

Smarter management for a dynamic infrastructure



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How is the current environment of economic uncertainty and turmoil affecting investments in IT? To find out, IBM conducted a global survey of business and IT leaders who manage their organization's IT investments, asking them how recent economic events are affecting their plans. Results show that the current economic realities are indeed driving changes to enterprise priorities, which, in turn, are changing IT priorities. The study found that organizations are reprioritizing their IT programs and projects to survive and thrive in the new economy—and they are leveraging service management best practices to do it.

Deriving greater value from IT investments

Conducted during December 2008 and January 2009, blind interviews with IT investment owners in 421 organizations worldwide highlighted the impact the current economic downturn is having on organizations. Sixty-one percent said economic uncertainty is the number one business issue affecting IT investment priorities.

Yet surprisingly, while the current economic climate is significantly impacting business budgets, 85 percent of these IT decision makers reported that their budgets are remaining relatively flat. Only 10 percent reported significant budget reductions from 2008 to 2009, while another 5 percent said their budgets will actually increase significantly. IBM believes this reflects a major evolution in IT's role from merely a cost center to an enabler of key business processes. Organizations no longer view IT as a commodity that makes technology systems available but rather as a service provider for IT-enabled business processes. Because IT services enable every other part of the enterprise to be effective and efficient, IT investments are being maintained while other budgets are being reduced. Essentially, businesses are saying to IT:

We need you to help us succeed—especially when we have to reduce our workforce. So even though our organization as a whole has to cut costs, we are keeping your budget relatively flat because we are expecting you to make improvements to the quality and reliability of IT services that can enable improvements in the rest of the organization. We need fewer service disruptions to our key business processes, and when there is a disruption, we need a faster resolution.

Reprioritizing for success

To meet these expectations, most IT organizations are reprioritizing investments in their funded programs and projects. CIOs, IT directors, CFOs and other business managers directing IT investments are taking a businessdriven approach—as opposed to a technology systems– driven approach. They begin by understanding the enterprise's priorities. Once CIOs know which business activities are most dependent on improved quality and reliability of IT services in their organizations, they need to map those activities to the IT services that support, enable or automate them. At this point, they can begin to reprioritize their IT project investments. In any constrained budget situation, mandatory areas such as security and compliance usually come first. Smarter management of IT services and systems comes next, followed by smarter approaches to technology, including consolidation, virtualization and convergence projects.

Smarter management for an uncertain economy

Smarter infrastructure management is service management. Organizations are leveraging service management best practices to improve the quality of key IT services and reduce the cost of IT-enabled business activities in an effort to get more value from the capabilities and resources that are already in place. The results of the IBM study point to key recommendations that can benefit most organizations today:

- Improve the quality and reliability of IT services that enable workforce productivity.
- Prioritize smarter ways of doing things, including technology consolidation.
- Change the focus from technology and optimized subsystems to optimization of the IT-enabled business activity.

In today's uncertain economy, it's no longer about optimizing technology or process subsystems. It's about improving IT-enabled business activities through smarter management and improved measurement practices that focus on IT service quality and business outcomes.

For more information

For more service management information and resources, please visit the chief information officer: service management Web site:

ibm.com/services/us/cio/optimize

For more information about tools and support that can help advance the CIO profession, please visit the Center for CIO Leadership:

www.cioleadershipcenter.com



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"Unemployment hits 25-year high" "Unprecedented drop in U.S. housing prices" "New data drives Dow stocks down further" "Latest economic news roils markets"

Are these unsettling headlines pointing to a "new normal," with a new cast of winners and losers who will emerge from the current economic turmoil? If so, the challenge for CIOs is to navigate this turmoil today while also building a foundation for success tomorrow. How are they doing this? To find out, IBM interviewed business and IT leaders who manage their organization's IT investments, asking them how they are changing their plans in light of recent economic events. Results show that the current economic realities are indeed driving changes to enterprise priorities, which, in turn, are driving changes to IT priorities. To survive and thrive in this uncertain economy, organizations are reprioritizing their IT programs and projects—and they are leveraging service management best practices to do it.

The fact is, many organizations are struggling with costly, fixed infrastructures that prevent them from responding to changing and volatile business conditions. The key to a dynamic infrastructure is having smarter approaches to technology and smarter management. For the CIOs we talked to in the survey, smarter infrastructure ture management is service management.

Between December 2008 and January 2009, IBM surveyed IT leaders at 421 companies around the word to study how the economic downturn is affecting their IT decision making.

Deriving greater value from IT investments

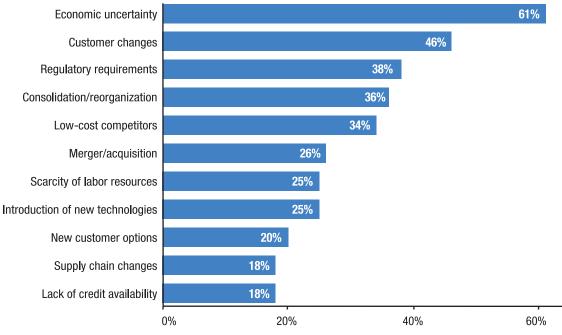
Between December 2008 and January 2009, IBM conducted 421 blinded interviews with IT decision makers around the world to understand the impact that the current economic uncertainty is having on organizations.

IBM study: Service Management in an Uncertain Economy¹

- 421 IT organizations in large enterprises across five major countries: the United States, Germany, Japan, France and China
- Representative sample of 20 industries
- Three key roles:
 - CIOs-25 percent
 - IT directors 34 percent
 - CFOs and other IT investment decision makers—41 percent
- High levels of responsibility for IT investment decisions:
 - Primary decision-making responsibility 55 percent
 - Part of the core team that makes the decisions 36 percent
 - Knowledgeable about the decision-making process and the decisions that are made—9 percent



As the chart below shows, 61 percent of IT decision makers reported economic uncertainty as the number one business issue affecting IT investment priorities.



Issues affecting business strategy and plans

Source: IBM Market Insights, *Service Management in an Uncertain Economy*, January 2009. *Figure 1*

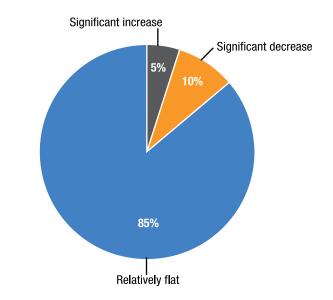
Today, economic uncertainty is the leading external influence on enterprise strategies and plans.

One of the surprising findings from the study is that, although the current round of economic uncertainty is significantly impacting enterprise budgets, 85 percent of IT investment owners reported that their budgets are remaining relatively flat. Only 10 percent reported significant budget reductions from 2008 to 2009, while another 5 percent said their budgets are actually going up significantly. IBM believes this reflects a major evolution in IT's role from merely a cost center to an enabler of key business processes. Organizations no longer view IT as a

commodity that makes technology systems available but rather as a service provider for IT-enabled business processes. Because IT services enable every other part of the enterprise to be effective and efficient, enterprises are maintaining IT investments while reducing other budgets.

While businesses are cutting spending in many areas, most are maintaining their IT budgets at current levels, recognizing that IT spending is critical to fueling the business workforce productivity and enterprise efficiency that will drive future growth. Challenged to survive with a leaner workforce and smaller budgets in other parts of their businesses, many organizations are asking IT to enable greater workforce productivity so the business can get more value from its existing capabilities and resources. As a result, these organizations are placing a higher priority on the quality and reliability of IT services that enable business workforce productivity. So while they are keeping IT budgets relatively flat, they are reprioritizing their investments in various programs and projects to reflect changes in enterprise priorities. This increased dependency on IT is also increasing the role line-of-business (LOB) executives and CFOs are playing in IT investment decisions.

2009 total IT budget as compared to 2008



Source: IBM Market Insights, Service Management in an Uncertain Economy, January 2009.

Figure 2

According to study results, 85 percent of IT decision makers have relatively flat budgets going from 2008 to 2009, while 5 percent have higher budgets and 10 percent have lower budgets.



Essentially, businesses are saying to IT:

We need you to help us succeed—especially when we have to reduce our workforce. So even though our organization as a whole has to cut costs, we are keeping your budget relatively flat because we are expecting you to make improvements to the quality and reliability of IT services. We need fewer service disruptions to our key business processes, and when there is a disruption, we need a faster resolution. In fact, we want you to resolve IT issues before users experience them because outages and downtime are big drains on productivity, and we can't afford them anymore.

IT leaders are challenged with enabling their organizations to derive more value from existing capabilities and resources and finding smarter ways of working.

Reprioritizing investments in funded programs and projects, CIOs, IT directors, CFOs and other IT decision makers are taking a business-driven approach rather than a technology systems-driven approach. The IT challenge, then, is to enable the organization to derive more value from its existing capabilities and resources. Smarter ways of doing things are a top priority. New capital expenses, on the other hand, are a low priority unless they enable a smarter approach to infrastructure, for example, virtualizing server or storage resources.

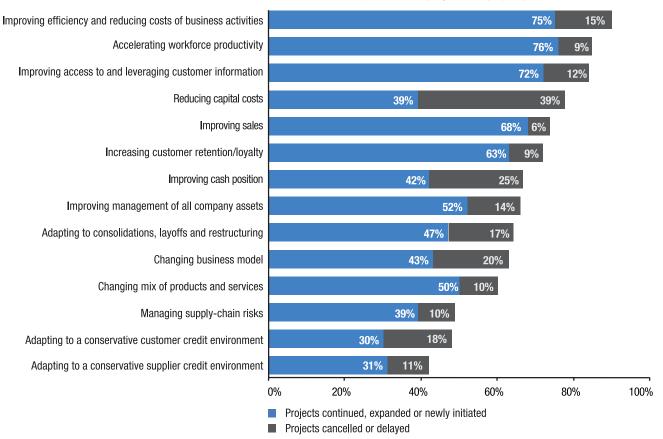
Reprioritizing for success

Because budgets are flat and enterprise priorities are changing, most IT organizations are reprioritizing investments in their funded programs and projects. CIOs, IT directors, CFOs and other business managers directing IT investments are taking a business-driven approach—as opposed to a technology systems–driven approach. IT investment planning begins with understanding the business priorities, which involves answering these key questions:

- What are the critical business processes within the organization that depend on the quality and reliability of IT services?
- Which IT services need the most improvement?
- Which service management best practices are needed to achieve the needed outcomes?

Reviewing business objectives

As the chart below indicates, most of the organizations surveyed identified business efficiency, workforce productivity and information access as the top objectives that impact IT priorities. These are enterprise issues rather than IT issues, and they all relate to the efficiency and cost-effectiveness of the organization as a whole.



Effect of business objectives on IT program and project priorities

Source: IBM Market Insights, Service Management in an Uncertain Economy, January 2009.

Figure 3

Organizations are focusing on workforce efficiency and reducing costs, and a major way they are accomplishing this is by improving access to information.



Organizations must identify critical business functions that depend on quality, reliable IT services that support business agility.

Ranking critical business processes supported by IT

Once enterprise priorities have been identified, CIOs and other IT decision makers need to determine which critical business processes within their organizations rely on IT services. Decision makers in the study reported that the business functions that are most dependent on the quality and reliability of IT services are related to critical functions and highly regulated functions such as financial processing and managing human resources. At the same time, potentially differentiating capabilities related to customer relationships and information access increasingly depend on the quality and reliability of IT services.

When the quality of the IT services that support these functions decreases, workers become less productive or are unable to perform their jobs. So improving the quality and reliability of these critical IT services creates the organizational agility needed in an environment characterized by fewer available resources but a greater demand for value. Organizations that don't do in-depth business-IT alignment planning should still start their IT service management planning with a clear understanding of which IT services contribute the most to workforce productivity.

Mapping critical business activities to IT services

Once they've identified which business activities are most dependent on improved IT quality and reliability, IT decision makers need to map those activities to the IT services that support, enable or automate them. After identifying which business activities are most dependent on improved quality and reliability of IT services, IT decision makers need to map those activities to the IT services that support, enable or automate them. But this is sometimes difficult to do. One manufacturer, for example, identified a short list of top-priority activities that demanded improved quality and reliability of IT services: the Webbased customer interface; financial processing systems for credit applications, loans and insurance offerings; employee expense report processing; and the primary manufacturing operation. But when the company tried to map these activities to the IT services they depend on, it got some interesting results. While the plant floor managers thought they used five IT services, a thorough analysis using an IBM software tool showed they actually depended on 27. The questions then became: Are all these IT services necessary? Is there a smarter way to design and instrument them to improve the quality of the services?

Resetting IT project priorities

At this point, CIOs and other IT decision makers can begin to reprioritize their IT project investments. In any constrained budget situation, planning always begins with identifying the mandatory areas. As the study results in the chart below show, items such as security and compliance come first because they are simply not optional in today's environment. Smarter management of IT services and systems comes next, followed by smarter approaches to technology, including consolidation, virtualization and network convergence projects.

	Effect of economic/bus	5111699 611	VII OIIIIIGIIL	on n pr	0]6013/]	nogran	15		
Security					7	4%		15%	11%
ompliance					67%	14	%		19%
nagement				6	5%			26%	9%
nagement				64	4%		19%		17%
solidation				64	1%			27%	9%
< changes				59%		22	.%		19%
ualization				58%		19%			23%
solidation			5	ō%		2	2 8%		17%
Desktop			5	5%			<mark>29</mark> %		16%
d devices			55	%		22%			23%
nagement			549	6	14%				32%
r facilities			50%			27%			23%
ʻgreen IT"		34%		25%					41%
idd l eware	26%		22%						51%
	0% 20%		40%	60	%		80%		1009
	Projects continued, exp or newly initiated	anded		jects cano lelayed	celled	I) IT progra projects	ams

Effect of economic/business environment on IT projects/programs

Source: IBM Market Insights, Service Management in an Uncertain Economy, January 2009. Figure 4

After security and compliance, smarter IT management is the top CIO priority.

Compliance	
IT systems management	
Service management	
Server deployment/consolidation	
Network convergence/other network changes	
Virtualization	
Storage deployment/consolidation	
Desktop	
Mobility, intelligent or connected devices	
Business performance management	
Data center facilities	
Energy efficiency or "green IT"	
Service-oriented architecture/middleware	



With all kinds of projects begging for attention, a good way to start reprioritizing is to figure out what *doesn't* need to be done right now. By starting at the bottom of a project list and crossing off what is optional, CIOs can more easily arrive at a short list of what really *does* need to be done. This kind of decision-making agility requires clear decision rights and accountability chains, so IT governance improvements are also becoming more of a priority than in the past.

Where critical business processes are concerned, CIOs are looking for smarter ways to:

- Improve the quality and reliability of the related IT services
- Reduce costs and improve the efficiency of the IT-enabled business activity.

Once they've identified top IT priorities, organizations can leverage service management best practices to drive smarter infrastructure management that supports improved information access, greater productivity and increased business value.

Smarter infrastructure management is service management. Organizations leverage service management best practices to improve the quality of IT services and reduce the cost of IT-enabled business activities by getting more value from the capabilities and resources that are already in place. The business drivers are:

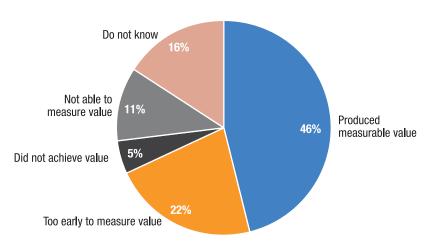
- The quality and reliability of IT services that provide easier access to information
- Greater workforce productivity and a reduction in the cost of the IT-enabled business activity
- Ability to get more value out of existing capabilities and resources.

Service management is the key to managing a dynamic infrastructure characterized by improved service quality, lower costs and reduced risk. Service management is the key to managing a dynamic infrastructure. By integrating service management with the other aspects of a dynamic infrastructure, such as consolidation, virtualization, energy efficiency, asset management, information infrastructure, business resiliency and security, CIOs can improve service quality, reduce business costs and manage risks. Almost 50 percent of those surveyed reported that recent IT projects produced measurable IT value. While this statistic reflects improvements in the ability to measure such value, there is still a great deal of room for improvement.

Measuring IT project value

According to study results, almost half of recent service management projects produced measurable value. This is a significant improvement over where the industry was even five years ago. The ability to measure value reflects advances in service management concerning the articulation of value. However, with more than half of the projects reflecting an ongoing problem with measuring and demonstrating value, there is clearly still a long way to go.

Breakdown of service mangement projects



Source: IBM Market Insights, *Service Management in an Uncertain Economy*, January 2009. Figure 5

The fact that 46 percent of IT projects produced measurable value reflects advances in service management over the last few years.

How are IT organizations approaching measurements today? Study results showed that IT organizations are tracking many metrics. The challenge is not only to gather meaningful information but also to report it in actionable, role-specific formats that can enable business-aligned decision making throughout the IT organization. As the chart on the next page shows, there is an increasing emphasis on quality of service, cost, productivity and outcome metrics. Overall, IT service leaders are prioritizing metrics related to:

• Quality of service and disruption reduction

- Costs
- Business functions and processes
- Productivity.

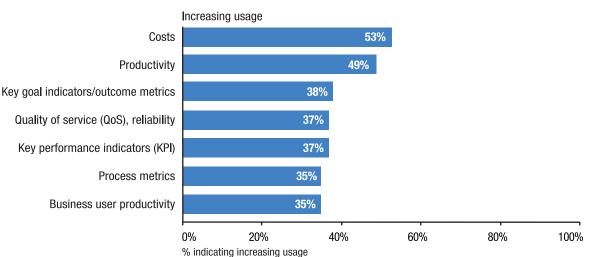
organizations are tracking many metrics, with an emphasis on those related to quality of service, cost, productivity and outcome.

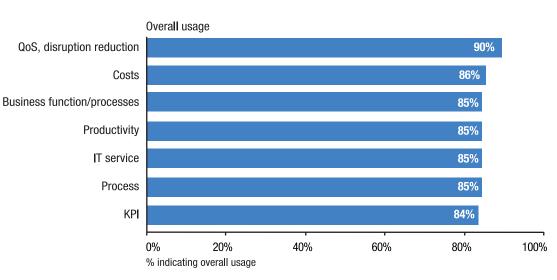
The IBM study showed that



Because "what gets measured gets done," we expect that these are the areas IT will be the most successful in going forward.

Changes to service management metrics





Source: IBM Market Insights, Service Management in an Uncertain Economy, January 2009.

Figure 6

IT leaders today are relying on quality-of-service and cost measurements while increasing their use of productivity and outcome metrics. Why? These leaders are measuring IT like a business so they can manage it like a business.

When quality and cost are the top business drivers, businesses place priority on projects related to service level, event and incident management; service management governance; asset change management; accounting; and performance management. Below are the kinds of projects that are initiated when quality and costs are the top business drivers.

Objective	Approach	Priority projects
Improve the quality or reliability of IT services	 Process design improvement from external provider Software implementation from external provider 	 Service level and availability management Event management and monitoring Incident, problem and service desk management Service strategy, portfolio, catalog and service request management Service management governance
Reduce or control costs	 Internal process design project Software implementation from external provider 	 Asset and configuration/ change management Chargeback and accounting Performance and capacity management

The study showed that while timelines varied widely, specific types of projects produced measurable value in terms of improving IT quality and reliability or enhancing efficiency and reducing costs.

How long does it take to produce measurable value? The study showed that different types of projects require different timelines. While some initiatives are quick hits and some address longer-term, systemic issues, all of the projects in the table on the next page showed measurable value. These projects were primarily focused on improving the quality and reliability of IT services as well as on improving efficiency and controlling costs.



Quick hits (less than 12 months)	Longer term (more than 12 months)
 Incident, problem and/or service desk management Education, training or briefing services Internal project to design process improvements Event management and monitoring Project with an external provider to implement software Performance and capacity management Service level management Asset and configuration management IT services strategy and IT service portfolio Improving IT governance 	 Internal project to design process improvements Project with external providers to implement software Performance and capacity management Project with external providers to design process improvements Service level management Incident, problem and/or service desk IT services strategy or IT service portfolio Availability management Asset and change/configuration management Education, training and briefing services

The short-term projects tended to focus on cost control; include internal process design efforts; and drive improvements to operational processes such as monitoring or event, incident, problem and service desk management. Successful longerterm service management projects were more likely to address quality of service but also included a strong focus on process improvement. CIOs are investing in short-term cost-control projects as well as longer-term service-quality improvements.

Gaining sponsorship

According to the IT decision makers surveyed, the top inhibitors to achieving project value are as follows:

- Insufficient funding
- Insufficient staff
- Organizational or cultural issues
- Insufficient skills or experience
- Lack of internal experience and lessons learned from similar projects
- Difficulties related to infrastructure reliability, scalability and architecture

The IT decision makers surveyed identified insufficient funding and staff as top inhibitors of project value. The best way to address the top inhibitor—insufficient funding—is to propose improvements in the areas a sponsor values most. This requires a shift from a systems orientation to a service orientation. Investments in new technologies or even internal IT processes should directly relate to business objectives. The key is to start with the business activities that need improving and that rely on high-quality, reliable IT services.

What is changing in the economy is the accelerating rate of change and its impact on organizations. Responding to this, the most successful IT leaders are focusing more clearly on managing IT as a business—as opposed to as a set of technology systems. The return on investment these leaders are looking for is measurable business value.

To gain buy-in, IT leaders must demonstrate how investments in new technologies or IT processes relate to business objectives.

Here's how the leaders in the survey ranked the methods they use to gain project buy-in:

- Aligning IT projects with business priorities-67 percent
- Demonstrating ROI and business value—59 percent
- Demonstrating cost reduction—52 percent
- Communicating project importance to stakeholders and end users— 44 percent
- Reprioritizing other IT projects—24 percent
- Establishing governance with business units and IT—19 percent
- Other—1 percent



Study participants ranked financial processing, human resources, information access and customer relationships as the business functions most in need of improved IT service quality and reliability. As you can see, 67 percent of participants cited "aligning IT projects with business priorities" as the most effective way to obtain buy-in. What are these business priorities? Most organizations in the study listed financial processing, human resources, information access and customer relationships as the enterprise functions most in need of improved IT service quality and reliability. A service catalog project can serve as the starting point as long as it first identifies which IT services matter the most to the business today. It's important to focus on a short list of critical business components, related IT services and associated service requests. A business-driven approach to IT service definitions can be a start to a business-driven service management approach.

Stakeholder communications, detailed plans and business cases topped the list of factors contributing to project success. The study also asked IT decision makers to list the biggest contributors to project success. Not surprisingly, stakeholder communications topped the list:

- Stakeholder communications
- Detailed project plans
- Collaboration and technical integration
- Established project execution roles
- Detailed business cases
- Skill and staffing planning
- Selection of appropriate software tools
- Assessing current processes and tools
- Facilitating cultural change
- Developing high-level project justification
- Conducting a pilot

Throughout the planning process, it's important to communicate in terms that are meaningful to stakeholders—IT leaders are increasingly learning to communicate in business terms rather than technology-oriented jargon. As mentioned earlier, IT decision making is moving toward the LOB because the organization Forward-thinking IT leaders, including CFOs, recognize that collaboration, integration and governance are critical to realizing business value through IT investments.

The news that most organizations are maintaining their IT budgets in today's uncertain economy reflects a businessdriven approach focused on optimizing IT-enabled business processes that can boost overall effectiveness and drive organizational success. needs a business-driven approach to IT investment that yields business results. And, in today's economic environment, the CFO has also become a key IT decision maker. In the past, we spoke of service management in terms of people, process, technology and innovation. Going forward, collaboration, integration and governance are increasingly recognized as top critical success factors for producing business value from investment in IT services.

Conclusion

The news that most organizations are maintaining their current IT budgets in this economic downturn—instead of cutting them as they have done in the past—reflects the fact that CIOs are being challenged to deliver higher-quality, more reliable IT services to optimize the IT-enabled business processes that are critical to organizational success. This IBM study indicated that as a result of this priority, IT leaders are investing in:

- Mandatory areas such as security and compliance
- Smarter management such as service and systems management best practices
- Smarter approaches to technology such as consolidation, virtualization and convergence.

The business-driven approach to service management planning emphasizes improving the quality and reliability of IT services that can improve the effectiveness of the other 95 percent of the organization. The study results point to key recommendations that can benefit most organizations today:

- Improve the quality and reliability of IT services that enable workforce productivity.
- Prioritize smarter ways of doing things: service management and technology consolidation.
- Revise measurements and reporting to stress quality of service, outcome metrics, costs and business value.
- Change the focus from technology and optimized subsystems to optimization of the IT-enabled business activity.
- Apply some investments to tactical quick hits—but also make progress on eliminating service-quality inhibitors through longer-term initiatives.

Globally, organizations are optimizing IT-enabled business processes. In today's uncertain economy, it's no longer about optimizing technology or process subsystems. It's about improving IT-enabled business activities through smarter management and improved measurement practices that focus on IT service quality and business outcomes.

For more information

For more service management information and resources, please visit the chief information officer: service management Web site:

ibm.com/services/us/cio/optimize

For more information about tools and support that can help advance the CIO profession, please visit the Center for CIO Leadership:

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¹ IBM Market Insights, *Service Management in an Uncertain Economy*, January 2009.

