: What is the relationship between DSS and BAM?

by Dan Power

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Business Activity Monitoring (BAM) is the "real-time" evolution or descendant of the Executive Information Systems (EIS) and Analysis Information Systems of the 1980s and early 1990s. One should categorize Business Activity Monitoring systems as examples of Data-Driven DSS. Also, BAM is an example of a real-time decision support system (DSS). Let's check the web for more information BAM. Is it a buzzword or a meaningful concept?

What is BAM?

Microsoft Developer Network defines Business Activity Monitoring (BAM) as "a collection of tools that allow you to manage aggregations, alerts, and profiles to monitor relevant business metrics (called Key Performance Indicators, or KPIs). It gives you end-to-end visibility into your business processes, providing accurate information about the status and results of various operations, processes, and transactions so you can address problem areas and resolve issues within your business", cf. https://msdn.microsoft.com/en-us/library/aa560139.aspx.

According to the Tibco website, "Business Activity Monitoring (BAM) refers to the aggregation, analysis, and presentation of relevant and timely information about business activities inside your organization and involving your customers and partners. BAM provides more accurate information about the status and results of various operations, processes, and transactions so you can make better decisions, more quickly address problem areas, and reposition your organization to take full advantage of emerging opportunities." Check Tibco at http://www.tibco.com.

Industry analysts Kevin Strange and Bill Gassman, Gartner Group, state "Business activity monitoring (BAM) refers to the real-time monitoring of business metrics and to the process for issuing alerts when problems or opportunities arise."

Sengen (www.sengen.com), a technology consulting firm, notes "Through Business Activity Monitoring (BAM), companies are providing real-time access to critical business information by drawing data from multiple application systems and other internal and external sources and synthesizing them into quality reports - enabling a broader and richer view for faster and better informed business decisions."

What is the need for BAM?

A Mentisys White paper argues "Organizations are feeling an increasing need to overcome traditional delays and lag times in business transactions. The move to real time is being fueled by different needs in different sectors: financial services corporations strive to meet the demands of regulators to close financial transactions quickly; manufacturers face competitive pressures that force a shorter time-to-market for new products; there is a universal demand for improved customer service, requiring more timely responses."

What are the claimed benefits of BAM?

In addition to those in the Tibco quote above, the Mentisys white paper makes a number of claims. BAM solutions "provide insight, helping users interpret business events and make decisions more quickly." Also, BAM solutions enable users to "resolve discrepancies and eliminate delays through improved informed decisions and responsiveness. This improves operations efficiency and helps reduce costs." Finally, BAM improves the quality of real-time decisions. Some of these claims seem plausible in specific situations. However, BAM does not necessarily provide more accurate information or decision insight. Real-time DSS can sometimes improve operations efficiency and help reduce costs.

A Case Study -- Tanker Operator

Vendor firstRain (http://www.firstrain.com) has a number of BAM solution examples. The following is a summary of one case that should help explain BAM. Senior management of a major tanker and Floating Storage and Offloading (FSO) operator wanted "to monitor key corporate performance metrics, drawn from different applications and different systems in different locations -- in real-time." firstRain implemented its Transportation and Logistics Monitor to create customized dashboards that provided key executives with decision support information. "Each dashboard monitors key corporate performance metrics drawn from several applications and systems, as well as data from the operator's partners and suppliers. Components of the company's proprietary shipping application were extracted for use in the executive dashboard, maintaining the original application's full functionality." Executive users "can subscribe to receive alerts that are triggered whenever metrics exceed pre-defined subscription parameters, allowing them to 'manage by exception'." Users of the system can then access data and applications to help them act on the alert.

The controversy over real-time DSS, real-time data warehousing, and active data warehousing is

continuing in the trade literature. This past summer Neil Raden discussed technical issues associated with storing real-time data in a database. He noted the problems with maintaining a set of fact tables and with updating dimension and aggregate tables. Those technical problems have not been completely solved. Raden notes however the "demand for real-time data mixed with historical and enterprise perspective is growing rapidly."

In the Ask Dan! of December 8, 2002, Marc Demarest, President of Noumenal, commented on real-time DSS. The following conclusions are based on his arguments and I recommend that those interested in BAM check that column. So what can one conclude about real-time decision support systems?

Real-time means providing data "as soon as things change";

There is always some delay or latency in real-time DSS;

Real-time decision support should be push-based; and

Real-time decision support is not always the best solution.

So is BAM a good thing? For some businesses and some activities like emergency response monitoring and dispatching, tracking of airplanes, ships, and trucks, and especially currency trading, BAM is necessary and probably even mission critical today. Other activities and situations need to be carefully evaluated before implementing BAM.

Vivek Ranadive, CEO of Tibco, has been advocating real-time technology for more than 5 years. His book (1999) "The Power of Now" presents some good arguments for creating what he terms "event-driven enterprises". Ranadive notes "Equipping employees with event-driven information constantly reminds all your people that the profit and loss of the company rests in their hands, and every moment is a distinct opportunity either seized for the benefit of the home team or lost to the competition (p. 59)."

So real-time, data-driven DSS is here to stay; but BAM may go the way of other buzzwords. As always your comments, suggestions and feedback are welcomed.

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