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The Power to Be Decisive

What is an intelligent enterprise? That is the question

By David Stodder

Intelligent Enterprise is approaching its third anniversary. With the summer upon us and much of the IT industry in a lull thanks to a laggard economy and earnings reports that belong in a Stephen King novel, I thought I might pull back from my usual discussion of inflamed industry debates. Instead, with a cold beverage in hand, it seems like an appropriate time to settle into a lawn chair, stare off into the summer sky, and ponder the passions of *Intelligent Enterprise* itself.

In September 1998, we swallowed hard, said adios to two successful publications (*DBMS* and *Database Programming & Design*), and set our course for the next generation of enterprise computing. For 10 years, our two previous publications chronicled the explosive growth in database management systems and the truly revolutionary change in application development enabled by standardization on SQL and the relational data model. While both publications offered analysis of current trends and product developments, the main course was practical guidance written by experts in the field.

We have carried this model forward with *Intelligent Enterprise.* But the terrain is now different from what it was: and thus, our target with this publication has been different. By not naming ourselves after an obvious technology category (such as databases) or a trendy buzzword (such as CRM), we begged a central question: What the heck is an intelligent enterprise? Frankly, we welcome the question, which I believe is at the heart of the matter when it comes to deriving value from IT investments. The question begins a debate that we should be having as organizations move beyond the worship of technology for its own sake. And if that debate can happen within the pages of this magazine, or within the friendly confines of our Web-based communities - well, that's the kind of dream that editors, writers, and publishers live for!

BUSINESS/IT SYNERGY

Increasingly, business leaders want to know: Do the substantial investments we've made in IT make our organization more responsive to changing market conditions, customer behavior, and opportunities to save or make money? To borrow from our tagline, business leaders want to know how IT solutions can help their organizations become smarter, faster, and more profitable. Each new generation brings to the foreground business leaders who are much more tech-savvy - or at least have played a lot more video games - than the previous generation. These "C-level" executives, so coveted by the vendors' sales teams, understand the necessity of deploying IT solutions to achieve today's business goals.

However, the smarter ones also know that technology is a means to an end: just because you have the technical ability to sell cat litter over the Web doesn't mean it's necessarily a good business plan to do that. IT leaders agree that synergy with business objectives is the optimal relationship they must seek to give IT investments the right context and value. But they also know that as applications, databases, and other systems become part of the core infrastructure, these investments need to be shielded from the whims of changing business objectives.

"Business/IT synergy" has been the Holy Grail for as long as I've been an editor in this industry. The pursuit has met with mixed success as it has confronted cultural, technical, and even political boundaries. Enterprise data architectures have foundered on incompatible definitions of such seemingly basic notions of who customers are and what constitutes a "product." In many organizations, teams of IT professionals work on projects that report directly to line-of-business executives, rather than the CIO. But too often, the result is yet another layer of incompatible applications that merely add to the integration headaches already pounding inside the CIO's head.

An intelligent enterprise understands the strengths and weaknesses of both the business and IT sides of this essential synergy. It takes advantage of the evolution of standards and technology to seek the right abstraction level, based on enduring goals, where both sides feel as though they're speaking the same language.

POWER OF THE PYRAMIDS

My own definition of an intelligent enterprise is one that enables decision makers to have the knowledge and confidence to act decisively. Who are the decision makers? Well, back in the early days of "decision support" it was a small group of high-level executives. The business intelligence industry has helped push data-driven decision-making out to a much wider spectrum of users. Today, ideally they are business personnel who are closest to the point where an action needs to be taken - in the supply chain, on the phone with a customer, or at a strategic, executive-level meeting. With self-service applications available over the Web, customers are now increasingly able to make decisions for themselves. Realtime systems, intelligent agents, and robots will soon put decision-making power deep into far-flung applications.

At *Intelligent Enterprise,* we consider the category of solutions loosely called "business intelligence" (data warehousing, OLAP, data mining, and decision support) central to the mission of supporting decision-makers. However, like all buzzword categories, this one

doesn't fit entirely comfortably - and also carries the danger of blinding us to critical developments going on "outside the box." Our view is that we are in the midst of an exciting, enormous change that is going to bind business intelligence to all sorts of applications, not just those focused on query and reporting. But first, we must rise out of the confines created by how databases developed.

To borrow from a recent talk by Usama Fayyad, president, CEO, and cofounder of digiMine, the database age was like the era in which the Egyptians built the great pyramids. The pyramids were marvels of engineering; their construction was an incredible feat that still boggles the mind. But they were tombs: and so Fayyad's analogy is that in our information age, businesses are missing opportunities if they settle for database "tombs" or applications accessible only by specialists in arcane languages, symbols, and cultures.

Information lives by the network effect: its value grows as it becomes more useful; it gains power when it can affect decisions, which lead to actions. Yet, surveys tell us that right now, most organizations know that they are tapping only a small fraction of their *own* information resources, much less than those available through external sources. And in a cruel twist on Moore's Law, the information resources are growing much faster than users' ability to derive value from them.

Whether large, small, or somewhere in between, the greatest databases are marvels of architecture, engineering, and development - all of them. While no one would dare minimize the management challenges, probably the greater challenge is how to knit together the myriad data resources. Unless there's something we don't know about the Egyptian Pharoahs' afterlives, the great pyramids did not afford integration and sharing of their vital contents. Managers of today's data pyramids are struggling with these issues as well.

TOUCHING ALL BASES

Middleware is about the use of data, which has complicated the success of "horizontal" solutions confronted with "vertical" challenges dictated by industry, legal, technical, and organizational concerns. The trick is to find the right level of abstraction that enables integration, but also allows systems and people to do what they do best. Will XML provide this? Component middleware? J2EE? Most likely, the ultimate, "intelligent" solution is still out there.

Solutions that create intelligent enterprises must touch all sorts of systems, transgressing a multitude of data owners' bastions and systems requirements. Integration is fundamental to excellence in enterprise information portals, which ideally represent the finished product staged for the joy of the user. Progress toward this exciting goal will not be easy; but you can count on *Intelligent Enterprise* to bring into its pages the ideas of those who are making it happen.

Speaking on behalf of our entire editorial staff (from my spot out here on the lawn, that is), we invite your thoughts on what an intelligent enterprise must be. We know that you are a passionate bunch. Don't spare us your most energetic visions.

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