



Keynote

Information Management Yields Supply Chain Triumphs

Collaboration and information sharing improves Microsoft's supply network.

By Fred Sandsmark

Brian Tobey's business is not all fun and games. It is a job he takes seriously. Tobey makes sure the Microsoft® Xbox® video game system, Microsoft® Zune® digital media player, software products, PC hardware, and other products get built and delivered to retailers' shelves. In a keynote address at the Microsoft® Global High Tech Summit 2009 held on January 29 in Santa Clara, Calif., Tobey—corporate vice president of manufacturing, supply chain, and information solutions for the entertainment & devices division at Microsoft—described the transformation of the company's supply chain over the last five years.

Lessons Learned

Microsoft's Brian Tobey shared these additional insights on running a successful supply chain operation:

- Though Microsoft does not own or operate factories, it has a small number of highly experienced factory management teams on staff that interface with its manufacturing partners.
- IT is the key to Microsoft's supply chain success; every business should consider such an information-driven, end-to-end strategy.
- Although manufacturing partners make the physical products, the Microsoft name is on the finished goods, so Microsoft's strategy leads the partnership.
- All players involved in the supply chain process—manufacturing, supply management, transaction managers, IT, and others—must understand the entire operation, with visibility up and down the supply chain.

He talked about the cooperation Microsoft expects from its suppliers, and he told the nearly 300 assembled senior executives from the high-tech industry how to get the best value from a supply chain in the current economic climate.

Information technology (IT) is the key to Microsoft's supply chain success. "The number one supply chain challenge for our industry today is not the physical moving of goods," Tobey declared. "It's managing information, being able to process data with speed, and rapidly making the right decisions to minimize risk and maximize opportunity."

Importance of Information

About five years ago—after the release of the first Xbox but before the launch of the Microsoft® Xbox 360® video game and entertainment system—Microsoft reexamined its manufacturing operation. "We made a decision to integrate the manufacturing, supply chain, and information technology parts of our business into one organization," Tobey said. The integration stretched from forecasting and planning to material management and manufacturing, all the way to the retail floor, including all of the support systems, technology, and tools required to operate this global business.

Every business should consider such an information-driven, end-to-end strategy, in Tobey's opinion. "You can't really distinguish between the manufacturing part of your business and the IT part," he said. "It's really one holistic solution that has to drive value throughout."

Microsoft has a completely virtual supply chain; the company does no manufacturing, shipping, distribution, or retail fulfillment internally, choosing instead to complete these tasks entirely through partners. "We call ourselves the manufacturing and supply chain organization, but the truth is, since I've been at Microsoft, a product has never passed through

Redmond,” Tobey explained. “Everything we make, touch, or move to our customers is done through other people. We are probably one of the most virtual supply chains in the world.”

This hands-off approach makes information management even more critical for supply chain success. Remaining agile and flexible when your network includes tens of primary manufacturing partners and close to 1,000 secondary suppliers requires the ability to move, see, and absorb critical information in a very rapid fashion. In a vertically integrated supply chain, an information delay might cost hours. But in a complex, virtual supply network, information delays could cost weeks or months of time.

Information management is also a challenge in Microsoft’s services businesses, such as Microsoft® Xbox LIVE® (the worldwide community of gamers connected through Microsoft’s Xbox gaming platform and the Internet) and its online music store, Zune Marketplace. “There are millions of transactions and millions of information points exchanged every day” in these services, Tobey said. “The IT part of the supply chain—knowing what your customers are doing on a daily basis—is a significant part of making that business manageable and successful.”

Tobey emphasized the importance of an integrated supply chain and information architecture—including strategy, people, networks, processes, tools, and systems—to enable both products and information to flow effortlessly. Standards play a role in integrating information between original equipment manufacturers (OEMs) and their supply chain partners. It is the OEMs’ responsibility to choose standards for workflow, communication, integration, and business intelligence that will be used throughout the supply chain.



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Eliminating the Hub

Regardless of standards, managing supply chain information never gets easier in a competitive, fast-paced market like high-tech consumer goods. “The ability to take in all the data, all the variables, all the choices that are available to you every single day becomes more and more complex,” Tobey said. “In an environment like today’s, where there are way more risks than rewards, you can’t afford to take days, weeks, or months to react to important information.”

With this in mind, Microsoft realized that it could not afford to be the hub through which all information flowed among the various parties in its global supply network. Serving as the hub introduced unacceptable time delays and inefficiencies.

So Tobey is removing the hub from the wheel. “About a year ago we said, ‘If you’re a supplier and a partner, you

also have to partner with our other suppliers and partners,’” he explained. “You have to work together and integrate just as much with each other as you do with us.”

Among other things, this requirement meant that the two competing manufacturers that produce Xboxes—Celestica Inc. and Flextronics International Ltd.—had to work together, share manufacturing and supply chain information, and collaborate on improving processes.

Information sharing helped Microsoft simplify its supply network, which saved money as the economy contracted. “A sourcing strategy that only focuses on bringing in more suppliers and driving costs down to the last penny doesn’t make sense in a world where you only have enough volume to make one or two suppliers healthy,” Tobey said. In addition to this ecosystem/value chain

angle, Tobey pointed out that the total landed cost is lower when managing volume across a small number of suppliers versus across many suppliers. However, when the focus is placed only on the per-unit product cost, this fact sometimes get overlooked.

Some Summit attendees expressed surprise at this approach to information sharing. “There’s no way that these two big manufacturing companies are going to want to give up their competitive advantage, because that’s what’s holding their margins up,” said John Moore, eQuality program manager at KLA-Tencor. “It will make them more the same, rather than competing differently.” Moore did acknowledge, however, that optimizing partnerships with a smaller number of manufacturers is a strategy KLA-Tencor is adopting.

Doug Huskey, senior director of



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worldwide supply chain at Seagate Technology LLC, was more receptive. “You don’t want a situation where you’re just trying to pit all your suppliers against each other and trying to drive price down at this point in time,” he said. “Collaboration and visibility, both horizontally and vertically in the supply chain, are critical to getting a competitive edge. A downturn like this is an opportunity to emerge as a new leader—or improve your leadership—by exploiting the supply chain as a competitive advantage rather than just using it as a cost savings. We’re trying to develop more collaboration like that at Seagate right now.”

Craig Mulhauser, CEO of Celestica, expressed his support of this model: “For the Xbox program, Microsoft has streamlined the flow of information to allow key EMS suppliers to directly exchange manufacturing and supply chain information with each other to drive quality, speed, and transparency throughout the supply chain,” he said. “In the future, supply chain partners must go beyond just exchanging data quickly and transparently. To support this need, Celestica will enhance this information flow with business analytics to drive enhanced collaboration and more timely decision-making for Microsoft, its supplier partners, and customers. This strategic use of information is the next level of differentiation required to drive higher quality, lower total cost of ownership, and improved satisfaction for Microsoft’s customers worldwide.”

Collaboration and integration abilities are now core competencies for Microsoft’s contract manufacturers, on par with manufacturing prowess. “It’s just as important to look to people who will integrate from a technology and tools standpoint instantly as it is to find one who will immediately give us the lowest cost,” Tobey said, because

Microsoft’s Supply Chain by the Numbers

Key statistics about the supply chain for Microsoft’s entertainment & devices division:

Units shipped (FY08): 84 million

Countries with operation centers: 7

Manufacturing suppliers and partners: 20

Total suppliers: 750

Retail partners: 160

Countries with retail partners: 60

Source: Brian Tobey, Microsoft

the amount of time and effort required to integrate a low-bidding but less-cooperative and integrated partner can negate any cost advantages that supplier might bring.

Economic Considerations

Tobey acknowledged that the current economic downturn presents supply chain professionals with a new set of challenges. He predicted that the economy could be flat to down for a number of years, which could have several disruptive implications in the future, including excess manufacturing capacity.

In this environment, many supply chain executives focus on quick rewards and pay insufficient attention to the risk-mitigation aspect of their jobs, in Tobey’s opinion. Planning for problems is an area in which he and his leaders invest both time and energy, and the effort pays off: “What helped us a lot this past holiday season was that we had mitigations in the plan if there was a downturn,” Tobey said. “We didn’t expect it, but we had planned accordingly. The planning and preparation gave us the agility and flexibility to handle the unexpected.”

Another aspect of risk mitigation that supply chain executives sometimes miss is the fact that their suppliers need

to succeed. “Mike [McNamara, CEO of Flextronics and another Summit keynote speaker] and my other suppliers have to have their profit strategy, and we have to find a way to mix that in to our own strategy to create win-wins,” Tobey said.

Alignment comes by accepting that the OEM drives strategy for the entire supply network, while the OEM understands that its suppliers need to be successful. The ability to balance this equation in a virtual supply chain is the key to maximizing value. Acknowledging your partners’ need for a profit has implications in information sharing and helps the supply network respond to economic changes. With information flowing directly from retailers to suppliers, all parties can see trends in retail demand and adjust their capacity accordingly, without waiting for Microsoft to provide direction. “You can’t afford those inefficiencies [caused by hub-and-spoke communication] in an economy like we have now,” Tobey said. “And really, you couldn’t afford those inefficiencies in a competitive environment like we had before” the economy slowed.

Huskey of Seagate said removing inefficiencies and enabling collaboration across the supply network is a worthy goal, but one that does not come easily. “It’s a great vision, but the reality is that it takes a lot of work, a lot of trust, and a lot of building on those partnerships,” he said. “It needs to be the strategic goal and the direction you set, from the top all the way down through your organization and across your supply chain.”

Tobey agrees that it is, in fact, hard work. But the reward justifies the effort, and he believes such collaboration and innovation will be key to his organization’s success for years to come. •

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