

Driving a Profitable Service Chain Through Increased Parts Visibility



Of surveyed companies, the average profitability of service operations was more than 75% higher than that of the overall business unit.

THE SERVICE REVOLUTION

DELOITTE TOUCHE TOHMATSU, 2007

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Increased globalisation, competitive pressures, and current macroeconomic conditions are forcing companies worldwide to focus on improving top-line revenues and securing customer loyalty. Paramount to achieving these goals are offerings that enhance value to customers beyond the initial sale. Although historically viewed as ancillary business units by many in the manufacturing industry, aftermarket service operations are receiving increased strategic focus from key executives as success in business performance is measured through excellence in service activities.

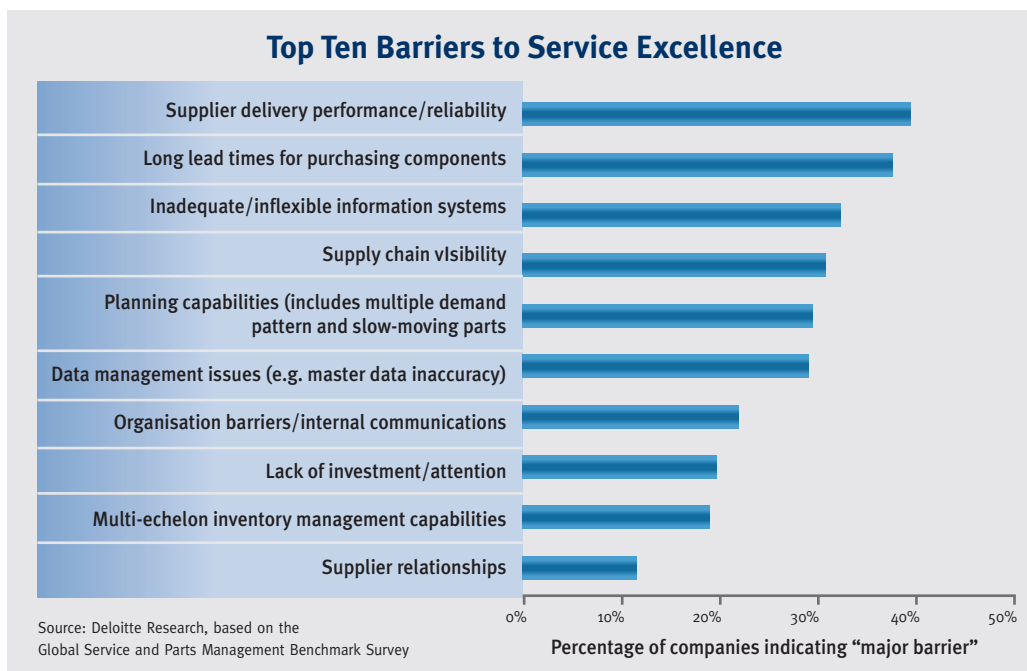
There are multiple aspects to effective aftermarket service, but one of the key components in successful post-sale support is service parts management. Effective service parts management, which involves planning and maintaining parts inventories and processes to ensure streamlined customer service with minimal risks and costs, is vital to top-line revenues and profit margins. As many manufacturers provide service and parts for a minimum of seven years after the initial product sale, margins driven by aftermarket revenue can be as much as ten times those of initial sales. Furthermore, in today's economic climate, more customers are choosing to extend the life of their existing equipment by simply replacing faulty parts rather than by buying new equipment. With this strong demand for spare parts, manufacturers are realising that the aftermarket parts business is increasingly lucrative and relatively recession-proof.

Service parts, which are critical components necessary to keep a piece of machinery operational, receive careful consideration as today's equipment is designed to enable easy maintenance. 'Designed for service' is now a key requirement for many companies as they make buying decisions for new machinery or equipment. For example, in order to minimise operational downtime, companies might demand that access hatches be positioned in strategic locations and quick-release mechanisms be used in order to allow for components to be replaced quickly and efficiently.

The replacement frequency and profitability of service parts varies across the manufacturing industry. For instance, an army tank operating in a desert environment utilises a diesel engine for best performance. If the air filter, a key service part, is not replaced on a regular basis the tank will not run efficiently. In the high-tech sector, photocopiers and printers generally require a regular supply of replacement ink or toner cartridges, thus enabling some office equipment manufacturers to realise more profit on the sale of these products than they do on their original printers. The modular construction of today's desktop and laptop PCs allows for the quick and easy replacement of key components such as memory cards, disk drives and processors at a relatively low cost. In the automotive aftermarket service sector, many cars have a number of key parts, such as oil filters and brake pads, replaced as part of a regular annual service. Additionally, certain types of equipment undergo regular, mandatory preventative maintenance. For example, key components of aircraft engines are usually replaced after a certain number of flying hours, whether or not they actually need to be changed. As safety is of paramount importance to the airline industry, their maintenance crews need 24/7 access to key service parts in order to maximise an aircraft's utilisation and the airline's profitability.

The Problem: Lack of Comprehensive Service Chain Management

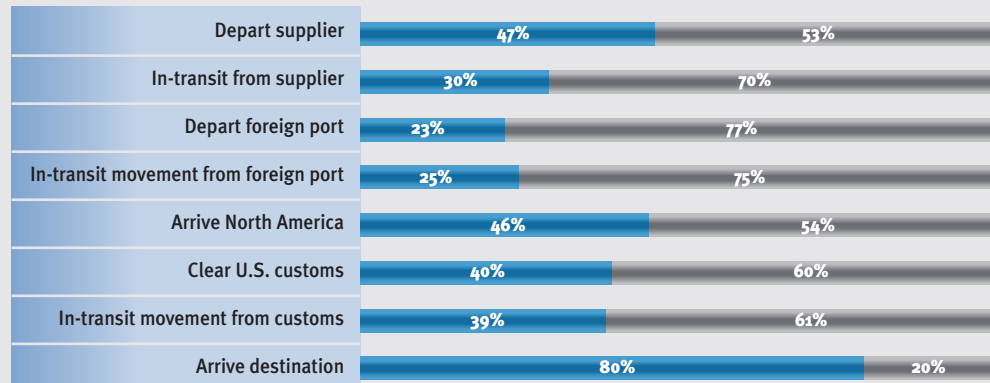
Globalisation and changes in the world's economy have forced the manufacturing sector to examine the impact of substandard service chain operations on their ability to meet aftermarket service objectives. In their 2007 report 'Service Revolution', Deloitte Touche Tohmatsu found this to be one of the primary challenges facing manufacturing companies today, along with flawed strategy and poor execution. Among study participants, almost half of the executives responding cited supplier responsiveness as a major barrier to service excellence. Over a third named long lead times and almost as many mentioned inadequate information systems and limited supply chain visibility as their top concerns. Many company leaders stated that they had very limited visibility into key operations data such as demand and sales forecasts at multiple distribution points, dealer or customer product stock levels, and global available-to-promise inventory to allocate to customer orders.



With the rapid worldwide expansion across the manufacturing industry, many sectors, such as automotive, have opened operations in new markets like China and India. Extending supply chains into these new regions has placed a stronger emphasis on improving visibility into global parts shipments. With container shipments from these countries taking weeks to arrive at their final destination, tracking visibility into exact location and time of arrival is crucial. Delays caused by paperwork processing at customs and border control checkpoints only complicate the problem. Business operations of logistics carriers are often impacted as they lack required information needed to alter freight schedules due to late or lost deliveries.

According to the 2006 report published by the Automotive Industry Action Group (AIAG) Materials OffShore Sourcing (MOSS) Project, 87% of study participants expressed the need for significant improvement in real time visibility across all phases of the global service chain. This study, also known as *Customs/Logistics Strategies to Strengthen Long Distance Supply Chains*, was designed to improve business processes that control the international shipment of inventory through multiple trading partners.

Real Time Visibility Through Each Stage of Global Flow of Goods



Source: AIAG Materials OffShore Sourcing Project, 2006

■ Have real time visibility ■ No real time visibility

87% of respondents indicated improvement needed in visibility

Manufacturers who do not have visibility into their spare parts logistics processes routinely experience steep transportation costs and expedited shipping expenses. These additional costs are often associated with reshipments via a logistics carrier due to the original shipment either having been lost or shipped with an incorrect quantity of parts. Without knowledge of in-transit inventory levels, excess inventory and delayed sales due to out-of-stock situations are also typical occurrences for the average OEM or aftermarket manufacturer.

With the need for improved visibility widely recognised, studies have been conducted to try to uncover the key inhibitors to it becoming a reality. Research has shown that data regarding plans, service parts attributes, stocking levels, and consumption rates reside across disparate business systems, both within and outside the enterprise. Many manufacturers support service parts operations using systems ranging from enterprise resource planning (ERP) to warehouse management systems (WMS) to transportation management systems (TMS) to basic spreadsheet applications. When the network of external trading partners, such as distributors and dealers is considered, the business system diagram becomes even more complex as many use EDI and proprietary systems internally but then revert to email, fax, or even traditional mail when conducting external business with partners.

The automotive industry provides a prime example of this problem. For instance, the OEM owns the plans used to originally build the vehicle, its bill of materials (BOM), information regarding maintenance procedures and service requirements, and service parts data. However, dealers regularly house invaluable intelligence statistics on vehicle and part failure rates, customer needs, service parts inventory, and consumption levels. Unfortunately, this information typically resides in a multitude of incompatible heterogeneous systems at multiple companies, significantly limiting the exchange of data needed for effective management of service parts inventories. Without an automated integrated system for sharing data between trading partners, visibility will continue to be a big challenge for the manufacturing industry.

Of surveyed companies, the 65% of businesses that have not automated their service chain operations are twice as likely to lose customers as their more sophisticated counterparts.

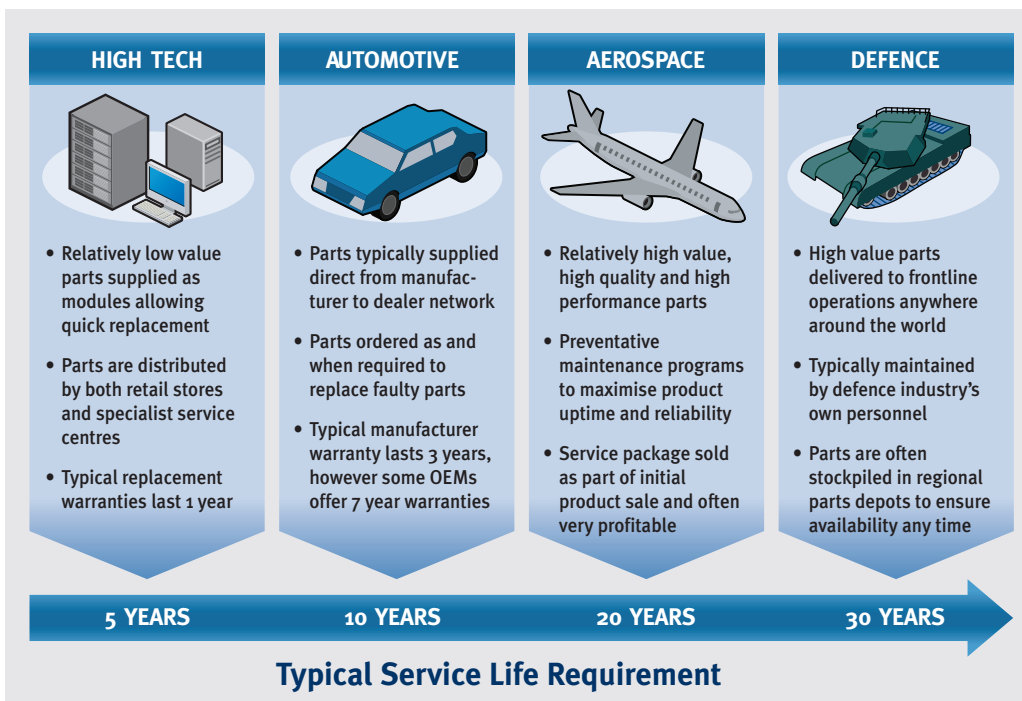
SERVICE LIFECYCLE MANAGEMENT
(PART 2): BUILDING A
ROADMAP FOR INVESTMENTS
AMR RESEARCH, 2004
MARC MCCLUSKEY, JUDY BIJESSE,
DAVID O'BRIEN, LINDSEY SODANO

Industry Driven Visibility Challenges

The revenue derived from aftermarket service can vary widely across sectors in the manufacturing industry. According to the aforementioned ‘Service Revolution’ report by Deloitte Touche Tohmatsu, the aerospace and defense sector routinely generates more than 47 percent of their overall sales revenue from their service and parts business, with the automotive and high tech sectors achieving 37 percent and 19 percent respectively.

These diverse results point to the varying business models and specific requirements driving each sector’s management of their service chain operations. For example, high tech OEMs typically outsource a large percentage of their service parts logistics operations. Aftermarket parts are routinely distributed by specialised service providers as well as retail stores. As these replacement parts are usually of low value, visibility into the service chain is crucial as management strives to control inventory levels and reduce transportation costs.

In the automotive sector, the spare parts network is vast and highly fragmented. Spare parts are stocked at multiple locations along the supply chain and are customarily ordered as needed to replace faulty parts. Therefore, it is highly challenging to get the right part to the right place as quickly as possible without substantial overstocking. The inability to see how stock is moving across the supply chain greatly inhibits the OEM’s ability to develop demand-based forecasts. In addition, competition for the aftermarket consumer is fierce with many third party companies promoting ‘equivalent quality’ brands. Unfortunately, the counterfeit market is playing an increasingly larger role, often selling parts at 50 to 85 percent of the equivalent OEM part, while delivering only 20 to 30 percent of their value. These gray market and illegal activities significantly impact the revenue potential of vehicle manufacturers as these companies lose out on lucrative replacement parts business as well as all-important customer satisfaction.



The Solution: Comprehensive Service Chain Visibility

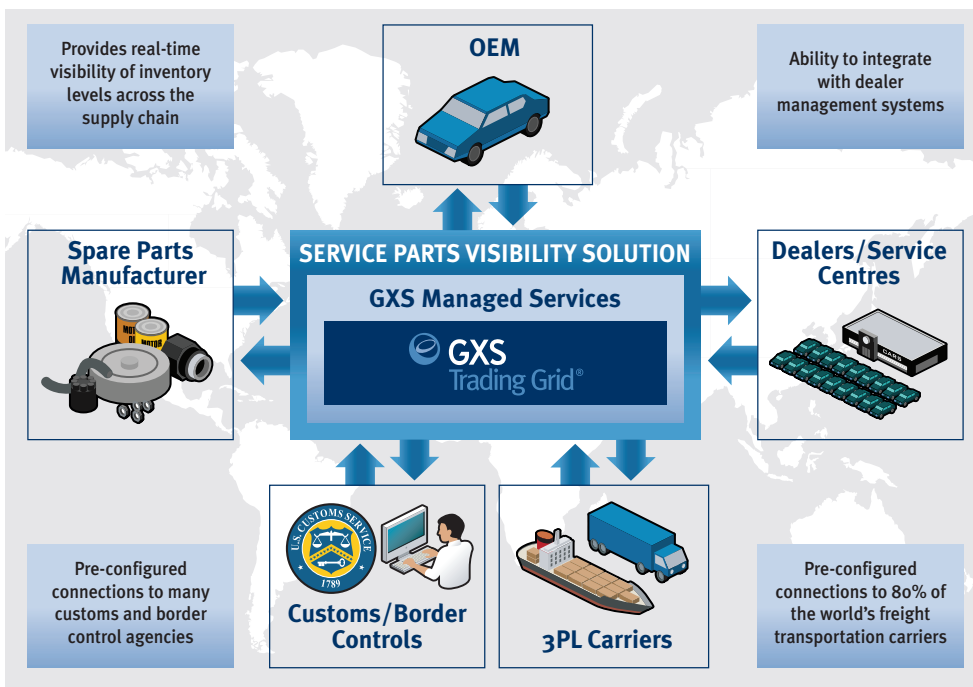
An automated end-to-end visibility solution will enable manufacturing companies to greatly improve the efficiency of service parts management worldwide. As a result, OEMs, aftermarket manufacturers, and logistics operators across various industry sectors can realise significant benefits which ultimately contribute to higher top-line revenue and profit margins.

- **Shortened Lead Times**—With the ability to monitor and measure vendors, you can make better choices regarding logistics carriers, routes, and scheduling, thus achieving a higher percentage of on-time shipments. Alignment of appropriate internal resources to handle the management and receipt of goods will contribute to a reduction in lead times.
- **Increased Productivity**—By eliminating manual service chain interactions and overhead, your company will benefit from timely, accurate, and reliable data being readily available to your logistics, sourcing, merchandising, and finance organisations. This results in lower internal costs and improved productivity throughout your organisation.
- **Reduced Stock Carrying Costs**—Via alerting and management by exception support, you can take timely action to make alternative sourcing arrangements for better inventory management. Early warnings for lost or delayed shipments will enable you to reduce the number of out-of-stock situations.
- **Lower Transportation Costs**—With real-time visibility into logistics performance, you can negotiate more efficiently with carriers and LSPs in order to avoid expedited shipping costs and therefore lower your total transportation spend.
- **Controlled IT Costs**—By effectively managing network connections and data quality, you are able to maximise your existing IT investment in Transport and Logistics Management Systems. A flexible visibility solution leverages these systems to ensure rich, accurate, and timely data thereby lowering IT's financial impact to your organisation.

GXS Service Parts Visibility Solution

Due to the global reach of today's trading agreements, the manufacturing industry is demanding a sustainable, automated service chain visibility solution. The GXS Service Parts Visibility solution delivers a foundation and an information platform for manufacturing organisations to streamline their business relationships. Leveraging the GXS Trading Grid®, one of the world's largest B2B networks with connections to 30,000 trading partners worldwide, this hosted solution provides efficiencies in cross-enterprise processes in the areas of order collaboration, logistics, invoicing, settlement, and payment.

The GXS Service Parts Visibility application provides business activity monitoring to drive management by exception and real-time alerts of unexpected events. The solution supports 'Dynamic Expected Time of Arrival (ETA),' which notifies users of shipment arrival based on up-to-the-minute activity across the service chain. Rich analytics provide supplier, lane, or delivery location performance information, as well as SKU or product level visibility and reporting—to support merchandising and sourcing activities.



The GXS Service Parts Visibility solution was recently implemented by a Japanese engine manufacturer who sought to increase customer satisfaction amongst their overseas dealers and end users as their business grew worldwide. They additionally strived to identify and precisely track delivery shipments so as to be able to effectively commit supply schedules to customers and dealers.

The GXS solution was chosen as it solely met the manufacturer's criteria of providing global logistics data, access to an extensive network of logistics providers, and expertise in EDI. The GXS Service Parts Visibility solution, which was fully integrated into the manufacturer's web-based dealer management platform, enables them to gain real-time insight into global logistics operations from Japan to their distribution network spanning locations in North America, Europe, and Asia.

Why GXS for Service Parts Visibility

GXS is the leading provider of business-to-business electronic commerce services in the world. The GXS Service Parts Visibility solution is connected to nearly 80 percent of the world's freight and logistics carriers and many of the customs and border control agencies around the world. GXS provides end-to-end visibility into OEM service chains, including ocean-based carriers, which are traditionally the hardest types of freight transport to track. GXS's hosted, on-demand model for visibility tracking allows you to capture performance measurements of your logistics carriers and reduce the amount of paperwork involved with processing shipments without investing in additional software and expensive staffing resources. The top priority for our technology investments—and core to our mission—is to ensure maximum availability and resiliency of our solutions. We continue to invest significantly to ensure a rock-solid infrastructure that supports your mission-critical needs 24x7.

“Today’s automotive companies are facing an increasing challenge to ensure that spare parts are distributed to their dealer and service center networks around the world as quickly and efficiently as possible. GXS Service Parts Visibility solution provides these manufacturers with a means to keep track of the movement of spare parts anytime, any place, or anywhere around the world—thus allowing these parts to be shipped much more quickly, reducing inventory levels, and improving customer satisfaction.”

MARK MORLEY, INDUSTRY
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About GXS

GXS is a leading global provider of B2B e-commerce solutions that simplify and enhance business process integration and collaboration among trading partners. Organisations worldwide, including more than 70 percent of the Fortune 500, leverage the on-demand services on GXS Trading Grid® to extend supply chain networks, optimise product launches, automate warehouse receiving, manage electronic payments and gain supply chain visibility. GXS Managed Services, GXS' B2B outsourcing solution, empowers customers with the expertise, technical infrastructure and program support to conduct B2B e-commerce with trading partners globally.

Based in Gaithersburg, Md., GXS has an extensive global network and has local offices in the Americas, Europe and Asia-Pacific regions. GXS can be found on the Web at www.gxs.co.uk.

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