



A Next-Generation Approach to Integrated Warranty Management

For today's manufacturers, gaining actionable insights from customers' warranty data requires a closed-loop system that pivots around a single version of the truth, across all business functions.

Executive Summary

Warranty management is among the most tangible customer-facing activities – offering manufacturers the opportunity to enhance the customer experience by automating the administration of terms and contracts. Also, warranty information is an important source of “on-the-ground” failure data, which is critical for future product designs.

Nonetheless, the cost of warranty management continues to rise. High-tech and consumer electronics companies are among the hardest hit – subject to escalating warranty management costs due in part to rapidly falling prices, increasing product complexity and rising demands from quality-focused customers.

While claims continue to consume a sizable portion of revenue earned on each sale, other factors – identifying the root cause of a product defect, pinpointing faulty repairs and the lack of a mechanism for timely supplier recovery – only add to costs. Distributed applications and functional silos across the enterprise slow down claims processing and fraud detection. Furthermore, they do not provide the failure-related information needed from the warranty data – essential to the development of new and improved next-generation products.

This white paper details critical elements of a next-generation warranty management system, which can help OEMs reduce the total cost of ownership (TCO) in warranty claims processing, and utilize data that can be used by product-engineering teams to ensure the development of high-quality products.

The Warranty Management Value Chain

The warranty management value chain typically intersects multiple business functions within the manufacturing organization: product development (i.e., product engineering, quality control); product management; sales; service; supply chain management (parts, procurement); contract management; claims processing; finance, as well as electronic distribution. For example:

- **The product development team** is responsible for the overall design and quality of the product.
- **The product management team** owns the terms and conditions of the warranty; updates content related to the product; creates the warranty, and assigns asset components or individual parts to associated warranties.
- **The sales team** uses data pertaining to terms and conditions to remain competitive and boost revenues.



- **Service** executes the promised warranty terms and creates a job or service order. The service/work order contains the details of the warranty or information on the extended warranty.
- **Field service reps** visit customer sites and oversee investigations or repairs, based on the nature of the defect. Reps can also request spare parts or replaceable product components.
- **Repair center technicians** perform defect and repair analyses of products that are returned by the customer for repair or replacement.
- **The supply chain group** plans delivery based on replace, repair or recall requests, and manages supplier-recovery processes.
- **Contract management** defines the warranty terms at the contract stage to support service chain continuity and overall profitability.
- **Claims processing** takes care of warranty claims submitted by customers and service partners.
- **Finance** manages the warranty reserves and performs audits.
- **Electronic distributors** are often responsible for supplying design details to the manufacturer and ordering parts.

The warranty process flows through various after-sales services during its lifecycle. It involves a customer requesting a return, repair or replacement of a product, a goods receipt by the service center or manufacturer, and repair at the service center or manufacturer's site. These steps are followed by activities that include warranty identification; claims submission; updating the materials register; dispatching a product to a customer; claims adjudication; claims credits; supplier warranty/recovery, and chargeback.

Figure 1 below represents the processes typically involved in warranty management.

The Challenges Manufacturers Face

Consumer electronics and high-tech manufacturers in particular encounter enormous obstacles when attempting to increase the speed of warranty claims processing across business functions; utilize warranty data to analyze product performance; assess key warranty cost drivers; decode field-service issues, and confirm the serviceability and reliability of products.

The Warranty Management Continuum

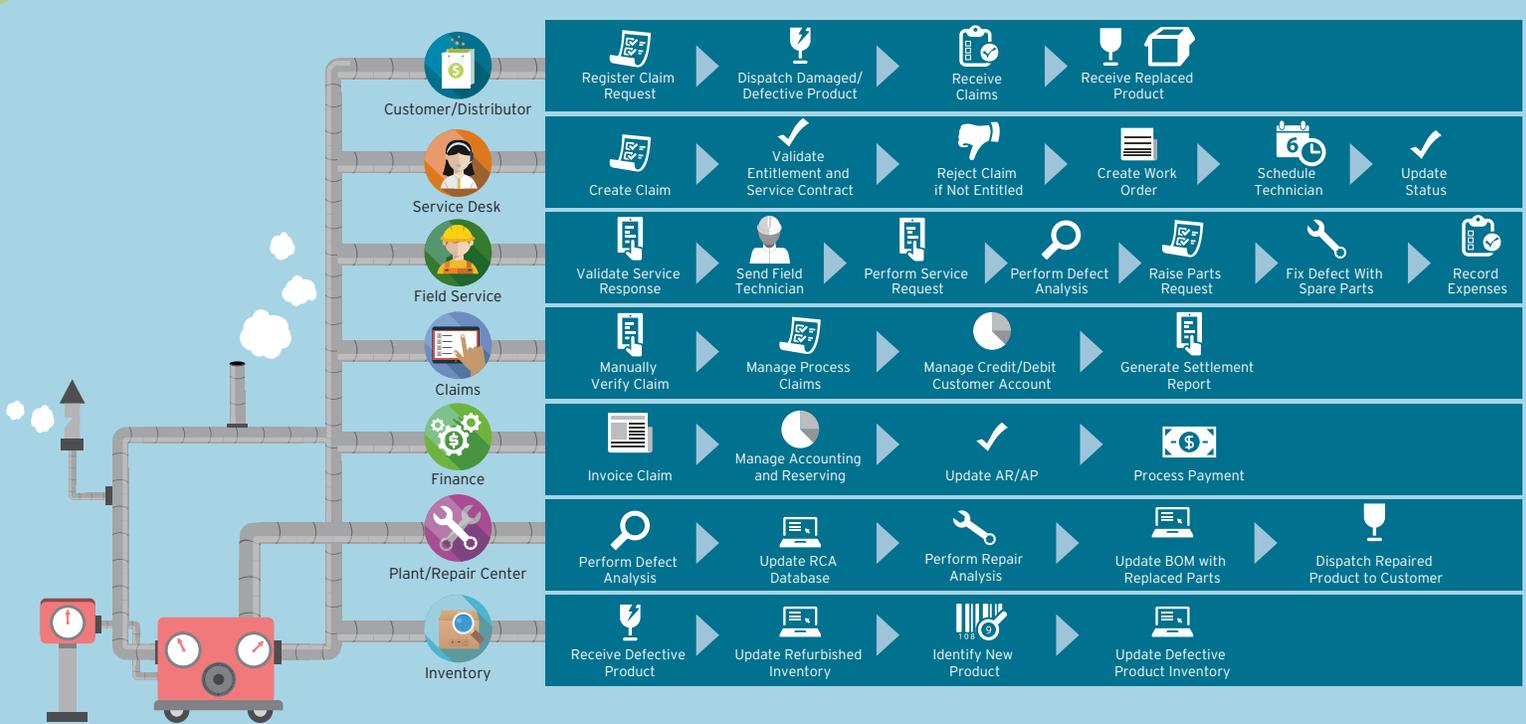


Figure 1

These issues can be traced in part to:

- **Ad-hoc processes**, including ambiguous warranty information in service contracts, manual claims processing, as well as financial reconciliation and analytics procedures.
- **Warranty data is often retained by the service organization**, and not immediately shared across the product development value chain. Engineering teams have less time to incorporate real-time information on defects into product design.
- **Human-dependent warranty processes** that involve manual review and processing of claims.
- **Lack of an automated process** for verifying claims with the verification system to match claims against policies and detect irregularities – often forcing companies to pay on fraudulent and invalid claims.
- **Risk of under- or over-budgeting** for warranty payouts due to inaccurate forecasts.

Applying Closed-Loop Warranty Management

Warranty data benefits numerous business functions. It helps organizations understand how their products perform vis-à-vis competitive offerings, identify factors that affect warranty cost and, most important, confirm the acceptability of products from a performance and serviceability point of view.

Best-in-class organizations use this data across the warranty value chain to:

- Enhance field service.
- Augment return management.
- Improve the repair process.
- Bring needed changes to product design.
- Improve recall management.

To address the challenges associated with warranty management and fully utilize the power of warranty data, companies need to focus on automating their processes and technologies (see Figure 2).

A Three-Step Approach to Automating Warranty Management

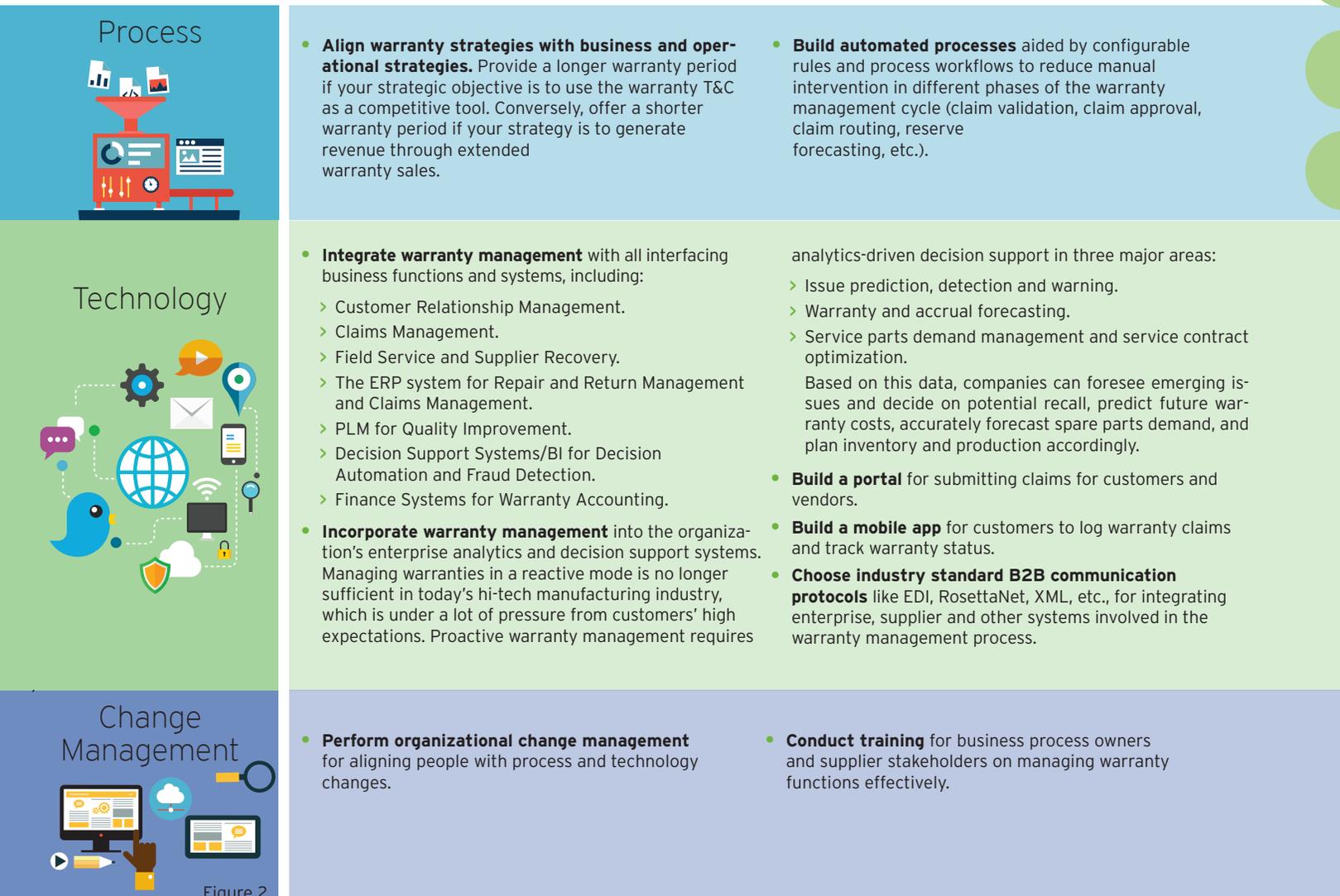


Figure 2

The key is to build an integrated solution that encompasses various business functions and warranty processes. This will enable critical stakeholders to gain a holistic view of warranty data from a single platform. Figure 3 below offers a conceptual architecture that demonstrates the integration required across all business functions, processes, systems, stakeholders and communication channels to support this perspective.

Major Benefits

Various functional areas can realize a number of benefits from a “closed loop” made possible by a fully integrated warranty management system:

Product Development

- Early identification of flawed products and faulty components can help reduce the cost and effort involved in this process.
- The time it takes to block defective parts in inventory can be greatly reduced – freeing resources to focus on other tasks.
- Real-time availability of data pertaining to product defects helps product teams make

faster decisions on product recalls – improving customer satisfaction, as well as the company’s standing in the marketplace.

- Immediate access to defect-related data enables product design teams to apply this information when redesigning products.
- Research and development teams have more visibility into the cause of defects – allowing them to more accurately analyze problems and take the necessary steps to avoid recurring issues.

Sales

- Sales teams can take advantage of new revenue opportunities through extended warranty sales.
- With 360-degree insight into customer data, sales representatives can remain up-to-date on customer-related information.

Marketing

- Marketing personnel have the opportunity to acquire new leads for extended warranties.

A Next-Generation Warranty System Framework



Figure 3

- With fully integrated customer information, marketing teams can better target customers' needs and improve customer communications.

Service/Claims

- Automated fraud detection can help assure that only valid claims are processed, and lessen the need for manual intervention.
- Reducing human errors during claims processing can lead to significant cost savings.
- With a 360-degree view of customer data, service personnel can more accurately address and resolve service/claims issues.
- Service teams can turn their attention to up-selling and cross-selling products, rather than manually working their way through warranty claims processing – enabling manufacturers to transform the service channel from a cost center to a revenue center.
- Faster supplier chargeback results in faster credit to accounts.
- Faster claims settlement leads to happier customers.

Field Service

- Detailed product documentation is immediately available to field service personnel – at the customer site or the repair shop.

- Real-time access to this information makes it easier to correctly diagnose and repair defects from remote locations.

Finance

- Real-time availability of claims data enables more accurate reserve forecasting.

Looking Forward

The proliferation of smart/connected devices and sensors that comprise the Internet of Things¹ (IoT), as well as the reams of metadata generated by machine-to-machine (M2M) communications networks will offer manufacturers the level of insight needed to intelligently streamline the warranty claims process and deliver a seamless customer experience.

Figure 4 outlines the steps manufacturers must take to achieve next-generation, integrated warranty management and gain the benefits of a fully automated, cross-function, closed-loop process.

To gain a distinct edge over the competition, it is important that all manufacturers, particularly those in the consumer electronics and hi-tech spaces, offer a warranty plan that establishes or reinforces the company's brand image.

We help manufacturing organizations identify and take advantage of opportunities to create more value through a structured discovery approach. Our end-to-end, KPI-driven approaches

A Structured Discovery Approach

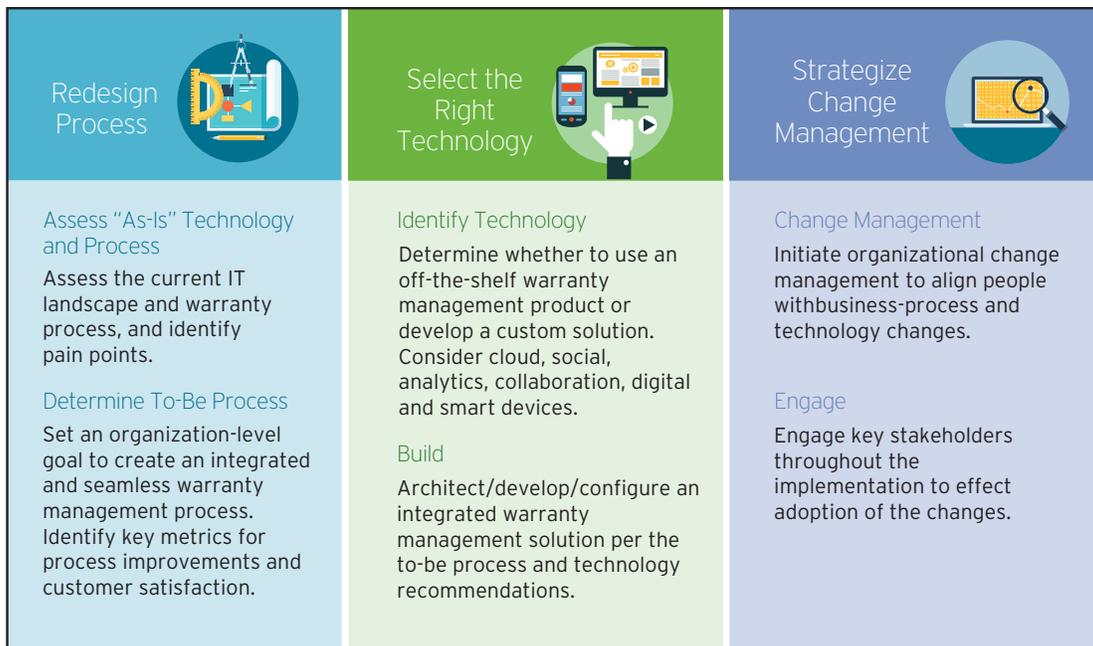


Figure 4

and methodologies for next-generation warranty management can provide manufacturers with a definite edge over the competition while addressing key business priorities such as reducing costs, increasing after-sales revenue, enhancing customer satisfaction and loyalty, and designing products driven by real-time field data. We offer

a wide range of consulting and implementation services for companies looking to adopt the next generation of warranty management – helping all stakeholders involved benefit by working towards a common goal.

Footnotes

- ¹ The Internet of Things (IoT) is the network of physical objects that contain embedded technology to communicate, sense or interact with their internal states or the external environment.
<http://www.gartner.com/it-glossary/internet-of-things/>.

About the Author

Sougata Chakraborty is a Cognizant CRM Product Manager. With fifteen-plus years of experience in CRM consultancy, Sougata focuses on pre-sales and solution development, and is the acting product manager for MedVantage™, Cognizant's proprietary business cloud solution. He holds a Bachelor of Engineering degree in metallurgical engineering from the Indian Institute of Engineering, Science and Technology (formerly Bengal Engineering College, Shibpur). He can be reached at Sougata.Chakraborty@cognizant.com.

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Cognizant

World Headquarters

500 Frank W. Burr Blvd.
Teaneck, NJ 07666 USA
Phone: +1 201 801 0233
Fax: +1 201 801 0243
Toll Free: +1 888 937 3277
Email: inquiry@cognizant.com

European Headquarters

1 Kingdom Street
Paddington Central
London W2 6BD
Phone: +44 (0) 20 7297 7600
Fax: +44 (0) 20 7121 0102
Email: infouk@cognizant.com

India Operations Headquarters

#5/535, Old Mahabalipuram Road
Okkiyam Pettai, Thoraipakkam
Chennai, 600 096 India
Phone: +91 (0) 44 4209 6000
Fax: +91 (0) 44 4209 6060
Email: inquiryindia@cognizant.com