



Service Lifecycle Management: How a Product-centric Approach to Technical Information Improves Service Performance and Increases Customer Value

Are service people working as productively as they can? Is product uptime as high as it can be? Are customers getting the most value they can from the product? Industry research says no. And the reason, so often, is that service teams and customers can't easily find the technical product information they need, when and where they need it.

Introduction

When customers and service people can't quickly find the product information they need, the product doesn't fully deliver, at least for a time. The negative impact can be huge, whether it's felt at the customer's work-site or home, at the service team's call center, or by field technicians. Ultimately the manufacturer's bottom line feels it too.

Problems with product information can, in fact, cripple service efficiency. Service people waste a lot of time and effort. They make too many mistakes. Resolution on service calls takes too long. First-time fixes become more the exception than the rule.

Sooner or later, the customer gets frustrated and begins to look elsewhere for alternatives. This puts customer retention—and future returns from the customer—in jeopardy.

Why risk productive service performance and profitable customer relationships to anything less than the best in technical product information? This white paper proposes a solution. It calls for putting the right product intelligence—the latest, most reliable, and most comprehensible—at the center of the service experience.

This, as PTC has seen, is key to optimizing the customer's value from a product—and keeping them loyal to the product's manufacturer.

At stake: a product's lifetime worth of opportunity

The life of a complex industrial or consumer product can extend for years or even decades. That's a lot of time for the customer to optimize value through consistently productive use of the product. And it's a long-lasting opportunity for the manufacturer to nurture and grow the customer relationship with careful and attentive service.

The manufacturer's service challenge is to deliver as much product uptime as possible throughout the product's lifecycle. Sustaining the product's good health drives customer satisfaction and retention—and higher revenue and profit for the manufacturer.

So why do customers often fail to get as much value-adding performance as they can from a product? And what frequently prevents service teams from acting effectively and efficiently to help assure these topmost levels of product performance and value?

Commonly it's a problem with technical product information. In far too many cases, the people who operate, support, and maintain a product find that they lack:

- Current product information.
- Accurate product information.
- Product information they can easily understand.

Often they simply can't get their hands on just the right product information, in just the right places, at just the right times, to address the product usage issues at hand.

When technical information is ...

Inaccessible

- Frequent errors by operators and service people demand rework.
- Much service time – 40% or more – is spent searching for information.
- Repair and resolution times are unpredictable. Product downtime rises.

Outdated

- Operator and service procedures don't match the product.
- Mistakes abound in identifying and utilizing spare parts.

Undeliverable

- New product shipments are delayed. Inbound support calls skyrocket.
- Repair cycles slow – or even halt. Service productivity falls.
- Operational risks increase. The company faces more liabilities.

... the problems are pervasive.

The chain of pain – with information issues at root

Industry research tells us that the typical service organization achieves only a 56% level of utilization.¹ Indeed it seems that nearly half of the average service technician's day is wasted in unproductive activity. And the impact can extend far beyond the service team. The manufacturer may experience a "chain of pain" whose sources can be traced, more often than not, to the struggle to deliver good, timely technical product information:

- When service issues arise, customers often can't quickly find the product information they need. Nor can the manufacturer's service people. Resolution cycles stretch out, increasing the manufacturer's service costs and squeezing their profits.
- More importantly, customers endure longer periods without productive use of their products. The perceived value of using the manufacturer's products drops. The perceived value of choosing the manufacturer's products comes into question.
- As customers' experiences with the manufacturer's products deteriorate, their satisfaction levels dip. Many customers begin seeking other sources for service. Worse, some switch to competitors' products when the time comes to replace.
- The manufacturer sees their brand equity – for so long their greatest strength – slowly but steadily diminish. Their market share, once dominant, begins to chip away. And the pressure comes not only from the manufacturer's traditional domestic rivals, but also from the increasingly aggressive competitors from other corners of the globe.

No quick fixes without good information

In PTC's long history of working with leading manufacturers, we have explored their service organizations' top-level concerns and have helped them find solutions. Service teams commonly tell us that their companies' technical product information is:

- Hard to find. Call centers can receive numerous inbound support calls from customers who have the information they need – but they simply can't find it.
- Hard to understand. Parts counters can receive multiple parts orders from service people because they are unable to tell from the catalog description which part is the right one.
- Hard to trust. Service technicians can spend up to a third of their time searching for, and working with, technical information that's out of date.

A key point has emerged: It is technical information that underpins literally every single service event for these manufacturers. No customer service problem can be solved without someone – the customer or the service technicians – digging into technical product information.

Now if only relevant product information were so readily available. For many manufacturers today, there's a tough mix of factors combining to keep their technical product information from being as good, useful, and easily accessible as it can be. One big challenge: the manufacturers' chronic barriers to cross-department communication and collaboration.

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Separated by silos – and pressured by changes

The plain truth is that, at many or most major manufacturing companies, the engineering and service organizations operate largely within functional silos. That is, they focus mainly on improving their own specific departmental processes, and rarely look for efficiencies and synergies across departmental bounds.

Opportunities to improve their understanding of precisely what technical product information is needed, and precisely how that information should be delivered, are mostly lost to the company's technical information team, even as they push hard against the silos' walls.

And that's not even to mention the effects of product design changes. It can be nearly impossible to keep up with the pace. There can be hundreds or thousands of design changes every year for every major product.

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With globalized opportunities come globalized challenges

Close observation of leading manufacturers' operations has rooted out another huge stress on the quality and availability of their technical product information: globalization.

Expanding operations around the world have opened vast new business arenas for many manufacturers. Each year sales outside of their original domestic marketplaces may constitute ever-larger shares of these companies' overall returns.

Yet with globalized opportunities have come globalized challenges. And perhaps no one feels these challenges more sharply than the manufacturers' technical information departments.

It's not uncommon for a product to be designed in one country, assembled in another, and then sold and serviced around the globe.

In a perfect world, product documentation would be concurrently authored, delivered, and referred to in multiple languages. But it is hard enough to keep up with only the most pressing demands each time a new product is rolled out.

Product intelligence at the solution's core

The path to improved technical information, in PTC's experience, begins with a shift in perspective. The manufacturer must move from a fairly narrow concern with "How many product manuals should we produce?" to a much broader view of "How will our customers and service professionals use this product information?"

It's important to recognize and begin coordinating people's varied roles as information authors, illustrators, managers, publishers, and consumers. And it's critical to grasp the huge stakes that they all have in the high quality of the company's technical information. Only then can the manufacturer truly expect to increase customer value through a better technical information solution.

The prescription: a product-centric approach. This is the manufacturer's best hope to break down the barriers to service efficiency between departments and processes.

Putting product intelligence at the center of their technical information solution enables the manufacturer's service and engineering organizations to:

- Associate information. The manufacturer ensures consistency, completeness, and accuracy of product information wherever and whenever it is used for service.
- Align processes. All involved in service can rely on up-to-date product information, with on-demand accessibility, at every point in the service lifecycle.
- Accelerate successes. Service and engineering teams work synergistically, across functions and geography. The result is a continuous loop of service and product improvements.
- Add to customer value. This, after all, is the ultimate goal of good service: delighted customers. It gives the company a competitive leg up.

No less – and no more – information than needed

When a manufacturer fully recognizes the value-enhancing promise of the product-centric approach, planning and implementing their improved technical information solution can begin. Key components will include industry-proven software tools for:

- Accurately repurposing and adapting, in 2D and 3D CAD, the engineering organization's latest product designs for use in service applications.
- Efficiently authoring user manuals, service guides, parts lists, and other product documentation in practically any format, for any media required.
- Securely providing access to complete, accurate, up-to-date product information for end-to-end utilization throughout the service lifecycle.

The technical information solution should be designed to deliver:

- Just the right product intelligence (specific to the product and parts) to
- Just the right service people (whether at the call center, in the field, or elsewhere) in
- Just the right formats (more graphical – and thus easier to understand and use) and in
- Just the right configurations (no less, and no more, product information than needed for the service task at hand).

A product-centric approach to a technical information solution lets the manufacturer ...

Create

- Information, not documents
- Based on CAD
- Structured authoring

Manage

- Associate information
- Align processes
- Automate changes

Deliver

- Up-to-date and accurate
- Accessible and contextual
- Graphical and clear

The result is an intelligent, all-in-one technical information resource – integrated from one point to every other point in the service lifecycle.

Best-in-class approach

The industry research firm Aberdeen Group has tracked what leading manufacturers have been able to achieve through best-in-class technical information solutions:²

- The volume of inbound customer support calls has dropped, on average, by 41%.
- The service organizations are resolving customer support issues in an average of 38% less time.
- Customer satisfaction is up – and not by just a bit. The top service performers are seeing an average rise of 42% in satisfaction scores. Revenue growth from new product sales has generally paralleled the rise in customer satisfaction – and even exceeded it. Best-in-class performers have seen a 45% average increase in revenue.

Manufacturers known by PTC to have committed to the product-centric approach are attaining results like these.

All keenly concerned with the solution – the manufacturer’s customers, their service people, and their design and engineering teams – are benefiting from having technical product information they can easily find, clearly understand, and thoroughly trust.

In the end, it’s all about the customer

Aberdeen Group summarizes the case for a better technical information solution as follows:

“The advantage of delivering more specific content, as with developing rich media and other graphic content, is not realized in terms of the operational performance of technical communications. Instead it is realized as a result of the impact it makes on how a customer is educated about a product as well as the customer’s ultimate satisfaction with the product.”²

To which PTC adds: When a product-centric approach to technical information improves the service team’s performance, the manufacturer attains an important goal. But ultimately the best measure of the solution’s value will be the higher numbers of satisfied customers making more consistently productive use of the product.

Improved service performance and increased customer value – these, for the product’s manufacturer, are the results from which all bottom-line benefits then flow.

The product-centric approach makes technical information ...

Easy to Find

Information is easy to navigate visually. Users can search and sort by models, configurations, and parts – or by service tasks.

Easy to Understand

Information is highly graphical and contextually pliable. Users can easily focus on only the information they need – in their native languages.

Easy to Trust

Information is complete, accurate, and up-to-date. It’s consistent across functions, and fully reflective of the latest design changes.

Learn More

For more resources on technical information best practices, visit: [PTC.com/go/tech-info](https://www.ptc.com/go/tech-info)

¹ Sumair Dutta, Aly Pinder, Jr., Aberdeen Group, Mobility in Service, March 2010

² David Houlihan, Aberdeen Group, Technical Communications as a Profit Center, September 2009

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SELF-ASSESSMENT

Can a product-centric approach to a technical information solution work for your company?

This white paper tells how the product-centric approach to technical information helps a manufacturer's customers and service people. Could your own company benefit? See how many "yes" answers you get to these questions:

- Do your service technicians consistently use their time as productively as they can?
- Are your service resolution times as fast as you need or want them to be?
- Do your service people fix it right the first time in almost every repair situation?
- Are your customers easily able to find the product information they need without wasting your support center's time with unnecessary calls?
- Can your service people easily find and understand the right product information – whenever, wherever, and in whatever form or context they need it?
- Can your service teams rely on this product information to be complete, accurate, and up-to-date? Can they be sure it reflects the latest design changes?
- Do you almost always ship the right parts for the right product models or configurations – and to the right people at the right places – with few parts errors and little parts waste?
- Are you resolving your customers' service issues in less and less time, with fewer and fewer service calls or visits, and with more and more product uptime?
- Are your customers' satisfaction, retention, and new order rates steadily rising?
- Do customers point to product information as something they like best about your brand?

If there are a few too many "no" answers for your liking, you may have a problem with your technical information solution. It's time, perhaps, to explore how to tackle that information problem in product-centric ways.

What you may promise to gain is a significant improvement in service productivity and customer value – and a significant competitive edge.