Improving performance – Operational BI Provides Instant Answers for Direct Action

Midsize organizations can gain valuable visibility into daily operations and performance with real-time information.

Competitive pressures are forcing midsize companies to react faster to changing business conditions and customer requirements. As a result, there is now a need to use business intelligence to help drive and optimize business operations on a daily basis, and, in some cases, even for intraday decision making.

How are we doing right now?

It stands to reason that the more users who can answer that question, the more responsive their organization becomes to competitive pressures. Continuous visibility into daily business operations at all levels leads to better decisions—with less lag time between events and actions.

That's the premise of operational business intelligence.

It provides frontline workers with an up-to-date view of operational metrics, so that when outcomes exceed preset thresholds, those workers are able to respond quickly. As suggested by DM Review, the leading magazine covering business intelligence, analytics and data warehousing, "The idea is to empower grassroots employees with intelligent processed data on a real-time basis and optimize the use of operational data to the maximum extent possible."[1]

Why operational BI?

Most companies use analysis and reporting against companywide information stored in a data warehouse, data mart or an operational data store. In most cases, the data warehouse is fed from multiple operational systems and other sources via a regular batch process. This is needed for strategic decision-making cycles that may span a time period of several weeks (e.g., campaign management) or months (e.g., improving customer satisfaction).

There's a strong and growing business case for using real-time information. According to DM Review, 50 percent of the data within a typical organization requires analysis at least once a day; half of that requires hourly analysis.[2]

With operational BI, speed is more critical. The system accesses data from operational sources as it is generated and presents it in real time to provide users with a continuous view of performance against key metrics. Gartner has predicted that, "By 2010, competitive pressures will make monitoring customer-facing business activity an essential activity for 80 percent of organizations."[3]

Data vs process

Organizations need reporting and analysis for information based on historical data. It provides views into the business that feed tactics and strategy: cause and effect analysis, comparison of business results by region or year, competitor moves.

But plant floor managers, retail merchandisers, risk managers and others responsible for day-to-day business operations would say that timely process information is just as important. Consider online reservation systems, supply chains, customer complaints or fraud detection.

Express shipping organizations, for example, move goods from points A to B through a network of hubs. If a transport truck arrives late at one of those hubs, the package misses the connection to the next one because that carrier has already left. At the end of the month, a scorecard or report might show how many trucks arrived late at a particular hub, but an operational dashboard would catch the late arrival while transport is still in process. An alert could be passed to the next hub in the chain, which, in this case, could allow staff to hold the truck until the delayed package arrives.[4]

[1] Santosh Joshi, "*Redefining Business Intelligence with Operational BI*," DM Review, April 2007

[2] Ibid.

[3] Bill Gassman, "*The Real-Time Side of Business Intelligence*," Gartner Business Intelligence Summit, March 12–14, 2007

[4] Robert Blasum, "*Operational BI*," BusinessCoDe, December 20, 2006

How operational BI works

Different operational BI systems use different data processing techniques.

The IBM Cognos Now! Monitor's operational dashboard (see Figure 1), for example, uses a memory-based streaming data store engine to process events and data. The engine provides continuous updating of metrics integrated from operational and historical data, time-based calculations, business rules processing and event-driven alerting. The architecture processes business transactions such as new orders, customer service calls and inventory status, and integrates this information with contextual data to form dynamic business views. These are automatically updated as new transactions are processed. In this way, users receive information literally in seconds, regardless of query volume or the number of users on the system.

Operational BI in action: Operations Management

Such data immediacy has positive implications for business. For example, one of the world's largest lodging franchisors uses a IBM Cognos Now! Monitor operational dashboard to handle the increasing volume of hotel availability searches across its many channels—travel sites, hotel websites and travel agents.

The dashboard allows frontline decision makers to continuously monitor system performance and track customer demand. The result? There's less downtime, and the company can maintain high levels of service.

BI for everyday users

Conventional BI with reporting and analysis has caught on much more with analysts, managers and power users. But operational BI for everyday users has been slower in coming. A 2006 survey by the Economist Intelligence Unit found that fewer than 30 percent of frontline workers had access to BI data, versus 89 percent of executives.

However, it also predicted that the "future of BI [...] indicates a flowering in the coming years of so-called operational BI."[5]

Self-service, easy to use

To support the growing ranks of everyday users, operational BI should be as easy to use as possible. That means straightforward, user-friendly access to information. Operational dashboards can display up-to-date information in an intuitive, graphical format, so users immediately see and understand what's happening in the key areas of their business operations. Dashboards can also be personalized to contain metrics, graphs and indicators. And they're designed for self-service. Users can modify or create new metrics, drill down to detailed data, set alert thresholds and assign tasks, without help from IT departments.

Summary

While the process can be complex, the idea of operational BI is simple: Generate business information quickly and present it in a meaningful way to everyday users—so they can make effective, real-time decisions.

The goal is to make BI part of everyone's daily routine. By doing so, people will spend less time chasing down answers and more time improving the business.

About Cognos, an IBM company

Cognos, an IBM company, is the world leader in business intelligence and performance management solutions. It provides world-class enterprise planning and BI software and services to help companies plan, understand and manage financial and operational performance. Cognos was acquired by IBM in February 2008. For more information, visit **http://www.cognos.com**.

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To request a call or ask a question, go to www.cognos.com/contactme A Cognos representative will respond to your enquiry within two business days.

[5] Economist Intelligence Unit, *Business intelligence: Putting information to work*, The Economist, July 2006

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