as Net Promoter Score (NPS) and customer retention rate demand better visibility into the performance of assets and how customers are using these assets as one path to improvement. With the aid of AR and IoT, organizations can collaborate with the manufacturer and play a role in their own experience via AR-enabled devices, portals, or reports. Without such tools, the customer is often left not knowing when an asset or a piece of equipment might fail and negatively impact production.
- With operational metrics such as first-time fix or workforce productivity, success depends on having the right answer to a complex problem regardless of what issue confronts a technician. IoT, remote diagnostic capabilities, and AR open up the ability to connect less experienced field technicians with peers or remote experts who can ensure resolution is achieved the first time. Therefore, operational metrics can be improved dramatically by enabling each service worker to be an expert on-demand.
- Profitability metrics can be improved as new service business models are explored with the real-time asset data afforded through the IoT. Standard service revenues are becoming a commodity, but more value-added offerings that marry intelligence with performance show promise for future growth. Manufacturers that have access to IoT product data can offer customers more advanced service contracts and increase contract renewal rates, which not only drive margin growth but also create a shared partnership with customers around shared goals and outcomes.

Q. Who are the other stakeholders impacted by the deployment of innovative technologies to support field service?

A. A culture of service must go beyond the field service team to include the sales, marketing, engineering, and supply chain teams. As the impact of the service experience becomes more critical to the relationship with the end customer or user, the entire organization must work together to deliver value to customers. Tools that open a window into the customer experience and service interactions empower teams such as sales, marketing, product management, and engineering to connect their roles with the outcomes being delivered in the field. In the past, these teams were often cut off from the services being delivered to remote areas because manual, paper-based field processes rarely made it to the back office.

With IoT and AR tools, a direct link to the services being delivered by the field team can be communicated to other business functions, and they can in turn leverage these insights to drive innovation. Access to information is integral to making better decisions, and providing real-time service insights to other teams within the organization creates an opportunity to prioritize the innovations likely to have the biggest impact. The ability to remove risk and uncertainty based on real-time data on behavior, asset performance, and usage can be a differentiator for manufacturers that can't afford to miss on future products and innovations in a competitive world.

Q. A number of organizations are piloting or "kicking the tires" on technologies such as AR and IoT. What is the missing piece to truly digitally transform field service?

A. Digital transformation and the investment in technologies such as AR and IoT aren't a panacea to fix bad processes or mask poor strategic decisions. Some organizations find themselves in a cycle of launching a series of pilots that primarily solve siloed problems but do not provide transformative change. To avoid the perpetual cycle of pilots, organizations should consider the following:

- **Establish buy-in from leadership down to the front line.** A strategic vision must be woven into the fabric of the organization from the top to ensure this isn't just a fleeting investment. Change management is often an overlooked aspect of digital transformation. Leadership must ensure this is addressed throughout because the success of this initiative is dependent on the technology meeting the specific needs of the field to avoid it being dismissed and workarounds created. Also, the frontline team must be invested in the success of any digital initiative by understanding how it will positively improve the ability of the team to execute its work, increase collaborative capabilities, improve efficiency, and enhance the end-customer experience. Without these two constituents on board, these types of investments will languish in one-offs.
- **Ensure collaboration with IT.** Innovative technologies for service require a different type of relationship with IT because these tools are not used in a "clean" office environment and need to hold up to the rigor of field environments. Also, these tools will become critical for business model transformation and the new types of interactions between the field team and customers, peers, and back-office teams.

» **Understand the impact of competition and the need to act boldly now.** Disruption isn't a trend being felt only in business-to-consumer (B2C) industries. Manufacturers today are feeling the threat of competition shrinking not only product margins but also service margins. Manufacturers must consistently think about incorporating innovative tools into their toolkit to be able to evolve quickly and understand what customers will value and are willing to pay for.

About the Analyst

Aly Pinder Jr., *Program Director, Service Innovation and Connected Products*

As Program Director, Service Innovation and Connected Products, Aly Pinder Jr. leads IDC research and analysis of the service and customer support market for the manufacturer, which includes topics such as field service, warranty operations, service parts management, and how these service areas impact the overall customer experience. He is also responsible for research that aids manufacturers as they evaluate innovative technologies like 3D printing for service operations, augmented and virtual reality in field support, and the use of IoT and advanced analytics for remotely monitoring and managing assets.

MESSAGE FROM THE SPONSOR

PTC unleashes industrial innovation with award-winning, market-proven solutions that enable companies to achieve digital transformation at enterprise scale. Powered by industry-leading IoT, AR, CAD, PLM, and Service Parts Management technologies, PTC solutions can help organizations:

- Reach new levels of customer satisfaction by reducing number of incidents and time to resolution
- Enhance workforce productivity by improving technician knowledge and effectiveness
- Grow new business, product, and service models in an increasingly competitive marketplace

Learn more about the value service organizations have achieved with ***PTC's Service Optimization Solutions*** at ptc.com.

IDC Custom Solutions

IDC Corporate USA

5 Speen Street
Framingham, MA 01701, USA

T 508.872.8200

F 508.935.4015

Twitter @IDC

idc-insights-community.com

www.idc.com