New Orders of Magnitude

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A true assessment of IT value today must include its power to transform enterprises, industries and society as a whole.

When CIO launched its Enterprise Value Awards program 10 years ago, IT value was a very different animal. Back then, we measured it in terms of dollars saved--whether by cutting costs, reducing head count, improving efficiency--or some such indicator. The metrics we used were those of the bottom line, easy for bean counters and chief executives to understand.

But the nature of IT value has changed. Today, the value IT adds to the enterprise is both greater and, ironically, more difficult to measure (and consequently harder to comprehend) than ever before. Today, the value derived from information technology goes beyond trimming costs and boosting productivity. IT is now a catalyst that triggers massive, beneficial transformations in organizations, markets, industries and even the world. It changes the way companies do business.

"In the past we thought of IT as an enabler of business processes--we looked for productivity and efficiency gains," says judge Rebecca Rhoads, vice president and CIO for Raytheon in Lexington, Mass. "What we are seeing now is transformation." Indeed, as companies reach out to new markets and tap into new revenue streams, the definition of what it means to be in business is changing. Technology still produces significant economic savings, of course, but now it goes beyond that to help achieve strategic goals that in these competitive times often make the difference between success and failure, survival and extinction. In short, the units of measurement for IT value are now an order of magnitude larger than they were 10 years ago. Today, IT delivers value right to the core.

Now that IT has extended its influence so deeply and so pervasively, handing out Enterprise Value Awards has become a more intricate, more challenging endeavor. "This year [the judging process] was particularly fun and stimulating," says Doug Barker, vice president and CIO for The Nature Conservancy in Arlington, Va., and a longtime judge for the awards. "I have watched IT value over the last several years progress from supporting a business, to enabling a business, to really being a driver of business."

This year we honor five organizations with Enterprise Value Awards: Dow Chemical, Enterprise Rent-A-Car, the Michigan Department of Transportation, the Pennsylvania Department of Environmental Protection and SBC Communications. Each of these winning companies exemplifies in its own way just how far we've come.

That Was Then

In 1993, CIO honored six organizations for their ability to create value using IT. The honorees were a diverse group spanning multiple industries and in both public and private

sectors. Yet in virtually every case the value created by the honorees' systems came in the form of dollars and cents. Several of the honored systems included first-time applications of technology to previously manual and paper-based processes, and the rewards the organizations subsequently reaped were a testament to the benefits of business process automation.

Take the Perrier Group of America. By using IT to support its shift to regionalization in the early 1990s, the company earned a net ROI of $11.4 million in the first year and $15.4 million annually after that. The combination of route-management software, handheld computers, common databases, and networked links to newly regionalized data and support centers enabled Perrier to reduce its head count, cut its operating and facilities costs, and increase productivity. (See "A Watertight Case," January 1993.)

That's definitely nothing to sneeze at. But during the next few years, we started to honor companies for more and more strategic uses of IT. As early as 1995, we began to find organizations using a combination of technology and IT-business partnerships to effect real business transformations. Enterprise Value Award winner and parking lot operator APCOA, for example, implemented distributed technology that not only achieved an ROI of 248 percent, it also improved customer service and helped position the company to take advantage of new opportunities for expansion without having to extend its infrastructure. (See "Garage Sales," Jan. 15, 1995, at www.cio.com/printlinks.) Meanwhile, Hyatt Hotels developed a central reservation system that was so successful, it allowed the company to enter a new line of business--selling the technology to other hotel chains. (See "Satisfying the Inn Crowd," Jan. 15, 1995, at www.cio.com/printlinks.)

Everyone likes to save money. But it has become eminently clear that strategic applications are where IT's real value lies.

This Is Now

We received more than 40 applications for the 2002 Enterprise Value Awards, and it was immediately obvious how much higher the bar has been raised. Rare were the entries touting returns from simple business-process automation. Much more common were applications of technologies that have transformed the way business is done. With such an array of impressive contenders, choosing winners was tougher than ever. (See "How We Picked the Winners," Page 98.)

Not only has the bar for consideration for an Enterprise Value Award moved higher, making the strategic use of IT almost a given, but our definition of IT value has of necessity become broader as well. In past years our discussions of IT value focused mostly on the benefits (whether financial or, later, more strategic) gained by the individual enterprise implementing the particular application or system. Today we are extending our examination of value to an organization's business partners, to its industry and to society as a whole.

The Pennsylvania Department of Envi- ronmental Protection, one of this year's winners, is such an example. By creating top 10 lists of violations and making them available through its winning data integration system, the department has been able to reduce the runoff of sediment caused by surface mining operations--one of the state's most common environmental problems and a major threat to its streams. This newfound ability to work proactively to serve its mission is one of many benefits of the department's system. At the same time, the technology is helping to inform and serve the citizens of Pennsylvania, with state and local environmental information available online. This is IT at work for the planet we live on; it's hard to imagine an impact more critical than that. Little wonder that the technology has attracted the interest of more than a dozen other states. (See "Working in a Deeper Shade of Green," Page 62.)

This year, two public organizations won awards, and the second was the Michigan Department of Transportation (MDOT). (See "Paving Over Paperwork," Page 82.) With its FieldManager road construction software, developed through an innovative public-private partnership, the MDOT has been able to support road and bridge construction projects that have tripled in value to $1.5 billion a year--even as it downsized the department from 5,000 to 3,000 employees. The technology has also been licensed for use in several other states, thus helping to set a new standard and transform this formerly paper-laden industry.

Dow Chemical's winning Web-based training delivery system, Learn@dow.now, has helped transform the giant company from a fragmented, locally managed organization into a streamlined global entity. By providing consistent training to all 50,000 employees worldwide, the system has helped Dow reorganize around global business units and flatten its organizational structure--not to mention it has saved the company $30 million in its first full year of operation. (See "The World's Biggest Classroom," Page 56.) The value and impressive scale of the system won it the unanimous approval of the Enterprise Value Awards judges.

Customer service is at the heart of Enterprise Rent-A-Car's winning system, which has brought online the previously labor-intensive process of arranging replacement rental cars for drivers whose own cars have been damaged in accidents. By enabling insurance companies, Enterprise branches and auto-body shops to manage that entire slice of the rental cycle electronically, the Web-based system has made life so much easier for Enterprise's insurance company customers that several of them have been willing to enter preferred provider relationships with the company. (See "How to Stay Ahead of the Curve," Page 72.)

SBC Communications' winning system also provides a lesson in delivering core value. In response to network shortages that were making it difficult to serve customers, the telecom company implemented a network management environment that lets engineers proactively monitor capabilities so that shortages are minimized and customer orders for new lines or services can be more consistently met. Not only that, the company estimates the system has saved it $22.3 million in direct and indirect operating costs. When fully deployed, SBC expects it to create savings of up to $10 million per year. (See "More Lines, Less Waiting," Page 92.) By delivering a system to ensure the quality and consistency of its central offering--telecommunications services--SBC focused on its core business and used IT to help make it top-notch.

And Now This

The tremendous impact and quality of these winning systems, as well as the many other great contenders we reviewed, could make it tempting for the IT community to relax a bit. After all those battles with CEOs, CFOs, resistant managers and users, few today would dispute the value of IT to the enterprise--and the world. Some might think that--given the recent storms in both our political and economic climates--it's time for a rest, a time to stop pushing and innovating so hard. A time to ease up in the long campaign to measure, prove and communicate the value of IT.

While that thinking would be understandable, acting on it would be a mistake. Times have gotten much tougher since these winning systems were implemented (by requirement, they're all at least 2 years old), and the result has been a general hunkering down in organizations and a renewed focus on the basics--efficiency, effectiveness, core value. IT is uniquely suited to bring organizations closer to those fundamentals, but given the increasing emphasis on financial fundamentals, it had better be able to prove that that's what it's doing.

"I think businesses are going to be much more focused on their core promises to their customers and their employees," says judge **Gregor Bailar,** former Nasdaq CIO and executive vice president of IT operations, now CIO of Capital One Financial in Falls Church, Va. "I think value will be measured by how close you stay to those promises."

"People want to return to fundamentals," says judge John Glaser, vice president and CIO of Partners HealthCare System in Boston. In business, that means "reducing costs, achieving competitive positions and managing relationships. We'll be less willing to embark on things that are more speculative on a much more distant future, so we will see a retraction back to the core."

For IT, that means that investments going forward must be more tightly linked than ever to core business processes, and any core value delivered must be demonstrated clearly.

At the same time, corporations will increasingly rely on IT to help drive the business, as we've already seen to some extent in this year's winning systems. As markets tighten and competition increases, IT will have to carry its own weight by uncovering new sources of revenue. In fact, one of the best means of accomplishing that may very well be selling systems developed for internal use to other companies. That's a trend that seems to have taken a strong hold over the years, and we saw further evidence of it this year in winners Pennsylvania Department of Environmental Protection and the MDOT, as well as a host of other contenders.

Indeed, this year's judges got into a lengthy debate about that trend and the gray area it creates in the context of the Enterprise Value Awards. IT vendors have never been considered eligible to win the award for the technology products they sell. Rather, recipients have been companies in other industries that used IT in some way that delivered value to them either financially or strategically.

Now that we're seeing an increasing number of companies collecting revenue from selling the technology they developed, it raises a new question: Is the IT value these companies are claiming still the product of the application of IT to their business problems, or are they now essentially IT vendors and therefore ineligible?

"Value is becoming grayer and more multifaceted, and the separation between traditional business using traditional IT to make the traditional business better is getting fuzzier and weaker because now they're actually in the IT business," says Glaser.

Companies following this trend are essentially automating their core competencies and services, and that may become a key competitive differentiator in coming years. "That's where the innovation in the industry is coming from--that's where the most value has been created," says Barker.

In addition to altering how we define IT value, this trend also changes our notions of what it means to be in business in a particular industry. The lines dividing companies, customers, business partners, industries and even competitors are blurring, and that's due in large part to IT.

That may make life more difficult for our Enterprise Value Awards judges, as they try to pick out the top tier amid the context of current trends, but it promises a world of opportunity for CIOs to help shape the future of their organizations.

How is IT bringing value to your organization? Tell IT Value Editor Katherine Noyes at knoyes@cio.com.