

Buyer's Guide for Managing Service Information

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How Managing Service Information Helps Your Business

In today's highly competitive environment, it is hard to stand out. For many companies, providing customers with superior service gives them an edge in the market. To achieve higher levels of service, Top Performing companies combine best practices with technology to successfully manage service information. With the right technology, your business can:

- Enable your technicians to find, understand and trust your product and parts information
- Reduce customer downtime by improving first time fix rates
- Increase service and technician efficiency
- Significantly lower overall service costs by reducing unnecessary repeat service visits
- Improve your brand reputation through superior service

By ensuring technicians and customers have access to up-to-date service and parts information, you will increase customer satisfaction, leading to repeat business, a stronger brand reputation, and greater service revenue. The key is selecting the right solution. This Buyer's Guide reveals what to look for in a service information management solution.



Determine the Business Goals for the Solution

To identify the technologies that have the most meaningful impact on service performance, Tech-Clarity looked at the software capabilities most valued by Top Performing companies. We defined Top Performers as those who significantly exceed their competitor's revenue growth, profit margin expansions, and cost reductions. Unmistakably, the practices and solutions used by Top Performing companies enable them to enjoy competitive advantages that lead to greater profitability.

Figure 1 shows the top service goals Top Performers have for service investments in 2017 / 2018.



Figure 1: Top Goals of Top Performers for 2017 /2018 Investments in Service

The revenue impact of service investments is evident by the top goals. Improved customer satisfaction, which can lead to future revenue, tops the list, followed by revenue from spare parts. Top Performers want to improve service productivity and eliminate repeat visits because they didn't have the right part the first time. This enables technicians to visit more customers, ensures less downtime and significantly lowers overall costs. The end result is a happier, more loyal customer base.

Determine the Your Needs

To achieve these goals, Top Performing companies have put several initiatives in place for 2017 / 2018. Their top initiatives collectively streamline product information for service teams (Figure 2).

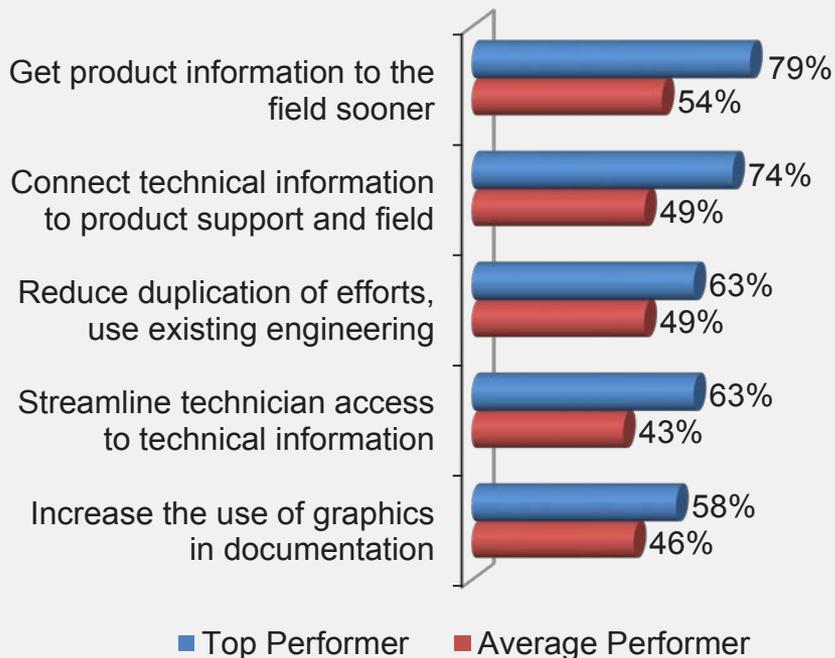


Figure 2: Top Initiatives to Support 2017 / 2018 Service Goals

Reusing work done by engineering is a key part of these initiatives. Greater reuse allows your organization to efficiently provide service teams with accurate information. The result is more productive service visits that reduce customer downtime by improving first-time fix rates. Plus, with the right information at the right time, you lower costs by avoiding errors and waste due to incorrect part information. We will now reveal the top six criteria Top Performers look for in a service solution to support these initiatives.



#1 Existing Bill of Material Transformed into a Service BOM

One of the best ways to get the right part information to the field is to transform the engineering BOM (eBOM) into a service BOM (sBOM) or service parts list. Almost half, 43%, of service teams report that one of their biggest challenges involves searching multiple locations to gather all the information they need. Once they have it, 32% struggle to use that information because it is not structured in an intuitive way for service.

Helping them overcome these challenges, 71% of Top Performers transform their existing eBOMs into sBOMs. Transforming the eBOM enables your service teams to acquire the right information in a format that is intuitively structured for them. This allows technicians to quickly identify exactly what they need. Also, by leveraging the eBOM, there is a single source of product information that remains up to date and reflects all changes made by engineering throughout the product lifecycle.



“We have found that an integrated engineering and service system gives us digital continuity. No two helicopters are the same so as we implement changes across all configurations, managing consistency across the service BOM and the design BOM becomes very complex.

With an integrated solution, there is no retyping of information and changes propagate quickly and correctly, not only to the design BOM, but also to the entire support and services BOM.”

Nicolas de Mauroy | Core PDM Project Manager |
Airbus Helicopters



#2 Parts Illustrations Automatically Derived from CAD models and Linked Directly to Service BOM

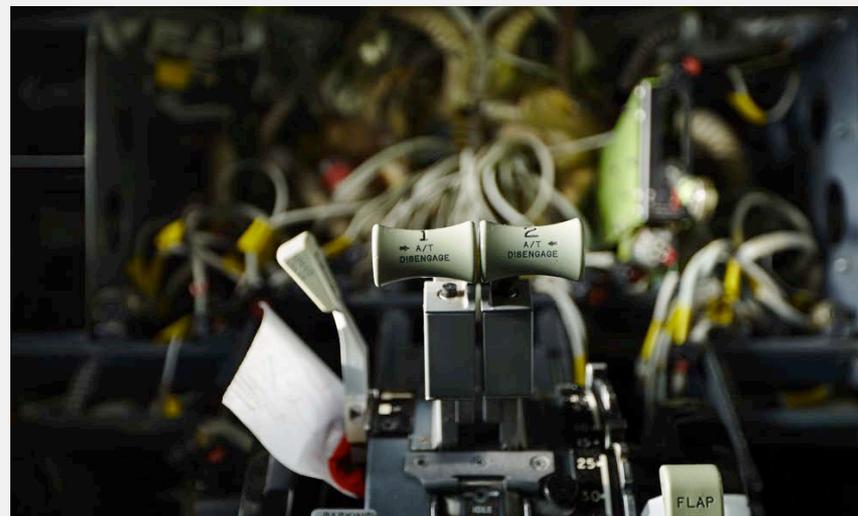
Considering a picture is worth a thousand words, illustrations are one of the best ways to communicate complex product information. Furthermore, everyone can understand illustrations regardless of their native languages and you reduce the risk of translation errors. Unfortunately, creating illustrations takes time, which can lead to product shipment delays. Worse, if you start the documentation too early during design, illustrations quickly become outdated, leading to inaccurate documentation.

To overcome this, 79% of Top Performers derive their illustrations from CAD models. By linking CAD models to the sBOMs, organizations produce illustrations far more quickly. Also, when linked to CAD models, illustrations automatically update as the design changes, ensuring each illustration is up to date. As a result, you complete your documentation sooner, deliver products faster, and your customers are happier. Clear and accurate documentation not only enables your technicians to service products more quickly, but also makes it easier for customers to use those products.



“We run into situations where we need to make a change, but we cannot because it would delay our documentation and manuals. Resolving this will be a huge benefit.”

Henrique Ladeira | PLM Program Senior Manager | Embraer



#3 Parts Information Pulled from Engineering Sourced Data

Replicating efforts not only wastes time, but can also introduce errors. In fact, 30% of service teams say that conflicting and inaccurate service information is one of their biggest challenges. Recreating parts information for service creates this situation. By pulling parts information from engineering sourced data, you can accelerate part catalogue creation. It also ensures you do not waste time re-entering information for service that engineering already defined. Also, by avoiding duplication of efforts and ensuring everything remains up to date as changes propagate, service information will be more reliable.



“Deploy a streamlined PLM system, which integrates design, contracting, customer requirements and technical documentation for service.”

Marco Vaquera | Senior Engineer | A&D Company



#4 Parts Information Delivered Digitally

For service visits to be as efficient as possible, service technicians should always have the right information anytime, anywhere, at the point of service. Since service technicians are typically in the field, paper-based documentation back in the office is not much help to them. Digital information available on any device allows technicians to search and filter for exactly what they need, when they need it. Seventy-one percent of Top Performers use a solution that delivers parts information electronically and 79% access product specific information on mobile devices.



“Ensure you can support various devices as available/needed e.g. smartphone, tablet, laptop etc. Include an FAQ / Fault decision tree and an instant message capability.”

John Wilson | Engineering Manager | Howden Compressors



“Mobile support provides the ability to communicate with engineering.”

Director of New Product Development | Consumer Goods company



“In general, adopt a solution that supports a cloud-based model.”

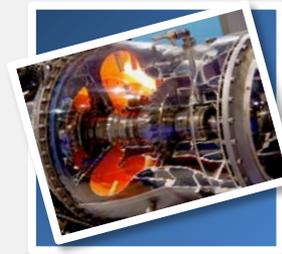
Service Technician, A&D Company

#5 Breadth of Solution

One of the most important capabilities Top Performers seek in a service solution is its breadth and scalability. The majority, 86%, of Top Performers rate the breadth of a solution and its end-to-end capabilities as important selection criteria. A service information solution must support the role of all stakeholders across the service network from the field service technicians to the VP of Service.

In addition, it is important to consider future needs and ensure your technology can scale as your business changes and grows. For many companies, service continues to become an important differentiator. In fact, some organizations may adapt their business models to become more of a service company than a product company. For example, rather than buying a product outright, customers may only pay for the service to use the product. In other cases, companies may want to offer superior service offerings where they can be proactive about service needs and enable the product to communicate when it needs service rather than waiting for a part failure.

Technologies such as the Internet of Things (IoT) can make these types of services possible by enabling products to stream operational data. Virtual / Augmented Reality (VR/AR) is another technology that could have a future impact on service. With this technology, field staff can point their devices at the product they are servicing and instantly access product specifications, CAD models, and instructions. While these technologies may not be an immediate need, you should consider the potential for future possibilities when selecting a solution.



“When we were first looking at solutions, VR / AR was not so reliable. Now software vendors are making this technology more reliable. We are building a very solid foundation, so we may use it for the field. We are still scratching the surface to see if this is something we can capitalize and sell to our customers. It may be something that creates a competitive advantage for us.”

Project Manager | Aerospace and Defense Company

#6 Compatible with Existing Systems

To support all stakeholders across the enterprise and to create a single source of truth, you should also consider your existing solutions. Your service solution should easily integrate with them. It would be too disruptive to rip and replace everything so it is important to understand what's working well to ensure the new solution complements those systems. Eighty-six percent of Top Performers look for a solution that is compatible with existing solutions.



Kevin Cole | Engineering Operations Manager | CNH Industrial

“Ideally, all systems involved should ‘talk’ to each other. There should be no duplication of entries (part numbers, descriptions, etc.). Every time something is ‘keyed’ in, there is a risk of errors humans make mistakes.”



Nicolas de Mauroy | Core PDM Project Manager | Airbus Helicopters

“We also benefit because now people speak to each other more. Siloed organizations can be a problem, but an integrated tool breaks down the boundaries and people now try to solve problems end to end.”

Select the Right Service Solution for your Needs

The right service information management solution can greatly improve service levels:

Recommendations

- Invest in a solution that will improve customer satisfaction. This will lead to increased revenue growth.
- Focus on improving technician productivity by getting them the right information and parts at the right time.
- Leverage existing engineering data to produce service content.
- Ensure engineering and service information, including CAD models, remain linked so that information does not become outdated.
- Consider the needs of the extended enterprise and choose a solution that is compatible with existing solutions.

By selecting the right software, technicians will improve their ability to find, understand, and trust product and parts information. This will improve their efficiency, leading to the type of service that earns customer loyalty.



“To be successful, we strongly believe we have to consider all aspects of people, process, and technology. If we invest only in the technology, then the technology won’t work. Process changes will only succeed if we involve the right people from the beginning. Otherwise, they will not support a process they do not feel they had a say in.”

Henrique Ladeira | PLM Program Senior Manager | Embraer



“Don’t treat service as an afterthought.”

Paul Passrrelli | President | Solar & Thermal Systems, Inc.



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**For more information,
download the checklist:**

**Selecting the Right
Software to Manage
Service Information**

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About the Author

Michelle Boucher is the Vice President of Research for Engineering Software for research firm Tech-Clarity, an independent research and consulting firm that specializes in analyzing the business value of software technology and services. Michelle has spent over 20 years in various roles in engineering, marketing, management, and as an analyst.

Michelle has broad experience with topics such as product design, simulation, systems engineering, mechatronics, embedded systems, PCB design, improving product performance, process improvement, and mass customization. She graduated magna cum laude with an MBA from Babson College and earned a BS in Mechanical Engineering, with distinction, from Worcester Polytechnic Institute.

Michelle is an experienced researcher and author. She has benchmarked over 7000 product development professionals and published over 90 reports on product development best practices. She focuses on helping companies manage the complexity of today's products, markets, design environments, and value chains to achieve higher profitability.