

# White Paper

## Top 10 Trends in Business Intelligence and Data Warehousing for 2005

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## **BI/DW ENTERS A NEW PHASE**

Business intelligence and data warehousing (BI/DW) has reached a new level of maturity, both as a discipline and a technology market. Demand for BI/DW is stronger than ever; for the first time in 2004, BI/DW made the list of top ten CIO priorities according to a Gartner survey. Most enterprises already have a BI/DW infrastructure in place and are now taking the lessons they've learned from previous efforts to remedy problem areas. At the same time, many enterprises are also moving towards the next steps in the evolution of BI/DW. In this white paper we look at the top 10 trends shaping enterprises' approach to BI/DW today, including both the improvements companies are making to their existing strategies and infrastructures as well as the new technologies and initiatives that are moving BI/DW forward.

## **TREND #1: TAKING DATA QUALITY SERIOUSLY**

Very few enterprises set out to remedy data quality problems just for the sake of data quality. So what's pushing enterprises to actually do something about data quality, instead of just talking about it? First, poor data quality costs them money in terms of lost productivity, faulty business decisions, and an inability to achieve results from expensive investments in enterprise applications. Second, poor data quality can make regulatory compliance extremely difficult (see Trend #5). It's true that many companies have cleaned up their customer data to enable CRM-related initiatives. However, their focus has now turned to data in other areas of the business, such as supply chain and finance, and to tackling what can seem like intractable data quality problems in nearly every business domain.

META Group predicts that the market for data quality software and services will grow 20 to 30 percent annually through 2007, supporting the observation that companies are committed to actually doing something about their data quality problems. However, it

can be tough for organizations to know where to begin. For example, how can data quality be measured so that problem areas can be identified? Which issues should be addressed first? There are numerous methodologies and tools available to help companies sort through their data quality issues, but it's important to choose one that takes a practical approach. Addressing data quality in the abstract is impossible.

### **TREND #2: INFRASTRUCTURE STANDARDIZATION AND CONSOLIDATION**

If someone asked you right now how much your enterprise spends on BI/DW annually, would you be able to come up with a reasonable estimate? If your company is like most organizations, the answer is probably no. Enterprises tend to know what they're spending for ERP and other core systems, but not for BI/DW. That's because BI/DW efforts have largely been undertaken in silos, with each business domain creating its own solutions to the problem of obtaining and analyzing data. This siloed approach almost always results in duplication of efforts, inefficiency, and increased expense.

Enterprises have come to recognize their disparate BI/DW solutions as a problem over the past couple of years. Their interest has been particularly piqued in these lean economic times, when eliminating duplicate BI tools or data marts might result in lower license costs and maintenance expense. Improved access to information, while more difficult to quantify, is also an important benefit of eliminating silos. However, standardizing and consolidating a BI/DW infrastructure is far easier said than done. It involves political and organizational issues that are just as challenging as the technology issues.

### **TREND #3: OFFSHORE SOURCING FOR BI/DW**

Although there has been much buzz (and controversy) surrounding offshore sourcing in the past several years, companies have been hesitant to send their BI/DW work offshore because it requires more business knowledge and customization than other types of projects. However, the cost savings aspect of offshore sourcing can be irresistible, especially with pressure coming from the top of the organization to do more with less. Enterprises look at the hourly rates of offshore personnel and don't see how they can lose

with costs that cheap. Lured by the promise of cost savings, enterprises have increasingly taken the leap to offshore for some of their BI/DW development work. The initial verdict on the results is somewhat mixed. Some companies have found that despite offshore hourly rates that are only a fraction of onshore costs, they haven't achieved the savings they thought they would. Quality problems, communication issues, and other difficulties companies may not have foreseen have led to less-than-successful offshore initiatives.

Enterprises can't just flip a switch, go offshore, and expect to reap the cost savings—that sounds so simple and obvious, but many companies have tried to do just that. More thought needs to go into organizing offshore efforts. Which activities should be sent offshore? How can an enterprise best work with offshore personnel? At the same time, how can an enterprise help its in-house personnel accept the offshore model and become more valuable to the organization? Implications of offshore sourcing must be considered carefully before jumping in with both feet, especially in the case of BI/DW. Cost savings can be had, but not without careful planning.

#### **TREND #4: STRATEGIC APPROACH TO INFORMATION**

Slowly but surely, enterprises are recognizing information as a strategic part of their business. Very few have put the idea of “data as an asset” into practice, but within many organizations there is a group of individuals who recognize the strategic value of information. Members of senior management have become increasingly receptive to this viewpoint. What's the evidence that this is happening? BI/DW has become a critical part of other projects with far-reaching implications for the business. Companies may not be implementing enterprise-wide BI for BI's sake, but they are incorporating BI/DW into other key enterprise projects that promise to optimize business processes and deliver benefits to the bottom line.

So how does a company begin to treat its information as an asset? Developing an information strategy and architecture is the first step, along with setting some basic standards for data governance. This needs to be a joint activity of IT and the business because organizational and political issues are just as important as technology issues. IT

must communicate with the business to discover their needs and understand which data is really driving the answers to crucial business questions.

#### **TREND #5: REGULATORY COMPLIANCE AS A DRIVER FOR BI/DW**

Achieving compliance with the Sarbanes-Oxley Act of 2002 is a major concern for executives. In short, Sarbanes-Oxley is designed to reinforce the financial accountability of public companies by requiring executive certification of financial results, accelerated reporting of quarterly and annual financial results, and rapid reporting of any events that may materially impact a company's financial condition. Achieving compliance with these requirements will certainly demand improvements to companies' data infrastructures and reporting capabilities. And Sarbanes-Oxley is only one of the new regulatory directives companies are dealing with. Environmental regulations and data privacy regulations are other issues that have companies scrambling to make sure they have access to the necessary data.

This scrambling has driven investment in solutions that enable information access (or security, as the case may be) and ensure data accuracy. Regulatory compliance has become a key impetus for undertaking BI/DW initiatives and has attached some very real consequences to not having access to quality data. In the case of Sarbanes-Oxley, META Group estimates that BI and business performance management account for a full 30 percent of the technology profile of a successful solution. Many enterprises may be tempted to ignore the BI/DW component to focus on their ERP and financial systems, but the visibility and transparency provided by BI/DW solutions is just as critical.

#### **TREND #6: ELEVATING THE ENTERPRISE DATA INTEGRATION DISCUSSION**

For bleeding-edge enterprises, the question is no longer which technologies to use for data integration—they've already made their selections. And many have chosen ETL as the technology that will facilitate enterprise data integration. Evidence of this can be found in the million-dollar-plus, enterprise-level deals closed by Ab Initio, Ascential, and Informatica in the past year. The question for these leading enterprises now becomes **how** to use the ETL tools they've chosen. Data integration discussions must be elevated

to the next level. For true enterprise data integration, organizations need to consider meta data management, master data management, and data quality. In effect, they need to put a layer on top of their chosen integration technologies that connects the tools and adds value.

Of course, many enterprises are still making the decision between ETL vs. EAI vs. web services for data integration. However, the lines between these technologies continue to blur. ETL technologies have adopted some of the real-time capabilities of EAI tools, while EAI tools have become somewhat stronger at data transformation. Even enterprises that are still in the midst of making an integration technology choice can benefit from looking beyond that choice to the steps needed to add value to their implementation and make it successful.

#### **TREND #7: EDUCATING THE END USER**

All too often, enterprises still make the mistake of taking an “if you build it, they will come” attitude towards their BI/DW efforts. The greatest technical solution in the world is wasted if end users are not educated about the data that’s available to them and convinced of its accuracy and value. Many organizations feel that it’s enough to provide basic training on BI tools for end users. However, in the words of Gartner, “it is more critical to train users on how to analyze the data.” Gartner goes on to say that focusing only on BI tool training can triple the workload of the IT help desk and result in user disillusionment. A user who is trained on the BI tool but does not know how to use it in the context of his or her BI/DW environment will not be able to get the analytical results he or she needs. This user will likely either turn to IT to do the work for them or give up entirely. Lack of user adoption and perceived value of previous BI/DW efforts is leading more organizations to recognize the value of a complete education and training program for end users.

#### **TREND #8: MASTER DATA MANAGEMENT**

Within every enterprise, there is a set of data that provides valuable information to identify and uniquely define core entities, such as customers, products, suppliers, etc.

This data is called master, or reference, data, and it's becoming a primary concern for more and more organizations. Master data management sounds like such a simple task; how hard can it be for an organization to identify its customers or define each of its products? As with many things related to BI/DW, what seems like a simple task can actually become very complicated. The proliferation of enterprise applications, combined with most organizations' siloed approach to BI/DW, has resulted in master data being scattered across the enterprise. Different business domains may define and identify "customer" and "product" in different ways, and probably store their reference data in disparate databases.

The drive toward integrating and streamlining enterprise systems has made getting a handle on master data a priority. Vendors like Kalido and SAP are introducing tools to help with master data management, but any solution also needs to consider organizational and political issues, such as who "owns" the master data in question and who gets to define it.

#### **TREND #9: POWERFUL NEW ENTRANTS TO THE BI/DW MARKET**

The growth of the BI/DW market has not gone unnoticed among vendors in other technology areas. New entrants include both small start-ups and established companies, but the most powerful newcomers are ERP and CRM vendors like SAP, Oracle, and Siebel. These companies see a great opportunity in the BI/DW market, both because spending is growing and because enterprises have found that their ERP and CRM systems haven't performed as expected in terms of enabling data access and analysis. ERP and CRM vendors are stepping in to offer BI/DW remedies to help their clients get the data they need, and the numbers show they're succeeding in penetrating the market. SAP BW had more than 3,500 production customers worldwide as of March 2004, while Gartner estimates that Siebel's license revenue from analytics grew 70 percent in 2004.

However, market penetration does not tell the whole story of how these products are being used as part of an enterprise BI/DW infrastructure. In the case of SAP BW, a July 2004 META Group survey found that 49 percent of SAP customers did not know what

role SAP BW would play in their BI/DW strategy. These new vendors must prove their ability to handle data that comes from outside their corresponding enterprise applications before they will achieve widespread acceptance as core BI/DW solutions.

#### **TREND #10: ACTIONABLE BUSINESS INTELLIGENCE**

At the same time that companies see BI/DW playing a strategic role, they also want to be able to use the insights gained from their data for more tactical decision-making purposes. Enterprises value analytical capabilities, but they also want to be able to take action. Interest in dashboards and scorecards has surged because companies are interested in monitoring their performance, but now they want to take that information to the next step and determine how to act on it. For example, retail and manufacturing companies are interested in understanding how to use their supply chain information to make timely decisions. If they spot a problem in the supply chain, they want to know how they can act on that information in “real time” to make improvements. Defining business rules can help these companies develop step-by-step instructions for how to respond to the data they’re getting from their supply chain and incorporate those instructions into their BI/DW systems. BI has a role to play in the operational functioning of the enterprise as well as the determination of its strategic direction.

#### **CONCLUSION**

Regulatory imperatives, cost pressures, and a desire to optimize business processes and streamline the enterprise make BI/DW more critical today than ever before. The maturity of BI/DW as a discipline and a technology market has made enterprises more comfortable with investing in solutions to both fix old problems and move their organizations to the next level of BI/DW innovation.

## SOURCES FOR THIS PAPER

Gartner. “BI Market Dynamics: Tricky Times in a Growing Market” by Colleen Graham and Bill Hostmann, October 2004.

Gartner. “Eight Ways to Stop the \$40 Billion in BI Waste” by Kevin Strange, June 2002.

Gartner. “Siebel Systems Targets Business Intelligence Market for Aggressive Growth” by Bill Hostmann and Gareth Herschel, January 2005.

META Group. “Data Quality Tools METAspectrum” by Andreas Bitterer and Kevin Waddle, December 2004.

META Group. “SAP BW: Staying One Step Ahead of a Juggernaut” by Kurt Schlegel, August 2004.

META Group. “The Joy of SOX: Part 2—The SOX Solution Blueprint” by John Van Decker and Charlie Brett, October 2003.

## **ABOUT KNIGHTSBRIDGE SOLUTIONS**

Knightsbridge Solutions is the largest professional services firm exclusively focused on business intelligence and data warehousing solutions. The company offers services in information strategy, data integration, business intelligence, and data warehousing, with a specialization in “big-data” solutions for those with high data volumes or complex information challenges. Knightsbridge serves Fortune 500 clients in financial services, insurance markets, retail and consumer products, health and life sciences, high technology, entertainment, federal government, and other industries.

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