



Employing portal technologies to leverage aftermarket opportunities.

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Executive summary

The automobile aftermarket is a multibillion-dollar, global industry in which dealers, distributors, independent motor traders and fleets (passenger car and trucking fleets) consume and provide services from a wide variety of independent suppliers, content providers, original equipment manufacturers (OEMs) and specialized niche service providers. Taking into account the number of vehicles currently on the road, and combined with a rapid yearly growth rate, there exists numerous opportunities for high margins on replacement parts and an increasing ratio of existing units to new sales. The downstream market revenue now represents a significant amount of the annual dollar volume of the underlying product sales. To help capture more of this revenue, increase brand image and better manage customer satisfaction, OEMs need to expand their role in services and repair – selling original parts, connecting their supply chain with dealers or building better business relationships with dealers and other trading partners.

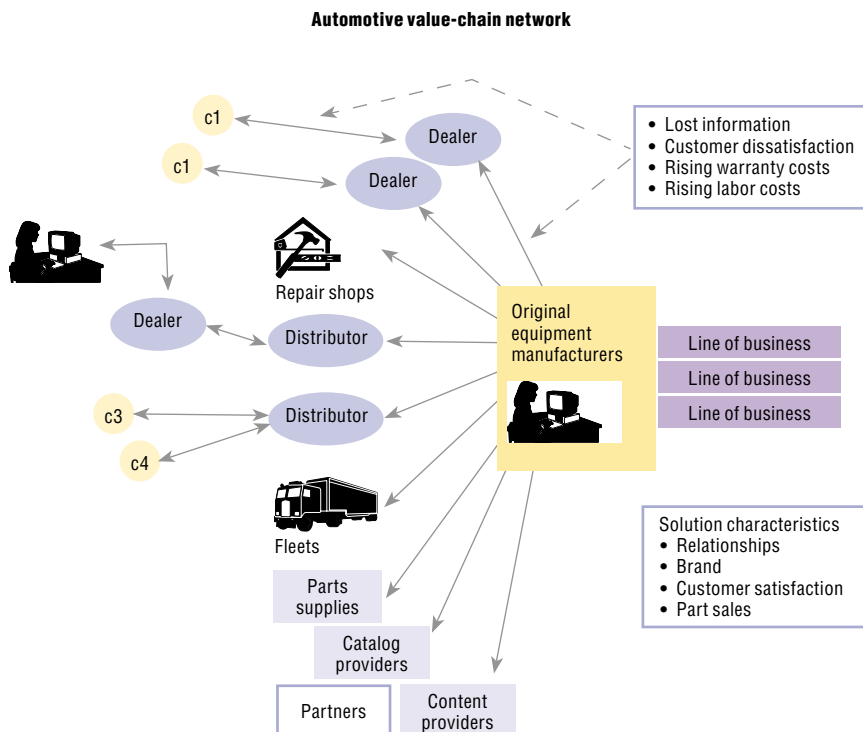


Figure 1. The automotive value chain



Meeting today's automotive marketplace challenges

Today's service market is highly fragmented:

- *Valued at approximately US\$250 billion*
- *Parts sales 69 percent*
- *Service and repair 70 percent*

Currently, OEMs have a small percentage of market share, because of:

- *Disconnected communication*
- *Lost vehicle behavior information*

To help generate new revenue opportunities, OEMs must find a way to:

- *Reduce warranty costs*
- *Improve their value-chain relationships*
- *Retain customer loyalty*
- *Enhance brand image*

Currently, however, the service-after-sales aftermarket is highly fragmented. Leading-edge OEMs who want to capitalize on the opportunity to compete in the automobile-parts sales arena understand the need to transform their roles to become more competitive. The challenge for the OEM will be to personalize relationships, interactions and transactions with dealers, channel partners, fleets and customers. Tapping into aftermarket sales requires the ability to respond on demand to changing customer and trading partner needs through effective systems and processes. OEMs need to provide replacements parts to trading partners and end customers quickly – ahead of the competition. In addition, dealers need a fast, efficient way to search for parts and provide fast service to end customers. In order to meet these challenges, automotive OEMs must find a way to communicate more effectively with their dealers to streamline operations, and help dealers operate more efficiently.

The purpose of this white paper is to discuss the advantages of IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration, which is designed to enable effective integration among automotive OEMs and dealers, streamline service and parts operations and promote better communication among dealers. Specifically, this white paper discusses how this comprehensive offering of software, services and expertise from IBM can help create an on demand environment, where everyone along the value chain – trading partners, suppliers and customers – can interact dynamically to help find ways to increase revenue, lower operating costs and improve customer satisfaction.

Becoming an e-business on demand

IBM led information technology into the world of e-business. Now IBM is establishing a new technology leadership paradigm – e-business on demand™. An on demand e-business is an enterprise whose business processes – integrated end to end across the company and with key partners, suppliers and customers – can respond with speed to virtually any customer demand, market opportunity or external threat. More than operational efficiency, e-business on demand is about building a dynamic infrastructure that allows OEMs to create new business processes and leverage existing ones cost-effectively. By efficiently combining resources to optimize operations across and beyond the enterprise, an IT infrastructure with built-in collaboration capabilities allows OEMs to connect their most important assets – people, processes and information.

- *People. Support for integrated business processes means employees, customers, partners and suppliers can interact faster and more efficiently.*
- *Processes. Organizations can't afford to develop and maintain isolated, vertical business processes. As an on demand business, OEMs can manage and coordinate your entire enterprise horizontally – and IT infrastructures can keep pace.*
- *Information. Give everyone along the value chain real-time access to disparate, distributed information, so people and processes can leverage data and content resources from a variety of repositories.*

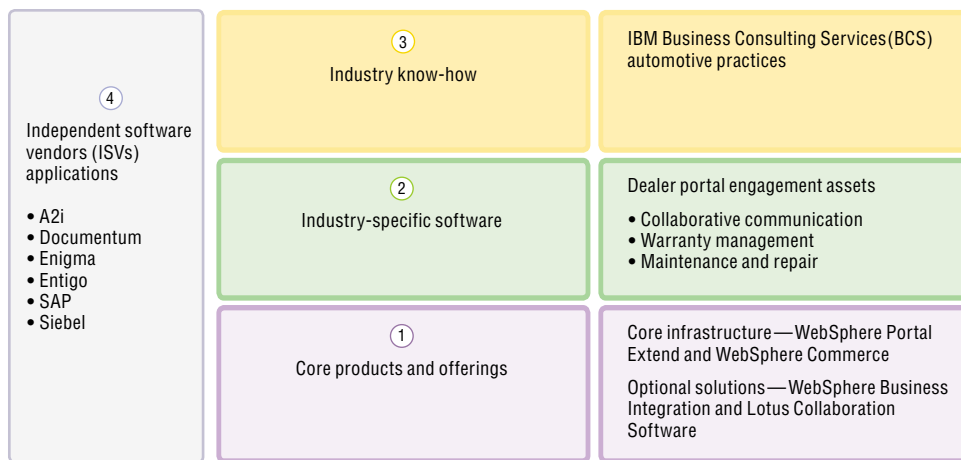


Figure 2. The IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration solution packaging.

Doing business in an on demand era

Automotive OEMs must manage rich business relationships with dealers, fleets and independent repair shops to support vehicle service life cycles and build aftermarket revenue streams. Each customer is unique – with different contracts and relationships, preferences and buying behavior. Each deserves a personalized Web experience that builds confidence in the business relationship. Optimizing these aftermarket relationships means being able to effectively support a wide range of critical business activities, including real-time, personalized communication (expert advice, service bulletins or marketing information), parts and inventory replenishment, warranty claims management and issue management. And after optimizing these relationships, be prepared to easily change them to respond to market demands.

The IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration leverages IBM WebSphere® Portal and IBM WebSphere Commerce software – along with IBM Lotus® collaboration functionality – to provide a unified system that can enhance dealer efficiencies and service, purchasing and warranty management, while helping to improve sales and delivery of parts and accessories through your aftermarket demand chain (shown in Figure 2). All of these components are delivered in a flexible framework that ensures systems will adapt to the way OEMs do business – both as it is today and in the future.

Through comprehensive prepackaged operational and collaborative processes, enterprises can capture and deploy best practices across their post-sales demand chain and uniquely leverage contract-based commerce and advanced member management to personalize relationships, interactions, and transactions with dealers, channel partners, fleets and customers. In addition, IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration delivers a complete range of personalization, information, content and catalog management capabilities to provide customized delivery of operational, marketing and product information. Collectively, these capabilities can provide OEMs with both immediate return and long-term value to help you become an on demand business.

10 essential elements for success

- ***Enhance process efficiency to reduce labor costs and improve quality***
- ***Build a stronger aftermarket revenue stream***
- ***Strengthen relationships to improve dealer loyalty and customer satisfaction***
- ***Enhance brand image***
- ***Streamline repair processes to handle increasing vehicle complexity and rising labor costs***
- ***Improve communication to mitigate rising warranty costs***
- ***Improve collaboration to lower labor costs***
- ***Connect to suppliers to leverage the parts revenue stream and improve purchasing process efficiencies***
- ***Leverage a flexible environment to sense and respond to marketplace changes quickly***
- ***Accelerate the ability to conform to new regulations about information sharing throughout the automotive service-after-sales value chain***

Collaborating with dealers on demand: 10 essential elements for success

Through close collaboration with client development partners and major independent software vendors (ISVs), IBM identified 10 key transformation elements to help OEMs transform their current environment into an e-business on demand. The elements are:

Enhance process efficiency to reduce labor costs and improve quality.

To better compete in this intensely competitive, fragmented landscape, OEMs need to provide an integrated view of their businesses to everyone along the value chain, and allow easy access to parts and inventory replenishment information, warranty claims and issue management.

IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration helps dealers streamline and automate processes to handle simple issues (such as processing a warranty claim) or complex issues (such as diagnosing engine troubles) by providing dealership technicians with a network of experts available at their fingertips to help troubleshoot and research similar problems. Common applications such as processing warranty claims can be accessed via a portal, providing a one-stop shop that streamlines operations. Parts and maintenance catalogs can be ordered or viewed online as well, providing technicians with the most up-to-date information and improving the overall service level provided by the OEMs.

Build a stronger aftermarket revenue stream. IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration can help make it easier and more cost-effective to procure manufacturer replacement parts by allowing dealers to view parts inventory and order parts online for shipment to multiple dealerships nationwide. It can also help build strong parts and parts-content provisioning in the value chain, as well as new markets in services and OEM parts sales.

Strengthen relationships to improve dealer loyalty and customer satisfaction.

To provide high-quality services to channel partners, dealers and distributors, fleets and independent motor traders, OEMs need to build personalized relationships on service and parts sales promotions and discounts, and provide specialized services. Delivering personalized relationships means each dealer or partner gets a unique presentation of the set of goods and services they sell, with the prices and delivery information they expect. All delivered in real time, without requiring intervention by a customer service or call center person.

IBM Middleware Solution for Retail and Aftermarket Dealer Collaboration can help simplify business transactions through personalized online interactions, customer-specific promotions and fast customer service. With increased visibility into dealer and channel needs, OEMs can provide superior levels of service, while building customer loyalty.

Enhance brand image. Improving the image of an OEM brand requires effective collaboration and communication along the value chain for better customer brand image. By providing real-time marketing, program and service information to service departments of dealers (such as vehicle repair and extensions information), franchised channel networks, independent motor traders and end consumers, OEMs can help build a better brand image, and ultimately cross-sell and up-sell branded products to the end customer.

IBM Middleware Solution for Retail and Aftermarket Dealer Collaboration delivers robust capabilities to help improve business efficiencies and lower overall total cost of ownership.



Streamline repair processes to handle increasing vehicle complexity and rising labor costs. Today, dealers and distributors face new challenges in handling service and repair efficiently. They consume valuable labor time solving both simple and complex vehicle issues, which frequently need immediate, expert attention and require detailed information to be resolved. The current model of dealer-OEM interaction consisting of call centers, phones and faxes is vulnerable to delays and human error – which can mean higher labor costs, decreased customer loyalty and dissatisfaction with the brand and the dealership. Through collaboration tools from IBM Middleware Solution for Retail and Aftermarket Dealer Collaboration, OEMs and dealers can help resolve complex issues quickly and ensure they are solved the first time.

Improve communication to mitigate rising warranty costs. Dealers typically must submit a warranty claim on parts or subparts of the vehicle, especially on late-model vehicles. OEMs can lose valuable time – and money – when handling warranties on defective parts from suppliers in the supply chain. IBM Middleware Solution for Retail and Aftermarket Dealer Collaboration can help OEMs reduce rising warranty costs through better technology, improved communication with value-chain partners and streamlined channels for gathering vehicle symptom information – crucial to improving the quality of new vehicle designs.

Improve collaboration to lower labor costs. Technicians spend a lot of time performing routine searches of information about maintenance parts, parts availability, parts content and service bulletins. IBM Middleware Solution for Retail and Aftermarket Dealer Collaboration can help reduce real-time potential labor costs and warranty claims for issues that require software flashes about vehicle controls. Collaboration tools can also help technicians capture critical vehicle-symptom information from dealers to help reduce overall technical-training time on new vehicle complexities – such as vehicle electronics, software and mechanical engineering.

Connect to suppliers to leverage the parts revenue stream and improve purchasing process efficiencies. Dealers, distributors and fleet owners constantly perform routine maintenance and repair on vehicles of all types. To keep the competitive advantage, OEMs need to position the parts sales supply chain by offering an efficient, one-stop shop to a variety of buyers – enabling everyone along the value chain to purchase parts and allow a variety of connections to other OEM suppliers as potential alternatives to third-party suppliers. With the help of IBM Middleware Solution for Retail and Aftermarket Dealer Collaboration, OEMs can establish a one-stop shop for parts model to leverage the parts revenue stream – helping to improve sales efficiencies through streamlined replacement and substitute part management, and boost revenue through automated cross-sell and up-sell mechanisms. In addition, OEMs can begin to deliver learning and service offerings, while increasing vehicle sales and improving brand loyalty at the same time.

Leverage a flexible environment to sense and respond to marketplace changes quickly. To stay competitive, OEMs need a flexible environment that enables a fast response to unexpected changes in the marketplace. An infrastructure built on open standards can enable OEMs to leverage existing investments and skills while providing the resiliency to respond to a volatile marketplace with speed. With its robust collaboration tools and a flexible e-business infrastructure based on open, industry standards like Java™ technology, IBM Middleware Solution for Retail and Aftermarket Dealer Collaboration provides a dependable yet innovative platform that grows with the company.

Accelerate the ability to conform to new regulations about information sharing throughout the automotive service-after-sales value chain. Increasingly, global companies are facing major challenges from expanding regulatory issues and new requirements for information sharing. Among others, these mandatory requirements include:

- Transportation Recall Enhancement, Accountability and Documentation (TREAD) Act

This regulation requires OEMs to provide up-to-date information about vehicle behavior, safety and quality to consumers and value-chain players.

- EMEA Elimination of Block Exemptions

Until October 2002, European car manufacturers were permitted to sell exclusively through their own distribution channels, giving them complete control over their vehicle distribution networks. In October 2002, the market was deregulated and stipulates that all OEMs must function under either a selective or an exclusive network basis.

To help facilitate consistent communication, IBM Middleware Solution for Retail and Aftermarket Dealer Collaboration can help provide the framework for OEMs to share information across networks in real time, enter data quickly and easily and access claims, letters and reports.

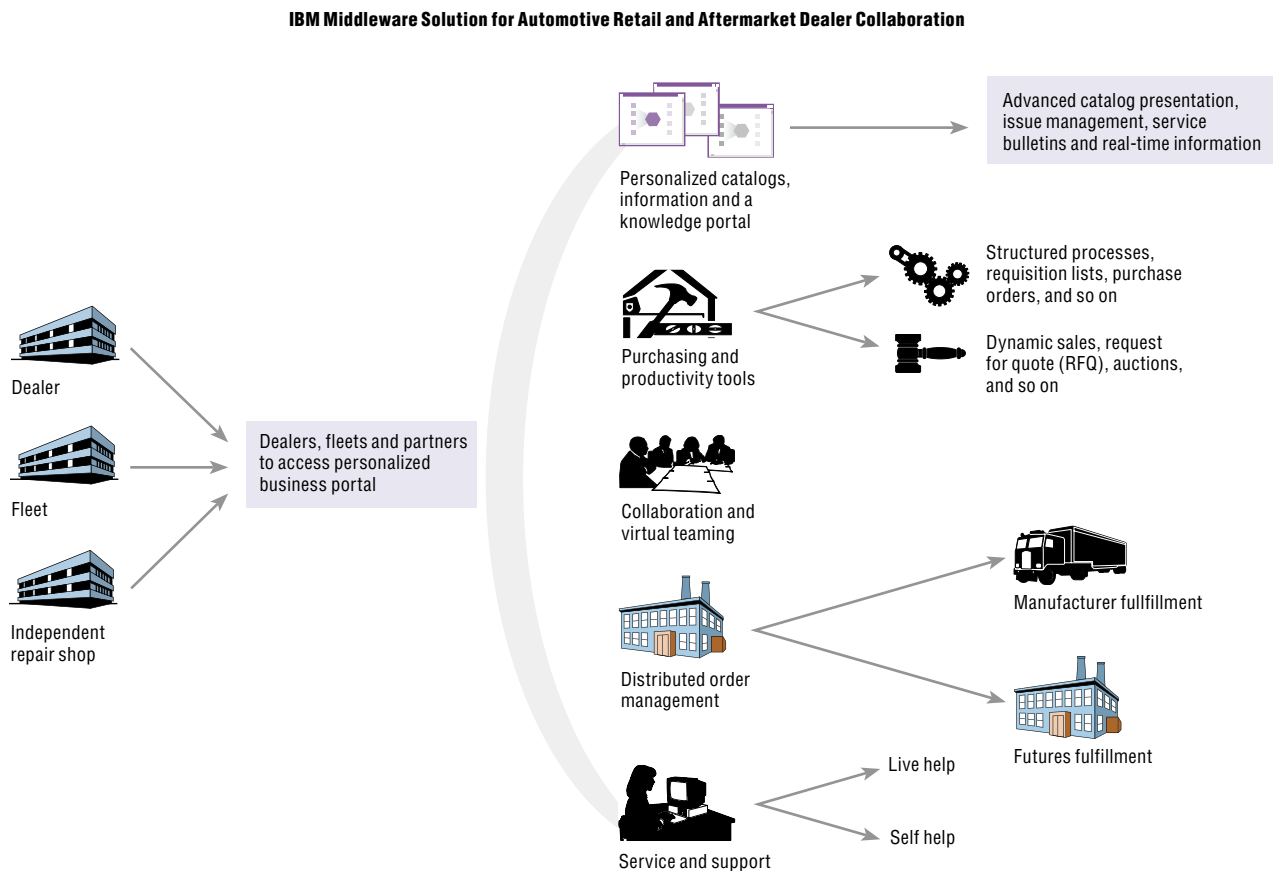


Figure 3. The roles of primary players in the value chain: dealers, distributors, motor traders, fleet owners and specialized service providers (content providers, parts catalog providers and parts suppliers).

Key automotive business processes

The automobile aftermarket depends on several important processes to facilitate the flow of transactions and information across a value chain. IBM Middleware Solution for Retail and Aftermarket Dealer Collaboration delivers robust capabilities to help improve business efficiencies and lower overall total cost of ownership (TCO).

Improve repair and warranty services processes. OEM executives strive to provide the best possible sales service to dealers, distributors and fleet owners, improve issue-resolution time, and efficiently capture details of symptoms and vehicle behavior for accurate resolution. In addition, OEMs also need to offer content and information services about parts bulletins, service bulletins and the ability to search accessible failure reports about specific make-model-year vehicles to enable efficient services to the dealer and improve resolution time.

IBM Middleware Solution for Retail and Aftermarket Dealer Collaboration can help improve repair and warranty services by:

- *Enhancing dealer communication and collaboration through a dealer-specific portal where technicians have real-time access to experts to diagnose and resolve problems on the shop floor, as well as allowing dealers to search for and place parts orders online via an online catalog.*
- *Increasing dealer issue-response time to help improve customer satisfaction and reduce labor time and costs.*
- *Increasing customer loyalty and retention through better integration of OEM business information.*
- *Increasing revenue by higher asset utilization for fleet owners through maintenance and repair services.*
- *Reducing warranty and customer support costs by streamlining internal processes and driving down operating costs, enabling the offering of more competitive and profitable service contracts.*
- *Creating a collaborative environment for the aftermarket chain.*

Streamline parts and service processes. Competition mandates that OEMs offer a wide range of parts, replacement parts and parts descriptions crucial for optimal performance of a vehicle, and streamline inefficient purchasing processes of original parts to dealers, distributors, fleets and independent repair shops. OEMs must also present two-dimensional (2D) and, if required, three-dimensional (3D), exploded views of parts and subparts, parts content and parts information in a more effective manner and provide real-time access to parts inventory and parts-availability information. To help OEMs reach these goals, the IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration can:

- *Increase gross profit for parts and service through advanced order and inventory- management capabilities.*
- *Minimize risk for new product launches by providing easy access to issue-management databases.*
- *Optimize parts inventory through better communication with dealerships and increased insight on demand forecasting.*
- *Reduce the lead time required to become operational by leveraging existing assets.*
- *Increase customer and dealer brand loyalty to parts and service by providing better customer service and real-time access to experts.*

Extend financial services processes. To fully leverage new opportunities, OEMs need the capability to offer a range of financial services for whole goods or preconfigured goods, including: reduction in warranty costs, improvement in sales of parts and whole goods, and better financial packages for whole goods. IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration can help:

- *Increase gross profit for whole goods.*
- *Reduce product downtime for fleet owners.*
- *Optimize maintenance and service for fleet owners.*
- *Reduce risk for new product launch.*
- *Realize significant parts inventory reduction.*
- *Increase customer and dealer brand loyalty to parts and service.*

Business scenarios for dealer collaboration

IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration handles a variety of business scenarios that include:

- *Issue resolution*
- *Purchasing*
- *Order processing*
- *Warranties*
- *Maintenance*



Improve quality-analysis monitoring processes. As part of the quality-analysis process, OEMs need to monitor multiple dashboards to analyze incoming dealer and consumer issues, provide design feedback to engineering departments and improve the quality of vehicles coming out of the assembly lines. Through issue-analytics capabilities, the IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration can help:

- *Monitor and manage complex issues that require design and manufacturing changes.*
- *Monitor issue-response time quality to provide better feedback to design and engineering departments.*
- *Monitor warranty claims, and correlate this information with design and manufacturing processes of vehicles in production.*

Business scenarios for dealer collaboration

IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration handles a variety of business scenarios that include issue management, warranty processes, integrated parts-catalog access, purchasing process, search on parts bulletins and parts availability, maintenance and repair information on demand, and sophisticated order management for parts ordering.

IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration includes context-based collaboration, which integrates crucial business information with OEM internal service processes, and provides more efficient collaboration processes with experts to help reduce issue-resolution time and improve performance. As an example, consider the roles of dealer mechanic, OEM service technician and OEM service engineer in the following scenarios.

Issue resolution. To keep end customers satisfied, a dealer service technician needs to resolve critical issues as soon as possible and optimize time spent on labor. With IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration, OEMs can give a dealer technician access to a dealer collaboration portal managed by a team. For complex issues that require OEM interaction, the dealer's service technician can access the issue-management function that provides many key features. Using the one-stop OEM portal, the dealer service technician (or mechanic) can specify the issue type (for example, engine, intake valve or transmission). The dealer service technician can then perform a search that provides real-time access to a variety of documents, such as failure reports, service bulletins, special parts bulletins and current information about replacement parts.

The integrated search results allow the dealer's service technician to quickly access relevant reports by entering the appropriate diagnostic trouble code (DTC), which helps determine the most efficient way to resolve the problem. The service technician can also monitor discussions with other dealers on similar topics. And, if necessary, the service technician at the dealership can create an issue about the problem and communicate with an expert in real time, who can, in turn, offer quick information about problem resolution. If the information is not sufficient, the service technician can create a new issue by using the issue-management system found in the OEM portal. The dealer can rank this issue as very urgent and can require a response within two days. The issue is then routed automatically to the OEM service representative who receives a user-specific alert. Next, the OEM service representative routes the request to the most appropriate expert service technician. The expert service technician at the OEM recognizes a similar problem previously posted about that specific make, model and year and immediately notifies the dealer service technician via e-mail. This notification is provided by a link to the dealer portal.

The service technician can then view the details on the solution posted on the dealer bulletin board.

IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration handles a variety of business scenarios that include issue management, warranty processes, integrated parts-catalog access, purchasing process, search on parts bulletins and parts availability, maintenance and repair information on demand, and sophisticated order management for parts ordering.

Purchasing. IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration can help streamline replacement-parts purchasing. For example, before beginning the repair or parts-replacement job, the dealer service technician uses the issue-management functions to search for related service bulletins. Next, the dealer service technician inspects the vehicle and determines that it needs a replacement part. Using IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration, the dealer service technician is able to find the appropriate part, pull an exploded-view diagram of the part and place an online order for it. The system identifies that this part number has been superseded by another part number and automatically overrides the old part number with the correct one. Next, the system generates a message indicating that the order has been placed. The procurement manager can check using the local DMS system (specific to the dealer) for inventory on specific parts.

The dealer service technician then realizes that one of the car's sway bars is bent and will need to be replaced. At the portal site, the dealer service technician quickly performs an advanced search to locate the sway bar and reorder it. After placing an order for the bar, a message displays recommending that the bushings also be replaced. Agreeing with this recommendation, the dealer service technician places an order for the bushing. After completing the job, the dealer service technician reorders the parts that were used for the repair. This information is then sent to the parts manager for approval and inventory replenishment.

Overall, IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration can help enable dealer service technicians to:

- *Perform searches on service bulletins and failure information.*
- *Help determine and solve issues by providing the most current parts and issue-management information.*
- *Download service bulletins and replacement parts bulletins.*
- *Keep order information and bill of materials (BOM) integrated.*
- *View exploded-view diagrams.*
- *Purchase replacement parts on demand.*
- *Offer customized merchandising and sales promotions.*

Order processing. When dealers need to purchase spare parts and specialized accessories, IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration also allows them to monitor the order life cycle. After the dealer service technician completes his repair, a reorder for any required replacement parts can be submitted – searching the parts catalog by item, by category or by vehicle type. This order is routed to the dealer parts manager for approval and subsequent inventory replenishment. This order can be a one-time replenishment, or set up as an ongoing reorder for items like consumables. After it has been approved, the order is routed to the OEM and to end suppliers (through drop-ship functionalities in the solution). The order status can be monitored, including delivery schedule, payment and order fulfilment. And if back-end systems are involved, all of these business processes integrate well with other enterprise resource planning (ERP) or order management systems, or both.

WebSphere Commerce software from IBM provides the advanced purchasing, profiling, order-management and fulfilment functions, including capabilities like drop shipments, inventory reservation, and the ability to integrate with warehouse and inventory management systems. And in cases where goods need to be returned, there is a full RMA and returns disposition capability. WebSphere Commerce order management delivers:

- *Comprehensive order processing, order history and open order status.*
- *Functionality to reorder based on a specified schedule.*
- *Functionality to handle return orders and order-items within an order.*
- *Computation of sales tax and port taxes on orders.*

Warranties. A dealer can receive many customer complaints about specific issues. For example, the DTC about a vehicle shows that a sensor that monitors the electronics for the engine powertrain is malfunctioning. The dealer service technician accesses the OEM dealer portal, logs in and searches for warranty information about the electrical sensor for the powertrain. The search reveals that the sensor has a warranty of four years on the specific make, model and year of the vehicle. Next, the dealer mechanic submits a warranty claim using the electronic warranty functions offered by the portal. The claim captures the details of the failure, symptoms, the reason, and dealer location and profile. The dealer mechanic then creates a return order for a specific part that needs replacement on the specific make, model and year of the vehicle. A new part is ordered from the dealer portal using the catalog function. The dealer mechanic simply browses the catalog for the part and places an order.

Solution benefits include:

- *Better collaboration on issues between the dealer and the OEM.*
- *Integration of warranty application and parts information.*
- *Functionality integrated with the vehicle profile.*
- *Automatic notification of warranty-claims issue resolution.*

Maintenance. Dealer mechanics frequently perform scheduled repairs. The OEM portal can enable the dealer service technician to log into the Web site and select the make, model, year of the automobile and the type of activity or maintenance or repair work that needs to be done. The IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration can then generate a vehicle-specific task list and BOM, which can include a shopping cart with quantities blank for each item, exploded view and car portlet and issue-management information.

Goodyear



Goodyear is the world's largest tire company, with a presence on six continents and annualized sales of more than US\$14 billion.

To help increase efficiencies, Goodyear needed to:

- *Shift routine orders and inquiries from its call center to the Web, which meant replacing the antiquated DOS-based system.*
- *Enhance marketing by improving information flow and reducing cycle times.*
- *Make it easier to do business with Goodyear.*

The solution

The XPLOR dealer portal from IBM. Using IBM WebSphere Business Integration software, Goodyear integrated IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration portal with its ERP solution and other legacy systems.

The solution is designed to provide dealers with order management (online ordering and order tracking) and online information delivery (product information and policies). The software solution also helped to shift call-center volume from routine inquiries to higher value-added activities, reducing communication and administrative costs.

The benefits

- *Automated order capture and management*
- *Relationship management*
- *Real-time marketing and product information*
- *Targeted promotions*

A day in the life of a dealer

Collaboration is considered one of the best ways to improve the speed of resolution. In a many-to-one collaboration (many dealers to one OEM), the economies of scale can be exploited and greater efficiencies in resolution can be seen immediately through sharing of issue resolutions among the various dealers through the OEM portal solution.

Kubota



Kubota Tractors manufactures high-performance, powerful and highly maneuverable tractors. Kubota has also successfully introduced compact construction equipment, turf-care equipment, a full line of consumer power products, lawn and garden equipment, pumps and generators and a variety of Kubota-made implements and attachments.

Kubota's dealer access to service information was limited to official bulletins from the parent company in Japan and service engineer assistance via a toll-free number. Kubota wanted to increase the amount of information available, improve the timeliness of the information and avoid increasing the number of service engineers supporting the dealer network. To do this it needed to implement:

- *Service case management for dealers.*
- *Encourage discussion between dealers (bulletin board).*
- *Single source for service related information.*
- *Roles-based authorization to applications.*
- *Advanced search capabilities for its service department.*

Additionally the solution needed to provide a basis for future enhancements such as online training, online surveys and warranty system enhancements.

The solution

With the help of IBM, Kubota transformed its existing business process to an integrated business-to-business (B2B) enterprise. The solution leverages IBM software—including WebSphere Application Server, WebSphere Portal, IBM Lotus Domino® Server, IBM Lotus QuickPlace and IBM Lotus Content Manager.

The benefits

- *Simplify user authentication through a single sign-on.*
- *Manage and secure access to content based on a single user role.*
- *Manage scalable deployment of business content in a cost effective manner by providing a unified workspace and streamlined application interfaces.*
- *Provide a means of collaboration among employees, partners and customers by providing access to the same portlets when appropriate.*
- *Reduce IT expenditure by promoting the reusability of code.*

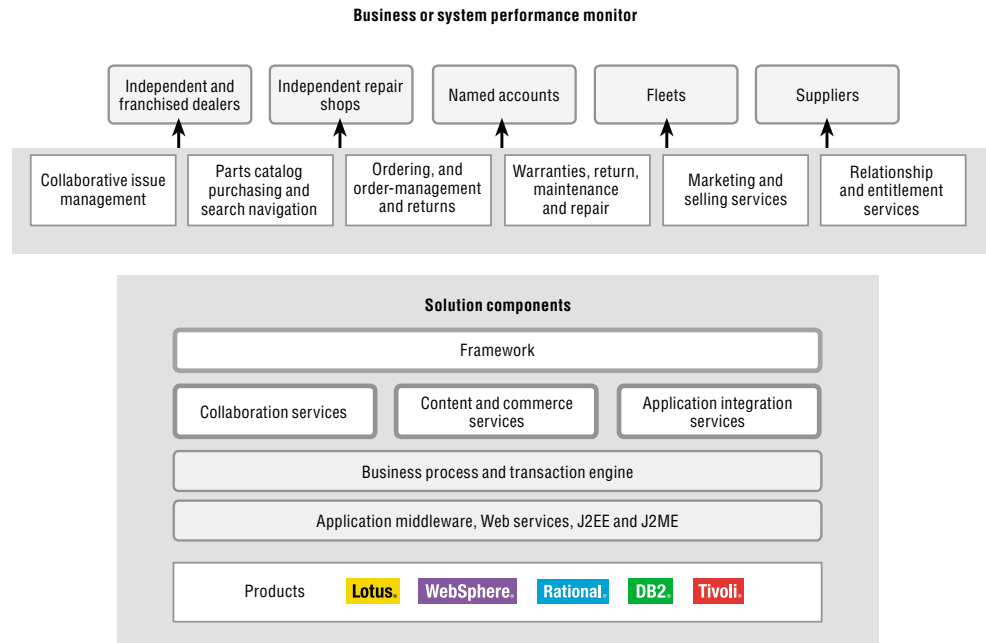


Figure 4. IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration blueprint

Summary

IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration offers real-time access to critical business information to help enhance issue-management time and efficiency. With this portal solution, you get advanced communication and access to OEM experts, improving the fix-it-the-first-time ratios for service technicians. Improved issue-resolution time through smooth collaboration along the automotive dealer value chain helps reduce labor costs, improve customer satisfaction and optimize resources. Streamlined business processes for purchasing, with access to a 2D catalog, real-time upgrades to parts and catalog information, and real-time access to a warranty applications and returns process for defective parts can help dramatically improve your business efficiencies.

IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration is shown in Figure 4. Core products include IBM WebSphere Portal Extend and WebSphere Commerce software. IBM WebSphere Business Integration, IBM Lotus® Instant Messaging and Web Conferencing (IBM Lotus QuickPlace® and IBM Lotus Sametime®) team collaboration products are also available as options.

For more information

To learn more about IBM Middleware Solution for Automotive Retail and Aftermarket Dealer Collaboration, visit:

ibm.com/industries/automotive/doc/content/solution/947164108.html



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