

LaBarge – Manufacturing Success



Industry:
Contract Manufacturing

Geography:
United States

- Information Needs:**
- Timely access to data contained in ERP system
 - Efficient method for reporting
 - User-friendly interface for ERP system

Platforms:
VSAM Mainframe
Microsoft SQL Server
Microsoft BizTalk

Customers:
Schlumberger
Northrop Grumman
Raytheon Missile Systems

Solution:
Attunity Stream

- Benefits:**
- Access to real-time data
 - Saved time and money on reporting
 - Increased ease of use with browser functionality for ERP system
 - Avoided costs & risks associated with replacing ERP system
 - Enhanced response and efficiencies in developing proposals for customers

A leading contract manufacturer leverages Attunity to save time, money and trees

As a proven provider of complete, solutions-oriented contract manufacturing services, LaBarge, Inc. is a recognized leader in the electronics manufacturing services industry. The company's capabilities include:

- Broad-based, high-performance manufacturing of electronics, electromechanical equipment and interconnect systems, including build-to-print and build-to-spec
- Skilled engineering, product development and packaging
- System integration
- Prototype- to full-volume production, strengthened by preferred supplier status and qualified to all military and commercial specifications

LaBarge builds high-reliability hardware and systems that support critical functions where durability and peak performance are vital, including military aircraft, radar systems, satellite launch vehicles, airport security equipment, glass container fabrication systems and oil field tooling.

THE CHALLENGE – BRINGING THE ERP UP TO SPEED

LaBarge needed an easier way to access its information and a better way to analyze it. The company's enterprise resource planning (ERP) system is a mainframe, terminal based system with monochrome screens that was installed about 20 years ago.

"Our ERP solution could be equated to a DOS based system. It was not attractive and was frankly irritating to the eye," said George Hayward, director of information systems for LaBarge, Inc. "However, the core brains of the system still met our needs. We were capturing the data we needed to run our business. Our challenge was getting the data into the ERP solution efficiently and being able to get it out and analyze it effectively."

The company reached a point where the inputs and outputs of its ERP system did not allow them to remain competitive. In order to keep up with competitors, LaBarge needed a real-time means of getting data in and out of its system. Gaining access to that data was slowing down LaBarge's entire operation.

While the ERP system supported the operational needs of the business, LaBarge wanted to modernize both its reporting capabilities and its user interface. The green screens were not only difficult to look at; the navigational capabilities were limited at best. LaBarge sought a solution that would redesign the ERP's input screens to have browser-based functionality.

LaBarge needed a solution that:

- Provided real-time access to the data in its ERP system
- Increased the "ease of use" of its ERP system
- Could be implemented with little disruption to its ERP processing

Running reports was another major pain point for LaBarge. Reports were done on large expensive printers printing on large column paper. The process was expensive and time consuming. As printouts would be completed at a separate location from where the task was requested, users would sometimes have to walk a quarter of a mile just to get the report. When they would finally obtain the report, they would need to scan hundreds of pages in order to find the data they needed.

"That's where we were before Attunity," explained Hayward. "There were several inefficiencies in how we got data in and out of our ERP system. We needed a way to enhance the inputs and outputs without disrupting our entire operation."

"Attunity was by far the leader in marketing and making me feel comfortable. Specifically, Attunity was the only company that understood the impact of the flex chip, which allows us to run on UNIX servers, and the implications of it to the pricing of the solution. Attunity's relationship with Microsoft and their demonstrating a clear understanding of our environment gave me the confidence that they knew what they were doing. Through the entire implementation process, I always knew that they would be there to support us."

George Hayward, Director of Information Systems, LaBarge Inc.

Summary of Key Challenges:

- Technical backbone of company is a mainframe, terminal based system that served the business well, but efficiently getting data in and out was the challenge – not having data accessible in real-time was hurting LaBarge competitively
- Limited navigational capabilities – green screens were irritating - literally and figuratively
- Reporting was cumbersome, time consuming and expensive
- Limited analytical capabilities – could not sort data or manipulate it for analysis and reporting

As LaBarge uses a VSAM mainframe system, they were limited in their options to take advantage of modern reporting tools. The company began to look for a way to mirror the data that was in their existing ERP system onto a SQL Server to enhance their reporting and analytical capabilities, save trees and time.

The Solution – Easy Access and Navigation

In order to bring its ERP system "up to speed", LaBarge now uses a solution comprised of three major components:

- Attunity Stream
- Microsoft BizTalk Server
- Microsoft SQL Server

Attunity's change data capture (CDC) solution, Attunity Stream, runs on the mainframe and knows when a data field has changed. It then grabs the changed data and uses BizTalk to transfer it off the mainframe onto a SQL server. Using Attunity, LaBarge now has all the data from its ERP system mirrored in SQL, which has made retrieving data from the system, as well as navigating through it, much simpler and less time consuming. With Attunity Stream, the following functions have been significantly enhanced:

Running Reports

Now that data is mirrored, LaBarge no longer has to run reports on the mainframe. Instead, reports are now run on the SQL server. As the Attunity solution works seamlessly with a browser-based solution, it enables intuitive, easy report generation on the front end in about 60 seconds, about 200 times faster than it previously took.

"We recently took six old reports from the old system and re-did them with some modern tools against the SQL data that Attunity updates in real-time," explained Hayward. "When our users enter data into our ERP system on that mainframe into those VSAM files, Attunity identifies the changes and carries that data across to a different server where we run SQL. Attunity has put an end to the days of waiting for reports to run on the mainframe, so we no longer have to wait up to 3 or 4 hours and walk to a separate location to get a printed report."

Running reports was one of the main consumers of time when processing on the mainframe. Now that Attunity has taken the report running duties away from the mainframe there is less demand on it, which has sped up all the other programs running on the mainframe. Other unrelated tasks running on the mainframe are completed in a timelier manner as well.

Sorts and Filters

LaBarge is now able to do sorts and filters with their ERP system that they were previously unable to do (ex. sort by date, sort by zip code). Because Attunity provides the data in SQL, the company now has a front-end screen equipped with filters that users can use to pick their report preferences. Results are displayed in a browser window making navigation and overall use of the system much easier.

"Someone could walk off the street, come in and easily navigate through our ERP system now. That's how much Attunity has increased its ease of use," said Hayward. "In addition, users have far more flexibility with the new filters and sorts. They can now jump to the exact information they need and view the results on a screen right in front of them."

A Win-Win Situation

"Our customers will get answers from LaBarge faster which is a benefit for them and for us. We could not do ad-hoc reporting before Attunity. Our analysis is much more efficient and precise which makes us a much more effective operation."

**George Hayward,
Director of Information
Systems, LaBarge Inc.**

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Benefits Realized – For LaBarge and Its Customers

When LaBarge receives a request for a proposal, the company relies on the data in its ERP system to generate time and costs figures associated with the requested job. By providing immediate access to that data, Attunity has enabled LaBarge to present proposals in a timely fashion, allowing them to stay competitive with other contact manufacturing companies. Before Attunity, the process of gathering the specific numbers for items such as labor costs and inventory levels took no less than a week and sometimes up to a month. In addition to the sluggishness of the system, the project would require the attention of multiple workers for a long period of time.

Now with Attunity, LaBarge can have a proposal ready as early as the day it's requested. In addition, by providing timely access to the data that's necessary to calculate labor costs, LaBarge now makes better contract estimates, which has helped the company's sales and profit margins. The increased "ease of use" that Attunity has provided has enabled the person who best knows how to analyze inventory levels review the data and not have to enlist the help of multiple staff members. The actual businessperson who understands the inventory function the best can mine the data directly themselves. Because the data is now on SQL, there are many third party tools LaBarge can use to analyze the data and report against it.

The most significant benefit Attunity has provided LaBarge is the ability to keep its existing ERP system, which saved the company the considerable costs and risks associated with replacing such a critical operational system. Aside from the expense of purchasing a new ERP system, Attunity saved LaBarge from potential revenue losses that could have incurred due to system downtime during the ERP's replacement. Attunity enabled LaBarge to avoid the risks involved with replacing a core operational system that the company's entire operation depends on.

"We didn't need a new ERP system, we needed a solution that provided us with real-time access to the data it contains," said Hayward. "Attunity Stream captures that data as it changes so we are able to extend the life of the software. We can now do business and communicate the way our customers expect."

LaBarge estimates that in about a year its users will think the company had indeed installed an entirely new ERP system. Attunity will provide them with the ability to marry disparate systems. For the first time, the bid system, the sales system and the ERP system will all be linked and data will be shared across the three systems.

"Every way users interact with our ERP system has been drastically improved. We actually feel like we have a totally new ERP," exclaimed Hayward. "Attunity saved us the expense and likely downtime associated with implementing a new ERP System. We wanted to go with a company that had been there before and would be around for years to come. Attunity gave us the rare experience of feeling supported and knowing we were going to be treated fairly."