

Supply Chain Management

> Build Connections



Enabling a **people**  **ready** business in manufacturing

Your potential. Our passion.™
Microsoft

Building High-Value Connections with Partners and Suppliers

Build Connections

Is your supply chain responsive, adaptive, agile, and efficient? How well does your supply chain enable your people to profitably meet the demands of your customers?

Manufacturers are constantly driven to manage their supply chains better, improve operations, and differentiate themselves from competitors. Today, manufacturing supply chains reach beyond the boundaries of a single company's plant floor operation, organization, and geography. They operate globally, beginning with suppliers, and extend to other business partners, including transportation firms, outsource manufacturers, sales channels, and customers. To manage their supply chains effectively, manufacturers must do more than track the progression of raw materials and finished products as they travel globally from supplier to consumer. They must also monitor, measure, and adjust the performance of the supply chain until they find the right balance between supply and demand that produces the highest possible profit for the company. Furthermore, manufacturers must be agile enough to react quickly to changes. Ultimately, managing an extended supply chain presents some common challenges for all companies, regardless of industry:

- » **Pace of business.** In a global, networked economy, the pace of business continues to increase.
- » **Global, networked supply chain.** Today's manufacturers outsource much of their production and participate in a networked supply chain that requires constant communication and collaboration with their supply chain partners.
- » **Shorter product lifecycles.** Global competition and increased customer demands are forcing manufacturers to bring products to market faster and cheaper.
- » **Focus on cost reduction and increased efficiency.** Continued cost reduction and constant improvements in operational efficiency are certain for today's manufacturers.

Given these challenges, manufacturing executives are asking these critical questions about their supply chain processes:

- » Is our operation "demand-driven"?
- » How much visibility do I have into my extended supply chain?
- » How agile and flexible are our supply chain processes?
- » Can we respond quickly to supply chain disruptions?
- » Are our operations in regulatory compliance?
- » How connected are we to our suppliers and customers?
- » How are we performing against our KPIs and metrics?
- » Do we have access to the right data in real time so that we can make informed decisions?
- » What are my operational risks?

Built on a foundation of collaboration, business intelligence, and integration technology, Microsoft® supply chain management solutions enable your people to transform supply chains to be more demand-driven, adaptive, responsive, and efficient. Global leaders in supply chain management rely on solutions from Microsoft and its partners to address the following areas:

- » **Supply Chain Visibility.** Monitoring, performance management, analytics, regulatory compliance, and scorecarding across the extended supply chain and heterogeneous underlying IT systems.
- » **Supply Chain Collaboration.** Flexible business-to-business and application integration, communication, and collaborative process workflows with all supply chain partners.
- » **Supply Chain Planning.** Demand management and sales and operations planning business processes delivered with an integrated business intelligence and collaboration framework.
- » **Supply Chain Execution.** Logistics, warehouse and transportation management, and supply chain execution solutions—including radio frequency identification (RFID) enablement—that capitalize on common integration across systems to improve visibility and execution performance.

SOLUTIONS

- Microsoft® BizTalk® Server
- Microsoft Dynamics™
- Microsoft .NET Framework
- Microsoft Office
- Microsoft Office Live Communications Server
- Microsoft Office PerformancePoint™ Server
- Microsoft Office SharePoint® Server
- Microsoft RFID technology
- Microsoft SQL Server™
- Microsoft Windows Server®

› Supply Chain Visibility

Although many manufacturers have invested heavily in information technology—including enterprise resource planning (ERP), customer relationship management (CRM), and supply chain management (SCM) solutions—they continue to struggle with extended supply chain visibility. People need real-time visibility across the extended supply chain to proactively manage variability and supply chain disruptions, and respond to greater customer expectations.

Manufacturers seek ways to continuously monitor and react to supply chain events across the extended value chain to improve customer service, reduce inventory and costs, and increase revenues. To provide the degree of demand and supply visibility required, companies need an efficient supply chain visibility infrastructure.

THE RIGHT SOLUTION

Industry-standard Microsoft technologies—including analytics, integration, portal, and collaboration capabilities—enable companies to take advantage of and extend their current IT infrastructure to provide:

- » **Supply Chain Analytics and Performance Management.** A complete and integrated business intelligence offering to support dashboarding of key performance indicators (KPIs) and metrics with alert, monitoring, and drill-down capabilities.
- » **Supply Chain Integration.** Integrated supply chain planning and execution processes, providing the required visibility to make plans actionable and realistic.
- » **RFID Enablement.** The Microsoft standards-based RFID infrastructure provides plug-and-play device compliance, automation, and business process transformation.
- » **ERP Hub-and-Spoke Solutions.** Scalable solutions that support enterprise-wide implementation or connect smaller plants and divisions to corporate ERP systems.

BOTTOM LINE

Using the latest collaboration, business applications, analytics, and integration technologies, Microsoft and its partner solutions are helping people within manufacturing organizations see deeper into their supply chains. These solutions empower your people with real-time, actionable information to enable a more responsive, seamless, synchronized, and secure global supply network.

> CASE STUDY

A world leader in the oil and gas industry, BP needed to upgrade its financial forecasting and planning process in Exploration and Production to help the business anticipate and manage any deviations from plan in advance of them occurring. The company's analytic requirements spanned a range of supply chain metrics including financial, production, resources, and pricing for planning purposes. The solution, based on Microsoft® SQL Server™ business intelligence, data storage, and analysis capabilities, has enabled faster, more flexible group forecasting and planning through the corporate Intranet and eased integration with back-office applications.

SOLUTIONS

- Microsoft® Analysis Services
- Microsoft SQL Server™

BENEFITS

- Saves U.S.\$100,000 in annual maintenance charges
- Improves controls and audit trail
- Faster, more flexible group forecasting and planning
- Improved integration with back-office applications



Supply chain collaboration is high on manufacturers' lists of priorities to improve decision making across the supply chain, rapidly synchronize supply-and-demand plans across multiple partners, reduce inventory, and improve agility. To be successful, manufacturers need to practice supply chain collaboration at multiple levels, ranging from long-term strategic collaboration, to weekly and monthly tactical collaboration, to detailed day-to-day operational collaboration and real-time communications. Each collaboration area has its own issues and processes. In strategic collaboration, manufacturers must collaborate with customers and suppliers to develop long-term demand and supply requirements. In tactical collaboration, issues include simultaneous notification of demand changes across all manufacturing tiers, global visibility of actual and planned production and inventory levels, and synchronized plans with extended partners. And in operational collaboration, manufacturers need to replace manual intervention with automated processes, manage exceptions, and ensure a high service level while keeping inventory costs low.

THE RIGHT SOLUTION

Microsoft solutions provide core analytics, integration, and collaboration technologies to provide a single, foundational infrastructure that supports both structured and unstructured collaboration with all supply chain partners. Using information sharing and live communications technology, this infrastructure enables people to collaborate instantaneously on key supply chain processes such as order and inventory status, changing demand forecasts and supply requirements, collaborative replenishment workflows (for example, vendor-managed inventory), and other supply chain events that require proactive management.

BOTTOM LINE

Based on Microsoft Office technology, Microsoft collaboration solutions are cost-effective and easy to deploy. They enable supply chain practitioners and partners to work in a familiar user environment to analyze, collaborate, plan, and manage supply chain issues. Ultimately, Microsoft collaboration solutions enable people within manufacturing organizations to improve their supply chain performance, agility, and responsiveness. The results are liberated working capital, reduced supply chain costs, increased profitability, and improved customer satisfaction.

> CASE STUDY

After integrating its internal systems, Samsung needed to improve customer communication with real-time data exchange. To accomplish this, Samsung and Microsoft designed and built the Global Samsung Business Network (GSBN), a worldwide collaborative portal system based on Microsoft® Windows Server® and BizTalk® Server. GSBN enables Samsung and its overseas subsidiaries, partners, and customers to have a clear, real-time view of the status of purchase orders, sales, shipping, and inventory. Samsung projects the annual benefits of improved visibility, better demand forecasting, and inventory management to be U.S.\$2.9 million with an annual return on investment (ROI) of 235 percent.

SOLUTIONS

- Microsoft® BizTalk® Server
- Microsoft Commerce Server
- Microsoft Content Management Server
- Microsoft Office Excel®
- Microsoft Services
- Microsoft Visual Studio® .NET
- Microsoft Windows Server®

BENEFITS

- Total annual benefit of U.S.\$2.9 million
- Annual return on investment (ROI) of 235 percent
- Faster, fuller access to real-time data
- Fast, streamlined development

> Supply Chain Planning

Supply chain planning, which includes demand management and sales and operations planning (S&OP), is the set of activities that help manufacturers accurately manage demand, balance that demand with available supply, and establish and synchronize plans with supply chain partners.

In the past, most companies followed the “push” manufacturing model when planning their supply chains. Today, many manufacturers are transitioning to a “pull” model, which is driven by customer demand, rather than supply. As defined by the analyst firm AMR Research, demand-driven supply networks (DDSNs) link all supply chain activities—product development, production planning, inventory management, and order fulfillment—to actual customer demand. Operating a DDSN is challenging; it requires the ability to gauge customer demand and respond to it—even when demand changes at a moment’s notice. However, cumbersome and static supply chain planning processes have made it difficult for manufacturers to be responsive and agile. Common problems that manufacturers face with current S&OP processes include:

- » Lack of real-time, robust, and actionable data
- » Lack of integration between financial, operating, sales, and marketing plans
- » Inability to share information and documents
- » Poor analytical capabilities and collaborative planning environment
- » Lack of alert and monitoring capabilities

THE RIGHT SOLUTION

Microsoft, along with its partners, enables manufacturers to transform supply chain performance by becoming more demand-driven, adaptive, and responsive in their sales and operations planning processes. The benefits here are significant. AMR surveys indicate that manufacturers that follow the DDSN model consistently lead their industries in financial performance. In a study of approximately 300 manufacturers, AMR found that if a manufacturer improves demand forecast accuracy by 5 percent and its “perfect order” (or customer delivery) rate by 10 percent, earnings per share increase by 50 cents, return on assets increases by 5 percent, and profit margin grows by 3.3 percent.

BOTTOM LINE

Microsoft and Microsoft partner solutions help people within manufacturing organizations improve their sales and operations planning process by enabling real-time collaborative processes. Based on a proactive, real-time supply chain infrastructure, Microsoft solutions drive continuous improvement to supply chain plans and performance.

> CASE STUDY

Universal Forest Products is a leading manufacturer, distributor, and marketer of wood and wood-alternative products. To streamline the flow of information between plants and headquarters, and to improve forecasting and planning processes, the company implemented Microsoft® products. The multi-location data visibility solution, which includes business rules, validations, and notifications, has reduced a highly labor-intensive forecasting process to just half a day. Plant and operations managers can now quickly produce more accurate projections using familiar Microsoft desktop applications.

SOLUTIONS

- Microsoft® BizTalk® Server
- Microsoft Office
- Microsoft SQL Server™
- Microsoft Visual Studio® .NET
- Microsoft Windows Server®

BENEFITS

- Retention of familiar desktop tools
- Faster, more accurate decision-making
- Logical, comprehensive presentation of operations information

Successful supply chain execution combines order fulfillment, shipment, and distribution processes to complete the cycle of delivering products to the customer. Supply chain execution begins in the factory, where partner solutions based on Microsoft operating systems dominate the plant floor. It continues throughout the enterprise with solutions that promote visibility and collaboration across the supply chain. With supply chain execution, manufacturers must integrate warehouse, distribution center, labor, and transportation systems and processes.

Many companies don't have adequate integration tools to allow them to track inventory effectively throughout the order fulfillment process. Warehouse and distribution center managers are looking for ways to label and track inventory by lots, effectively sequence work orders, reduce the cost of carrying inventory, and increase productivity overall. Transportation providers need solutions that help them consolidate orders and optimize loads; handle tracking, rating, tendering, and proof of delivery; and route managed fleets between distribution centers and delivery points.

THE RIGHT SOLUTION

Microsoft and its industry partners help manufacturers improve their supply chain execution processes by providing solutions that tightly couple planning and execution capabilities. This strengthens collaboration among customers, third-party logistics providers, and distribution partners, and provides better visibility into demand, inventory, and logistics throughout the extended enterprise.

By building on industry-standard Microsoft technologies and using emerging technologies like radio frequency identification (RFID), manufacturers can improve both execution capabilities and performance. These technologies help them improve asset utilization and labor productivity, and comply with customer mandates. Effective supply chain execution systems provide the inventory visibility and information flow that companies need in order to manage enterprise transportation, warehousing, and order fulfillment requirements globally. For manufacturers that have adopted warehouse and transportation execution solutions based on a Microsoft infrastructure, benefits include:

- » 5–10 percent lower fulfillment expense
- » 15–25 percent lower labor costs
- » 10–15 percent inventory reduction
- » Up to 10 percent improved operating efficiencies

BOTTOM LINE

Microsoft solutions—along with partner solutions in logistics, warehouse and transportation management, and supply chain execution—ensure that people within manufacturing organizations can optimize inventory levels and fulfill orders quickly and accurately. These solutions improve real-time visibility by providing integration across systems, including enterprise resource planning (ERP) and the shop floor. Finally, these solutions provide a familiar user experience and help manufacturers lower their total cost of ownership.

> CASE STUDY

ABB, which provides utility and industrial customers with a range of products, systems, and services, employs about 120,000 people and operates in approximately 100 countries. The company needed to improve integration processes and automate order fulfillment processes. With an integrated system, ABB hoped to be able to better manage its systems, improve supply chain efficiency, and reduce the total cost of ownership of its infrastructure. Based on a Microsoft® infrastructure, ABB has cut its average order-processing costs and reduced the time it takes to complete business-critical transactions, allowing it to respond more quickly to its customers' time-pressured requirements.

SOLUTIONS

- Microsoft® BizTalk® Server
- Microsoft Dynamics™
- Microsoft .NET Framework
- Microsoft SQL Server™

BENEFITS

- Improved integration
- Delivers greater transparency across the supply chain
- Dramatically reduced average process costs
- Provides a scalable, easy-to-manage infrastructure

Supply Chain Management Partner Ecosystem

Built on a foundation of Microsoft collaboration, business intelligence, and integration technologies, the Microsoft supply chain management infrastructure is a key enabler for manufacturers to transform and improve their supply chains and become more demand-driven, adaptive, responsive, and efficient. Global

leaders in supply chain management have adopted a Microsoft infrastructure, along with solutions delivered by Microsoft and its supply chain partners, to solve specific business problems and improve performance in the areas of supply chain visibility, collaboration, planning, and execution.

Why Microsoft? Microsoft is dedicated to delivering best-in-class solutions for the manufacturing industry that amplify the impact of people to drive business success. Our promise is to provide effective, manageable, cost-effective software with the following attributes:

Familiar and Easy to Use. With over 500 million users of our software, Microsoft is the most used and respected software in the world. Microsoft software is familiar and accessible to people at all levels of your organization, as well as to your trading partners and customers. Microsoft software helps you reduce training time and make your people more productive quickly.

Widely Used and Supported. Microsoft Software is widely used and supported by millions of partners and developers worldwide. Our vast ecosystem of solution providers, software vendors, and support organizations ensure that you will be able match the right solution with your business needs.

Integration That Works. Manufacturers often work in a heterogeneous IT environment that requires integration, interoperability, and information sharing across applications to meet business requirements. Based on industry standards, Microsoft products work with what you have and across boundaries to provide seamless, integrated solutions.

Software That's Innovative. At Microsoft, we develop software products that help your people reach their full potential and take advantage of new developments and innovation in the industry.

Microsoft partners offering supply chain management solutions and services include:



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