



Remote Service: Optimizing Spare Parts Inventory for Manufacturers

The service business can provide as much as 50% of a company's revenue and a disproportionately high contribution to profit.

By Tim Andreae, senior vice president of global marketing for MCA Solutions and Brian Anderson, vice president of marketing for Axeda

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Manufacturers have long been focused on keeping costs low -- but in tight economic times, cutting costs becomes even more important. Although many companies focus on head count reduction as a way to reduce costs, others -- such as Gerber Scientific -- are optimizing processes. Investing in process improvement delivers the needed short-term gains, and continues to bring benefits to the company when the economy improves.

Conventional wisdom dictates that after-sales service becomes even more important as companies delay capital purchases for new equipment and therefore need to extend the life of their current assets. This provides an opportunity for executives to make improvements in the service business, an area that provides as much as 50% of a company's revenue and a disproportionately high contribution to profit. Improving process efficiencies in service, especially through transformational business models, can deliver far greater impact than efforts made in other parts of the company.

Spare Parts Inventory Management -- An Opportunity

A key area for operational improvement in service delivery is management of spare parts inventory. According to a Harvard Business Review article titled "Winning in the Aftermarket," 50% of automobile customers with service problems face repair delays because dealers don't have the right parts in inventory. Although manufacturers carry on average 10% of annual sales as inventory, annual inventory turns of one to two times annually are common and 23% of parts become obsolete each year.

The take-away? Better intelligence about what spare parts are required reduces costs through lower parts inventories, while also improving equipment uptime and customer satisfaction through reduced meant time to repair (MTTR) and increased first-time fix rates.

High levels of service parts inventories are a result of the unique challenges of the service supply chain, which has characteristics unique to the finished goods supply chain. These characteristics include varied service commitments, intermittent demand that is difficult to forecast, extended global networks with reverse logistics flows, and a large volume of parts with long product lifecycles.

Leading service businesses have implemented advanced spare parts planning systems developed for this environment that have resulted in significant reduction of inventory costs while improving customer service levels and equipment uptimes, achieving an ROI within months of project start.

Remote Service Solutions -- Providing Better Data

While spare parts planning systems have made considerable improvements, the capability to effectively forecast part demand has been limited due to reliance on historical transactional data. Because part failures are unpredictable, large levels of inventory must be held to ensure high service levels. Field technicians doing repairs must bring a wide variety of parts since they do not know what problems they will find when dispatched to a customer site.

With more accurate and detailed information about the installed base of equipment there is a tremendous opportunity to proactively predict part failures, maintenance events and further reduce stock levels. What if you had real-time information about which parts were failing on your equipment in the field? What if you could predict part failures and the need for maintenance events based on the monitoring of actual operating conditions, and not just time-based maintenance plans?

The solution is to connect real-time information about equipment installed in customer locations into a central server that makes the information available to the business -- a remote service solution. Remote service solutions monitor equipment in use at customer sites around the globe, and relay back information about the health and operation of the equipment. Most products today have a wealth of digital information that include state of the equipment, errors that have been encountered, current hardware and software configurations, usage cycles, and other operating parameters that provide insight into the state of the equipment. With a software agent installed on the equipment, key information can be gathered and integrated with maintenance and spare parts planning solutions to provide a powerful solution for inventory optimization.

With remote service visibility, problems can be discovered before the product fails, minimizing system downtime. Often, the issue can be resolved remotely by pushing a software-based fix through Internet connectivity, but when a technician dispatch is required, the problem is far more accurately diagnosed, so the technician only needs to bring the parts required for the maintenance event.

Information gathered through remote monitoring, including the equipment configuration and operating parameters, can be fed into the forecasting solution to better predict part failures and lower the inventory needed to respond to unplanned maintenance events. The impact can be significant -- according to an April 2008 Aberdeen Group survey of companies using remote service solutions, 11% saw a reduction in parts inventory levels.

Gerber Scientific: Synching Remote Service and Spare Parts Management

With customers in over 120 countries, Gerber Scientific is an example of a leading company implementing an integrated approach to remote service and spare parts management. To respond quickly to maintenance events, Gerber uses global third-party logistics providers to warehouse and overnight-ship the correct parts to the customer when required for a maintenance event. Without remote diagnostic information, the parts requirements are uncertain, and any part that can cause a system failure is kept in stock -- resulting in excess warehouse inventory. With remote service capabilities, Gerber can more accurately identify problems and expects to reduce the amount of floating inventory, ultimately reducing storage costs. With better MTTR data, there is also an opportunity to increase response times and reduce system downtime for their customers.

In contrast to most cost-cutting initiatives, there is only upside to process improvement investments. With remote service and aftermarket inventory planning, organizations can increase revenue from premium-level service contracts, meet stringent SLAs with greater operating efficiency, reduce working capital tied up in inventory, and improve the overall customer experience -- turning equipment issues into opportunities to cement brand loyalty through outstanding service.

Tim Andreae is senior vice president of global marketing for MCA Solutions, a provider of service parts planning and optimization software for aerospace and defense, high-tech and capital equipment companies. www.mcasolutions.com

Brian Anderson is vice president of marketing for Axeda, which delivers remote service capabilities to some of the world's leading manufacturing companies and large enterprises. www.axeda.com

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