The services solution for unlocking industry's next growth opportunity

At high-growth industrial companies, services aren't just an optional add-on, but an essential revenue driver deserving thoughtful investment.

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A set of paradigm shifts is forcing companies to rethink their approach to services businesses, to promote both growth and operational efficiency. The increasing complexity of products and rapid evolution of technology have made it imperative for organizations to develop new service products tailored to customer needs. For most industries – including auto supplies, aerospace, oil and gas equipment, power and renewable energy, telecom, and medical products – the headroom for growth and efficiency gains is significant.

A services business generates value in numerous ways:

- **Growth acceleration.** OEMs can double their services revenue within three to five years, without requiring large investments in capex, new product development, or extensive cost-reduction programs.
- **Margin improvement.** EBIT margins of services can be up to four times higher than those of original equipment, with a doubling of margins possible in three to five years.
- **Income stream predictability.** Life cycle benefits are also much greater, as the services business spans the entire product life cycle and provides a cash source that is more sustainable and predictable and less cyclical.
- **Customer intimacy.** Service provision allows a company to build a life-cycle view of the customer with respect to needs and usage, among other attributes. Whereas touchpoints for product sales end when a sale is completed, touchpoints for services occur on a regular basis and in multiple locations. Companies can use the more frequent contact to expand their knowledge of customers' personnel and locations. They can apply this knowledge to improve service levels and tailor targeted offerings of products and services.
- **Product intimacy.** A company can gain better visibility into how customers use its products and how the products are performing. The insights provide the basis for refining product designs and developing the next generation of products.

Because these value drivers for services providers also enhance the technical and customer experience, services are a "win-win" for both parties. Customers' benefit from increased equipment uptime and simpler and less frequent touch points with field technicians. Well-executed services businesses can increase customer satisfaction by 10 to 20 percentage points and reduce costs by 15% to 25%.

It should come as no surprise, then, that companies that invest wisely in their services business have been rewarded with higher revenue growth (see Exhibit 1). However, many engineering-centric product organizations still regard selling the platform as the core business, while viewing services as a "freebie" to close the deal. As a result, they overlook how services can drive margin improvement and contribute to enterprise value.

McKinsey has been exploring these opportunities in a series of publications on services. This is the second of three compendiums that bring together our recent insights. The first, published in 2018, focused on applications of digital technology. The third, planned for publication in mid-2019, will focus on productivity. Here, we look at the growth opportunities offered by services.

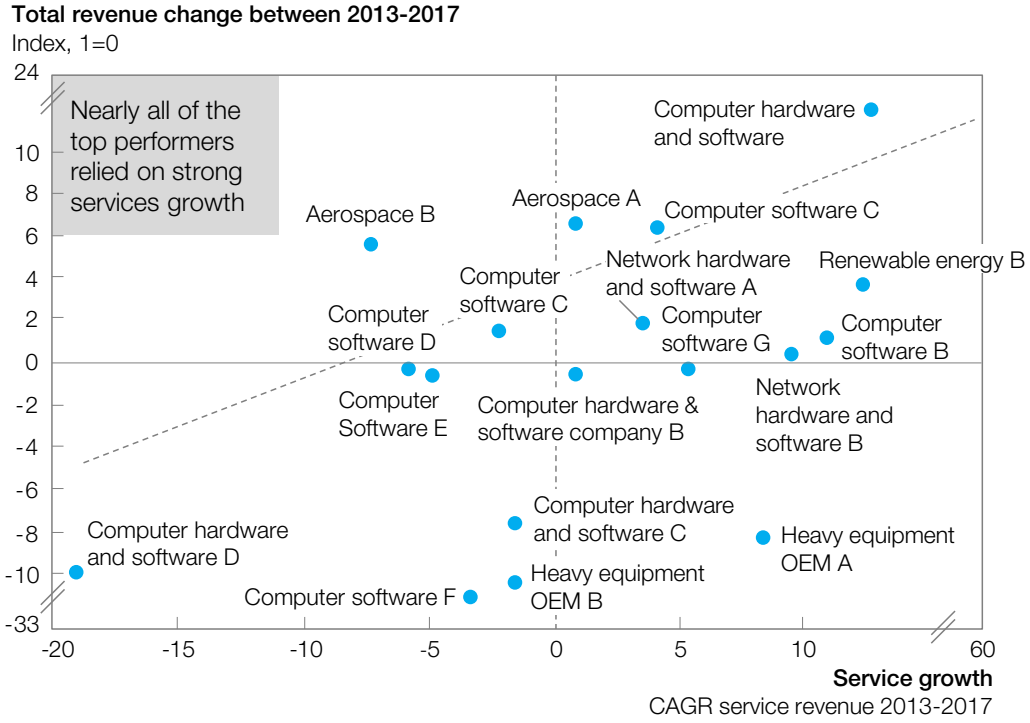
Technology opens up new growth opportunities

Five categories of technology-enabled changes are creating the new opportunities:

- **Connectivity.** As the Internet of Things (IoT) grows in size and complexity, devices are becoming more connected and generating large volumes of useful data. The additional visibility

Exhibit 1

Companies that invest wisely in services are rewarded with high revenue growth



Key distinctive facts about top performers that led to their winning market position
- **Longitudinal view of the customer's journey** throughout the product lifecycle vs. point-in-time view
- **Intimate familiarity with products** that helps create more robust next-generation products
- **Regular inflow of cash** vs. large swings in cash-inflow cycles (for products-only companies)

can often be gained at low cost. For example, some organizations use add-on hardware that costs less than $200 per unit for a connectivity retrofit. The insights can be applied to reduce mean time to repair (MTTR), cutting costs by 5% to 7%.

- **Analytics.** The application of advanced analytics allows organizations to generate new revenues through commercial optimization. By using advanced analytics to predict customers' propensity to buy, organizations can improve the customer attach rate (the percent of customers who purchase services in addition to equipment) by 5% to 15%. Companies can also reduce costs through remote troubleshooting enabled by advanced analytics. Insights generated by smart devices accurately report failure reasons, leading to shorter diagnostic times.

- **Artificial intelligence.** AI allows organizations to predict maintenance needs before problems arise. For example, organizations have started using deep-learning and machine-learning models

to help predict and prevent equipment issues, as well as to conduct root cause analyses that facilitate faster issue resolution. Costs can be cut by 10% to 20% by reducing parts costs, equipment downtime, and labor time.

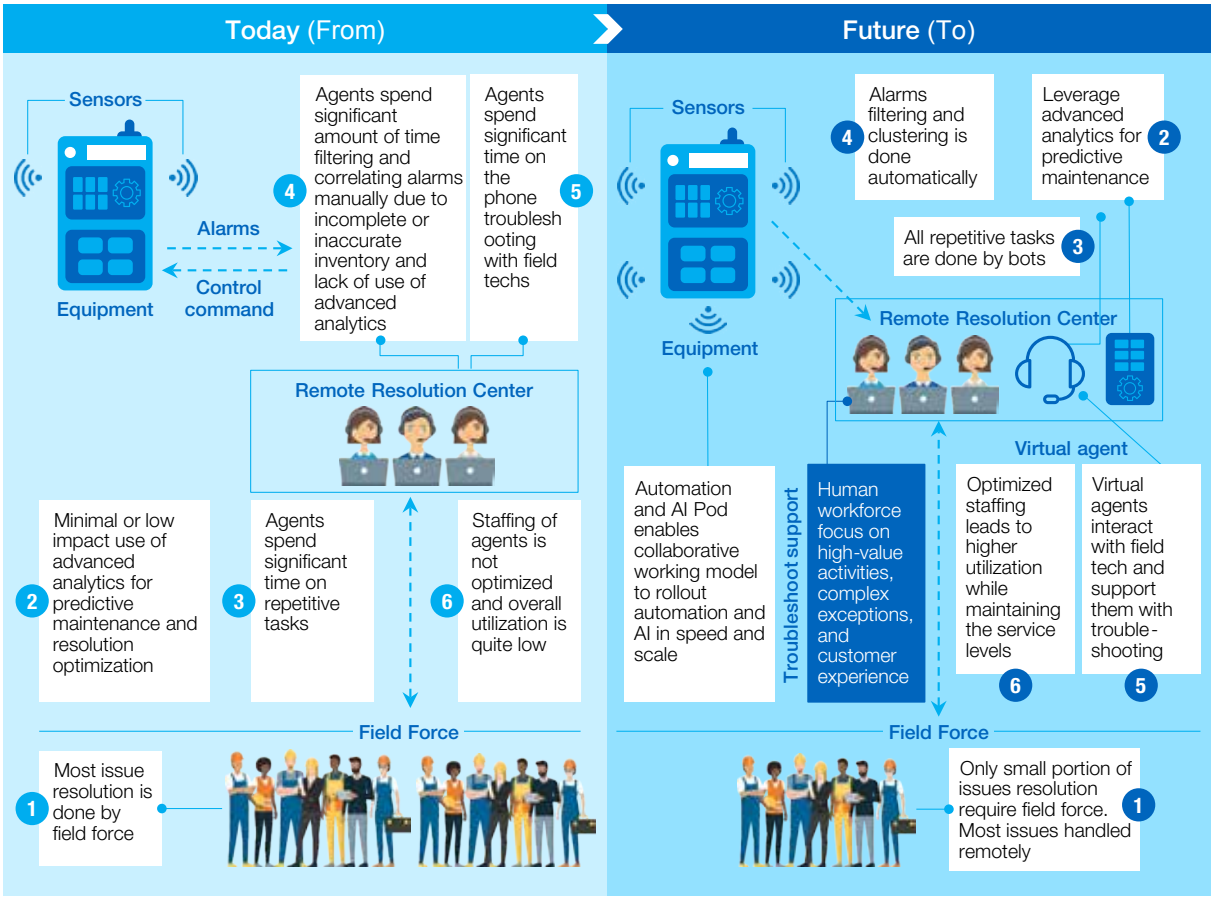
- **Digitization.** The digitization of engineering design and knowledge about the installed base is enabling productivity improvements. For example, organizations are using AR and VR technology to help technicians reduce the time spent on complex repairs. MTTR can be reduced by 10% to 25%.

- **Knowledge Management.** Knowledge management, powered by machine learning, allows organizations to improve their productivity. For example, organizations can implement a continuous improvement toolkit to make cultural shifts that unleash productivity gains. MTTR reductions in the range of 30% to 40% are achievable.

These advances are especially powerful when used in combination. For example, organizations can enhance their abilities to resolve service issues remotely by applying AI and advanced digital technologies (see Exhibit 2). They can use virtual agents to reduce the call volume reaching customer care agents. They can also resolve

Exhibit 2

Remote support of the future



Source: McKinsey research

rudimentary tasks at the technical helpdesk, leading to a reduction in service calls by the field force. Labor cost reductions and an improved customer experience can drive down costs by 10% to 20%.

Even as technology opens up new business models, companies should not overlook the opportunities to strengthen their core business in parts, repair, and maintenance. To gain clarity into the opportunities, companies must undertake a detailed examination of aftermarket lifetime value— the total revenue they receive from servicing their installed base. This measure, which is typically calculated for each product line, provides a more comprehensive view of aftermarket value than commonly used metrics, such as service revenue captured per customer. Companies that examine aftermarket lifetime value closely may find that certain services, including core offerings, contribute more to the bottom line than expected. We delve this metric and the related opportunities in "Industrial aftermarket services: Growing the Core."

Creating a new growth platform

To take advantage of the new opportunities in services, a company must both recognize that the traditional table stakes are evolving and take steps to capture the next horizon of technology-enabled opportunities.

Traditional table stakes are evolving

The hallmark of organizations that successfully grow their services business is the ability to recognize that designing and selling services differs from their traditional product-focused business. Traditionally, companies have needed to put in place several "table stakes" in order to grow a services business. Today, these table stakes are evolving as the new paradigm in services takes hold:

1) Services-specific execution skills and an execution engine.

To facilitate the transformation to services as a growth platform, and not simply an add-on to the product business, leading organizations have created an independent services unit. To be successful today, the unit must leverage tools specifically for a technology-enabled approach to services, be staffed by skilled data scientists, and be supported by the right technology infrastructure. It must also institute a change-management program to motivate experienced workers to adopt a new technology-centered paradigm that emphasizes remote monitoring. To execute against the new capabilities, the organization must establish standard goals and metrics across the entire organization, including service, manufacturing, procurement, sales, and supply chain functions.

2) Deep understanding of customers.

To target the right customers, the services unit must have in-depth knowledge of customer segments and economics, specifically as they relate to services. The services journey must also be distinguished from the traditional product-focused customer journey.

3) Clear services offering.

The services unit must support the broader organization in selecting which services offerings to pursue, as well as in aligning technical, marketing, and sales capabilities with the selecting offerings. The value proposition of the offerings must be clearly communicated to customers.

The experiences of two organizations illustrate the importance of defining a clear services offering and ensuring that the right supporting capabilities are in place. Each organization identified a $10 billion opportunity in services in its industry and drew up plans to grow in the market. One succeeded in achieving annual growth of 26% in its services business while the other saw its annual growth in services decline by 2.5%. The successful organization selected a relatively small number of service offerings to focus on, based on a thorough analysis of its capabilities and the opportunities and limitations of going to market. Recognizing the need for specialized

expertise, it acquired core service providers and leveraged its existing sales specialists. In contrast, the organization that saw its growth rate shrink offered a wide variety of services and committed to building the supporting capabilities in-house.

Capture the next horizon

Beyond these evolving table stakes, a company should take several actions to capture the next horizon of opportunities enabled by the technology-driven paradigm shift.

1) Leverage analytics to further monetize your installed base.

To succeed with services, companies need insights into how likely their customers are to buy something other than the product (such as parts or a maintenance plan, logistics support, or parts management services). They can use advanced analytics to quantify their customers' propensity to buy services, and thus segment these customers accordingly.

By aggregating internal data and supplementing it with external public information on customers and markets, companies can run analytics to group customers into three categories: 1) those with a high propensity to buy services; 2) those with a low propensity to buy; and 3) those in the middle – "on the fence." More on this in "Aftermarket Services: The near-term growth opportunity in targeting the right customers."

2) Use digital to increase technical and customer experience.

Organizations can resolve less complex service issues remotely by using automation, thereby reducing the volume of rudimentary tasks flowing to the field force. For more complex jobs, field technicians can apply detailed instructions from advanced-troubleshooting technologies—such as digital tools, augmented reality or virtual reality—to complete maintenance or repairs faster and with greater accuracy. We delve into this in "How disruptive technologies are opening up innovative opportunities in services."

3) Apply advanced analytics to understand root causes of equipment failures in real time.

Companies can use analytics to assess and prioritize repair issues in real time, conduct advanced troubleshooting, and even predict issues before they occur. Machine learning models can be used to recommend the "next best action" to handle the identified issues. The output of the model can be sent to either a human agent or an automation engine. Companies can apply such innovations to reduce costs related to service personnel – including the field force and staff in remote resolution centers and call centers. Repair analytics also allows companies to generate additional revenues in a variety of ways, including creating new offerings and improving the service levels of existing offerings.

4) Adopt connectivity-driven commercial models.

Companies have traditionally used a "cost plus" commercial model for services, based on formula that considered the frequency and severity of service calls and added margin. This model is rendered obsolete by the new paradigm for services. Tech-enabled remote repairs mean that uptime increases while the visibility of the field force deceases—for example, an elevator can be repaired remotely before a breakdown occurs. To capture revenues in this new environment, companies need connectivity-driven commercial models based on equipment performance or condition. Companies must also find innovative ways to monetize the trove of data they are collecting about customers and products.

We explore new commercial models for services in "Selling in the aftermarket – how to win the

sales street fight." Organizations must also address their industry-specific challenges. As an example, we highlight the challenges in health care in "Creating 'beyond the product' partnerships between providers and med-tech players."

The growth of services is a key driver of both the top line and bottom line for any product-based organization. Advancements in digital technology and analytics are providing organizations with ample opportunities to grow and optimize their services business. Successful organizations have already started thinking about services as an independent growth unit. They are also investing resources to build the required capabilities (in terms of both people and technology) while shifting some of their focus from products to services. Will these efforts pay off? We are confident the insights provided in this compendium ensure that the answer is yes.

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