

Open Source Business Intelligence A 2008 Progress Report

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SURVEY SHOWS FRUSTRATION BUILDING AROUND BUSINESS INTELLIGENCE

Decision makers understand that business intelligence solutions can provide competitive advantage, but are growing frustrated with the costs and complexity of traditional BI solutions.

A new survey of 185 enterprises, conducted by Unisphere Research, a division of Information Today, Inc., reveals that while a mature technology, business intelligence has not been as effective as it could be within enterprises.

Business intelligence tools—from the simplex to the complex—have been on the scene for almost two decades. These applications have long held the promise of enabling executives to make decisions based on informed analysis driven by data - versus intuitive, “gut-level” decision-making.

In a time of rapid change and economic uncertainty, the race is on among enterprises to better leverage their information assets and exploit rapidly expanding data stores to deliver actionable insights to decision makers at all levels. Companies are scrambling to help decision makers better understand customer buying patterns and preferences, product lifecycle issues, and risk levels—and be able to better predict developments within the next quarter, the next six months, or even the next

year. Such capabilities can mean the difference between survival and growth.

However, the promise of BI is still elusive for many organizations. While there are many BI tools and platforms available on the market, many are simply too costly to buy, too complex to implement, and too difficult to maintain. So BI tools remain limited to specialists and analysts who spend their time sifting through data and preparing reports. BI tools are still the luxury of organizations with larger budgets and staff for implementing and maintaining these solutions. As a result, many decision makers are still reduced to relying on manual, on-the-fly approaches to BI, such as loading data into spreadsheets.

Companies recognize the need to get beyond spreadsheets, and to be able to provide more sophisticated and automated business intelligence solutions to more end-user decision makers. However, most see their efforts stymied by the historically high cost of BI software, and the complexity of available solutions. For a sizeable number, the only alternative has been to limit usage of more sophisticated BI tools within their organizations.

Now, a new generation of business intelligence solutions—available through the popular open source model—is emerging as an essential part of open source portfolios. Currently, about one out of ten enterprises

already are adopting this new class of tools, the Unisphere survey found.

Survey respondents represented a range of company sizes, from small businesses with less than \$5 million in annual revenues (18 percent) to large organizations with more than \$5 billion in revenues (16 percent). Thirty-three percent were IT or business managers, and 39 percent were IT developers or administrators.

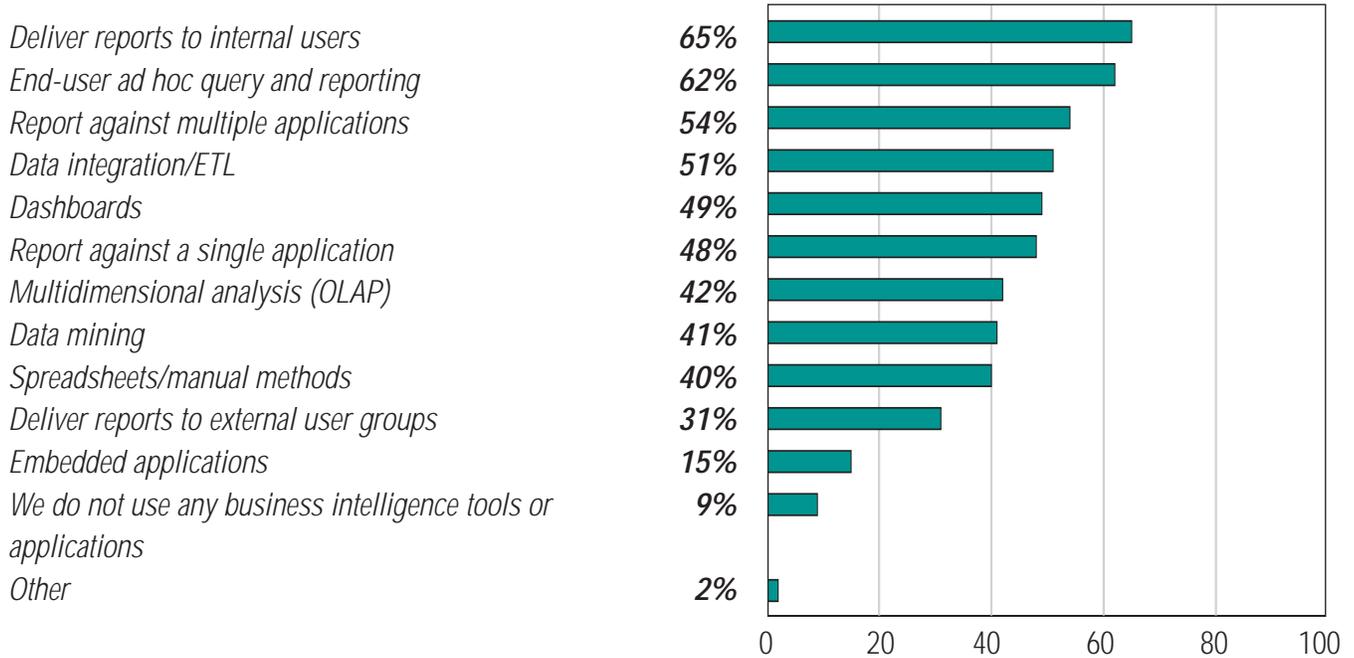
Industry groups represented in the survey also represented a broad range, led by IT and high-tech companies (32 percent), financial services (12 percent), education (10 percent), professional services (seven percent), and manufacturing (seven percent).

The companies in the Unisphere Research survey already have steep histories in business intelligence and analytics, and employ BI tools for a variety of purposes, from simple report generation and delivery (65 percent) to more sophisticated data integration (51 percent), executive dashboards (49 percent), and data mining (41 percent). (See Chart 1.)

TOOLS

For many companies, achieving success with their BI environments is a challenge. Close to three out of four cite some issues that have hampered their BI efforts, led by poor data quality (28 percent), the

Figure 1: How BI Tools are Employed



complexity of BI tools (21 percent), lack of BI skill sets within organizations (21 percent), and lack of management buy-in (20 percent). (See Chart 2.) In many ways, then, the complexity of BI solutions limits organizations' abilities to take full advantage of their investments.

Nevertheless, companies intend to keep buying into business intelligence, because they recognize that maintaining a competitive advantage means competing on analytics—being able to leverage data coming from within and outside the enterprise to identify opportunities and determine trends. Close to two out of three respondents, 63 percent, say they expect to increase the number of employees or end users that are accessing their BI environments. (See Chart 3.) However, the same number is also put off by the cost of software licenses for these tools. (See Chart 4.)

BI ALTERNATIVES

Companies are actively seeking alternatives to costly BI solutions, including open source and high-volume license purchases. Almost one in five organizations say the only alternative they see is to limit the usage of BI solutions within their organizations.

Companies are investigating a range of alternatives to paying the fees associated with BI software licensing. Close to a third are looking at open-source alternatives, while 23 percent are considering high-volume purchasing schemes to receive discounts from their vendors. Another 18 percent are considering on-demand, software-as-a-service solutions as a way to break expenditures own into monthly pay-per-usage arrangements. Another 18 percent are even simply weighing limitations on the usage of BI software. (See Chart 5.)

What would it take to move companies away from their existing BI solutions and into these alternative strategies more deeply? Many say they don't want to deal with a difficult migration or upgrade to a new version of the product (39 percent), while 38 percent say any increases in licensing or maintenance costs will push them over the edge. Another 38 percent say they're likely to just simply keep on using the current product until it is no longer supported.

OPEN SOURCE: A DISRUPTIVE FORCE

More than half of respondents have or plan to adopt open source solutions. Growth areas for open source include databases/data warehouses, business intelligence, CRM and ERP systems, content management systems, financial systems, human resource systems, security systems, and e-commerce.

Figure 2: Reasons for BI Project Failures

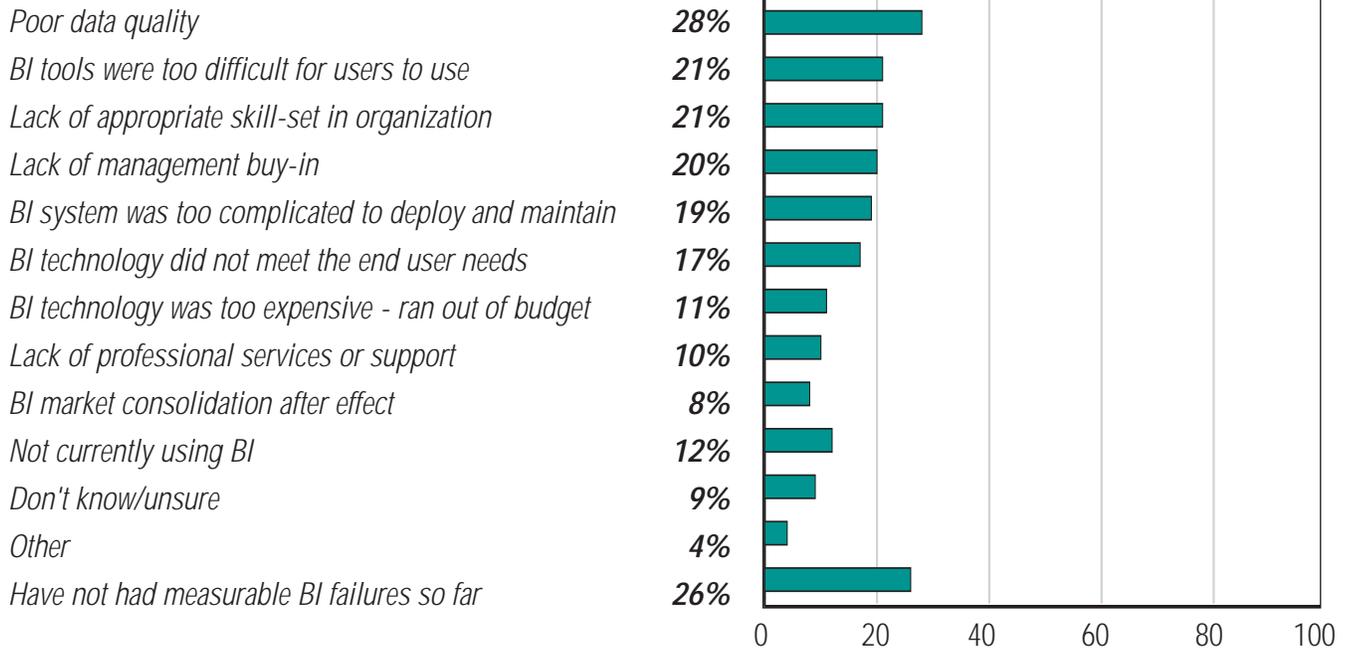


Figure 3: How BI Adoption Will Change Over the Coming Year?

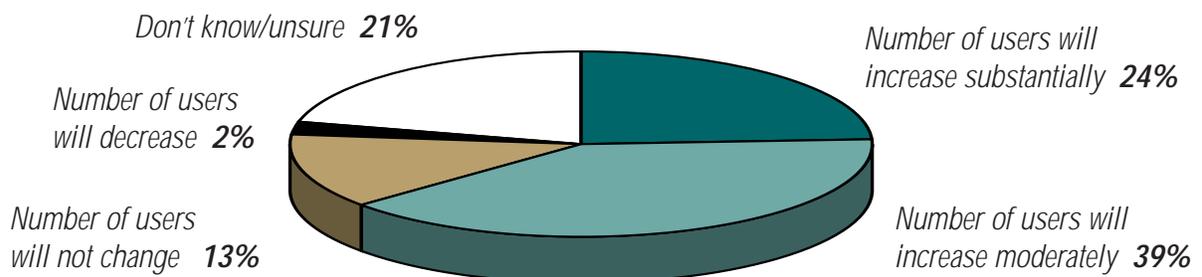


Figure 4: Software License Costs as BI Inhibitor

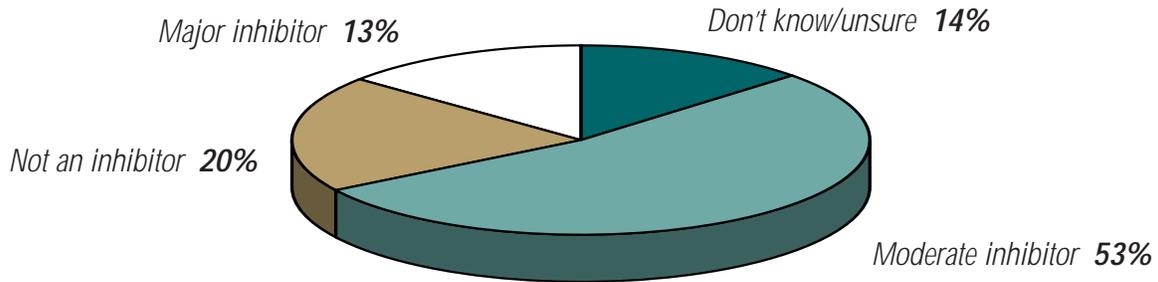
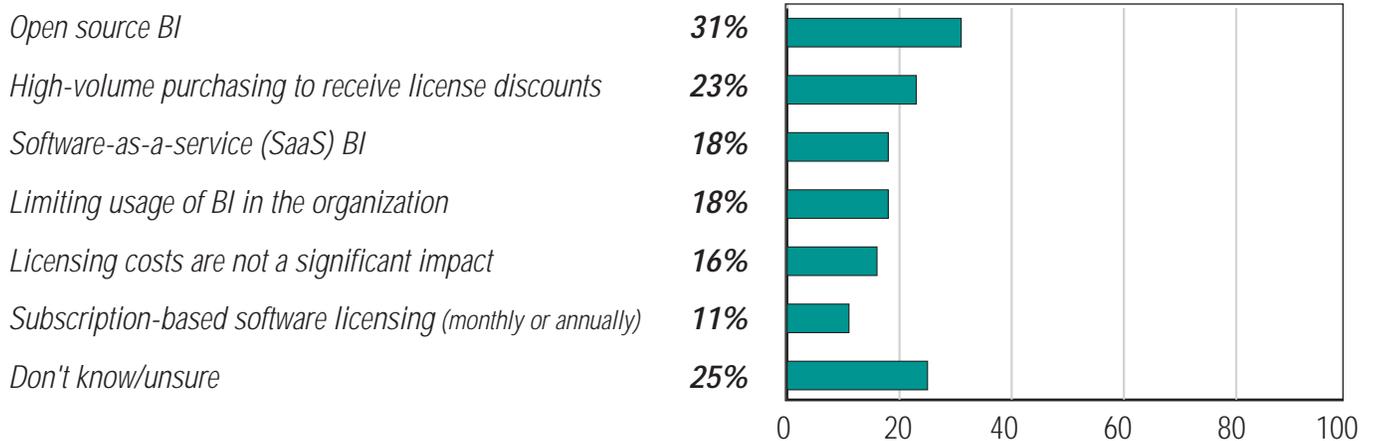
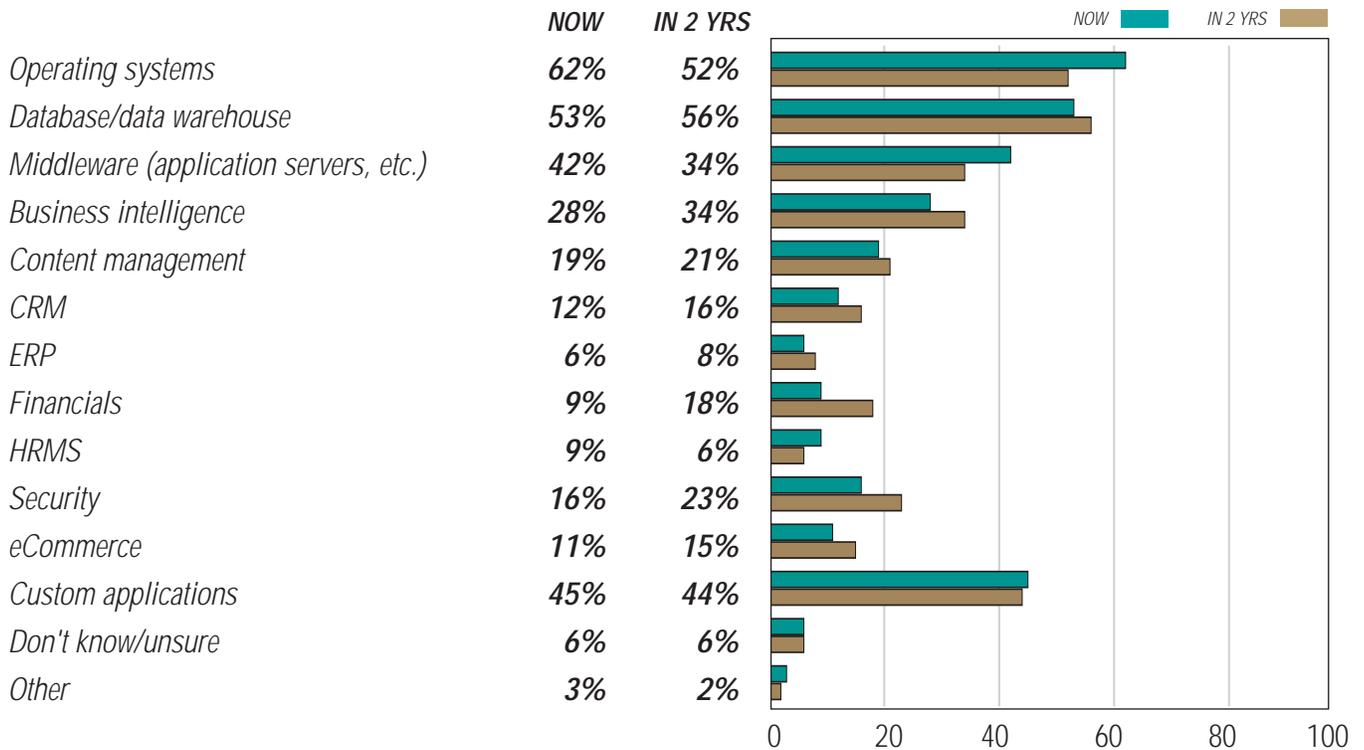


Figure 5: Alternatives Investigated to Mitigate BI Software Licensing Costs



**Figure 6: Types of Open Source Software In Production
(Among Open Source Users)**



There's nothing unique about the difficulties companies are experiencing with proprietary BI solutions. Over the years, other types of solutions within the IT stack—from operating systems to middleware to databases— have been monumental burdens on IT budgets and resources, with little return. For example, operating systems at one time were one of the most expensive parts of the IT stack, with licensing costs far exceeding the hardware underneath. Middleware, which was supposed to help untangle the mess, was even more costly, requiring special expertise to properly implement.

Many parts of the IT stack have seen the rise of open source, a disruptive force to the traditional software market that has not only made solutions available to unserved and underserved markets, but also has altered the portfolios of larger enterprises. Open source code tends to be low or no-cost with liberal licensing constraints. Open source systems and applications are also consistently aligned with widely accepted standards and protocols. As a result, solutions can be readily integrated into most IT shops, unencumbered by superfluous features or proprietary hooks.

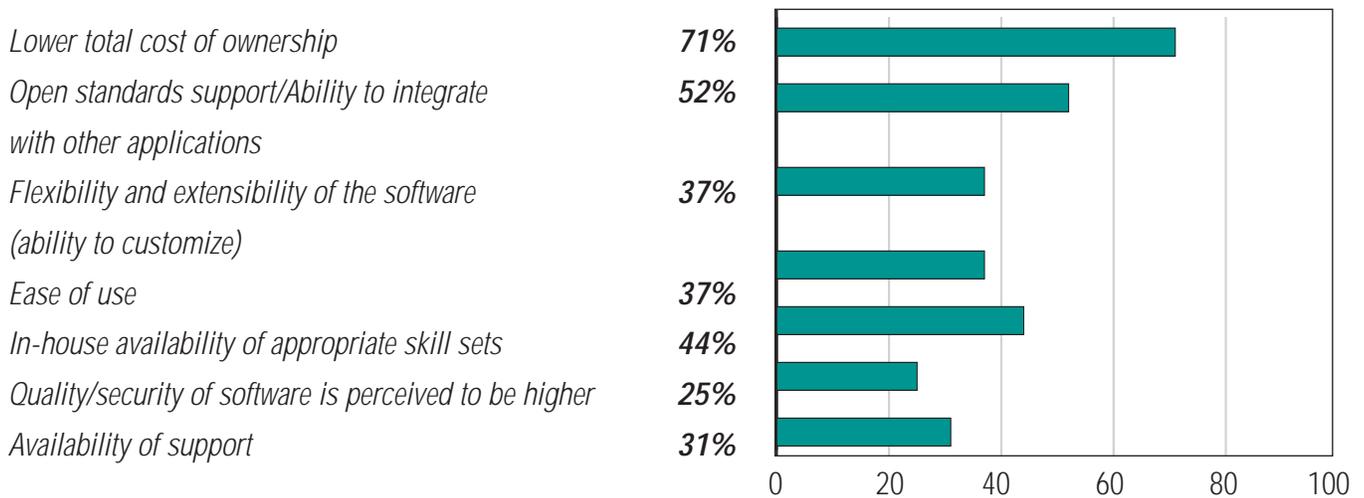
In addition, highly engaged communities help to evolve the code bases, contributing enhancements, feedback, and testing across a broad range of configurations. Commercial open source vendors take this one step further by providing service level agreements, training and consulting, and feature enhancements for paying clients.

Overall, 44 percent of the respondents to the survey currently use open source software somewhere within their enterprises, and another 15 percent are considering adoption of such software. The majority reports having between two to five open source solutions within their

Figure 7: Key Open Source Barriers (Among Open Source Users)



Figure 8: Most Important Factors in Open Source Decisions (Among Open Source Users)



companies. The most popular open source environment is operating systems, followed by databases and middleware. Growth areas for open source include databases/data warehouses, business intelligence, CRM and ERP systems, content management systems, financial systems, human resource systems, security systems, and e-commerce. (See Chart 6.)

Overall, two out of three expect their use of open source software to grow over the coming year, while only two percent see a decline in adoption.

The open source revolution is moving into the business intelligence space in a big way. Solutions on the market now offer the capabilities of robust BI products—including user configurability, back-end data integration, and data management—but with the open licensing and community and commercial vendor support seen with other open source solutions. As noted in Chart 6, 28 percent of respondents that are using open source already have implemented open source business intelligence solutions on their premises. (This is equivalent to 10 percent of the total survey sample.) In two years, more than a third of open source users will be deploying business intelligence as part of their portfolio.

OPEN SOURCE CHALLENGES AND OPPORTUNITIES

Enterprises are comfortable with using open source for mission-critical applications, and agree that open source BI tools are ready for enterprise use. However, many say open source solutions are not functionally equivalent to traditional proprietary solutions.

There historically has been some hesitation on the part of enterprises to move into open source solutions, whether it is for BI or databases or operating systems. While numerous vendors have come into the open source space with extensive support organizations and well-functioning business models, respondents are still concerned

about issues such as security, skills availability, and there is some hesitancy that lingers. Likewise, close to half of the respondents already using open source suggested one of the main barriers is simply lack of awareness about solutions that are out there. (See Chart 7.)

The survey asked respondents to rate their experiences with open source to date, and one of the leading challenges encountered was organizational or managerial resistance. Within respondents' companies, corporate standards and IT policies still tend not to be favorable to the use of open source technologies. Thirty-one percent of respondents said they have encountered this challenge, while 29 percent say their organizations support open source solutions and approaches. (The remainder said they were "neutral" on the question.)

However, respondents themselves feel strongly that open source software is ready for mission-critical applications (42 percent versus 11 percent questioning whether open source is ready). Respondents are also comfortable with the levels of security open source solutions provide (35 percent versus 12 percent).

In addition, respondents were inclined to agree that open source business intelligence is ready for enterprise use (28 percent versus 19 percent), but were more evenly divided on the question of whether open source business intelligence solutions were functionally comparable to proprietary BI packages (25 percent versus 22 percent).

While there are challenges to open source adoption, respondents in this survey report a wide range of benefits that could potentially come out of their deployment. More than seven out of ten companies that have implemented open source report that they are seeking lower total cost of ownership, while more than half cite the open standards that will enable greater interoperability

between applications. Respondents also liked the fact that such software offers greater flexibility and extensibility, as well as ease of use. (See Chart 8.)

CONCLUSIONS

These days, companies are under tremendous pressure to "compete on analytics," leveraging data and technology to better understand markets, attract and retain customers, improve internal operations, and be able to make informed predictions about future trends. This survey of 185 decision makers and data managers finds that companies are put off from investing in BI tools and platforms due to their cost and complexity.

The survey confirmed that decision makers understand very well that business intelligence solutions can provide competitive advantage, but are growing frustrated with the costs and complexity of traditional BI solutions.

The survey also reveals that companies are actively seeking alternatives to costly BI solutions, including open source and high-volume license purchases. However, some companies feel there are too few options, and feel the only alternative they see is to limit the usage of BI solutions within their organizations. This, of course, runs contrary to the promise of BI, which can be realized by becoming more available to end users and applications across the enterprise.

As has been the case with many other solutions and technologies, open source offers a viable alternative to organizations looking for BI on a tight budget. More than half of respondents have or plan to adopt open source solutions. Growth areas for open source include databases/data warehouses, business intelligence, CRM and ERP systems, content management systems, financial systems, human resource systems, security systems, and e-commerce. Enterprises are comfortable with using open source for mission-critical applications, and agree that open source BI tools are ready for enterprise use. ■