BUYER CASE STUDY

Open Source and Cloud Software from Actuate Delivers Business Intelligence to The Association For Manufacturing Technology

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IDC OPINION

How does a 110-year-old organization find itself at the forefront of BI software innovation? It ensures its relevancy by being adaptable, creating value for its members, and finding the right technology to participate in the emerging intelligent economy. In addition:

- Convergence of intelligent devices, machinery and infrastructure, social networking, pervasive broadband networking, and analytics is ushering in a new economic system that is redefining relationships among producers, distributors, and consumers of goods and services. This new environment is moving us toward "the intelligent economy," where it is not only access to information or how much data you can accumulate but the ability to analyze and act upon it that creates competitive advantage in commercial transactions, enables sustainable management of communities, and promotes appropriate distribution of social, healthcare, and educational services.

- The successful realization of the intelligent economy, including its components such as smart grids, smart cities, smart cars, smart medicine, smart retailing, even smart defense, and smart law enforcement will depend on many contractual, social, standardization, and technological factors, including the ability to capture, manage, and analyze the vast amounts of data created as a part of the interactions and processes.

- One organization addressing the challenges of the intelligent economy is AMT — The Association For Manufacturing Technology.

IN THIS BUYER CASE STUDY

This IDC Buyer Case Study highlights the business issues that led AMT — The Association For Manufacturing Technology — to acquire and deploy BIRT software from Actuate Corp. to its member organizations. This Buyer Case Study discusses the software evaluation and deployment processes and lessons learned by the buyer organization.
SITUATION OVERVIEW

Organization Overview

AMT — The Association For Manufacturing Technology (founded in 1902 as the National Machine Tool Builders’ Association) supports and promotes the U.S. manufacturing technology industry. The association provides U.S. builders of manufacturing systems with the latest information on technical developments, trade and marketing opportunities, and economic issues. It also gathers and disseminates information about world markets, promotes its members’ products in those markets, and acts as a representative on manufacturing technology matters to governments and trade organizations throughout the world. AMT founded the National Center of Manufacturing Sciences (NCMS).

In addition, AMT is a founder of MTConnect Institute, a not-for-profit independent organization made up of member companies and organizations working together on a collaborative effort to develop MTConnect. MTConnect is an open and royalty-free protocol that is revolutionizing manufacturing by fostering greater interoperability between manufacturing equipment builders, devices, accessories, and applications. MTConnect is based on HTTP and XML, available in open source with prototype software examples, and related documentation to facilitate the implementation of an interoperable, manufacturing plug-and-play capability from the shop floor to the enterprise.

Challenges and Solution

The Business Challenge

It was 2007 and the Strategic Information and Research Unit of AMT found that it was unable to fully participate in the emerging intelligent economy. The organization was sitting on a mountain of data and yet it was constrained in its ability to serve its member organizations with the right information at the right time because of the lack of the right technology to access and analyze the data and to deliver the resulting information.

The unit was tasked with compiling economic reports on the global manufacturing technology industry and many customer industries, continuously updating the Web-based market reports, managing the U.S. Manufacturing Technology Consumption Report, the industry's number 1 source for specific machine tool market data (this joint monthly statistical report by AMT and The American Machine Tool Distributors’ Association is a basic indicator of business activity), and assisting members with customized research to expand business, aid in strategic planning, and support members’ marketing plans.

These tasks were performed by industry analysts who had to balance their time between compiling and delivering prebuilt reports and performing custom analysis in response to members’ ad hoc requests. The analysts also receive nonmember requests that need to be priced according to the work involved — a difficult task when constrained by inefficiencies. The analysts would use multiple tools to run reports from multiple repositories, then combine, analyze, and format data. This process
would take a couple of hours, days, or weeks and would be priced according to the
time and effort spent by analysts. This type of evaluation often resulted in prices that
were too high for most prospects, thus limiting the ability of AMT to maximize revenue
from its data.

In 2007, an evaluation of internal processes was conducted in response to the
request from Patrick (Pat) McGibbon, vice president of the Strategic Information and
Research Unit. The conclusion as stated by Dave Edstrom, AMT’s director for the
Office of Strategic Innovation, and president and chairman of the MTConnect
Institute, was succinct, "You have very talented people and lots of information but
these people are typing with mittens on. They don't have tools to quickly slice and
dice information."

To overcome the inhibitors to better information access and analysis, the decision
was made to launch an online member portal — MTInsight — with new business intelligence and analytics functionality.

The Solution

Having secured sponsorship and funding, the process to develop MTInsight (see
www.mtinsight.org) began with the creation of a small project team consisting of
business and IT staff. What followed in mid-2010 was an extensive process of
requirements gathering, development of an RFI, a 50-page RFP, and evaluation of a
dozen software options. To dramatically accelerate the evaluation process, AMT
created a detailed video for prospective vendors to watch prior to the first meeting
with AMT’s MTInsight team. This video provided the history of the project, the
challenges, and what a final solution might look like as well as features needed. This
allowed prospective vendors to brainstorm and collaborate with their own sales reps
and systems engineers prior to the first physical meeting with AMT. AMT cast a broad
net with the RFI by asking prospective vendors to “put yourselves in AMT’s shoes —
what should we be asking for in the short and long run with our RFP?"

One of the options that AMT was looking for was an open source technology platform.
Although not critical, the project leadership believed that software built on an open
source platform gave them more options to develop and extend the software without
the IT vendor’s assistance. Another important requirement was to have a cloud
offering that would enable scalability in response to growing demand. This was
important because MTInsight is a service sold on a per-seat basis and the team was
concerned about the difficulty of predicting the number of users or the users’ online
activity. Among other key requirements was the IT vendor’s responsiveness.

Following the software evaluation process, Actuate with its BIRT onDemand SaaS
offering and ActuateOne (BIRT-based commercial products) was awarded the
contract. According to Edstrom, one of the things that helped Actuate was a seminar
the company conducted in Washington, D.C., where an afternoon was dedicated to
hands-on training. During the evaluation stage, Edstrom himself downloaded Eclipse
and the BIRT plug-in and was quickly able to develop a report without having to look
at the manual. Once the project was formally kicked off in January 2011, the
MTInsight team, which had little previous experience with BI software (having relied
primarily on spreadsheets), received 10 days of training from Actuate. In addition to
BIRT training, AMT’s staff continues to receive training in areas such as JavaScript and SQL to create more complicated and integrated reports, applications, and dashboards.

The development process involved close collaboration among MTInsight staff, Actuate, and a beta group of AMT members who were very vocal about their needs and requirements. First priority was given to frequently used reports that would go on the Web as static or parameterized reports.

As Edstrom explained, “When we think about BI technology, it’s about number of available adaptors (XML, database, CSV, IBM mainframe); tools for aggregating and slicing and dicing the data; ease of delivering data through multiple report types. BIRT software has provided us with all this functionality.”

MTInsight has been live since June 2011. The initial deployment involved free access to one user in each member company for the first six months ending December 2011. Following this trial period, MTInsight, which is deployed on the Amazon cloud platform, will be available based on an annual subscription.

**Results**

The value of MTInsight is derived from three related resources:

- The team of AMT analysts, economists, researchers, and statisticians with quantitative and manufacturing industry expertise
- Manufacturing industry content, both proprietary and public, including metrics and benchmarks
- On-demand, self-service functionality of the technology platform underpinning MTInsight

To maximize this value, AMT acquired and deployed software from Actuate as a tool for its internal staff and external users or member organizations. Although as of November 2011, AMT has spent very little time marketing the initial version of MTInsight to its members, reactions to the new BI application have been positive. To date, the following benefits have been derived from MTInsight:

- **Development of actionable BI applications.** The manufacturing industry tends to change slowly and the new cloud-based, self-service approach is a new paradigm for many AMT members. The real value of the new approach is in its ability to provide relevant, actionable information to its members on demand. Already, there’s an application that includes U.S. machine tool orders data and another application that is focused on sales leads — both high-demand applications. Other examples include the use of one application by an MTInsight subscriber that has saved the company 24 hours a month in employee time for the production of sales and market analysis reports, and another MTInsight application that is saving a subscriber 3 hours a week in its market analysis presentations to its executives.
Improved operational efficiency. IDC finds that one of the biggest challenges for most organizations is to provide rapid response to end-users' requests for information. The inability to do so is often a primary friction point between IT, BI groups, and lines of business or other end-user constituents. The new BI solution enabled MTInsight staff to decrease time spent on typical data collection and integration tasks as well as on report development. In addition, AMT's Strategic Information and Research staff have created a number of internal applications that have reduced the time needed to create monthly reports for trade analysis from 12 hours to a few seconds. Finally, the cloud-based solution now provides members with instant, on-demand access to relevant information.

More competitive pricing. When custom requests arrive from a member, MTInsight's staff is now able to effectively evaluate whether the resulting report would be useful to other members. If that's the case, the project can be priced lower than a completely custom, "one off" project, resulting in additional revenue.

A collaborative relationship with the software vendor. Finally, Actuate's responsiveness to AMT's needs did not stop with the initial sale. The ongoing personal attention provided by Actuate has impressed AMT. For example, recently the chief architect of BIRT onDemand spent time with MTInsight staff to understand their future needs and to discuss the BIRT development road map. Part of the relationship between AMT and Actuate is that AMT is not only a client but a partner in extending Actuate's own footprint in the manufacturing industry. The current per-seat pricing model for MTInsight is based on a fixed number of seats purchased from Actuate. Any additional seats of MTInsight sold provide a direct financial benefit to both AMT and Actuate. In addition, manufacturers that are looking for customized BI software for their own internal use become direct prospects for Actuate.

ESSENTIAL GUIDANCE

The deployment of MTInsight and collaboration with Actuate has resulted in several lessons that AMT plans to apply to future enhancements to this and other projects. These include:

Expect to reevaluate your staffing needs. IDC research shows that 30% of companies experience a BI and analytics skills shortage. This shortage applies to both insufficient BI/analytics skills and insufficient IT skills. Although AMT had existing staff with strong research, technology, and business expertise, it found that it needed to augment the team with an expert programmer with Java and SQL expertise. In addition, the new opportunities presented by MTInsight have resulted in the hiring of the first MTInsight sales representative — a position that had not been needed in the past. In addition, AMT recently hired a software engineer to help out with some of the more complicated custom applications.

Expect a change in the type of work being done. The new software enables greater ability to focus on the core competency of internal staff. For example, instead of spending time aggregating information or creating endless one-off reports, researchers and analysts are able to focus on value-added analysis of
data and on true exceptions and custom projects. The software increases the efficiency of data integration as well as rapid report or dashboard development. In addition, it provides end users with self-service functionality for parameterized reports.

- **Expect to find new opportunities to leverage your data.** A new BI software platform doesn’t just improve the efficiency of existing report development and information access and analysis processes, it also enables completely new ways of evaluating and presenting the data as well as the opportunity to ask new questions. For example, AMT is working on a set of reports that will present outcomes of one of the key industry conferences. New visualizations, such as a heat map, are being created that show what time of day visitors come in, what are they looking at, and who they are. “This type of output will allow our members to visualize the flow of people at the event. It’s something completely new. So education and cultural shift is important in what’s possible with BIRT,” said Edstrom. There are also opportunities to provide additional value-added services such as predictive analytics and forecasting. For example, AMT has a wealth of data on leading indicators. There’s also an opportunity to develop compliance reports for members required by law to report to relevant government agencies.

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**Related Research**

- **Worldwide Business Analytics Software 2011–2015 Forecast and 2010 Vendor Shares** (IDC #230022, September 2011)

- **Worldwide Business Intelligence Tools 2010 Vendor Shares** (IDC #228442, June 2011)

- **Worldwide Information Access, Analysis, and Management Software 2011 Top 10 Predictions** (IDC #226654, January 2011)