



Digital Modernization in Warranty Management

■ **In the digital age, manufacturers must strive to minimize cost while maximizing customer satisfaction. For any manufacturer, warranty is one of the biggest expenses, and large, complex warranty systems can create both technology and business process challenges. These may include:**

- Limited flexibility, scalability and integration for legacy warranty systems
- Failure to identify the root cause of part failures
- Too much system downtime
- Inadequate data analytics
- Poor collaboration with suppliers
- Lack of a 360 degree view of data
- Non-standard processes
- Claims identification for supplier's chargeback
- Duplicate claims

In charting a path forward, warranty managers need to ask themselves some important questions:

“ Are we spending a large proportion of our annual sales revenue on warranty? ”

“ Are we facing challenges analyzing warranty reporting data and identifying fraudulent claims? ”

“ Are we facing challenges identifying part failure data, including suppliers responsible, root causes, and timely fixes? ”

“ Do we want to modernize our existing warranty systems without application downtime? ”

“ Do we want to automate manual warranty systems business processes? ”

If the answer to some or all of these questions is “yes,” an overhaul would seem to be the most logical path forward. However, completely re-writing applications is neither practical nor financially feasible due to the complexity of a traditional monolithic architecture, which prolongs time to market.

Syntel's Solution

Syntel has developed several modernization approaches for IT applications, including **legacy exit**, which re-engineers an entire legacy ecosystem on a digital platform, **platform migration**, which moves from one operating environment to another, and **Agile development** using **microservices**.

Agile development with microservices can be leveraged to quickly modernize IT applications while offering **scalability, fault isolation, improved performance and minimum application downtime**. By moving from monolithic programs to microservices, the result is flexible, cloud-native applications that can deliver the speed, scale, and security required for the digital world, as well as significant reductions in development and testing time.

Modernizing for the digital age is also the only way to leverage new age technologies like Analytics, Cloud, Social and IoT.

SOLUTION HIGHLIGHTS

- Easy to accommodate business process changes
- Technology agnostic
- Improves fault isolation
- Minimum application downtime
- Minimum application downtime
- Business rules driven

BUSINESS BENEFITS

- **Up to 30%** reduction in development time
- **Up to 40%** reduction in testing time

The key to this service is our **SynBaaS** (Backend as a Service) framework, a modernization backbone that enables you to develop, manage, deploy and monitor your back-end services, with unlimited customization to meet your unique business needs.

SynBaaS is built on an open source platform and employs composite and simple microservices that integrate with external data sources and social media, along with application program interfaces (APIs) that serve as integration touchpoints with your critical enterprise applications.

Delivering Excellence

Syntel's microservices can be used for warranty management functions such as product registration, claim registration and management, parts return management, supplier recovery, contract management and warranty analytics.

This solution is part of Syntel overall suite of warranty modernization services, which are designed to enhance functionality and deliver benefits such as faster claim processing, better parts forecasting, and greater overall transparency and efficiency.

Syntel In Action

Challenges	Solution	Value Delivered
<p>The client's warranty application had over 2,000 business rules and a tightly coupled rules engine. Its poor performance was caused by factors like:</p> <ul style="list-style-type: none"> ▪ Too many external system calls and database interactions for a single use case ▪ Lots of custom batch jobs ▪ Upgrades and modifications resulted in overloaded web containers 	<p>Syntel retrieved the relevant functionality from critical warranty claims, and created a UI to demonstrate data flow and service behavior. We then created two controller microservices:</p> <p>One handles product fields like <i>claim status</i>, <i>claim type</i>, and <i>serial number</i>. The other handles operations like <i>failure date</i>, <i>repair date</i> and <i>repair distance</i>.</p> <p>Once both new services were tested and running properly, the new functions were seamlessly deployed into the application without affecting product services.</p>	<ul style="list-style-type: none"> ▪ Enhanced functionality with minimum application downtime ▪ Improved performance and fault isolation ▪ Reduced dependency on developers for business rule changes

About Syntel

Syntel (Nasdaq:SYNT) is a leading global provider of integrated information technology and knowledge process services. Syntel helps global enterprises evolve the core by leveraging automation, scaled agile and cloud platforms to build efficient application development and management, testing and infrastructure solutions. Syntel's digital services enable companies to engage customers, discover new insights through analytics, and create a more connected enterprise through the internet of things. Syntel's "Customer for Life" philosophy builds collaborative partnerships and creates long-term client value by investing in IP, solutions and industry-focused delivery teams with deep domain knowledge.

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