Making Profit Out of Data

BUSINESS INTELLIGENCE HELPS THE DATA IN EXISTING SYSTEMS GENERATE ADDITIONAL REVENUE.

Companies know much more than they think they know. Today's challenge is to optimize that knowledge for greater strategic value.

Any company that does business accrues data. And that data is everywhere in the business, stored in locations that can be continents apart and can range from banks of filing cabinets to disparate databases to the heads of long-time employees.

That data is a valuable resource and it likely is an underutilized one, as well. When information can be converted into intelligence that benefits the top- or

bottom-line, the business value can be enormous. Companies that can analyze precisely what they know about their customers and business partners, their supply chains and their operations are then able to make decisions that cut costs, speed time-to-market and increase revenue.

Just ask Penske Logistics, a subsidiary of Penske Truck Leasing. The company offers transportation and supply-chain management services and is the one of the largest logistics providers in North America.

Penske Logistics maintains a fleet of more than 2,500 trucks. Thanks to its business intelligence (BI) system, executives are able to monitor performance using data drawn from five business systems, including one that tracks its trucks on the road.

The combination of an extranet and Web Intelligence — an integrated query, reporting and analytical processing tool from Business Objects — makes it possible for Penske Logistics to not only deliver company intelligence to company decision-makers but also share that daily logistics data with key partners.

The Web Intelligence/extranet system delivers a competitive edge for the company by supporting a much more intimate partnering with customers, sharing with them all the company's internal performance and efficiency analyses.

"We're wearing our business on our sleeve," says Tom Nather, senior systems analyst for Penske Logistics in Cleveland. "If something goes wrong, we can help our customers understand why and we can correct it."

BUSINESS INTELLIGENCE GLOSSARY

Business Intelligence
A business strategy that integrates and analyzes operational data from an array of internal sources to improve decision-making and competitiveness.

Business Performance Management
The use of business intelligence-derived operational metrics, ranging from ad hoc yardsticks to Six Sigma or Balanced Scorecard, to measure company performance.

Data Warehouse
A database structured to store tactical information that can be used to answer specific questions about transactional company history.

Knowledge Management
A broad strategic approach to identifying and using a company's knowledge to improve its efficiency. One subset of knowledge, structured data, can be managed using business intelligence tools.

OLAP
Online analytical processing tools take a complex, multi-dimensional view of aggregated data to quickly yield strategic information. The power of OLAP tools is predictive, in answering "why?" and "what if?" questions.

Structured Data
That subset of a company's data that is stored electronically in databases and thus can be accessed by data field.

Defining Business Intelligence

Much of the data that companies possess is generated from business systems — from transactional, customer relationship management (CRM), financial and enterprise resource planning (ERP) tools. Unfortunately, though, the data from each business system is likely to be stored in associated databases, which means that the information needed to analyze company business patterns is scattered. That makes it virtually impossible to pull data together quickly to produce a multifaceted picture of customers, partners, suppliers or business events.

Business intelligence systems were developed to help companies access, analyze and, above all, *use* the data they collect. Deploying a BI system thus involves identifying the places where that data resides and frequently "cleaning" it, as well, so all the references to a customer or supplier follow the same format. BI systems often centralize selected data in a large, specially designed database called a data warehouse. Anyone with access to the BI system can ask questions about business performance. And BI systems make it not only possible, but easy to do both historical and forward-looking analyses of business patterns quickly.

How is it known whether a company needs a BI system? Rob Stephens, a business intelligence strategist at SAS Institute, a business software systems vendor in Cary, N.C., suggests this yardstick: "If two different vice presidents in two different divisions go after the same data and come up with inconsistent results, then you need to do something."

Business intelligence is about getting good operational control over your business to maximize top-line revenue growth or to control customer costs, says Sanju Bansal, chief operating officer at MicroStrategy, which sells business analytics products and services from its headquarters in McLain, Va. He notes that when a company has the ability to know who a customer is, for example, a sales rep or customized Web page can use that intelligence to maximize cross- and up-selling opportunities.

Effective integration of data sources is critical to an effective BI implementation, says Keith Gile, a BI specialist who is senior industry analyst at Giga Information Group in Norwalk, Conn. "Effective" is the key term, because the technology needs to deliver to executives both an integrated picture of business processes and whatever specific analyses of the underlying data the executives need. "BI technology," notes Gile, "should invite me into the process." And the technology must deliver both data and analyses in the timeframe the business requires, rather than what the business systems allow. In other words, business needs must drive the technology.

Benefits of BI

The benefits of business intelligence can be as varied as the business plans of the companies that deploy it.

For Los Angeles-based International Rectifier, the oldest dedicated semiconductor manufacturer in the world, it was a single analytic tool that allowed it to develop both a single standardized definition of and a usable source for key business metrics such as *revenue*.

"It made a big difference for us," says Doug Burke, International Rectifier's senior manager, financial analytics. Now, he says, if a key metric is wrong, it's

wrong in one place and can be fixed in one place. Since the company is, in Burke's words, "in acquisition mode," having this capability "has really made a big difference." The analytic tool used was Essbase, from Hyperion Solutions Corp.

Fossil, a Richardson, Texas, fashion accessories company, was looking for a way to manage and speed up its forecasting, budgeting and consolidation processes.

TIPS

Use a Common Language

Key metrics must be defined using a single set of standards. *Revenue* and *cost of sales* must mean the same throughout the company or the results will be inconsistent. And the older data is, the more riddled with errors it will be.

Executives judged these changes critical; budget creation was taking months because of Fossil's distributed operations and the multiple stakeholders involved. Deployment of the Cognos Finance tool gave the company a means to both simplify its financial processes and accelerate financial reporting. Since time is literally money, Fossil is realizing immediate value through its ability to accelerate its financial processes.

For Briggs & Stratton Corp. of Wauwatosa, Wis., the challenge was to figure out how to continue to manage its manufacturing processes without allowing the company's key ERP system to choke on the massive amounts of operational data it generated. B&S worked with SAS Institute to craft a data warehousing strategy that moves data from the operational system while keeping that historical data ready at hand. As a result, the system allows the company to continue to track via the Web the cost-effectiveness of its vertically integrated supply chain.

Sprint's driver toward BI was as straightforward as it gets. The $23-billion, Westwood, Kan.-based, global communications company needed to be able to gather all the data about customers in its multiple data sources and analyze it to support sales and marketing efforts. When the BI system went live in the fall of 2000, Sprint officials report, it significantly improved the company's ability to not only roll out but be able to track on-the-fly, the effectiveness of campaigns to both attract and retain customers.

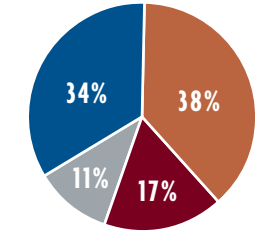
Starwood Hotels and Resorts Worldwide faced a similar challenge. With six different brands and more than 700 hotels in more than 80 countries, the company had lots of data flowing into its White Plains, N.Y., headquarters. Executives in several key positions needed analyses of that data to guide their resource commitments. Out of that need grew a deployment that replaced slow-turnaround third-party analysis and reporting with an effective, real-time, distributed decision-support system.

As International Rectifier, Fossil, Starwood Hotels and Resorts Worldwide and other companies have realized, it is important to distribute up-to-date information about an enterprise to many layers of the organization.

That realization is hardly a new one, though. Indeed, one of the abortive trends of business computing a decade ago was the Executive Information System — a category of executive tool that failed to catch on because it lacked an effective underlying BI system.

The efforts to make data consistent from different departments and various subsidiaries — as well as partners, suppliers and major customers — is continuing to fuel the longstanding hunger in executive suites for both operational and strategic intelligence. "The trend is to drive the power of information to the desktops of all the leaders and managers of an organization," says Mike Morini, chief operating officer of OutlookSoft Corp., a Stamford, Conn., vendor of analytic software tools. "By bringing consolidated financial information to the manager's desktop, in a collaborative way, they are able to act on that information in real time. That nimbleness provides more value to the organization."

How Business Intelligence Dollars are Spent



Source: Datamonitor

And, MicroStrategy's Bansal notes, the state of business in recent months has been a driver, as well. "People are looking at cutting the bottom 20 percent of everything. But companies need to get visibility of those expenses first, then cut them. That's why business intelligence software has held up better than most items in this environment."

From Workgroup to Enterprise

Companies are collecting huge amounts of data from all aspects of their operations, notes Craig Brennan, president and CEO of Brio Software Inc., a business performance software vendor in Santa Clara, Calif. But, he notes, "most don't do much with the data to improve their performance or make better business decisions."

Much of the activity in the BI marketplace results from attempts by companies to integrate what can be a motley array of individual department- or workgroup-based BI tools to yield

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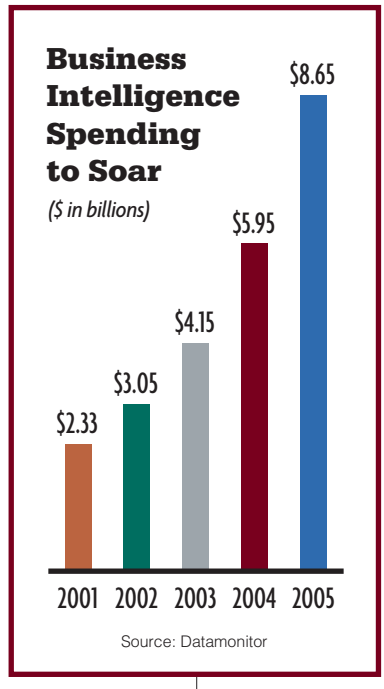
unified, companywide intelligence. As Dave Kellogg, senior vice president of marketing at Business Objects, a BI vendor in San Jose, Calif., observes, "business intelligence has largely been departmental technology. CIOs are waking up to fact that they have gremlins, in the form of all sorts of little BI systems deployed." Why, Kellogg reports those executives are now asking themselves, are we buying from all these vendors and training all these administrators?

For Sprint, the path to BI was a business plan that required the company know as much as possible about all its customers. Acting on that mandate meant the long distance services provider had amassed a huge array of data sources.

When the company set out to rationalize its business intelligence infrastructure, reports Flint Craver, the Dallas-based systems development manager for Sprint, it worked with SAS Institute to extract data from as many as 35 different databases, ranging from old-style flat files on mainframes to SQL databases running on Microsoft Windows NT servers, into one massive central repository.

"We're seeing the building of a second wave of business intelligence," reports Andy Handford, vice president for products at Crystal Decisions Inc., a reporting, analysis and information delivery products company in Vancouver, B.C. "It consists of simplifying, consolidating, broadening. Companies now are asking, 'How does this all fit together?'"



TIPS

Clean Data is Happy Data

The most difficult stage is fixing data discrepancies, such as a client's name spelled 10 different ways in different departmental systems. The cleansing process can take anywhere from several months to as long as a year.

Gartner Group Analyst Howard Dresner says he sees BI investments today being driven by the desire to both standardize and consolidate technology to make measuring company performance more effective. From the perspective of the executive suite, the point is obvious: If executive managers cannot evaluate performance enterprisewide using common yardsticks, they cannot easily make tactical — much less strategic — decisions.

Gaurav Dhillon, CEO of Informatica Corp., a Redwood City, Calif., data tools vendor, sees the same phenomenon — the centralization and standardization of data management — in hardware terms: "In the future, broad deployments of BI technology will shift toward the server side of the house."

Boston Properties Inc., a large commercial real estate company, needed to consolidate data in its J.D Edwards ERP system, which handles more than $1 billion in tenant billings annually, with other data residing in a distributed IBM Lotus Notes/Domino workflow system and in SQL databases. Its goal? To deliver consolidated, rationalized information to almost 100 locations.

For its BI tools, Boston Properties worked with Crystal Decisions. According to Jim Whalen, the real estate company's senior vice president and CIO, a 10-person prototype was up and running in three weeks. At the end of three months, between 60 and 70 employees had access to the new system. Boston Properties currently has 170 licenses and expects that number to grow.

"Companies like Boston Properties are most successful when they reduce the issue of taking control of their data to, 'What's the common need here?'" observes Crystal Decisions' Handford. "It usually comes down to something as basic as adding value to data reporting and getting that added-value information out to the right people."

Toward the Executive Suite

Over time, the business intelligence procurement process is moving up toward the executive suite. As senior executives demand systems that will give them performance metrics — and particularly warnings of looming problems — in real time, departmental BI tool deployments are giving way to RFQs for enterprise systems, reports Henry Morris, International Data Corp.'s Framingham, Mass.-based vice president for applications and information access. "Business process management is a C-level undertaking because it is an overall measurement and an early warning about business performance, rather than a very specific function like quality analysis."

The increased scrutiny of financial reports by Wall Street and regulators has put a premium on "better and more precise information," OutlookSoft's Morini adds.

Stamford, Conn.-based Hyperion Solutions' CTO John Kopcke agrees that BI acquisitions are now being viewed as enterprisewide and handled at a more senior level. C-level executives, he says, are now looking toward BI to leverage their back-office IT investments, which still aren't delivering promised returns.

But Crystal Decisions' Handford looks at it more in terms of creating a least-common-denominator platform that delivers base-level BI functionality as a starting point. "We've seen phased deployments be very successful, where they disassemble it down to the common denominator of a set of useful, accurate reports on which I can then start to build personalization, security, interactivity and ad hoc analysis," he notes.

Building an infrastructure on top of which people can selectively layer analysis and reporting tools to satisfy their needs is, Handford says, the better way to go.

Karen Williams, director of product marketing at Cognos, an Ottawa, Ontario, enterprise BI software provider, notes that two of the areas in which a BI deployment can offer a value-add are financial reporting and CRM. "Many of our customers are starting to take some of their strategic goals and change those into metrics, then taking those metrics and deploying them to their users so they can track their performance within the organization. Once they see what's happening, what they require is reporting and analysis tools to really understand why whatever it is, is happening. So what they're doing is taking a broad range of business intelligence and focusing it on their core strategic goals."

Brio's Brennan agrees that "performance monitoring is definitely a component of business intelligence." You can do that in many ways, he notes, among them performance measures, operational measures and triggers of various kinds.

Integrating Data

Another aspect of corporate intelligence that will loom ever larger in the future involves dealing with data that isn't in a database-friendly format. There will come a time when "integrating data" means more than just being able to draw connections between pieces of information in two different databases. Linking relational data with the contents of a PowerPoint presentation or a Word document will represent a huge qualitative step forward toward true BI and toward the Holy Grail of an enterprise knowledge management system.

"There's a big drive to bring structured and unstructured data together," Morini says. "Linking the two together provides a documentation trail during the budgeting process. But you need a single unified approach to do that, a unified way to view information in various systems."

BUSINESS INTELLIGENCE BENEFITS

BENEFIT	SOURCE
Increasing Revenue	Identifying customer interests and buying patterns to support cross- and up-selling
Improving Customer Satisfaction	Real-time tracking of customer orders and accounts
Reducing Supply Chain Costs	Real-time or near-real-time tracking of operational metrics
Supporting Strategic Decision-Making	Monitoring financial metrics and analyzing data to test new possibilities

For the moment, though, corporate executives who have been through the BI tool selection and deployment process urge that those currently contemplating it "not be driven by the flash," in the words of Briggs & Stratton Corp. project manager Grant Felsing.

The key, says Felsing, is not the tip of the iceberg — browser-based graphs and so on — but the iceberg itself. The operational data store is the crucial component, he says. Users need to make sure that the time is spent to understand what that iceberg will look like. "You're building a foundation you'll deploy several tools on top of. If you have that infrastructure in place, you'll be able to take advantage of it as opportunities to benefit from that analysis come along."

A foundation for what? The key to successfully implementing a BI system that will deliver a competitive advantage, says Edward J. Courtney, KPMG Consulting's managing director and chief knowledge officer, is to understand clearly what result the company is trying to achieve with the implementation.

"Are you trying to gain a better understanding of your customer's buying patterns by analyzing sales data, or are you trying to improve your win rate by gaining insight on your chief competitor's pricing?" Courtney asks. Without clearly articulated goals, he warns, executives face the trap of simply collecting data or running reports that not only offer no value to the business, but are extremely resource-intensive to support. ■

Business Intelligence, the Web Way

How to funnel the tons of data from Web visitors into something useful.

The future of business intelligence reporting involves Web access, whether via an intranet or portal within company walls, an extranet delivering targeted BI to partners or a Web site that allows executives on the go access to live information.

Web technology is useful in that it provides a low cost, widely available standard platform that can be used to make BI much more accessible to everyone. For example, a report need be published just once, and it will be accessible to everyone who needs it, day or night, from anywhere in the world.

BI and Web technology share the same fundamental goal of empowering users, says Ben Barnes, CEO of BI software vendor Sagent, in Mountain View, Calif. "At its essence, BI is focused on allowing users to access and analyze business-critical data, on demand, to make better decisions faster than the competition," he says. "Internet and Web technologies streamline the information gathering and delivery process. This advances the objectives of BI."

Advances in today's Java and application-server technologies allow data and report access using virtually any server and only a Web browser as a client, says Gaurav Dhillon, CEO of data tools vendor Informatica Corp. in Redwood City, Calif. "This new setup delivers a tenfold improvement over what could have been done in the past."

Controlling Access

One consequence of Web-enabled BI, though, is to intensify what was already developing into a major security concern: how to ensure that the resulting intelligence is safe from unauthorized viewing yet still freely available to anyone who needs it.

"Where an attack on an operational system could cause harm to numerous individual transactions," Barnes says, "an attack on the centralized business intelligence data could cripple an organization's strategic decision-making capability, forcing management to act without points of reference. Worse yet, this kind of information in the hands of a competitor could be devastating" to the company.

With departmental deployments, the old model of application-based security using localized passwords appeared sufficient. But that model quickly breaks down when the goal is to give users companywide access to integrated intelligence. Corporate management, therefore, needs to understand the strategic importance of BI data and insist that corporate IT apply the same security policies and procedures to the company's BI systems as it does to its operational systems.

"Originally, IT went to the user table and decided to give user number one access to five key data tables," says Giga Information Group Senior Industry Analyst Keith Gile. "But what about users 100 to 300? And user 2,000, who needs access to those five tables and 15 others? The level of complexity expands out; more users make it exponentially more complex to define security."

It's a challenge that companies' IT apparatus must grapple with — quickly. "This," Gile says, "is an area IT will spend more time on, not less."

"An enterprise business intelligence plan must offer a flexible security model that increases efficiency by integrating directly with a company's existing security infrastructure and by supporting today's Internet security standards," adds Pete Cittadini, president and CEO of Actuate, which produces and sells information delivery products in South San Francisco. "Today's most advanced business intelligence programs support direct LDAP (lightweight directory access protocol) integration and single sign-on capabilities, which is particularly important when delivering information to partners and customers in extranet and Internet environments."

If creating a simple, yet secure, wall-to-wall access system seems like a challenge, though, consider what's involved in extending this beyond the enterprise. And the situation could grow worse before it grows better if Web services begin to spread rapidly. These services, which extend across the Internet and can let a subscribing customer or business partner appear to be running the application on his or her intranet, raise yet another level of security concerns.

In the context of the long-standing tension between deploying cutting-edge technologies that improve competitive positioning on the one hand, and making conservative choices to safeguard valuable data on the other, the Web offers companies some potentially uncomfortable choices.

Says Cleveland-based Penske Logistics' Senior Systems Analyst Tom Nather: "We don't want to be on the bleeding edge." ■

CONSULTANT CHRIS SELLAND ON BI

The Bigger They Are, the Harder Their Data Falls

Conference chair says company size often dictates heterogeneous data problems.

The bigger your company is, says CRM and BI consultant Chris Selland, the greater the likelihood you need to consider business intelligence.

As one of three chairs of the upcoming DCI Enterprise Analytics & Data Warehousing Conference & Exposition, scheduled for June 19 through 21 in Boston, Selland is in a position to know.

"The larger the company," he observes, "the bigger the issues they have with heterogeneous data sources." That's because adding applications to improve business functioning can actually make data access problems worse.

"What a lot of companies don't realize," Selland notes, "is that every time you buy a new application, you get another database. And the last thing most companies need is yet another database."

If the company's goal is to analyze data from a number of sources, there are two ways to get there: by building a massive data warehouse to serve as a storehouse for data drawn from the operational databases, or by putting a BI layer across the systems themselves to make possible analysis of the data where it currently resides.

Each option comes with its own challenges, Selland notes, and executives exploring a BI deployment need to understand that those challenges aren't necessarily technological. They have far more to do with the realities of how a company works.

"The products demo great," Selland points out, "but they demo great based on the fact that your data is together in one place, using a common structure. Most companies are so far from that, it's not funny."

In fact, he says, heterogeneous, scattered, inaccessible data — the likeliest situation at a large company with a long history — poses a problem that technology alone may not be able to solve.

Most companies that have a lot of legacy systems — in other words, most companies — like to fool themselves into believing they're going to be getting rid of those older systems soon, but the reality is they won't. Beware the inclination to make plans based on the belief that your company will retire legacy systems anytime in the near future.

Then there's the issue of how a company is organized. "A lot of companies are set up with independent profit centers that are running their own databases," Selland notes, "and they're really not incented to share. In fact, in a lot of cases they compete with each other."

As a result, BI implementations will face challenges not because there's anything wrong with the underlying theory or the technology, but because companies haven't set up the proper business incentives to support what they want to do with the technology.

Consider Company Structure

Ultimately, though, Selland points out that BI needs to serve the company's goals. While there's been an incessant drumbeat of late to focus on the customer, the choice to structure a company in that fashion is only one choice. Alternately, you could make the case for organizing the business around either its products or its operations. You likely can't be good at all three, Selland observes, and you probably shouldn't try. Whatever your choice, it will be reflected in how the company data is structured.

One last point: "Don't get hung up on buzzwords or hype. 'Real-time responsiveness' and doing everything in a personalized manner are offshoots of having effective business intelligence infrastructures in place. The question, though, is what the organizational pain will be to get there," says Selland.

"You have to crawl before you can walk," he adds, "and you have to start with the more boring tactical stuff, which includes business process mapping and business rationalization."

Says Selland: "It doesn't necessarily mean that you can't try to leap ahead. But you need to understand where you are now." ■

TIPS

Consistency is Crucial

Once an objective is defined, check to make sure all departments are on the same page. Data must conform to an identical set of objectives, otherwise you'll wind up with the same old information you're getting now.

Attacking the Data Dilemma

It's critical that your data backbone has backbone.

In exploring the issues that confront companies seeking to benefit from the deployment of business intelligence tools, one theme above all others emerges. As Tom Nather, senior systems analyst for Penske Logistics in Cleveland, puts it, "the backbone to everything is data."

Nather advises that anyone contemplating an enterprisewide BI deployment concentrate efforts on the data and choose a BI approach that can work with the company's unique array of data sources and repositories.

BI tools will, in general, take one of two approaches to dealing with heterogeneous data sources. They either extract the data into a modern-design data warehouse that can be queried by reporting or analytic modules, or they skip the intermediate step and query the existing data sources directly using software algorithms. The two approaches also can be combined, and they can become stages in a data migration process, as well.

The Cost of Cleaning Data

If data concerns are the single most significant agenda item in deploying a BI effort, ensuring the quality and uniformity of that data is the challenge most often cited. "Data is never clean," notes Jeff Anderson, senior manager, e-business at Farmington, Conn.-based Otis Elevator, which deployed a BI system using software from Cognos to evaluate the ongoing effectiveness of its global Web presence.

"Cleaning up and aggregating data is always the most expensive part of a BI implementation," says Sanju Bansal, the COO of McLain, Va.-based MicroStrategy. "These days, BI products are really easy to deploy once you have the data — most of our customers can get reports up and running in a week or so."

Sources agree that the most difficult early stage in the deployment process is finding and fixing discrepancies in data — a client's name spelled 10 different ways in different departmental systems, for example, or separate purchasing histories from different supplier offices or divisions. The remedy is a cleansing process that is part mechanical and part technical. It's a process, notes Bansal, that can take from several months to a year.

Recalling the deployment of his company's system, International Rectifier's Doug Burke, senior manager, financial analytics at the Los Angeles company, observes, "the hardest part was getting clean data." Of equal importance, key metrics must be defined using a single set of standards, he notes; *revenue* and *cost of sales*, for instance, must mean the same throughout the company or the generated numbers will be inconsistent.

Analysts concur about the data quality challenge. "In most databases," says Howard Dresner, a Gartner

Group analyst, "the quality of the data is terrible. And the longer it's been there, the more riddled with errors it will be." Adds Keith Gile, senior industry analyst with Giga Information Group," if each of the sources' quality has been assessed, then pulling them together is likely to be less problematic."

According to International Data Corp., efforts to prepare data consume some 70 percent of the effort of any analytics undertaking. The import of this, notes Henry Morris, IDC's vice president for applications and information access, is worth paying attention to: "Even when you choose a packaged approach, you still have to wire it up to your data sources."

Measured in Years

An enterprise BI deployment project, from tool consideration through training, can easily be measured in years. Penske Logistics began its project in April 1998; by the end of that year it had 250 users up and running, and by the end of 1999, 750. Today, 1,500 people use the system.

At Westwood, Kan.-based Sprint, the project took between one and one-and-a-half years to complete. At Starwood Hotels and Resorts Worldwide of White Plains, N.Y., Senior Vice President of Customer and Direct Marketing Kevin Vaughan says his BI deployment took more than 18 months, but in retrospect he believes it could have been compressed into a nine to 12 month project.

Toyota Motor Sales, on the other hand, deployed its Cognos systems in a project that took only four-and-a-half months from start to finish.

The BI team at Fossil in Richardson, Texas, reports that its deployment went smoothly because the company hired for the project a full-time administrator — someone with relevant experience and skills who could ensure that no inconsistencies in data or reporting would creep into the final product.

Brio Software Inc.'s Craig Brennan, president and CEO of the Santa Clara, Calif., company, notes that different aspects of BI tools will appeal to the project team's IT and business-unit members. "If you're on the IT staff, your primary goal will be, 'How quickly can I aggregate data that resides in multiple disparate sources?' You need to be able to do that fast, and that can be hard on IT. From the business manager's point of view, interests will include elegance, ease of use and the ability to track metrics or performance in useful ways. So here, values involve the quality of the software and how the human-computer interaction occurs."

Execs on the Go

One of the enabling technologies making a modern day executive intelligence tool possible is the Internet. It allows executives on the go to access critical intelligence both when they need it and wherever they may be. And it simplifies deployment tremendously by eliminating the need for an installed client other than a browser.

"Web, Web, Web, Web," says Boston Properties Inc.'s Senior Vice President and CIO Jim Whalen about the future of his company's business intelligence system. "I've got to deal with 100 sites. I don't want to install software anymore."

"Delivering business information via a Web browser is a strategic choice," says Pete Cittadini, president and CEO of South San Francisco-based Actuate. Why? "Because a company's 'information consumers' don't need to be trained in how to access the data — it's as easy as pointing-and-clicking through a Web site. What's more, because the information is delivered through a browser, the information consumers can access their data without any special business intelligence software on their computers. As a result, a company can serve large, geographically dispersed user bases while minimizing costs and time-to-market."

"Without the Web," says Edward J. Courtney, managing director and chief knowledge officer at KPMG Consulting, "companies would not have made historical investments in BI since there would be no cost-effective way to distribute this type of critical information to their employees or partners." In the future, he predicts, real-time access techniques — including PDAs and other handheld devices that allow salespeople and traveling executives to receive alerts about breaking competitor events, industry news or even new business opportunities — will become even more important in turning this intelligence into real business value. "Even something as straightforward as e-mail alerts that allow time-starved users to receive the information they need without the fatigue of Web browsing or searching have immense value."

Portals, which are customized, intranet-based desktop front ends to a variety of data sources, provide another opportunity to leverage a Web-based information flow, says Ben Barnes, CEO of Sagent in Mountain View, Calif. Why? Because they broaden the traditional BI view to allow the user to consult "unstructured" data — non-database documents such as Word files, for instance, or spreadsheets. "For example, imagine that IBM is thinking about changing its pricing on maintenance for a particular product," he says. "Before making a decision, they would likely turn to their BI system and ask all the typical BI questions: how many of these products are currently out there; how long have they been out there; what is the sales forecast for the next 12 months?"

TIPS

The Legacy Legacy

Beware the inclination to make plans based on the belief that your company will retire older legacy systems anytime in the near future. In reality, most of those systems will be around for a long time.

CORPORATE SPOTLIGHT

OutlookSoft Corporation

Chairman: Tom Cowan
Year Founded: 1999
Number of Employees: 110
URL: www.outlooksoft.com

OutlookSoft Corporation is a leading provider of planning and performance management software that enables every person across the extended organization to plan, understand and leverage their performance — financial and beyond — from a single, unified business performance management application. OutlookSoft's Enterprise Analytic Portal™ (EAP™) solution allows companies to collaboratively perform real-time budgeting, consolidation, analysis, reporting, and performance management.

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Three Issues

Mark Macaluso's job as vice president, North American Services at Hyperion Solutions Corp. in Stamford, Conn., is to oversee installations of the company's BI products. He identifies three issues that can arise as deployments move forward:

Not enough clarity of purpose: A company has a set of objectives and the different departments may think they are all on the same page, but they're not. If that's the case, Macaluso says, you need to go back to the departments. If you ignore that, you'll wind up with the same old information you're getting now.

"Eating the elephant": Trying to bite off more than you can chew by trying to address everyone's needs at the same time. Usually, he says, this approach is doomed to failure. Instead, you need to group the undertaking into smaller projects. It's best to deliver quick, early successes that cement the strategy.

Executive sponsorship: Since the BI approach typically will cover a lot of different operational areas within the organization, you'll need a strong executive sponsor who can remove any roadblocks and improve communications between departments.

"One thing we find frequently is that companies have siloed applications too much," says Gaurav Dhillon, CEO of Redwood City, Calif.-based Informatica Corp. "The left hand does not know what the right hand is doing. Digitization has not erased that."

In many companies, a strategic deployment such as BI will stir up once again issues of the relationship between the IT organization and the company's business units. That's because, inevitably, as it is asked to deal increasingly with data and intelligence companywide, IT will be forced to assume more control. Its challenge, notes Giga's Gile, is to make sure business executives stay involved in the decision-making and deployment processes. "Politically," he adds, "this is very powerful for IT."

BI and Culture

One of the most subtle and insidious issues that can obstruct an enterprisewide BI deployment is the nature of the deploying company's culture. Do company values support and reward sharing data? Or is individual status and compensation tied to the amount of valuable information to which an employee has exclusive access?

It's one thing to put together an initiative that provides answers to a problem, notes Hyperion's CTO John Kopcke. Then the question becomes, do those answers culturally fit into an organization?

"Information is power," Kopcke observes. "Even though it is in the organization's great benefit to share information, the more I share it, the less important I may become. So that cultural impact is probably a 'gotcha' that jumps out into, or soon after, the process."

IDC's Morris agrees that the real barriers to an effective BI deployment are cultural. "Is there a culture to share or to hoard data, both the raw data and what's done with it?" he asks.

Another consideration is how a company is organized. "A lot of companies are set up with independent profit centers that are running their own databases," notes CRM and BI consultant Chris Selland, "and they're really not incented to share. In fact, in a lot of cases they compete with each other."

As a result, a BI implementation will face challenges not because there's anything wrong with the underlying theory or the technology, but because the companies haven't set up the proper business incentives to support what they want to do with the technology.

Can a company reengineer its culture? It must, Selland maintains, or else it must scale expectations for the technology accordingly. "If you've set up your different profit centers to compete with each other, than you can't expect that you will implement some technology that will magically let you analyze data across those units because they're not going to share."

The bottom line? "If you don't reengineer the company, then base your expectations for what you're going to get out of your information systems on that," says Selland. "You can put all the technology you want on top of that problem; it's not going to do you any good." ■

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