

From fear to value: CIO strategies for propelling business through the economic crisis



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As executives working at the nexus of business and technology, CIOs are uniquely qualified to help their organizations leverage available technology to meet challenges presented by the current economic crisis and to exploit new opportunities that will arise. For CIOs, the imperative is to address issues from two perspectives—the outward view of employing IT to capitalize on business opportunities and support business change, and the inward view of their own IT operations.

IBM predicts that, during the current economic crisis, the business world can expect major disruptive and transformative change. CIOs can help their companies survive the crisis and position their organizations for future growth.

From chaos, the CIO drives opportunity

During this crisis, significant opportunities will arise for corporations that move swiftly to disrupt the competition, restructure operations and position themselves for future gain. IBM believes that, in order to excel, companies must focus on the value in their operations, exploit opportunities and act quickly to seize competitive advantage.

Reducing costs and increasing returns are key to improving value. To focus on cost reduction, CIOs can help their companies improve internal efficiencies, deploy resources for the highest return, bolster core competencies, redefine relationships and get more from existing investments. To increase returns, CIOs can aid their organizations in gaining share, building differentiating capabilities and reshaping

industries. Finally, CIOs can help their companies act with speed. Companies must act quickly to implement and manage change, reduce risk and take advantage of government economic-stimulus investments.

The CIO's perspective: using IT to propel business transformation

CEOs want IT to continue providing quality, reliable IT services. However, CEOs also want CIOs to lead innovation and promote change by employing technology to drive the kinds of business transformation that supports corporate objectives, enables new business models and exploits new opportunities.

Focusing on value within the IT organization

As the recession deepens, CIOs are beginning to rethink IT, determining how to reengineer their operations to concentrate on the same business imperatives as the C-suite

and other lines of business: the need to focus on value, exploit new opportunities and act with speed. The actions spurred by these considerations help all parts of the business, including IT, do more with less, focus on the core capabilities that provide competitive differentiation and realign relationships for maximum value. Increasingly, CIOs are being asked to take IT dollars and redirect them to activities that will lower operational costs throughout the business, improving margins even while revenues fall. More and more CIOs are beginning to realize this same formula—integrated automation to improve efficiency—works equally well within their own organizations.

CIOs can also take immediate steps to increase the utilization and performance of existing IT investments. Server and storage consolidation and desktop virtualization are critical steps toward regaining control of spiraling IT costs: they can help significantly lower the expenses associated with power and cooling. Taking advantage of network convergence can help CIOs do more with less. The result of these and other strategies can be increased resource utilization and a more resilient IT environment. This in turn can free up resources to support business application expansion and improve ROI.

Leading through example

IBM's in-depth experience in IT transformation has been gleaned from our own metamorphosis. Through massive consolidation efforts, we have merged 155 data centers down to 5 and more than 16,000 applications into less than 4,500. Leveraging this experience with your own expertise and vision can help your company survive—and perhaps even thrive—in this time of financial crisis.

For more information

To learn how IBM is working with organizations around the world to help them prosper during the current economic crisis, please contact your IBM marketing representative or IBM Business Partner.

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Contents

4	Introduction
5	The CIO as change catalyst
6	From chaos, the CIO drives opportunity
10	The CIO's perspective: using IT to propel business transformation
14	Focusing on value within the IT organization
19	Leading through example
19	For more information

Introduction

Pundits and analysts say that the current economic crisis is likely to last longer than past recessions. Business is no stranger to slowdowns and downturns. In the last 30 years, the United States alone has experienced three recessions (1981, 1990 and 2001). However, the world seems to agree that this recession is different from those of recent memory.

According to the Foote Research Group, the world is facing a “perfect storm” of economic calamities.¹ Home values are depreciating and credit is drying up. Stock markets are diving while the unemployment rate is skyrocketing. The demand for consumer goods is shrinking as price sensitivity takes hold. Banks across the globe are failing after writing off, as of December 2008, \$733 billion in loans. All this takes its toll on business, disrupting relationships with partners, with customers and throughout the supply chain.

No industry seems to be exempt from the turmoil. And, in case anyone doubted the globalization of economies, no geographic region has escaped unscathed. While the slowdown in emerging economies (China and India) has thus far been less severe,² the economies of Eastern Europe, Western Europe, the United States, Asia-Pacific, the Middle East and Latin America have all contracted.

Is there a single overarching solution? No one seems to know. Banks are so reluctant to lend that traditional macroeconomic tools, such as interest rate cuts, will likely be insufficient to stimulate lending. A reality of the global economy is also coming to light: with more than 60 percent of the world output now traded internationally, we rise, and fall, as one. Just look at world stock markets, which seemed to crash in unison. While economic stimulus plans are being deployed by the governments of the United States, Japan, China and a number of European countries, their impact is as yet unknown.

For CIOs, the imperative is to address the economic crisis from two perspectives—that of the company as a whole, and that of their own IT operations.

No one is suggesting that the global economy is improving. All indications are that this crisis will likely be long and severe. Restoring confidence in the economic system may prove significantly more difficult than in past downturns. IBM predicts that, as a result of this recession, the business world can expect disruptive and transformative change. Industries will restructure, with firms failing or being sold off virtually overnight. New regulatory environments will arise. Your company may already be cutting staff, outsourcing departments and delaying or canceling non-revenue-generating projects. Your IT budget is probably flat. It may even be shrinking.

The CIO as change catalyst

This all adds up to an interesting paradox: it's a great time to be a CIO.

As the executive working at the nexus of business and technology, CIOs are uniquely qualified to help their companies leverage available tools to meet current economic challenges and to exploit the opportunities that will arise during this crisis—and opportunity will arise for those businesses bold enough to disrupt competition and restructure their industries. CIOs can help transform their companies by better capitalizing on the value of information assets. They can help manage and mitigate business risk through better, more timely information. They can improve service management. They can lower enterprisewide operational costs—including IT's—through automation.

This paper will examine the opportunities to leverage IT for business gain during this crisis, describe how CIOs can help propel business advantage, and appraise the near-future state of IT.



From chaos, the CIO drives opportunity

During this long and severe recession, significant opportunities will arise for those corporations that move swiftly and decisively to disrupt the competition, restructure operations and position themselves for future gain. While no one can predict when economic recovery will occur, one thing is certain: it will occur. IBM believes that, in order to excel, companies must focus on the value in their operations, exploit opportunities and act quickly to seize advantage. For CIOs, the imperative is to address these issues from two perspectives—the outward view of employing IT to enable opportunities and business change, and the inward view of their own IT operations.

Focusing on value

Focusing on value entails cutting discretionary spending, deploying resources for the highest return, bolstering core competencies and redefining relationships. Cash flow is central to survival and strategic flexibility, which means businesses and business units need to do more with less. Corporations must conserve capital and cut spending where it produces minimal return. Funds must then be redeployed to activities, products and markets that generate growth, improve margins and truly differentiate one business from another.

In addition, businesses must determine how to get more from existing investments. While improving time-to-value is critical, companies must also realize that return for as long as possible. (The longer companies can derive value from their investments, the better.) Finding new ways to use existing equipment and other tangible assets is well worth the effort—especially when the budget for new capital expenditures has disappeared. Cutting energy waste and improving resource efficiency rank as important corporate social responsibilities. They also help the organization save money.

IT has a long history of event monitoring and management, of turning real-time data into actionable information. CIOs need to apply this skill to other parts of their businesses, thereby improving the quality and timeliness of business information.

At no time has focusing on core competencies been more important than it is today. Across business units, product lines, portfolios and geographies, there is no latitude for poor performance or effort wasted on nondifferentiating activities. Companies need to enforce and enhance their differentiators on the one hand, close down or divest underperformers on the other. Establishing value nets with companies in which core competencies are not your own becomes even more important in difficult economies. A key strategy that the CIO can drive is to out-source noncore activities—from human resources and back-office operations to manufacturing and fulfillment—or consolidate them internally as shared services to maximize return.

Relationships are at the heart of any business. But to succeed in this economy, businesses will have to reexamine relationships with suppliers, partners and customers. They must weed out weak suppliers and unprofitable customers and renegotiate remaining relationships to align with the realities of the current economy. They also must bolster business partnerships to mitigate risk and to manage volatility in both supply and demand.

Exploiting opportunities

The severity of this economic downturn will create opportunities for companies to gain share, build capabilities and reshape industries to their advantage. Businesses can capture share by disrupting weak competition. Reaching out to and understanding the needs of customers who may consider shifting from competitors will be an important element of this strategy. In addition, organizations should consider retooling their portfolios to serve frugal customers and offering flexible pricing to defend or gain share in their core businesses. And companies that operate in mature markets can grow even in down times by focusing efforts on growth markets that offer more expansion opportunities.

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This crisis, like all economic crises, will one day end. Savvy companies understand this. To prepare for brighter days, they concentrate on building future capabilities. This entails keeping and motivating top performers, recruiting new talent (now available at a lower price than during the boom years) and leveraging the global workforce. Recent years have shown how long it takes to build the structures, capabilities, processes and systems to seize growth market opportunities. Now is the time to invest for the mid-term.

Companies that wish to survive must also be willing to change the industries in which they operate by pursuing innovative, new business models. At the same time, they must establish strategic alliances that position themselves to win in a globally integrated economy.

All of these activities can benefit from innovative uses of technology. Increased use of collaboration tools can improve communication with customers and suppliers. Technology can be leveraged to provide better, and more timely information to help companies act with speed. Better information can also help mitigate many business risks.

Acting with speed

The unpredictability of this environment favors the fast and the agile. Strategies will differ, but in this economic climate, companies must be willing to act quickly to implement and manage change, curtail risk and position themselves to take advantage of government stimulus packages.

CIOs must adapt the strategies used by their C-suite peers: manage change, manage risk and act quickly.

Smart companies work to determine how to manage change rather than simply react to it. They identify and empower high-ranking executives to act as change leaders. These leaders set clear goals and measure corporate actions in terms of those goals. With accurate information needed for decisive action, they establish the company's vision for its future and align around an agreed-upon course of action.

Bold movements like these entail risk—but risk can be managed. Companies must: apply analytics to improve decision making and to create greater predictive capability; establish risk management governance plans and processes; and integrate and rationalize business information to make the most sound business decisions possible.

Finally, in countries where stimulus packages are being deployed, business leaders must act quickly to take advantage of these investments. Business leaders must be able to quickly grasp the mechanics of these funding programs.

All of these strategies share a common element—they require timely and accurate information. Understanding what needs to be monitored, and how to monitor it, is a vital part of improving the business decision making process. IT has a long history of event monitoring and management, of turning real-time data into actionable information. CIOs need to apply this skill to other parts of their businesses, thereby improving the quality and timeliness of business information.

These aren't activities for other business executives. These are activities for all business executives, including CIOs.



The CIO's perspective: using IT to propel business transformation

Today, CEOs, CFOs and CIOs alike see the roles of IT as evolving. As Figure 1 shows, even in these pressing economic times, the cost of IT is no longer the leading factor by which IT is judged. First and foremost, a recent IBM study of large companies located around the world found that CEOs expect IT to continue providing quality, reliable IT services. Consistently meeting existing service level agreements provides CIOs the credibility to participate in more innovative activities. When that requirement is met, CEOs are increasingly looking to CIOs to be innovation leaders and change agents by employing IT to drive the kinds of business transformations that support corporate objectives and make new business models and opportunities possible.³

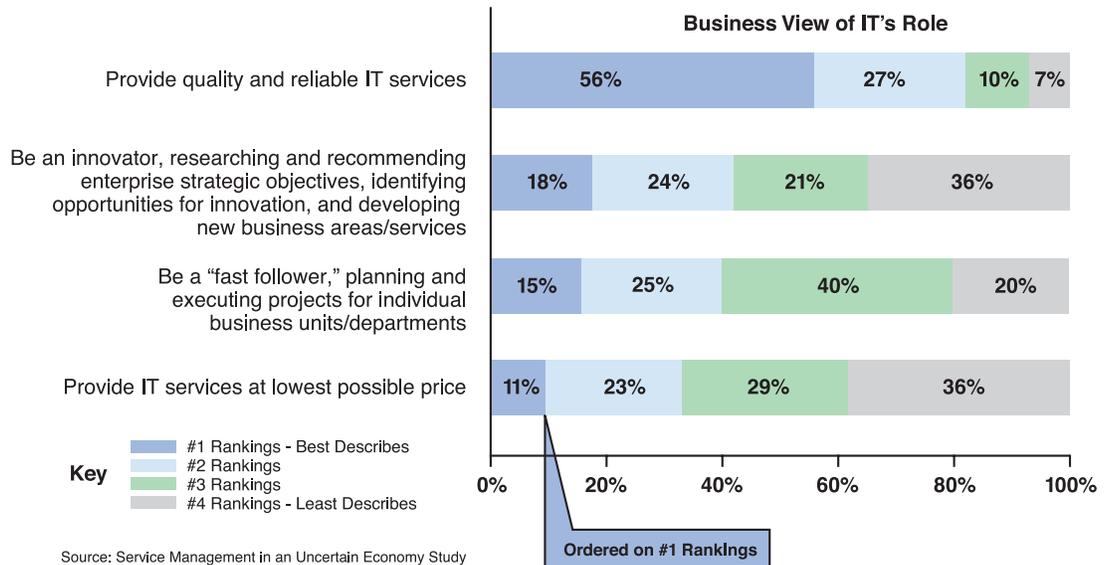


Figure 1. Despite economic pressures, large enterprises surveyed by IBM are unlikely to perceive the leading role of IT as providing technological services at the lowest possible price.

Applying experience gained from managing IT outsourcing contracts, CIOs can take a leadership role in identifying and executing opportunities to reduce operating costs with business process outsourcing.

This means that as business executives with a deep understanding of technology's transformative powers, CIOs are uniquely qualified to help their businesses focus on value, exploit opportunities and act with speed. For example, because of their experience with IT outsourcing, CIOs can help companies explore other business process outsourcing for noncore functions as a way to reduce business operations costs. These solutions combine processes, people and technology in outsourced delivery models for activities such as customer relationship management, finance and administration, human resources, procurement and supply chain management. The most effective solutions will combine process transformation with lower-cost labor models to deliver the greatest business value. CIOs should stand at the center of these changes, helping to link these value nets together with technology that provides accurate, timely information.

Enabling collaboration and boosting productivity

CIOs are also instrumental in helping tomorrow's leading businesses create more adaptable and responsive organizations. By supporting social networks and real-time Web 2.0 collaboration, they are enabling closer ties with partners and customers and supporting today's highly dispersed workforce. This workforce needs instant, anytime access to people and information, business-grade social software and better team-based decision making.

What's more, collaboration and mobility technologies boost employee productivity and make it possible for companies to reduce the costs of office space and other facilities' overhead. New applications are being developed to accommodate the corporate need to manage mobile and remote workforces and to drive commerce, aiding in global integration. Mobility initiatives can also help businesses rapidly modify processes to capture opportunities. In doing so, they can help your company focus on value, exploit opportunities and act with speed.



Driving the information agenda

CIOs can help other business leaders focus on value by driving an enterprise information agenda that clearly defines and prioritizes information objectives based upon business objectives and strategy. And they can develop innovative approaches to creating and deploying an agile enterprise information infrastructure that supports strategy and leverages existing assets. The objective is to provide the business with access to the trusted information that is needed to evaluate performance, make informed decisions and respond quickly to new requirements. Savvy CIOs will also employ advanced business service and portfolio management strategies to prioritize IT investments in order to create a catalog of IT-enabled business services that support the most critical business needs.

For companies pursuing a merger and acquisition strategy, the CIO will be a critical element in helping to exploit opportunities by speeding the intensely complicated process of fully integrating an acquired company's IT infrastructure into the enterprise. This can be greatly facilitated by bringing to bear enterprise architecture standards along with tough decision making in order to rationalize people, processes and technology. It also requires innovative use of strategies such as service-oriented architecture (SOA) to quickly integrate systems and information.

CIOs today must consider how to help reduce business risk while improving stakeholder access to information. Business resilience is the discipline that provides an organization with the capability to ensure availability of information, service and support for its customers, employees and business partners not only during normal daily business operations but also during unexpected conditions. CIOs must also play a central role in addressing a variety of security issues that exacerbate business risk, including identity management, application security, wireless security and privacy. Internal as well as external security violations can disrupt the business, damage the brand or trigger regulatory audits.

Creating a flexible architecture

Finally, CIOs know that, in the current economic climate, they must act with speed. This requires a flexible, dynamic and scalable IT infrastructure, one that supports rapid business expansion or contraction. While standardization may appear to reduce flexibility since it provides fewer options, it actually increases agility by decreasing the time it takes to make IT platform decisions. Open standards help to increase interoperability while reducing the cost of proprietary solutions.

Done properly, server consolidation coupled with server and storage virtualization can bring value to companies and help them act with speed by providing faster and more dynamic provisioning of capabilities. Server consolidation and virtualization can also increase utilization rates, helping improve the return on investment of IT resources. Cloud computing, which extends existing virtualization capabilities, offers a potentially cost-efficient model for provisioning processes, applications and services while allowing the IT organization to be more responsive to the needs of the business.

As members of the business executive team, CIOs lead and manage change, manage risk and enable corporate transparency. They manage a vital component of the information-driven enterprises of the 21st century and can model the new competencies that are needed in all business units. They are learning how to communicate that IT is a valuable asset, not a cost center. They are drawing other members of the executive suite into the IT arena to show the business merits of each IT project—from driving revenues to managing risk. CIOs communicate the real business risks of deferring infrastructure investments and reducing service levels. And they are learning that there are immediate and concrete steps that they can take to help businesses survive the current economic crisis and position themselves for future growth.



Focusing on value within the IT organization

To this point, IT leaders have embraced a number of different strategies to help their companies cope with uncertain economic times. They have negotiated better prices from vendors. They have rearchitected IT systems to get more out of less. They have applied automation to boost the productivity of business operations and their own IT staffs.

But as the recession deepens around the globe, CIOs are beginning to rethink IT, determining how to reengineer their operations to focus on the same business imperatives as the C-suite and the other lines of business: the need to focus on value, exploit opportunities and act with speed. The actions spurred by these considerations help IT, like business as a whole, do more with less, focus on the core capabilities that provide competitive differentiation and realign relationships for maximum value. They look for partners, rather than vendors. They work to build future capabilities.

It will come as no surprise that the current economic environment presents significant challenges to CIOs. Despite mounting pressure to cut costs, user expectations of IT show no signs of abating. There's much work to be done in IT and not always enough money or staff to do it. Like every other business function, IT will have to drive value by doing more with less.

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According to the IBM Market Insights *Service Management in an Uncertain Economy Study*, only 5 percent of all large corporations expect to see a significant increase in IT budgets for 2009 (see Figure 2). CEOs' and CFOs' mission to reduce capital costs is often leading to IT project cancellation or deferment. Staffing cuts will be situational. Acquired or merged companies may see layoffs of up to 10 percent, while companies facing bankruptcy may release 20 to 30 percent of their IT staffs.⁴ The more successful CIOs will be those whose portfolio management disciplines allow them to quickly re-allocate their resources to their most critical IT projects.

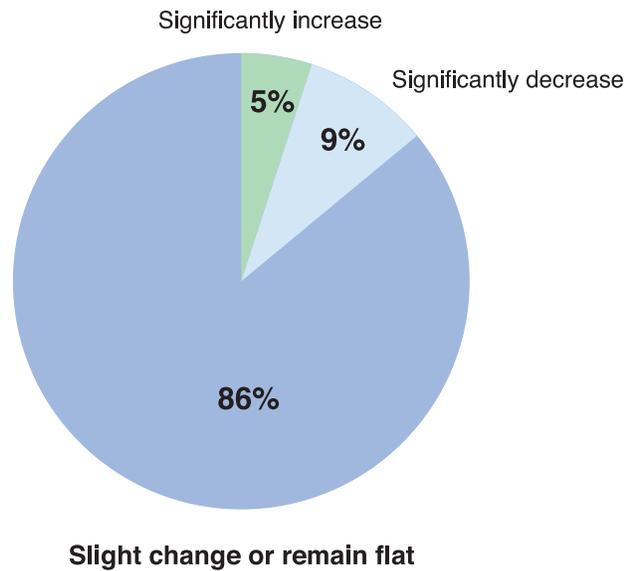


Figure 2. About 86 percent of the large companies surveyed by IBM expect IT 2009 budgets to remain flat or change only slightly.

From fear to value: CIO strategies for propelling business through the economic crisis



But the news isn't all bad for IT. Companies that survived the economic turmoil of 2001 already run much leaner IT operations, having spent the past eight years focusing on value by lowering costs and reducing waste. And many respondents to the *Service Management* study reported flat 2009 budgets, not drastically reduced budgets. What are CIOs doing with their money? Increasingly, they're being asked to take IT dollars and redirect them to activities that will lower operational costs throughout the business, improving margins even while revenues fall.

More and more CIOs are beginning to realize the formula that has worked for years across other business units—integrated automation to improve efficiency—works equally well within their own organizations. Traditionally, automation within the IT organization has been implemented with a disaggregated set of tools. By approaching automation of the IT organization with the same thought process applied to any other business unit, CIOs can realize the same kinds of returns.

As experts in the art of the possible, CIOs can take immediate steps to increase the utilization and performance of existing IT investments—reducing operating and maintenance costs to free up the funds for new initiatives. Server consolidation should be an important part of any infrastructure optimization plan. Consolidation should not be viewed as a project, but as an important part of the capacity planning process. Inefficiency and waste exist in practically every IT environment. After years of growth, server rooms and data centers are bulging with underutilized equipment. The accumulation of equipment leaves companies strapped with high energy costs and escalating management requirements.

Consolidation is a critical step toward regaining control. Companies can often consolidate the workloads of up to 20 servers onto just one machine and reduce server operational costs by up to 70 percent.

Real-world companies benefit from consolidation and virtualization

To understand how virtualization and consolidation work in the real world, consider the following:

- IBM helped a global electronics company redefine its IT infrastructure with virtualization technology. The electronics company reduced its server count by 80 percent. Centralized server management was also enabled. These activities saved the company US\$322,000 in annual server support costs and set the stage for total cost reduction of approximately 43 percent over three years.
- When a global automobile manufacturer wanted to optimize and virtualize its servers in order to reduce data center space, software licensing costs and operations and maintenance expenditures, it turned to IBM. IBM helped the client consolidate its 76 servers down to only 6, while also reducing complexity and total cost of ownership.
- Server consolidation helped a German manufacturer reduce costs and increase performance and security. The IBM team reduced the number of data center servers in operation from 40 to 3.

Desktop virtualization is also a promising source of cost savings. By hosting virtual desktops in the data center, companies can reduce endpoint device management requirements and enable users to access their applications and data from practically anywhere, boosting productivity throughout the enterprise. Virtualization can also reduce application license fees and energy costs enough to provide an investment payback of up to 40 percent in just one year.

From fear to value: CIO strategies for propelling business through the economic crisis



Today, most companies pay more than they need to for voice and data communications. Not only do they maintain separate networks for voice and data, they often pay for calls by the minute. Taking advantage of network convergence (combining voice, data and video traffic onto an IP network) can help CIOs do more with less plus drive value and exploit opportunities. Converging communications technologies can cut telephony costs up to 20 percent. Aggressive management of those technologies can save still more.

A unified platform also simplifies management and supports a number of solutions that are quickly becoming essential for the modern workplace—including IP telephony, unified messaging, IP-based call center operations and real-time collaboration. Thus, in addition to immediate cost savings, the converged network can fuel ongoing return on investment in the form of efficiency and productivity gains. It can also help corporations respond to rapid change by eliminating time-consuming debates about which technology to employ in a particular solution.

Application management presents CIOs with another opportunity to lower costs. By standardizing business processes and consolidating noncore functions onto fewer application platforms, rationalizing legacy portfolios and employing SOA to leverage existing assets and investments, CIOs can reduce the cost of application management by anywhere from 20 to 50 percent.

Implementing consolidation, virtualization, convergence and application strategies benefits your company. These approaches lead to increased resource utilization and a more resilient IT environment, while freeing up resources to support business application expansion and improve return on investment. With power and cooling costs typically representing about 40 percent of data center expenses, consolidation and virtualization alone can slash expenses and demonstrate a company's commitment to the environment.

IBM and unified communications

IBM's internal collaboration and unified communications initiatives have saved the company an estimated US\$16.5 million per year in reduced phone costs from the use of instant messaging and US\$97 million per year in travel costs from the use of Web conferencing. In addition to cost savings, these programs have helped IBM improve customer satisfaction and employee productivity. Flexible unified communications options (instant messaging, Web conferencing and VoIP) give users the freedom to choose the mode by which they communicate.

Leading through example

IBM's in-depth experience in IT transformation has been gleaned from our own metamorphosis. Over the last 5 years, IBM's own IT investments have delivered a cumulative benefit yield of US\$4.1 billion. Through massive consolidation efforts, we have merged 155 data centers down to five and more than 16,000 applications to fewer than 4,500. As a result of this, we have achieved substantial savings in energy, software and system support costs.

Through Project Big Green, the IBM environmental initiative, we have virtualized our server landscape, reducing energy use by 80 percent and reducing future floor space requirements by 85 percent. We are committed to doubling our computing power by 2010 without increasing energy consumption. Our cloud-enabled on demand IT delivery solution provides self-service to 3,000 IBM researchers working in eight countries. It also serves up real-time integration of information and business services. This experience, coupled with your own expertise and vision, can help your company survive—or even thrive—in this financial crisis, and position yourself for success when the economy improves.

For more information

To learn how IBM is working with organizations around the world to help them prosper during the current economic crisis, please contact your IBM marketing representative or IBM Business Partner.

For IBM insights and perspectives on the issues that matter most to the chief information officer, visit the following Web site:

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