

Serus helps fabless semiconductor firm keep pace with rapid growth

When spreadsheets can't keep up with ballooning orders and supply chain complexity, Serus quickly implements its Intelligent Operations Management (IOM) suite to help this semiconductor company streamline its operational inefficiencies and customer service levels.

Virtually all companies seek rapid growth and welcome its arrival. Exponential growth, however, can expose flaws in systems processes that may work well on a limited scale, but become unwieldy and inaccurate under heavier loads.

This California-based fabless semiconductor grew from \$1 million revenue in 2005 to over \$70 million in 2007 and realized that its manual processes and the extensive series of spread-sheets to track its orders and inventory were insufficient to gain accurate, timely data from the firm's various suppliers, all of them based in Asia.

While orders continued increasing, the firm's limited supply chain visibility prevented accurate fulfillment predictions. Additionally, employees were spending so much time on tactical tasks related to data gathering and inventory reporting that they had little time for strategic planning.

Fortunately for this semiconductor company, it had already engaged in talks with Serus Corp., which provides the Intelligent Operations Management IOM solution suite, specifically tailored to fabless companies that outsource all or part of their manufacturing. By January 1, 2007 Serus' IOM Advantage solution automated the company's order management, streamlined purchase and sales order processing, increased visibility into WIP Management and optimized Supply and Demand Planning.

“Working with Serus has been excellent. Any semiconductor company should seriously consider the benefit. We are very pleased with the solution and things only promise to get better.”

—Supply Chain Manager

Customer Profile

This California-based fabless semiconductor company grew from \$1 million in revenue to over \$70 million in 2 years.

Business Situation

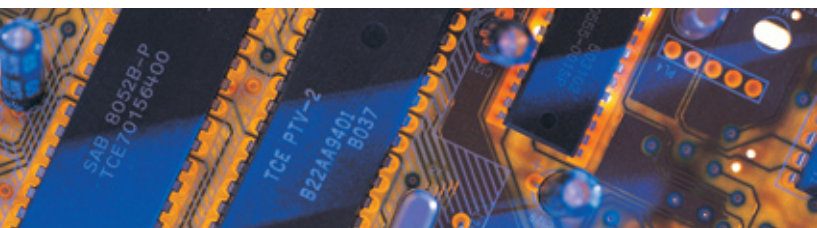
Exponential growth rendered their extensive spreadsheet system for manual inventory and order tracking inadequate.

Solution

Serus' IOM Advantage solution automated the company's order management, streamlined purchase and sales order processing, increased visibility into WIP Management and optimized Supply and Demand Planning.

Benefits

- Real-time view of Bookings, Billings and Backlog.
- End-to-end visibility into supply-chain inventory and seamless business partner collaboration on a single system combining all work-in-process and inventory data.
- Advanced planning enabled supply and demand matching with inventory projections, prioritized based upon customer, product and order type.
- 3-way matching to reconcile invoices and receipts with purchase orders



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-Operations Executive



The Situation

Out with the Old

Prior to implementing Serus IOM, the fabless semiconductor company relied on a series of spreadsheets to track inventory and other manufacturing data. As they took orders, spreadsheets would be updated accordingly. At least 10 such spreadsheets existed within the company and each had to be updated weekly. Over the course of two to four days, data would be gathered and entered manually into spreadsheets—a time-consuming chore. And with multiple spreadsheets to deal with, it was difficult for management and operations to get a clear picture of the order back-log.

Supply data was gathered in a similar, manual fashion. It was difficult to get an accurate picture of the supply chain. By the time all data was gathered and aggregated, at least some of it was out of date. Additionally, the manual data entry process was prone to errors.

To compound the problem, the operational data was not linked to the general ledger, resulting in manual data entry and input errors. Serus integration to the general ledger streamlined the “operations to finance” handshake process. This eliminated manual intervention, ensured timeliness of data and reduced data entry issues.

The flaws in the company’s manual systems became all too clear when the firm experienced rapid growth during 2006. Keeping up with orders had some employees spending eight to 16 hours per day inputting data to spreadsheets. Yet the company still struggled to maintain accurate supply chain data, throwing its ability to deliver products on time into doubt and jeopardizing its customer service levels. And with so many employees spending hours each day inputting supply and demand data, precious little time was left for more strategic planning endeavors.





The Solution

Serus on the Scene

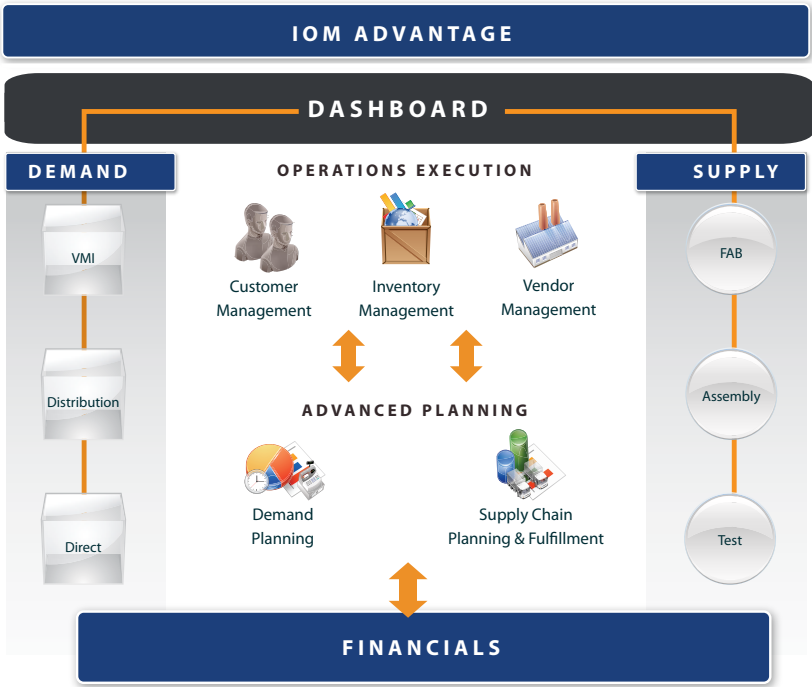
Realizing that it could waste no time in getting its operational house in order, the semiconductor company signed on with Serus for help. Initially, the firm signed on for Sales Order and Work in Process (WIP).

Sales Order allows the company to do away with their manual spreadsheets to track bookings, billings and backlogs. Instead, they enter data into a web-based application, which makes sales order management and reporting far simpler.

“Compiling our billings, bookings and backlog reports used to take one or two days. Now, with Serus, it takes one or two hours,” said an operations executive. The Serus reports include details, such as comprehensive sales and cost margin data, which was virtually impossible to gather under the previous manual system.

Additionally, anyone with proper permission can access the Serus IOM suite and pull reports at any time. No longer do they have to wait for reports to be published. Furthermore all the data is consistently up-to-date, which speeds month-end and quarter-end financial closings. Customer service levels have likewise improved now that the company has a single window for all its sales data.

Serus ensured that the Sales Order solutions were seamlessly integrated with the financial system, streamlining the operations to finance process handover. The entire series of updates from Sales Order entry, to shipment, to process, which previously required manual updates to multiple line items, are now instantaneous. After deploying Serus, invoices which were entered manually and so prone to human error, are now immediately inserted into the general ledger and automatically reconciled.

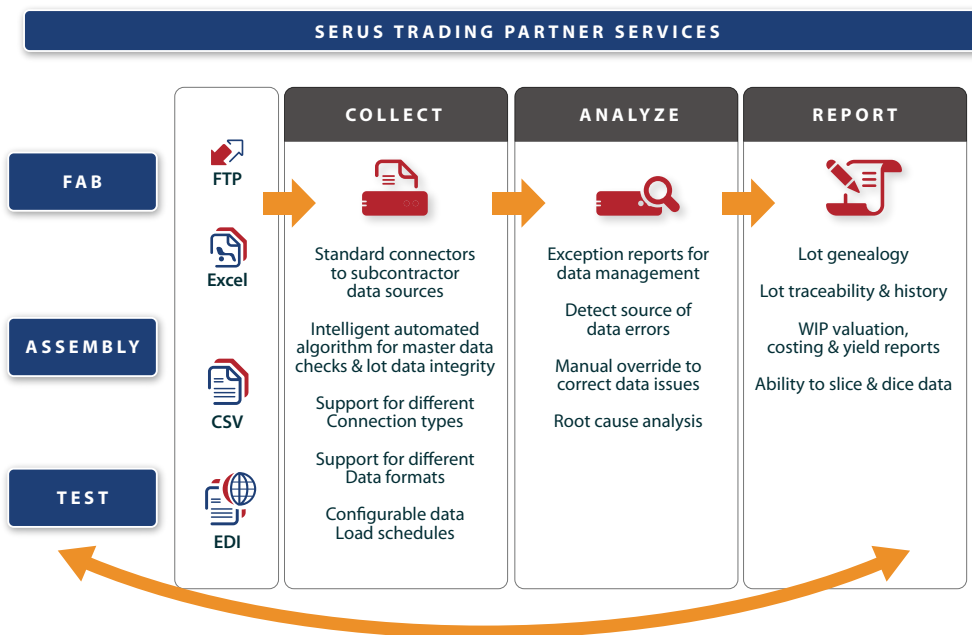




WIPed Into Shape

The Serus IOM WIP module, meanwhile, enabled a similar dramatic improvement in the data the company gathered from its suppliers. Previously, each partner in the supply chain would send periodic reports detailing what lots it shipped and received. That left it up to the company to gather and reconcile all the data, a chore that grew more cumbersome as inventory increased. Given it couldn't be sure when each supplier was taking its data snapshot, the manufacturer had to ensure that no lot was counted twice. For example, a test house month-end report may show it had received a lot from the assembly house while the assembly house's report shows the same lot was still at its facility. Repairing the data required lots of manual reconciliation between reports at month-end.

By contrast, the Serus IOM WIP module automatically collects, cleanses and reports inventory from every player in the supply chain. Serus' ability to collect all data at the same point in time improves accuracy; the WIP module also has automated algorithms that cleanse the data, removing all exceptions for further analysis. It performs its own reconciliation, ferreting out duplicate lot entries, data errors, and missing master data. The company gets complete visibility into the genealogy of each lot and can track its movements around the world, from fabrication to assembly to test and, ultimately, to shipment to the customer.



As with Sales Order, WIP provides a single source for all WIP and finished goods data, which makes reporting far easier and more accurate. The WIP module also provides costing and valuation reports which enable timely reporting for period-end closing

"It's so important to have the data right at your fingertips," said the company's supply chain manager. "Suppliers notice our improved efficiency. It's fantastic; it gets the job done in much smoother fashion. I have a lot more time to engage in purchasing and planning."

Meeting the Demand

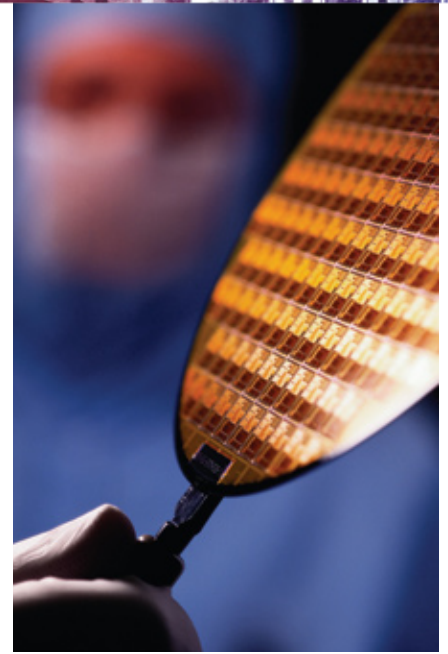
With Sales Order and WIP up and running, the company quickly turned its sights to implementing Serus' Demand Planning.

Demand Planning helps companies accurately forecast future demand, enabling more accurate build plan decisions. Here again, the module replaced a series of spreadsheets that the company used to detail sales forecasts. But the module also enabled the company to create a well-defined forecast process from entry to approval to publication. Each step of the process is automated, ensuring consistency and timeliness. Now the company can easily do rollups to view demand by product, customer or other criteria. Serus provides additional features, such as allowing customers to indicate a probability that each forecast will be met, allowing for more realistic assessments.

Implemented in March 2007, Demand Planning brought coherence to the forecasting exercise by assuring that everyone in the decision-making chain was looking at the same data, with confidence of its accuracy. If a forecast was changed, all parties were alerted, where previously it may have been days or weeks before changes were communicated to everyone concerned.

Completing the Picture

In May 2007, the company implemented Supply Chain Planning. Supply Chain Planning synthesizes data from Sales Order, WIP and Demand Planning, enabling the customer to easily see whether it will be able to fulfill orders on time with the supply it has on-hand. Supply Chain Planning also determines inventory starts by location to meet the backlog and future demand. It enables the customer to construct what-if scenarios to determine how changes in the supply chain, cycle times and other factors affect its ability to fulfill orders.



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–Supply Chain Manager

Previously, the company used spreadsheets to determine inventory starts and order fulfillment with limited success. With IOM Supply Chain Planning, the company was now able to examine hypothetical situations, including:

- Varying order quantities and prioritizing demands
- Safety stock scenarios
- Constrained and unconstrained planning
- Time phased yields

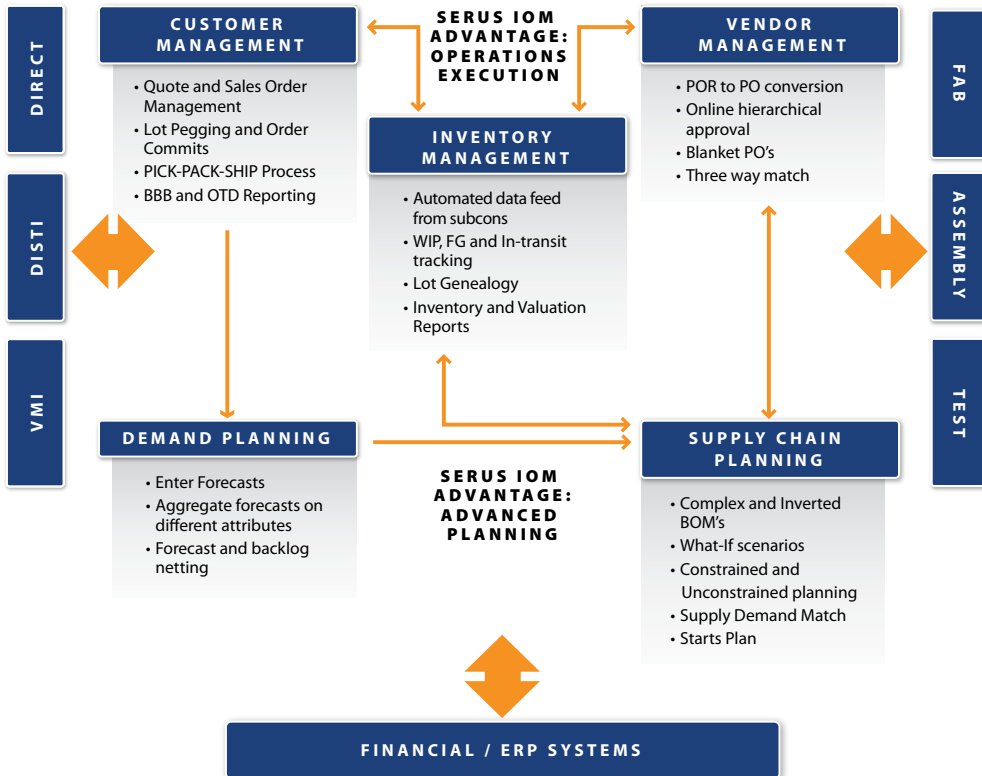
Armed with Supply Chain Planning, the company can now devise build-plans that detail the inventory needed by week, location, and supplier to meet target delivery dates.

Rapid Rollout

Besides enjoying all the benefits of its Serus IOM solution, the customer was also impressed with how quickly Serus was able to implement. This was no more evident than

when the company acquired another fab-less semiconductor firm. The acquisition company used an entirely different set of applications to monitor its processes, which also relied heavily on manual tracking and reconciliation, and the two firms shared only one supplier in common.

Serus quickly got the new firm on board with IOM. Serus took just two weeks to migrate all data from the new firm's legacy systems to IOM and just one month to connect all of its suppliers. Supply chain modeling was also completed in just a month. In less than two months the new firm was already in pilot production on IOM.



The Benefits

Summing up the Benefits

Spreadsheets can only take you so far. Once you experience the kind of growth this fabless semi-conductor company did, a supply chain management process that relies on data entry and reconciliation will inevitably result in inaccuracies and discrepancies and dissatisfied customers.

With Serus Intelligent Operations Management suite, this company is now enjoying an unprecedented level of visibility into its supply chain, enabling better, more strategic decision-making. It is now able to accurately estimate—and meet—its customer delivery commitments, improving its customer satisfaction levels. Internally, it can close its period-end financials more accurately and in far less time than with its older spreadsheet method. And it now has a single Web-based repository that any authorized user can query to pull reports on forecasts, orders, and inventory.

Between 10 and 15 of the manufacturer's employees log in to IOM each day, including finance, operations and sales personnel; this has greatly improved coordination among the departments, while saving untold hours in not just month-end reporting, but each and every day. That time is now used to for planning, as well as to improve relationships with suppliers.

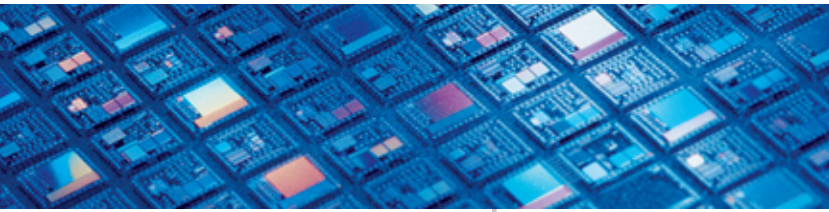
In short, in less than 12 months, Serus has rejuvenated the company's operations from start to finish.

"Working with Serus has been excellent," the company's supply chain manager said. "Any manufacturing company would benefit from working with Serus. I'm looking forward to the future software upgrades and adding more of Serus' products. We're very pleased now and things only promise to get better."

"Seamlessly integrating our operational data with our general ledger allows us more time to perform analytical functions as opposed to data entry."

—Sr. Financial Analyst





The Company

About Serus

A leader in providing enterprises with Intelligent Operations Management solutions, Serus' configurable software helps global organizations integrate business processes and rule drivers among trading partners to achieve common production goals. Our real time technology provides instantaneous automated transactions, co-managed inventory, and performance measurements across the company's worldwide value chain.

In short, we provide you with unprecedented insight into your business and aid you in making better financial and operational decisions.

Based in the heart of Silicon Valley, Serus was founded in 2001 by a team of seasoned executives who understand the challenges associated with global outsourcing. Their technology, domain, and operations experience has led to the development of a solution that is helping operations managers and executives at semiconductor companies, contract manufacturing organizations and high-tech OEMs within Fortune 500 and mid-market companies meet the demands of their market more efficiently than ever before.

For more information, please visit www.serus.com.

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