

Foundry casts new paperless supplier portal using Zend Core, Zend Framework and Zend Studio Debugger



"Our Zend-based Supplier Portal enabled us to create a flexible, all electronic supply chain that has dramatically improved our communications with our suppliers enabling us to work more closely with our vendors to streamline business processes with direct benefit to our bottom line."

Dean Evers,
Purchasing Manager,
Aarrowcast, Inc.

Customer: Aarrowcast, Inc.

Geography: Wisconsin

Industry: Manufacturing

Challenges:

- Lack of visibility into inventory and scheduling caused stock outs, resulting in factory delays and impacting customer deliveries
- Paper-intensive and time-consuming purchasing processes desperately needed to be automated
- Vendors had no ability to forecast need for product, often resulting in shortages and costly expedite charges
- No accurate way of measuring supplier effectiveness in place

Solution: Supplier Portal that enables authorized vendors to access and bid on opportunities, submit quotes, accept PO's, submit shipping and tracking info, view payment progress, see real-time performance ratings and submit ideas for process improvements

Zend Products: Zend Core for i5/OS, Zend Studio for i5/OS.

Aarrowcast Inc, located in Wisconsin, is a 210,000 square foot foundry in Wisconsin that delivers 85 million pounds of ductile and gray iron castings yearly to over 100 customers in various industries including government/defense. While the company is considered one of the most modern foundries in the world, their business processes in dealing with outside vendors and suppliers were less than leading edge. The blizzard of paperwork needed to procure material was becoming a time-consuming nightmare. In addition, there was no central visibility into supply levels, causing shortages and delays. And there was no way of measuring vendor performance to help weed out inefficient suppliers.

The Challenge

The impetus to change came with the hiring of a new purchasing manager, Dean Evers, who had an overall vision of how to do business in a more efficient and forward-thinking way. He wanted a browser-based system that allowed suppliers to automatically see open PO's, view the production schedule, see what corrective actions were required on their part, see their payment status, and actively participate in process improvements.

Aarrowcast's manufacturing business is largely run on a legacy system called BLISS, a foundry-specific application that runs on i5. The challenge was to build a browser-based portal that would connect into the MRP system and permit vendors to access RFQ information automatically, without purchasing having to send out for bids.

Aarrowcast enlisted the services of NSC to develop what would become the Supplier Portal. NSC was up for the task, knowing that PHP products from Zend would be key to developing the most elegant, cost-effective solution in the shortest timeframe.

The Solution

NSC realized that PHP would enable them to do front-end development quickly and then easily change the interface to the underlying database. For the Aarrowcast Supplier Portal, they harnessed the power of Zend Core and Zend Studio to develop the interface and to

"Using Zend PHP products was far easier than Javascript or cgi.dev. It is by far the most flexible technology out there for developing applications that need to run over multiple platforms. We used Zend Studio with great results, and the client couldn't be happier."

Larry Nies,
NSC, Inc.

hook into the IBM db2 databases that all the i5 applications use.

NSC President Larry Nies says, "We knew PHP was the way to go. It's much more flexible over multiple platforms. Using Zend Studio for i5 OS enabled us to create tightly integrated applications easily. We were also able to develop the product remotely using a VPN connection to the Zend-based portal, reducing our cost and the Aarrowcast's as well."

He also notes that he could find a PHP programmer very easily, and it's a stretch to have an RPG programmer learn java, which is another approach he considered. "You can't find a cgi.dev programmer very easily, either," he adds.

The Zend-based portal automates the entire RFQ, quote, purchase order, receiving, inventory management and payment process. Each vendor is given a login account and password and upon entering the site, sees all projects relevant to them. They can get details on all jobs for which they are eligible to bid, along with a complete Bill of Materials. Vendors can view material specification tabs and project timelines. Each vendor can instantly submit quotes electronically and get an immediate response, speeding up the entire purchasing process.

Vendors can also view and accept any purchase orders that are waiting for them. All this information is automatically updated to the underlying database. When the materials are shipped, vendors can enter that information as well, keeping everyone informed on the progress of the job. When the job is complete, Accounts Payable automatically posts payment information relevant to the vendor on the portal so the supplier knows when payment is forthcoming.

The Result

The new system literally cuts the time to get necessary materials into the foundry in half.

Dean Evers, Purchasing Manager, says "We have been able to reduce our on hand inventory without jeopardizing our production schedules since we implemented the Zend-based Supplier portal. It's working extremely well. Suppliers can stay on top of business opportunities and improve their delivery rates and performance rankings. We move as much business as possible to suppliers rated 'Superior,' so there is a major incentive to perform well. We have gone from a 50% on-time delivery rate to a 90 to 95% rate on materials from our vendors. This has allowed us to dramatically improve our on-time delivery rates to our customers." He also notes that the portal helps suppliers to be more pro-active about inventory management: they can see usage trends and factory schedules and plan ahead to avoid out-of-stock situations. Everybody wins.

Benefits

Streamlined purchasing process cuts time-to-market in half: Aarrowcast can put projects in to production more quickly by speeding up PO approvals and accelerate receipt of raw materials

Ability to see real-time inventory levels avoids shortages: Vendors and Aarrowcast personnel alike can monitor inventory levels in synch with posted production schedules, avoiding costly shortages and delays

Improved inventory turn: The Company has gone from inventory turns of 6.2 to 10.8 in one year.

Increased convenience for vendors: Vendors automatically see new PO's, get quick and timely feedback on PO change notices, send quotes instantly, submit shipping information and tracking numbers, and track payment status.

Dynamic performance ratings for vendors: Each vendor has always been rated according to several factors including on-time performance, materials quality and pricing. In the past, this was done manually. Now, it is all done dynamically. Vendors can see what they need to do to improve their ratings and potentially earn more business.

Engages suppliers in Aarrowcast's Business Process: The innovative Suggested Improvements and Cost Savings (SICS) program enables vendors to actively participate in

For more information see:
www.zend.com



The PHP Company

SOLUTIONS PROVIDER

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streamlining Aarrowcast's business processes. For proven cost-savings suggestions that benefit the company's bottom line, vendors are rewarded with more business opportunities.

Opens the door to future PHP-based applications: Once Aarrowcast saw how straightforward it was to create this highly useful and successful supply chain management application, they could immediately visualize how PHP could create other web-based applications to further streamline operations and cut costs.

Next Steps

Aarrowcast is next planning to use Zend Framework to do auto-vouchering: as soon as goods are received, a voucher will automatically be generated against the PO, saving time and money. They expect to reduce A/P costs by as much as 50%.

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