



## Case Study: Hobart Machined Products

# Real-Time Automated Supplier Collaboration for Manufacturing

## The Customer

Hobart Machined Products is a manufacturer of precision parts for the aerospace, medical, automotive and electronic industries. Over the past 32 years, Hobart has earned a global reputation for consistent performance ratings and customer service excellence for

complex mechanical and airframe assemblies, design, engineering, and precision machining. Hobart is a small, woman-owned business. Hobart has two production centers in the state of Washington. The production facilities produce over 50 high-precision complex machined products at any point in time. The production involves a series of complex manufacturing processes such as CNC milling, turning, grinding, bonding and polishing.



## The Need

Aerospace and other manufacturing industries have accelerated outsourcing of manufacturing operations to increase efficiencies and reduce costs. However, moving some of the operations outside of the traditional four walls of the factory has created "dark areas" in the manufacturing visibility process. As a supplier to one of the world's largest manufacturers such as Boeing, Hobart was looking for ways to address these issues and become a better supplier by providing real-time production visibility to their customers in order to alleviate the fear of missing mission-critical deadlines.

Hobart needed to track work orders through the different stages of manufacturing, and automate real-time notifications on jobs that have quality or delivery schedule impact. Hobart needed these notifications automated as manual tracking was laborious, costly, and error-prone.

To provide end-to-end real-time visibility to its customers and internal operations, Hobart Machined Products needed to:

- Streamline receiving, inventory, shipping, and returns of raw material, parts and finished products
- Simplify the creation of customer and shop-floor work orders
- Automate the kitting process based on bill of materials and parts inventory
- Prioritize work orders based on customer demand, predictive analytics, and resource availability
- Optimize manufacturing processes by projecting where work orders will be in the future
- Report on customer orders and work orders

Generate notifications to quickly address issues before they had an impact on delivery:

- Track reworks and identify bottlenecks
- Material issues to fulfill future customer orders
- At risk or delayed work orders

## Customer Testimonial

"The Omnitrol solution provides Hobart's manufacturing team with real-time visibility on all our customer orders without any impact on our operations."

**Rosemary Brester**  
CEO  
Hobart

## Applications used

- **System** – OMNITROL™ Application Network Appliance; OMNITROL™ Edge application Services Engine (EASE™)
- **Software** - OMNITROL™ Real-Time Manufacturing and Supplier Visibility Edgelets™
- **Sensor Hardware** – OMNITROL Smart Shelf with Alien 9900, OMNITROL Mobile WIP with Motorola MC 9090 handheld



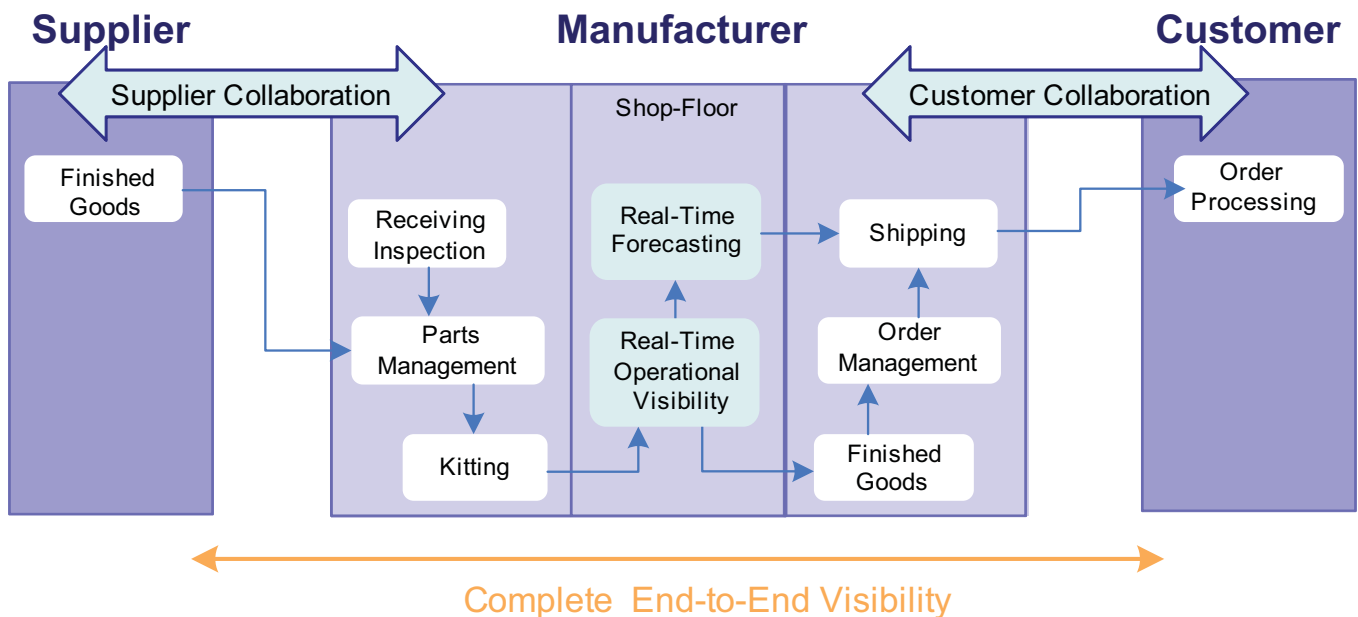
## The Solution

Most companies attempt to manage customer orders, parts traceability, product quality, and on-time delivery status using their top-floor order processing systems and enterprise planning data. As with most other enterprises focused on supply chain optimization, this approach does not work for Hobart's high-value and high-mix environment, because of the costs and complexity associated with integrating, configuring and managing commercially available solution packages. Omnitrol Networks, Inc. has broken this cycle by creating a programmable sensor-driven application network solution that taps business intelligence at the edge and synchronizes top-floor with operations in real-time while allowing external customers and partners to access the right information at the right time. The Omnitrol solution provides automation and real-time visibility for three critical aspects of Hobart's business: inventory, manufacturing, and customer satisfaction.

## Customer Testimonial

Not only does the solution save us time and increase accuracy in receiving, moving, and kitting, but it also gives us incredible visibility on all the work orders on the shop floors. There is no more guess work about where things are and when they will be completed. And our customers love that!"

**Brian Knowlton**  
Operations Manager  
Hobart



## Automated Inventory and Warehouse Tracking

Hobart manages a complex set of parts and raw material used in the manufacturing of their products. Receiving, inspection, and put-away procedures have to follow strict rules for Hobart to maintain its AS9104 A / ISO—9001:2000 certifications. Errors due to manual processes have an immediate impact on quality, on-time delivery, and margins. The Omnitrol solution was deployed to automate the receiving, inspection and put-away processes utilizing an advanced combination of contact-less technologies, fixed and handheld sensors. Supplier, warehouse, part number, lot, batch, quantity, and ASN information are directly accessed through an easy-to-use web interface. Detailed transaction, part status and inventory reports provide users with a real-time view of what is available or expected to come.

## Order Kitting and Work-in-Process

New customer orders are received through a secure web portal or as a result of replenishment signals directly from the customers' shop floor. The system automatically reserves parts and components required for the new orders, and sends alerts if additional parts need to be procured based on Hobart's own replenishment schedule. The Omnitrol solution automatically pulls information from the Bill of Material and Inventory modules to assist employees in building a "Kit" before the start of a given manufacturing process. Using a handheld device, shop-floor technicians can see part number, quantity, location, and container information of parts associated to a customer order. Barcodes or RFID tags are scanned to verify that the correct parts are being kitted, and to also track lot and details for complete traceability. Tools in inventory can also be added to the kit if required. Real-time visibility on customer and shop-floor orders is provided by the Work-In-Process visibility module which receives data directly from an Omnitrol smart shelf. The smart shelf not only tracks work orders and employees as they move from one stage of manufacturing to the next, but through a touch screen also provides shop-floor employees with information about the work-order's route, and allows them to request re-work.

## Improved Customer Satisfaction

Using advanced predictive analytics, the Omnitrol solution is able to estimate the completion time of each customer order on the shop floor. Based on schedules of current work orders and a number of other configurable parameters and signals from the shop floor, the system updates the status of each work order. The system constantly updates the estimated-time-to-complete until the finished goods are shipped to the customer. Based on customer requests, Hobart is able to share delivery projections of customer orders and work-in-process information in real-time, 24x7, with key customers, such as Boeing. Customers can access the information remotely, or have alerts about expected delivery dates e-mailed to them.

### Benefits

- Quick deployment
- Immediate visibility
- Instant ROI





## About Omnitrol Networks

Omnitrol Networks Inc. is a leading provider of complete EPC-based business application solutions for the emerging wireless, RFID and sensor automation market. The company's award-winning OMNITROL appliance and Edge Application and Services Engine (EASE™) software have pioneered the market for "Always On" real-time business intelligence, operational visibility, traceability and automation solutions. The OMNITROL's unique edge-centric solution architecture enables the industry's most flexible and reliable means to deploy scalable Auto-ID application intelligent networks at the lowest total cost of ownership in the market. Omnitrol Networks Inc. is a privately held company with corporate headquarters in Santa Clara, California, USA. Additional information about Omnitrol Networks' products and services are available at [www.omnitrol.com](http://www.omnitrol.com).

## Benefits

The Omnitrol solution has simplified the process of entering and tracking customer orders through a web portal that can be securely accessed anytime from anywhere. By choosing an integrated solution from a single vendor, Hobart benefits from a seamlessly integrated view from customer orders through to their inventory system to generate an extremely accurate production forecast with customer feedback capability. Based on what is available or expected to arrive in the warehouse, the system gives Hobart's employees a detailed view of what they will be able to kit, assemble, and produce – now and in the future.

Automating the inventory and warehouse processes virtually eliminated errors and uncertainty about stock level, parts availability, and locations. The main benefit for Hobart is to now have a clear view of their inventory levels and valuation across their warehouses, but also to be able to track the origin of each part that enters the fabrication of their mission-critical products. Shortages are avoided by automating replenishment with Hobart's suppliers. Low-cost wireless handheld devices have been deployed for employees to scan parts throughout the warehouse, and provide the information right on the shop floor without integration with complex and costly ERP and warehouse management systems.

Planning, training, deployment and testing of the entire project took less than a week. And because of the use of contact-less technologies, very few changes were made to Hobart's processes. ROI calculations based only on efficiency improvements showed a positive return in less than six months. Better tracking of reworks and returns were not considered in the ROI. Higher customer satisfaction and new customer acquisition will represent an even more significant benefit to Hobart. Hobart's customers such as Boeing or NASA now have access to their orders status in real-time. They can better plan their own manufacturing operations knowing the information is more reliable and more accurate than with their other suppliers



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