

Executive Summary

For auto manufacturers, battery warranty management has traditionally been an unavoidable cost of doing business. Auto manufacturers currently spend from 0.7% to 4% of their annual revenues on warranties.

Given this high spend in warranty costs, auto manufacturers have a major incentive to reduce their overall warranty expenses, including battery warranties.

Many manufacturers have focused first on tackling the cost of administering battery warranties. As a result they have sought ways to:

- 1) Identify claims with a high probability of being fraudulent
- 2) Process warranty transactions more quickly and inexpensively

In most cases, organizations have attained operational efficiencies in warranty processing, but have missed the bigger picture. Major auto manufacturers have begun to look beyond the transactional efficiency paradigm to understand the greater value that a comprehensive battery warranty management program can offer.

Those that use enhanced battery warranty management practices have been able to create market differentiators through improvements in quality, quicker response to potential issues, enhanced brand management, and the ability to identify and plug leakage areas like unjustified claims and inadequate supplier recovery.

If executed effectively, battery warranty management programs can also significantly improve overall customer satisfaction and loyalty.

Issues with Today's Battery Warranty Process

Through our work with major global auto manufacturers, Midtronics has helped to pinpoint multiple issues in the overall battery warranty lifecycle that extend beyond transactional processing inefficiencies.

At the core of all of these issues, however, are two common factors — lack of access to the data stored in diagnostic tools and the inability to gain a holistic view of that data across engineering, marketing, quality control, and warranty departments.

In our view, there is typically limited communication between these functional departments. As a result, each group tends to operate solely with their own view of the larger picture.

Some organizations have begun to invest in basic systems to manage the warranty process and provide simple analytics from the diverse warranty data submitted through claims. These systems are designed to handle the transactional aspects of warranty management, but may be inadequate to address complex issues beyond transactional efficiencies for engineering and quality organizations.

Focus Areas for Auto Manufacturers

Battery warranty claims authentication

To identify claims with a high probability of being unjustified and reduce the level of suspect claims. This represents an area for significant savings when coupled with a workflow solution for resolution and financial closure.

Supplier recovery

Driven by cross-functional integration, to trace parts warranty to supplier, allocate share of costs, and establish accountability and proper recoveries. Weak supplier analytics often lead to a half-hearted recovery process and substantial write-offs.

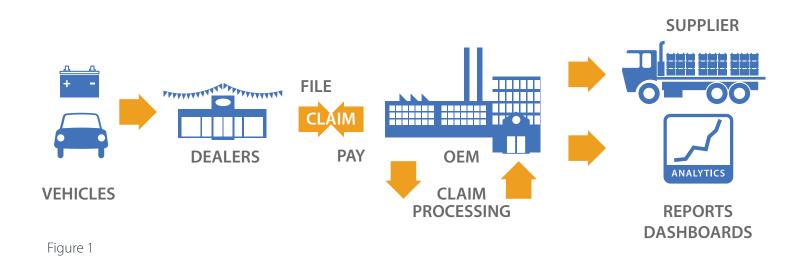
Automated analytics models for early warning

To accurately capture emerging field failure patterns. Organizations are beginning to appreciate the insights that diagnostic data can provide in the context of electrical system failures and potential issues.

Actionable intelligence

Most organizations are dealing with the "too much data, too little intelligence" issue. With critical data spread across different departments in most organizations, it is imperative to take a more holistic view and interpret and convert this data into actionable intelligence for warranty, tools, engineering and quality departments.

Warranty Process



Midtronics views your entire warranty chain (Figure 1) and offers products and services to address multiple pain points. For organizations seeking simply to tackle the "low-hanging fruit" from fraudulent claims, we offer warranty codes to capture and encrypt diagnostic data collected by the tools that is easily decrypted and processed by the warranty provider.

Benefits of a Holistic Battery Information Management System

We can work with you to:

- Decrease warranty management net spend by reducing payouts on unjustified claims
- Reduce "detection to remediation" cycle time via effective early warning signals and associated quality improvements
- Consolidate extensive available data for better accrual management and warranty program design
- Protect your brand through proactive management of quality issues
- Leverage technology tools to improve process efficiency and reduce costs
- Improve transactional efficiencies in existing processes
- Introduce best practices and adopt a solution that blends technology and processes, tailored to your unique requirements



Figure 2

Beyond Warranty Claims

For organizations seeking the additional benefits of an enterprise-wide warranty management solution we offer the Midtronics Battery Management Information system (BMIS). Provided as Software as a Service (SaaS) from the cloud, BMIS (Figure 2) enables key personnel from across the organization to access a centralized web-based database of real-time battery diagnostic information.

Dashboards and drill-down reports enable users to evaluate process performance by location and/or technician, manage vehicle inventory, and allow the user to search for specific warranty test records.

Using BMIS, users take ownership of the process outcome, moving away from the limitations of a solely transaction-based system.

Key Aspects of the BMIS Solution

- Online access to battery test data required to process warranty claims, including warranty code search by VIN
- Actionable intelligence delivered via dashboards and reports distilled from battery test data from the tools in the field for engineering, marketing, quality, tool, and warranty departments
- Provides tracking of equipment, showing locations and if each tool has reported in
- Supports proper maintenance of batteries in stock by displaying batteries that need to be tested or charged
- Promotes battery sales by identifying opportunities to replace batteries
- Centralized view of all tools deployed in the field by location, model, serial number, and software version
- Cloud-based model provides anytime, anywhere access, reducing operating expenses through improved efficiency
- Software update on demand including battery location, registration, and reset information

Start Today

Today's dynamic, highly competitive global economy requires companies to move faster and work smarter.

Contact us to discover how BMIS can help you attain operational efficiencies in warranty processing, reduce costs associated with unjustified claims and poor recovery rates, free cash reserves held for accruals, react faster to market feedback, and most importantly – position warranty management as a positive business enabler versus a cost center detrimental to your bottom line.

BMIS Reporting

BMIS reports are designed to enhance battery management programs and drive improvements in processes and programs.

Customized, easy-to-read, web-based reports from tester and charger data eliminate the need for analysis of raw spreadsheets.



Equipment Tracking Report

Provides tracking of equipment, showing locations and if each tool has reported in.



Vehicle Lifecycle

Vehicle Lifecycle:

Provides a diagnostic history showing all test records of a specific vehicle.



Process Performance

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Helps track process compliance by showing level of testing across all tools.



Inventory Management

Supports proper maintenance of batteries in stock by displaying batteries that need to be tested or charged.

Warranty Lookup

Allows the user to search for specific warranty test records.

Test Results

Promotes battery sales by identifying opportunities to replace batteries.

Technician Performance and **Technician Test Results**

Provide location-level reports to show how well testing and processes are being followed at specific locations.



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