

Semiconductor Supply Chain Planning Design and Implementation

Highlights



- Designed and implemented the SCP/OP solution
- Reduced time required to provide promise dates to customer orders from several weeks to less than a day
- Project helped significantly cut inventory levels and improve customer service

The Challenge: A market leading Flash semiconductor manufacturer, created as a joint venture from two major semiconductor manufacturers and spun-out on the Nasdaq stock exchange, was faced with the challenge of managing a complex supply chain consisting of semiconductor fabs and internal and contract assembly and test facilities with no end-to-end supply chain systems supporting the business. As a result of the lack of coordination, inventories skyrocketed and customer service and supply chain performance suffered.

The Approach: Following the spinout the client formulated an aggressive IT strategy to migrate the entire business onto a common set of systems for forecasting, supply chain planning, order promising, execution/ERP, product data management, and WIP inventory tracking. To solve the immediate and longer-term supply chain problems, the client turned to Spinnaker to design and deliver a supply chain planning and order promising (SCP/OP) solution that spanned across the entire enterprise, optimized the end-to-end supply, and could be implemented ahead of the rest of the systems and then adapt to work with them once they were operational. Spinnaker was

engaged to design and implement the SCP/OP solution based on deep knowledge of supply chain management in the semiconductor industry.


The Recommendations: The new organization inherited a legacy planning model using Adexa's Supply Chain Planner application. To reduce the delivery time, the client chose to redesign and extend this model to plan the entire final manufacturing supply chain including internal manufacturing plants and contract manufacturers. The Adexa model the team

designed and deployed provided the client with the first end-to-end picture of supply availability with material and capacity constraints considered. In addition to moving all factories to a single plan for planning and execution, the plan provides a key input into the client's Sales and Operations Planning (S&OP) process to strategically balance supply and demand.

The Results: As a result of the project, the time required to provide promise dates in response to customer orders went from several weeks to less than one day. Additionally, the cycle time to create and publish a feasible supply plan was drastically reduced. As a result of more effective demand-driven planning, inventory levels were cut sharply while customer service levels improved – leading to both reduced costs and happier customers. The client has continued to engage the Spinnaker team in a series of follow-up projects to enhance the functionality of the planning model and drive even further performance improvements.

About Spinnaker: Spinnaker is a supply chain services company that helps clients grow, manage risk, reduce costs, and improve customer service by developing world-class supply chain capabilities. Our services help clients develop the right supply chain strategy for their business challenges and implement the process and technology solutions to improve Demand/Supply Planning, Procurement and Sourcing, Logistics and Warehousing, and Reverse Logistics business performance. Spinnaker offers a unique service delivery model that combines the strength of deeply experienced management and technology consultants with a seasoned team of business process outsourcing (BPO) and 3rd-party logistics (3PL) professionals. Founded in 2002, Spinnaker has offices in Boston, Columbus, Denver, Houston, Memphis, Pittsburgh, London, and Singapore.

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