

Integrated service management forges link between IT and business value

*Service management investments can help CIOs measure IT's
ability to support business goals*



Contents

- 2 Introduction
- 3 Understanding what CIOs want to accomplish
- 3 Evaluating the current state of service management
- 7 Aligning IT to business strategy
- 15 Conclusion
- 16 For more information

Introduction

IBM believes that smarter service management strategies can help IT executives obtain a holistic understanding of the services IT delivers; link those services to activities most likely to provide value to the business; and measure those services using metrics that are meaningful to chief executive officers, chief financial officers and other C-level executives. In implementing these strategies, CIOs can also often gain a better understanding of where to best invest IT funds to provide competitive differentiation for their companies.

Before examining how service management can more closely link IT to business value, we must look at two IBM research studies. The first is the *2009 IBM Global CIO Study*¹, published by the IBM Institute for Business Value. The second, a study conducted by the IBM Market Insights organization, examines how companies use service management to link IT operations to business value—and the key performance indicators (KPIs) they use to gauge success.

It is clear from the *2009 IBM Global CIO Study*, the service management study, and from IBM engagements with CIOs worldwide, that chief information officers want to measure the business value of information technology. That same research, that same experience, has uncovered an interesting dichotomy. IT executives may *want* to measure IT's value to the business as a whole, yet the metrics they typically use evaluate the *state* of IT operations instead—metrics that gauge the performance of individual elements of the infrastructure, for example, or measure project budget variances and the number of IT labor hours required to complete IT initiatives.

These metrics are clearly important, since they assess the health of IT operations. Unfortunately, though, operational metrics don't always address the stated CIO goal¹ of aligning IT investments with business value. Nor do they consistently measure the return those IT investments provide to the business.

IBM believes that for IT to directly support the business, it must stop thinking of itself as a unique and separate organization. IT, like any other corporate division, must see itself as a critical business function, not as an IT function that supports the business. Concurrently, IT executives must measure IT success in business terms. In other words, IT must think, communicate and measure itself in a context that the business understands. The role of IT is to make technology transparent to the business, so that the KPIs IT uses to measure and communicate success must also be transparent to the entire business, which means that, by design, they will not be measures of information technology.

Understanding what CIOs want to accomplish

Between January and April of 2009, IBM interviewed more than 2,500 CIOs—the largest such sampling to date—for the IBM Global CIO Study. These executives represented organizations of varying sizes in 78 countries, operating in 19 industries. The objective of the study was to better understand the challenges facing today's CIOs; their goals; and how they deploy IT to make the most significant impact on their enterprises.

Using companies' 2004-2007 profit-before-tax growth relative to peers in their industries, organizations examined were classified in one of three growth levels: high, medium or low. According to the study, raising the return on investment (ROI) of IT and expanding IT's impact on the business rank among the top three goals of high-growth-company CIOs.

To accomplish these goals, CIOs said they strive to align IT operations with overall business aims. They noted that they want to engender shared responsibility for business success through joint performance metrics based on business outcomes. They want to develop metrics that will convince the C-suite of IT's contribution to the organization and inspire these executives with IT's potential to drive business innovation and improve operational dexterity.

Evaluating the current state of service management

Understanding that CIOs want to raise the ROI of IT, in early 2010 IBM commissioned research to see how well IT executives use service management to link IT services to business objectives. The research also details the KPIs IT executives use to measure success in this arena.

The research ran in two phases. The first consisted of 14 in-depth interviews with senior IT executives in the United States, Canada and the United Kingdom. The second consisted of 300 survey interviews with senior IT executives from enterprises of 1,000 employees or more operating in various industries in the United States, Germany, China and Japan. Interviews consisted primarily of close-ended questions, with respondents evaluating the importance of service management projects to their organizations and the ease of measuring the success of these initiatives. Each respondent was screened to ensure that he or she had significant involvement in and influence over recent or planned IT service management projects. IBM was not revealed as the sponsor of this research.

Service management projects evaluated were:

1. Incident, problem and service desk management
2. Service monitoring and event management
3. Service catalog, workflow and request management
4. Service strategy and planning

1. Incident, problem and service desk management was defined by the research as IT's ability to improve the productivity of IT users through a well-designed service desk that acts as a single point of contact for user interaction. This category encompasses activities such as service desk response to service requests; reduction in the impact of incidents on IT services; preventing incidents from occurring through root cause analysis; and initiating appropriate requests for change.

Thirty percent of IT executives interviewed ranked *reducing the frequency of IT service interruptions* first in their top three goals for this category. This was followed by *increasing end-user satisfaction* with IT services (25 percent) and *reducing the mean time to problem resolution* (23 percent).

2. Service monitoring and event management was defined as IT's ability to monitor both IT operations and IT-enabled business services. This category encompasses activities such as detecting, correlating, filtering and responding to IT service events (notably, threshold breaches that could potentially lead to faults or service level exceptions); and providing operational information to other service management processes.

Forty-three percent of IT executives interviewed ranked *increasing end-user satisfaction with IT services through better system availability* among their top three priorities for this category. This was followed by *reducing the number and frequency of IT service interruptions* (33 percent) and *improving productivity of IT personnel* (30 percent).

3. Service catalog, workflow and request management was defined as IT's ability to develop base definitions of IT services, service characteristics and business requirements—and ensuring that these are organized and stored centrally via a service catalog. (These types of catalogs can be made available to users via a self-serve portal). This category also encompasses IT's ability to define, standardize and automate service requests based on business requirements; manage service requests; and execute service workflow programs.

When asked to rank their top three priorities in this category, 30 percent of survey respondents first named *faster provisioning of IT services to end users through automated, online delivery*. (Faster provisioning can lead to faster time to value for the business service.) *Reduced IT labor costs to fulfill IT service requests* came in second (at 27 percent); followed by *easier and more efficient processes and workflows to request IT support* (25 percent).

4. Service strategy and planning was defined as setting long- and short-term goals for information technology and deciding which service management-related investments would best support overall business strategy.

Thirty-one percent of respondents named *better aligning IT services to the most critical needs of the business* as one of their top three priorities for this category. This was followed by (at 26 percent) *reducing the cost of managing and maintaining the IT services portfolio* and (at 22 percent) *developing clear, standardized definitions of IT services offered*.

Overall, the study found that while IT executives expect their IT infrastructures to accomplish a variety of tasks, the outcomes most important to them were tied to business needs. Conversely, measurements of IT operational outcomes—those that ensure a steady or improved IT state—were rated lower in importance by the respondents to this survey. Several business-oriented service management themes surfaced among the IT executives interviewed. They were:

- End-user satisfaction with IT services
- IT services uptime and reduction in the frequency and duration of interruptions
- Greater end-user understanding of the IT services available to them and fulfillment of user expectations
- More automated, efficient and cost-effective provisioning of IT services.

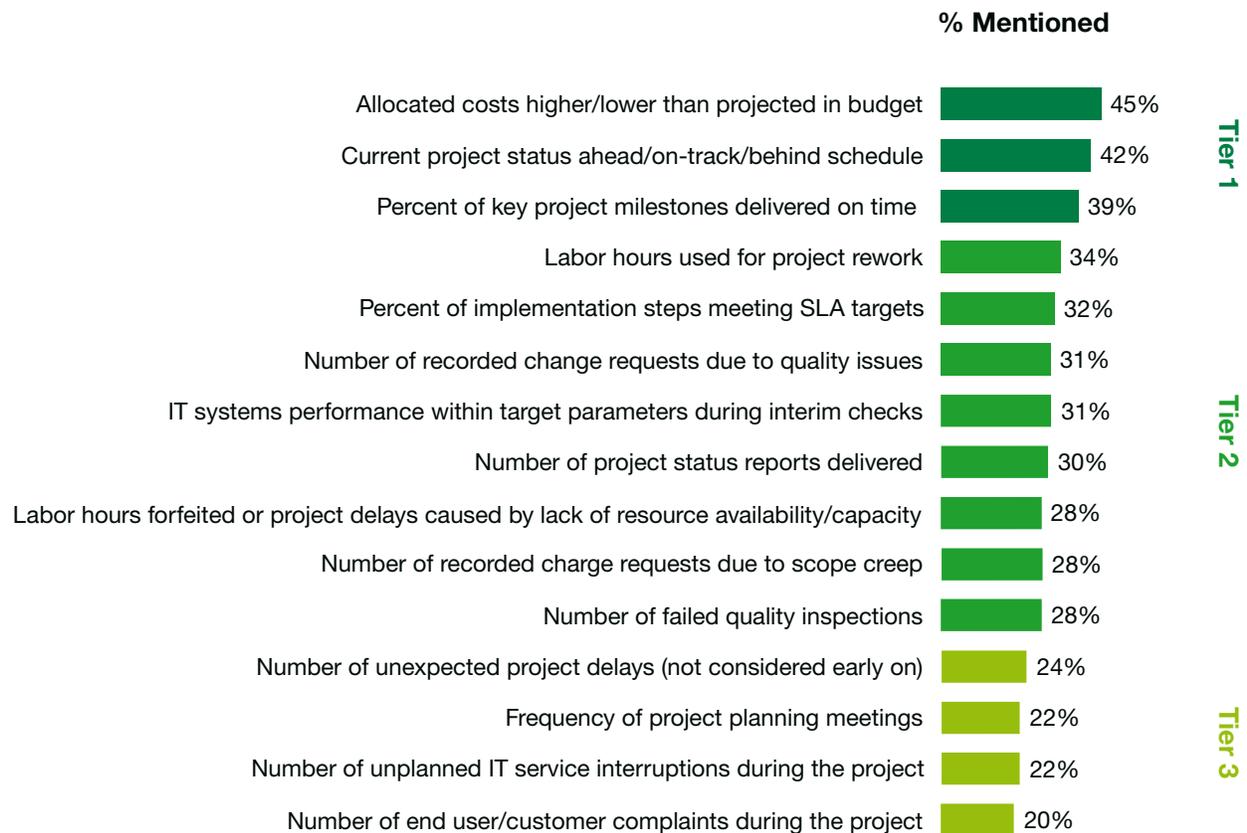


Figure 1: The KPIs that CIOs and other IT executives most frequently use to address the success of service management projects are shown here.

These findings varied somewhat by country, enterprise size and job role of the survey respondent. In the United States, there was a particular focus on using service management to ensure end-user satisfaction, system uptime and IT services alignment to business goals. In China, using service management to improve the productivity of IT personnel is viewed as particularly important.

Larger companies (ranging from 5,000 employees to more than 10,000) place more emphasis on certain outcomes that relate to the challenges of their size. These include:

- Providing faster, automated, lower cost IT services provisioning
- Eliminating redundant or unnecessary IT services from the portfolio
- Reducing the number of security-related incidents in the IT environment
- Reducing IT labor costs.

Meanwhile, smaller companies (ranging from 1,000 to 2,499 employees) focus on creating IT services standardization and efficiencies. Their goals include:

- Developing clear, standardized service definitions
- Delivering more consistent levels of IT service performance
- Improving the productivity of IT personnel.

Whether it's increasing end-user satisfaction with IT services or improving the productivity of IT personnel, these service management activities are laudable. And no one can doubt

that, at their most fundamental level, these activities provide value to the business. "End-user satisfaction with IT services" means that employees have the technology they need to do their jobs. "Improved productivity of IT personnel" suggests that the company is striving to save money in labor costs—and probably not just in IT. However, IBM argues that the types of key performance indicators used by many companies to measure IT's value to the business fail to clearly make the ledger connections most important to chief executive officers, chief financial officers and other C-level executives.

IBM believes that intelligent, integrated service management activities can help CIOs link IT services to the organization's most critical business needs, and provide the KPIs that measure IT's success in supporting crucial business goals. This is imperative if CIOs wish to reach their stated goal of raising the ROI of IT. Why? IT divisions traditionally have been support organizations. They did not build the better mouse traps that increased company sales. Rather, they brought value to the organization primarily by optimizing operational activities, improving worker productivity and reducing costs. However, the IT organizations of high-growth companies identified in the *2009 IBM Global CIO Study* clearly have a larger mission. Their goal is to provide IT-enabled business services directly to the marketplace. IT serves not only as a new customer channel (enabling and enhancing customer buying experiences), but also, in many cases, as a producer of the information and services that are responsible for generating revenue.

Aligning IT to business strategy

This leads to the question: How can organizations shift from simply measuring operational outcomes to measuring IT's impact on the business? IBM believes that it is a matter of examining business goals; using integrated service management to link underlying IT services to the most critical business activities; and demonstrating that linkage through the development of KPIs of value to C-level executives.

The single most important factor when aligning IT and the business is to clarify how the corporation plans to use technology to achieve its business strategy. Is the intent to use technology primarily as a means to improve efficiency and reduce operational costs, including the cost of technology itself? Or is the intent to use technology as a means to gain market share, improve customer intimacy, or enable new products from information—essentially enabling the business strategy, rather than simply supporting it? The IBM commodity/utility/partner/enabler model (Figure 2) is one way to determine this basic relationship and communicate the relative importance of the components of value (benefits and costs). There are times when cost is the primary focus, and the task is to determine what benefits can be delivered for a fixed amount.

Alternatively, some enterprises focus first on the benefits to be delivered, then strive to deliver those requirements in the most cost-effective manner possible.

To implement integrated service management activities that tighten IT-to-business alignment and measure success, organizations can:

- Identify critical business services and the underlying IT infrastructures that support them
- Standardize IT processes around these business services
- Create key measurement indicators based on business outcomes
- Drive improved decision making and change within the organization by providing advanced business analytics to better understand business outcomes.

Identify critical business services and related IT components

Demonstrating the business value of IT starts with evaluating the strategic importance of the business services and activities that IT supports. This step offers an opportunity for the CIO to collaborate with other C-suite officeholders and line-of-business executives in working together to answer:

- What are the most critical business services—those that drive the highest revenue or have the largest impact on customer satisfaction and overall business success?
- Which business processes support those key business services and help make the company more competitive or responsive in the marketplace?
- Which business services and supporting processes need increased management attention to improve effectiveness and efficiency?

The more challenging next step is to map these business services and processes to the various IT components that support them. IBM has developed frameworks and analytics that can help IT executives model their operations in terms of key components, then link those components to the business activities they support (such as customer relationship management, business management and service delivery). IT components can then be assessed for strategic differentiation and effectiveness and mapped against spending and staffing. IBM has also

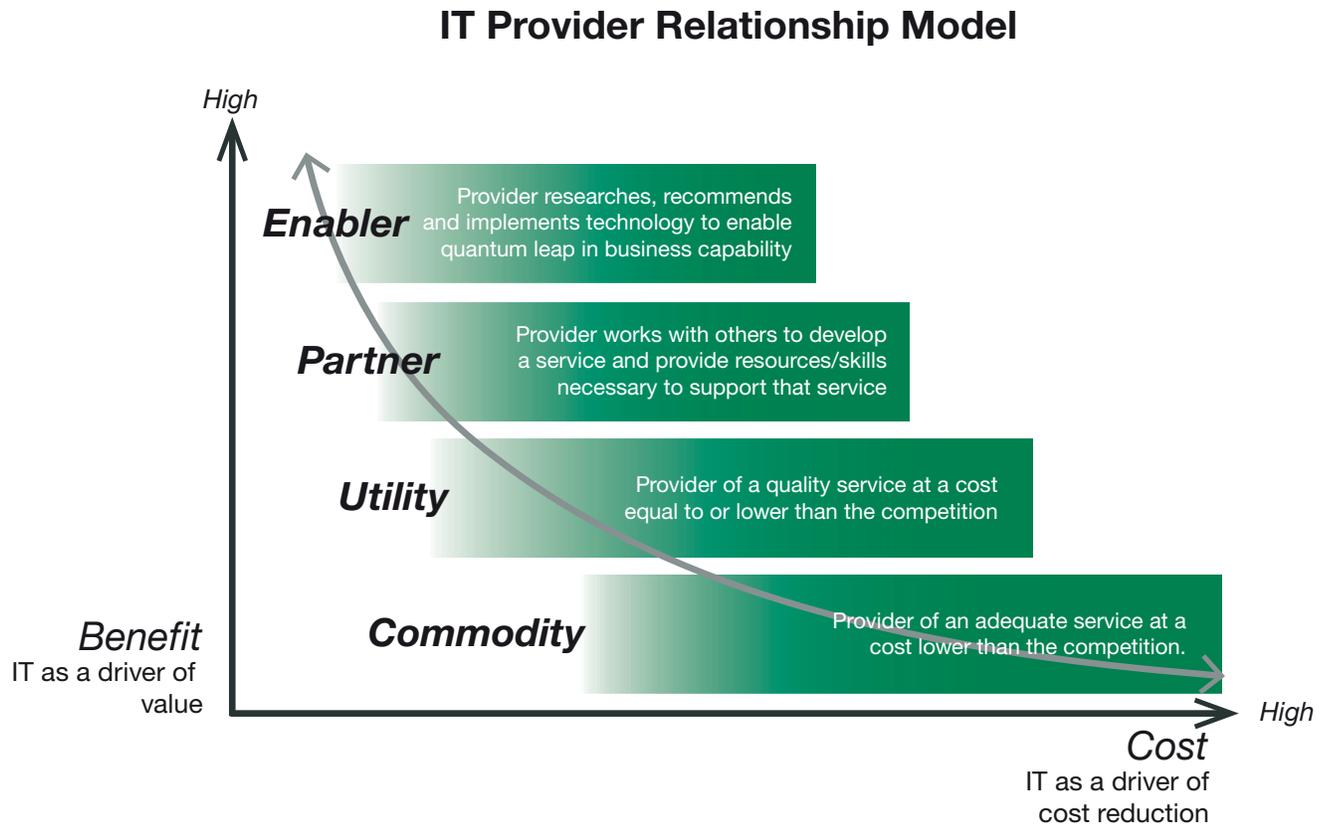


Figure 2: The IBM commodity/utility/partner/enabler model, illustrated here, is one way to communicate the relative importance of the components of value—benefit and cost.

developed tools that can use this information to populate component heat maps, helping the IT management teams see where IT can better contribute to business goals. (See sidebar, *IBM helps bank chart IT priorities for merger, deal closing*.) This helps to answer such questions as:

- Where do we need to improve our performance?
- Where can IT resources be reallocated to better fit the organization's strategic priorities?
- Which non-differentiating activities should be considered for alternative sourcing options?

This information can also be incorporated into executive and operational service management dashboards. These dashboards offer visibility into IT operations across the enterprise, providing the real-time and predictive performance and risk indicators needed to assess IT operations relative to the business's strategic goals. Dashboards give IT executives a view into the health and performance of business services; business processes; the client experience; and the relationship and impact of technology on them. IT executives can monitor and track critical IT activities responsible for meeting performance and risk commitments and understand IT's impact on sales, customer service and other key areas of operations. Further, dashboards allow drill-down from the business service level to the specific IT silos and resources that may be causing problems, eliminating finger-pointing across interdependent IT roles and functions.

IBM helps bank chart IT priorities for merger, deal closing

A major South American bank was involved in a complex merger with several other financial institutions. The banks had to begin operating as a single market entity in order to close a significant deal. The South American bank turned to IBM to develop a business model for prioritizing and completing business and IT projects.

During an IBM Business of IT Executive Workshop, the IBM consulting team guided the bank through the process of deciding its IT priorities, helping it implement deal-critical capabilities while continuing to maintain daily steady-state IT operations.

With the information gleaned from the Business of IT Executive Workshop and associated IBM tools, the bank was able to determine how to best align IT with overall business goals and priorities. IBM's work also gave the company new ideas of which IT initiatives to pursue to aid in the bank's growth. Finally, IBM clearly outlined how the bank could direct resources to the IT projects likely to have the strongest bottom-line impact.

Standardize IT processes around business services

Organizations can further strengthen the IT–business link by standardizing IT actions around the business services they support. To optimize and standardize IT organizational routines, it is necessary to identify and document IT processes and their associated activities: where they start and stop; what they include and exclude; how they interact with one another; what resources are being allocated to them; and whether investment in those resources is paying off.

All this can be accomplished by measuring the organization’s service management system against a robust reference model. A process model for IT management provides a frame of reference against which an organization can assess whether it is doing the right things in the proper way. There are currently a variety of process frameworks and quality management systems for managing IT. The best of them identify the set of IT management processes required for moving beyond a singular cost focus to the principled decision making that accounts for changing business and technology conditions; for managing the complexity of existing systems; and for more closely linking IT operations to business value.

These models are powerful service management tools for investigating and identifying areas for IT improvement and for the standardization of IT functions. In engendering a structured approach to integrated service management, they can help improve IT governance and control and improve IT processes. Further, working from a common model can help organizations determine the range of methods and techniques needed to enhance and standardize service management activities. (See sidebar, *Industrial products company works with IBM to reinvent IT*.)

Industrial products company works with IBM to reinvent IT

The IT department of a multinational provider of aerosol sprays and dispensers was unable to realize a standardized service delivery process for the company’s mission-critical IT management services. The business’s chief information officer wanted to transform IT capabilities to transform IT into a true business enabler. The CIO’s goals were to align IT to business requirements and to organize IT operations in support of a new corporate business model.

This company worked with IBM to assess IT processes. First, IBM examined the current alignment between IT operations and overall business goals. Second, the IBM team assessed the services IT delivered to the business, ranking maturity levels of IT processes and defining intervention priorities.

During the third phase of work, IBM identified ITIL® processes and mapped best practices for the IT environment. Finally, the IBM team combined the results of all this work to create a comprehensive view of the client’s existing processes and services. Based on this comprehensive view, IBM delivered to the company an evolutionary roadmap that defined the maturity level of each IT process and service and suggested initiatives to fill existing gaps.

As a result, this industrial products company was able to define and document the pain points of its IT organization. Using the roadmap provided by IBM, the company’s IT division can now define precise actions the organization needs to take to more fully align IT with business goals.

Once organizations have defined and measured their service management activities against a sound reference model, many IT professionals find it helpful to document service management processes against industry best practices. This can help organizations significantly improve IT efficiency and effectiveness by enabling users to easily understand processes, the relationships between processes, and the roles and tools involved in efficient process implementation. The focus is on evaluating service management success in areas such as incident management, capacity management and request fulfillment—along with customer satisfaction management, demand management, facilities management, knowledge management, risk management and supplier management.

Cutting-edge approaches may strengthen the business–IT approach by standardizing IT processes around business services they support. Approaching IT as a fabric of processes, technologies and organizational capabilities that supply or support IT services is a way to start. From this vantage point, IT management can begin to assess the technologies and organizational capabilities that supply or support IT services in the context of IT strategic intent, structure and status. This can help an enterprise to articulate the current state of its IT infrastructure and compare it to the desired state.

Implicit in this type of approach is the recognition that just as a business delivers value to its customers through products and services, IT delivers value to the organization it serves through technological products and services. The challenge lies in articulating the specific role of IT processes, technologies and organizations in business terms, and in establishing and standardizing the connection between IT capabilities and the business activities they support. Once business and IT executives agree on the best strategy for using technology to achieve business–IT alignment and to provide context for IT investment priorities, this type of approach can help the IT

executive team analyze the infrastructure for standardization and optimization opportunities in terms of management and technical domains, pinpointing areas for improvement.

Create measurement indicators based on business outcomes

Once CIOs and other IT executives have determined the best way to use service management to link IT services to business needs, they must create measurements that gauge IT’s contribution to the desired business outcomes. KPIs that measure IT getting “bigger, better, faster” are not always valuable to C-level executives. Rather, IT divisions must quantify metrics in terms of business value.

Consider the running of an automated teller machine (ATM) as an example. A bank has many reasons for placing an ATM in a given area: customers may pay to use it; customers may perceive value from the convenience of the ATM location; the bank may be able to reduce the hours of operation at their brick and mortar locations; the location may give the bank a presence in a previously untapped market.

Better service management strategies (such as those discussed above) can assist IT personnel in determining which services will help the bank meet its desired outcomes for this ATM. With this information in hand, IT can then develop KPIs to track how well the ATM performs against these goals. KPIs can measure how much customers pay to use this ATM, then compare that income against the cost of running the machine to determine the bank’s profit. KPIs can track how many customers are being introduced to the bank through the presence of an ATM in an area where the institution has no branch offices. Finally, they can measure the success of on-ATM-screen advertising initiatives to determine how many new transactions (such as consumer loans) the ATM helps to generate.

Pain Point	Business Process	Business KPIs	KPI Linkage	IT KPIs	IT Service
Not enough new products	Develop new products	New product revenue share of total revenue	Function reduces development cycle	Application function	CAD services
		New product time to market	Function improves mfg integration	Application function	ERP services
Inefficient order picking/loading	Pack orders	Errors per order	Function and performance reduce errors	Application function and performance	ERP services
		Average order pick/pack time	Resolve errors and ID root cause	Problem resolution time	Help Desk services
Sales force not selling new products	Sell products	New product revenue per sales FTE	Sales tracking drives performance	Application function	Sales services
		New product revenue share of total revenue	Drive new web sales channel	Application function and availability	eBusiness services
Unpredictable and expensive IT service	Deliver business applications	IT cost/revenue	IT costs increase business costs	Cost per capacity unit	Application delivery
		Application availability when needed	Availability increases business results	Application availability	Application delivery

Figure 3: Organizations can link business and IT KPIs to measure IT's value.

This is just one example. The list of KPIs that help track IT's contribution to business goals seems never ending. The right KPIs can, for example, measure improvement in sales because of increased transaction processing time on the business's Internet storefront. They can link improved Voice over IP telephone system uptime to increased telesales. And if a company invests in applications that give those telesales representatives a universal view of the customer's buying patterns, the right KPIs can show how that information leads to increased add-on sales.

Figure 3 illustrates how organizations can directly link IT services to business value by connecting business and IT KPIs. These KPIs offer a tangible mathematical link between IT services and the business processes they support. They use financial, functional, performance and availability measurements as a mechanism by which IT executives can quantify business-IT linkages. In short, these KPI connections help businesses to quantitatively assess the impact of IT investments on the business.

Drive improved decision making and change within the organization

In order to shift from measuring the health of IT operations to tracking technology's true contribution to the business, many organizations find that they must improve decision making. This can be accomplished through improved IT governance. The importance of intelligent IT governance cannot be overstated.

A comprehensive approach to IT governance includes establishing governance models, processes, structures and relational mechanisms that engender clarity and transparency in directing and controlling IT. Ultimately, governance must ensure clear and transparent decision rights and accountability chains for directing and controlling each critical management activity required by a strategy.

Here is a list of typical IT governance tasks, and the type of bodies that perform them:

- **Direct IT.** This task is often taken on by steering committees, boards, councils and working groups.
- **Control IT operations.** Planning committees and boards often exercise ownership and control over IT architecture, data, tools, frameworks, processes and services. These groups also provide the organizational authority needed to require adherence to the policies and decisions that have been made, including process and service standards.
- **Execute IT initiatives.** Process and service management work groups take charge of functions that include executing IT activities within the constraints of governing standards and within the constraints of policies relating to architecture standards, service level agreements, process and service design, control objectives and guiding principles.

Decision types	Governance questions
<p>Directing IT competencies, services, management, processes, architectures, infrastructures and applications</p>	<ul style="list-style-type: none"> • Who directs and controls “hot” IT components? • How will they be directed and controlled? • What are the charters of each decision-making group and the relationships among various groups? • What are the roles within each group? What are their decision rights and accountabilities? • What information will be required? • How are performances and outcomes measured and reviewed?
<p>Controlling IT competencies, services, management processes, architectures, infrastructures and applications</p>	<ul style="list-style-type: none"> • Who controls each process and service critical to the business strategy? • How should they exercise that control? • Do they have the authority to require adherence to the process and service designs and policies?
<p>Executing IT competencies, services, management processes, architectures, infrastructures and applications</p>	<ul style="list-style-type: none"> • Who participates in the execution of the processes and services? • Are the accountability charts clear for each activity required to achieve the business strategy?
<p>Communicating</p>	<ul style="list-style-type: none"> • What vertical and horizontal communications are required? • Who needs to know what, and when? • What are the best format, content, medium and frequencies for the required communications?
<p>Guiding principles</p>	<ul style="list-style-type: none"> • What are the principles and policies that will guide delegated decision making? • Are the principles aligned with good-practice audit control objectives and information standards? • Are the rationales and implications of each principle clearly understood so they can be properly acted upon?

Table 1: Questions IT staffs must ask if they want to improve IT governance.

Good governance can help address the greatest risk that service organizations face today: behaviors and decision making that are not aligned with strategic objectives. Intelligent governance practices minimize the depth and duration of performance declines during periods of change and innovation. (See sidebar, *Value-based governance propels business transformation*.) More specifically, good IT governance can help minimize time wasted as people search for individuals who have decision rights; overlapping and unclear accountability resulting from conflicting direction; and the significant problem of critical decisions going unmade because no one knows who has the authority to make those decisions. Often, improper governance can cause the decisions to be deferred until just prior to execution. In many cases, this means the individuals least equipped to make decisions—due to lack of experience or availability of information—are the ones forced to do so.

Conclusion

IBM knows that CIOs want to measure the business value of information technology. But, too often, the metrics they use to gauge success simply reflect the health of IT operations. Service management strategies such as those described in this paper can help CIOs make, and *measure*, the link between IT services and the critical business strategies they support. By implementing these types of strategies, CIOs can come closer to the universal goal of raising the ROI of IT.

Value-based governance propels business transformation

IBM is involved in an ongoing business transformation—one that has thus far resulted in US\$4.7 billion in business savings. IT transformation alone has led to US\$5.9 of cumulative benefit yield for every dollar invested. Smart IT governance strategy proved crucial to this transformation.

The IBM Office of the CIO founded the IBM Business Transformation Information Technology Group (BT/IT). BT/IT took charge of vetting which potential new IT projects should be implemented. BT/IT ranks potential IT projects using both business value and risk factors. BT/IT uses a five-step process to identify and implement IT projects, and to measure IT success:

1. **Value Identification:** IBM identifies and prioritizes potential IT actions according to potential benefits and opportunities for value.
 2. **Value Quantification and Interlock:** IBM develops the business case for IT initiatives. Intended value is clearly defined, as are measurements of success.
 3. **Value Realization Execution Planning:** IBM establishes the plan by which execution teams will deliver the intended business value.
 4. **Value Realization Delivery and Planning:** Metrics measuring the IT initiative's value to the business are developed, tracked and reported.
 5. **Leverage Results:** Once the IT initiative has been implemented, this process helps IT continuously improve the initiative's value to the business as a whole, leveraging successes into other business areas and mitigating failures.
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For more information

To learn more about how IBM is working with organizations around the world to help them achieve business value through investments in service management, 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 website: ibm.com/c-suite



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