The value-creating CIO

Use controls wisely to promote collaboration, innovation, and experimentation while protecting sensitive information
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The heart of the matter

Let go of process control and become a value creator
More and more businesses today want the CIO to be a process manager, creator, and strategist across the full mosaic of the business; that is, they want a CIO who creates value. The value-creating CIO can encourage the development of drugs at pharmaceutical companies, for example, or help assess risk in financial products for securities firms. And in government, a CIO who has a value-creating perspective can enable efforts to create a single view of constituents across several departments.

But being a value creator is a very different proposition for CIOs than it was a decade ago, when the opportunity for value creation was in the back office, such as through Enterprise Resource Planning (ERP), e-commerce, and Human Resources Information System (HRIS) deployments. Today, the potential for creating top-line value is in the front office, in client-facing, and revenue-oriented areas where flexibility, variability, and ambiguity are norms—and where employees need the help of technology to explore and capitalize potential new opportunities and demands.

This shift in where the value opportunities are raises a key issue for CIOs: They have to act differently in how they manage and control the new areas of experimentation. In the back office, it was critical to wrap all the technology, application systems, and the information that flowed through them in a tight set of processes. Indeed, these systems required strict process controls, as they manage and store critical core business information, such as financial records, and critical business processes, such as finance, supply chain management, manufacturing, and order processing. Even as the information technology industry made rapid advances, shifting from mainframes and punch cards that could be kept under lock and key to personal computers that helped employees share information freely throughout the enterprise, companies continued to cling to the Fort Knox paradigm of how IT services could be requested, provisioned, and deployed.

But a heavy-handed control approach won’t help CIOs evolve the front-office enablement that organizations increasingly need. When applied by default in all cases, restrictive security controls can muffle the value-creating activities the business should try in its efforts to foster further growth and customer engagement. Instead, CIOs must use a more nuanced approach to management, one that protects the back office but does not strangle the front office.

We believe learning this nuanced approach is the right thing to do. Because these value-creation activities can lead to top-line growth, they provide the CIO with an opportunity to demonstrate business leadership. CIOs should have ongoing involvement in “thought leadership on how to help the business improve its operating performance—the opportunities for doing more with information assets to improve performance in ways that business partners won’t be thinking about,” says Robert Dixon, Global CIO of PepsiCo. “It’s about also finding ways to improve the top-line performance, the bottom-line performance, and the cash performance of the company.”

At GE Healthcare, CIO Russ Mayer says it is critical for IT to be involved in innovation, and not just within IT systems: “Innovation means both inside of GE as well as outside of GE. The ability to collaborate among different parts of the world working on an engineering design—being able to interconnect across time and across geography—allows us to get something done faster or get something done with a lot less cost or create some new product that we wouldn’t have dreamed about creating prior to this collaboration in the innovation process.”

Finding these opportunities means getting involved where the business action is: the business itself. Doing so successfully means working with the business in a different way from what many CIOs are used to. When you get involved in value creation, you’re going to get involved in new ideas that aren’t proven and that need a looser level of process management than most IT organizations have been comfortable with, given their focus on mission-critical back-end systems. By getting involved in the business and shifting away from one process control approach for everything, the CIO can become a facilitator of value creation.
An in-depth discussion

Use controls to foster innovation and experimentation
If CIOs truly are to be part of the business leadership and valued as such, then PricewaterhouseCoopers believes it is critical for CIOs to be actively engaged in value-creating business areas, such as those that increase customer engagement or explore new sales approaches—not just enveloped in the depths of IT operations activities. (Figure 1 shows the three areas that CIOs must navigate to be a successful “situational CIO.”)¹

“Our customers’ needs have changed pretty significantly over the past 10 years, and they are going to continue to change. They are going to need integrated insights into what’s happening so they can better manage what they do. And as a result, their CIOs have to work in a very different way than they did in the past. They are becoming more and more influential in our customers’ places of business,” says Mr. Mayer, CIO of GE Healthcare. The change in customer behavior also means that GE’s IT team must act differently to support the customers’ business needs and thus also think in terms of the customers’ business context, he adds.

But many CIOs view all operations as activities to be tightly controlled. And, clearly, security is essential for core systems, such as financial applications.

Figure 1: The situational CIO’s triangle of responsibility. To succeed in business, not just in IT, a CIO must be able to maneuver among these three areas of focus.

Principles for successfully expanding into value-creation activities

Tight control can work against you in other areas, however. “My personal experience is that this is an area where CIOs can really blow it,” says Laurence Best, a PricewaterhouseCoopers technology adviser. “CIOs I knew during past waves of innovation—PC, LAN [local area network], client/server, and Web—tried to impose core-level control on emerging technologies and took a hit because of it.”

Best’s advice encapsulates the thinking that we recommend all CIOs take to heart: leave behind the limited control mind-set when engaging with the business on potential opportunities for creating value. In many areas, “attempts at blanket control are futile and counterproductive,” Mr. Best notes, because they prevent business employees from adapting to changing demands and conditions, where unknowns are seen as potential areas for growth and improvement, not as problems to avoid or forbid. These exploratory processes are often messy, volatile, and inexact — yet they are where the growth opportunities reside.

Therefore, in these potential value-creating areas, a CIO should not try to lock down the systems, processes, and information flow. Instead, CIOs should create flexible platforms and capabilities that IT professionals and their active partners in the business can jointly create, deliver, tweak, and exploit.

Control does not disappear entirely; instead, control is exercised differently, through a combination of influence and policy standards that allow useful freedom. In other words, match the requirements for control to the risk.

Several CIOs have figured out how to expand their roles into value-creation areas in a way that positions them and their staff as true business partners, creating a stronger, more strategic role for IT without compromising the core back-office and operational systems. They’ve linked the front-office value-creation and the back-office efficient-and-effective execution roles for a result in which the whole is greater than the sum of its parts. That is, they know when to implement strong controls and when to allow information to flow more freely.

In our conversations with CIOs who have successfully figured out how to be value-creation business leaders, as well as with CIOs who are still determining their approaches, several key principles have emerged. (See Figure 2.)

Figure 2: The ability to apply these five principles lets a CIO assert the appropriate levels of control and freedom to experiment to help the business successfully innovate. The maximum impact comes when all five principles are applied.
• **Classify core and context**—
  Organizations have different needs for types of information and technology throughout the organization, so a one-size-fits-all management and control approach is unwise. Instead, most systems can be divided into two classes, core and context, as illustrated in Figure 3. The core class includes the back office and fundamental operations, such as financial, security, manufacturing, transaction-execution, and compliance activities. The context class includes marketing and communications, exploratory analysis such as that for business development, and product and service research.

• **Establish governance**—Governance is critical to managing the intersection between core and context activities. For example, it’s fine to let business staff experiment with what-if financial models. But those models or their results should not enter the formal financial systems unless and until the organization has explicitly decided a new model should be official and part of the corporate standard financials.

• **Facilitate IT and business teamwork**—IT and business staff should be mixed together and treated as subject matter experts on the same team rather than as separate departments. When IT professionals in the field are considered part of the business teams they work with, they can succeed as both the proponents of new ideas and as the CIO’s eyes and ears of business thinking. This insight assists in the overall orchestration of technology to serve both the business strategy and the IT operational requirements.

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Figure 3: Scope of information assessment and focus.

Viewing technology-based efforts from a “core or context” perspective gives CIOs a starting point for deciding where traditional levels of control are essential and where they can be relaxed. However, CIOs do need to monitor the boundary between core and context activities to ensure context activities don’t penetrate the core in violation of core control requirements.
• **Encourage investigation** — Business staff should be encouraged to investigate new technologies and processes, rather than relying on IT alone to propose innovations. This means enabling and encouraging tech-savvy business staff to participate in the IT innovation role, instead of preventing their involvement. If successful, the need for “shadow IT” goes away, and IT professionals perform “shadow business” activities—except that nothing is in the shadows.

• **Use soft control to set parameters** — For context activities, soft control is usually more effective than hard control. For example, rather than disallow social networking, CIOs could encourage experimentation after a set of core policies has been set (by the business management, not by the CIO alone). These policies might include expectations on how to be a representative of the company and how to deal with company-confidential information. Or, an organization could permit experimentation with cloud services or the new generation of mobile devices only after the CIO has set basic parameters (such as around permitted data exposure), which help ensure that rogue efforts don’t arise.

Taken together, these principles emphasize strong openness and collaboration, and may even blur the lines between IT and business. These principles also rely on strong awareness of the various activities and experiments under way, so they can be orchestrated, integrated, supported, evaluated, and discontinued or regulated as appropriate through governance by the CIO and other business leaders.

When taking this approach, the CIO and the IT department facilitate investigation while enforcing controls where needed. Instead of IT and the business being separate activities with a high wall between them, IT is an essential, integrated part of the business—a group that ensures that business activities are effective, efficient, and create value. The context of the activity determines the degree of control that the CIO must establish.

However, contextual governance requires the CIO and the rest of the business leadership to agree on what is core, what is context, and how activities that might cross the core/context boundary are managed. That shared management occurs only if the business leadership includes the CIO as a partner, rather than as merely an operational enabler, as we’ve explained in previous papers in this series.

At the end of the day, the scope of the strategic, value-creating activities that IT should be part of is broad, explains DuPont CIO Phuong Tram. “It should be about living the value—how you use information, how you use data, how you collaborate, how you ensure that the organization is predictive rather than reactive, and what information you and each business unit, function, or region need to drive that,” he says.

PricewaterhouseCoopers believes that the past 10 years and the previous dot-com implosion have forced CIOs to shift their focus to operational rigor, reliability, and efficiency. Those are all essential goals, but the intense focus on them often has created a risk of tunnel vision for CIOs, and many CIOs are not anticipating what it means to shift to the more value-creating role that business executives are now seeking. Other CIOs, however, have not only anticipated but also made this shift, as the following sections describe.

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Example from the front lines of value-creating IT

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DuPont's CIO mixes business and IT

One such person is DuPont's Mr. Tram, who serves not only as CIO but also as chief process officer in recognition of IT's value beyond technology operations.

His organization distinguishes between business-facing IT and IT operations. They have different delivery expectations and different integration architectures, he notes. At DuPont, the business-facing IT staff works alongside the business, so they can assess needs and build relationships with internal clients. “They don’t sit with me,” Mr. Tram says. “They sit with the business. They are members of the leadership team of the business or report to the business unit president, even while they report to me [in a matrix approach].”

In addition to embedding IT professionals into the business units, DuPont also rotates many business process experts into IT, so they better understand the IT issues. That approach helped DuPont break down the process and cultural barriers that can exist in many companies.

The business-facing IT staff’s activities cannot happen in a vacuum, so the burden is on Mr. Tram to orchestrate them with the rest of IT’s mission and with the business’ missions. Thus, Mr. Tram must be a key part of the overall business management. “The CIO has to be a technology owner, a data owner, and a process owner, and has to be able to speak with authority when it comes to business matters,” he notes.

To accomplish that at DuPont, “I have to make sure there are a couple of key processes to drive value capture, drive in-house and marketing activity, drive transactional activity, and drive standardization such as of finance,” Mr. Tram says. “The CIO cannot do that alone, so in my role in DuPont I belong to two top teams. I belong to what we call STREAMline Board, which is made up of the top 10 C-level executives in DuPont, including the chief executive officer (CEO), and drives all the streamlining and standardization. I also belong to what we call the operating team, which is made up of the presidents of the businesses, IT, and finance, and which can drive really differentiated value capture and profitable revenue growth.”

Orchestrating three types of data.

Mr. Tram suggests that CIOs need to pay close attention to three kinds of information:

- Internal transaction information from the core financial, sales, and production systems
- Specific marketplace information — such as sales, channel, and customer — from both internal systems and from external sources
- Broad market information — such as what is happening in China or what other related industries are doing — mainly from people’s observations and external sources

“You need to look closely at those three types of data in the context of your business,” he says, “and ask, ‘What are the synergies? What are the things that if we’re up first will provide our business with competitive advantage and in what time frame before it becomes history?’ It is more about information management than it is technology management. Technology in this case becomes the enabler, but you need to have your strategy about information management first.”

This information management approach is critical to Mr. Tram’s ability to orchestrate the value-creating activities, to understand what is core and what is context, and therefore to know what level of control is appropriate to each activity.
Although many CIOs are part of their companies’ senior management teams and acutely involved in the broad business strategies, including those related to generating revenue, it’s fairly rare for CIOs outside technology companies to drive actual revenue generation.

Perhaps they should, especially as the apparent end of the recession will require companies to look beyond cost cutting and begin again thinking of how to achieve growth. Certainly, driving IT costs lower will remain a mandate for all CIOs for the foreseeable future, but those CIOs who want to be strategically relevant to their enterprises should be looking for ways to help their enterprise increase profitable revenue.

Although the opportunities and approaches for generating new profitable revenue vary by enterprise and by CIO, we believe there are great opportunities and approaches to enable the CIO in this strategic pursuit. Profitable new revenue opportunities surround most enterprises in several forms. Most directly, they can come from one or both of two major sources:

- Broader reach using the Internet
- A better understanding of customer wants and spending patterns

The next CIO frontier: Revenue generation

Broader reach using the Internet

A broader reach using the Internet could entail the use of social networks for commercial purposes or perhaps establishing special relationships through smartphones and other mobile devices. Social networks are now established for business relationships as well as for the purely social interactions that were their genesis. Smartphones are increasingly the means by which special services are provided, on the spot and on demand. One example is the use of bar codes that can be scanned for comparison shopping, for coupons or loyalty benefits, or for additional information.

Using cloud computing as a venue for providing services to a broader audience, perhaps leveraging internal capabilities for use by others, is another possibility to explore as more platform services become available.

The approaches taken by CIOs to experiment with these options will vary by industry and the profile of the enterprise. For example, Ford Motor Co. has taken advantage of new social media to better connect with younger car buyers, both by seeking their input on future products and by directly target-marketing to them. Campbell Soup is testing the development of mobile applications as a new order-taking and communications channel for customers.
A better understanding of customer wants and spending patterns

Improved data mining of the electronic trails everyone leaves behind as consumers could improve marketing and sales strategies. Many organizations are becoming adept at connecting search actions or prior buying patterns with a current transaction by the consumer, and the best at this are doing it in real time, encouraging greater spending.

Every organization recognizes the value of understanding its customers’ past and present actions, so emerging technologies such as Web analytics and other Big Data approaches are ripe for experimentation to realize that value. That’s why Phuong Tram, the CIO at DuPont, invests savings from productivity improvements into data management. “I increase the hiring of more data management specialists so they can create more value for our businesses,” he says. “Even though we don’t use CRM, we mine the data we do have to analyze customer trends and behavior.”

Likewise, at Campbell Soup, the investments in information management have produced “a highly sophisticated predictive modeling capability for our core business that allows a lot of tailoring to the customer trade models,” says CIO Joseph Spagnoletti.

Revenue-generation opportunities are just beginning to be recognized. However, information management and technology are now integral to most every business process. CIOs who actively enable new product and service capabilities that interact with customers will become an essential leader within the executive suite.

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Doing in-the-business prototypes. 
Mr. Tram is applying these information management principles to DuPont’s investigation of several technology trends. Currently, multiple pilot projects are in place throughout the business for cloud computing, mobile computing, and social networking.

The typical control approach would disallow these technologies, because most of them don’t meet the security and compliance requirements of DuPont’s core systems, such as enterprise resource planning (ERP). Another typical control approach would impose strict procedures on the use of these technologies, limiting their potential. But Mr. Tram and other DuPont business leaders see potential value in all of these technologies. For example, cloud computing could provide cost savings and operational flexibility, mobile computing could provide a new channel to customers and could enhance employee productivity, and social networking could provide a new marketing channel for customers.

So, rather than block experimentation in these areas or suffocate it in a heavy-control security blanket, Mr. Tram developed strategies to enable in-the-business prototyping. He allows experimental use of cloud-computing-based services, for example, after an assessment is made of their potential core-system integration points, data security, and so on.

Figures 4a and 4b show two examples of how a CIO might tailor the level of control to the experimental effort. Figure 4a shows a scenario where control can be fairly loose because there’s little interaction with core systems, whereas Figure 4b shows a scenario where control must be tighter because of greater interaction between the experiment and the core.

Before permitting the use of social networking technologies, DuPont first developed a policy to set expectations for employee behavior on such networks. Mr. Tram found that setting policies increased employee interest and comfort.

**Figure 4a: Scaling governance down for lower-risk activities.**

As an example of a nuanced control strategy, an organization experimenting with social media may apply just minimal policies supported with guidance for business unit applications and innovation experiments because of the limited impact on core technology and information systems.
in the use of social networking. “It became an explosion because people felt more confident,” he says. “At the end of the day, people don’t want to violate compliance or security or other core values. They just want to know how they can do this and comply at the same time. So you need to have the policy up front.”

For nonstandard devices — such as Google Android OS-based smartphones, and Apple iPhone mobile devices, iPad tablets, and Mac computers — Mr. Tram specified minimum security requirements. He also limited potential risk by steering their use to data capture and data presentation activities, which are typically a step removed from the core systems that must be tightly controlled. Employee enthusiasm for such nonstandard devices provided Mr. Tram the business buy-in for experimenting with desktop virtualization technology, which could help DuPont one day reduce its investment in managing user devices (by letting employees use and support their own devices). Such virtualization also might help DuPont move critical business applications and information off the client device and back into the data center, where IT can exercise more control.

The trick is to realize that using such technologies isn’t an all-or-nothing proposition. “You don’t want to integrate everything into the system,” Mr. Tram says. “So instead, you might make selected information from the ERP system available to the iPhone, but you don’t let the iPhone directly into your ERP system,” he notes.

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**Figure 4b: Scaling governance up as risk increases.**

As business unit applications and innovative experiments become robust enough to be included in core activities, more rigid processes and standards must be met. As these applications and technology-based solutions become enterprise tools, core policies and processes will be implemented to ensure that reliability and performance criteria are met enterprise-wide and that industry compliance and governance requirements are satisfied.
Campbell’s CIO explicitly governs the core/context interface

At Campbell Soup Company, CIO Joseph Spagnoletti has evolved an approach similar to Mr. Tram’s that relies on orchestration and governance of the core and context activities. Mr. Spagnoletti’s approach also recognizes that there’s not a one-size-fits-all approach to IT control and that IT needs be an integral part of the business organization.

For Mr. Spagnoletti, the opportunity to redefine IT came in 2008 when he was made CIO, beginning with the development of organizing and operating principles. As Mr. Spagnoletti recalls, these provided the basis for the company’s ability to treat core and context activities distinctly.

Initially, the focus was on service improvement, cost reduction, program deployment, and benefits capture — and the results improved IT’s credibility. “What started as a structural change has now evolved into an integrated way of participating as a partner within the business,” Mr. Spagnoletti notes. In fact, when a few years ago Campbell decided to create a chief process officer, the executive committee chose to have the role report to the CIO.

Permissive governance enables experimentation. Expanding the role of IT into the business requires a governance approach that ensures potential value-creating efforts don’t compromise the core systems—but without hindering useful experimentation. Campbell diligently protects those core systems without closing the door on context activities. As a simple example, Mr. Spagnoletti has two networks in place: the internal one for official systems, used by employees from their corporate-issued PCs and BlackBerry devices, and the guest network for visitors. But that guest network can also be used by employees who want to access their home PC, Mac, or nonstandard mobile devices such as an Apple iPad or smartphone.

The guest network doesn’t allow access into all of Campbell’s applications and networks, but Mr. Spagnoletti notes that many employees don’t need the full access to Campbell’s systems for all their work. Thus, the guest network provides a convenience for employees by supporting many work activities, and it gives Mr. Spagnoletti a real-world lab for testing new devices. It may also show a way to get out of the client-device business altogether, he notes: “If you could create an opportunity for choice and let the vendors compete for the individual choice and provide the support versus IT providing the support, we could focus on managing and accessing the content, and not let the device dictate any of it.”

Mr. Spagnoletti uses the same approach for social networking. Campbell has decided that experimentation with social media is a good way to harness the local talent in the business units. The IT organization realizes it cannot predict in advance which experiment will prove most productive, so it has decided to loosen controls and let the business units explore.

Likewise, Mr. Spagnoletti lets business units use the cloud-based services they desire for context activities. Mr. Spagnoletti has set requirements for security, but otherwise “we don’t try to control it at all,” he says. Instead, “we are much more focused on the process and the outcomes. We clearly have our standards and our control procedures, but if a third party meets those, then it’s all about the business unit’s judgment of the capability of that provider and what the business unit can do with the service—we would not try to dictate or limit that.”
Core, critical systems retain strict governance. But the story is different for anything that touches or could touch the core—whether the global enterprise core or the local business unit core (Mr. Spagnoletti’s team owns all cores). “If they are not coming through the IT governance process, they are not getting access or connections to anything other than a public service,” Mr. Spagnoletti explains. Similarly, employees can access corporate data on their PCs and then use tools such as Microsoft Excel to manipulate the data in nonstandard ways—but that data cannot be put back into the financial or other core data systems.

Thus, Campbell has created what PricewaterhouseCoopers calls a managed duality that gives employees freedom to experiment with both data and technologies yet protects the core systems. “Rather than lock everything down or let people install what they want, we enforce standards and have a very pragmatic expectation that people be able to do what’s necessary to deliver the business outcomes. There are some local capabilities you have to support,” Mr. Spagnoletti says. The governance process is what achieves that balance, as a joint effort between the IT and business departments.

PepsiCo’s corporate CIO enables a different conversation around technology-enabled business value

At PepsiCo, Global CIO Mr. Dixon supports the efforts of his divisional CIOs and their business unit managers to perform context experimentation using technologies that promise to enhance business value. (At PepsiCo, these technologies are for collaboration, business intelligence, mobility, and consumer connections.) But at the same time, Mr. Dixon rigorously ensures the integrity of core technology systems such as ERP and activities such as security. Just like Mr. Tram and Mr. Spagnoletti, Mr. Dixon says it’s key to “give the staff transparency on what they control and what they can’t control,” so experimentation doesn’t result in chaos or create holes in the core.

To promulgate the benefits of local experimentation across the entire company, Mr. Dixon is now taking that support a step further by setting up the first center of IT Innovation for PepsiCo meant to facilitate ideation, technology transfer, and collaboration across business unit executives (including IT). “We need to go through the journey of getting a little tighter on the concepts, driving some prototypes to learn fast and fail cheap, do some fast-cycle learning, and from that demonstrate the value proposition that we could put investments behind, and go from there,” Mr. Dixon says.

Visibility into experiments. Mr. Dixon is also working on a more formalized approach to the managed duality concept in place at DuPont and Campbell. “You have to have governance, security, risk compliance, and those kinds of things—that’s a fiduciary responsibility of a CIO. But, at the same time, the space is evolving at such a rapid pace and the technology is starting to open up and move into services instead of just technology, so you have to allow experimentation in those worlds,” Mr. Dixon says. “To do that, you need a process for engaging employees and allowing employees to share ideas back with you.”
By enabling such experimentation and maintaining visibility on the experiments, “if we see a trend that we need to pay real attention to, like software as a service, we can figure out how we might manage some of these emerging high-interest software-as-a-service capabilities so we can connect them into our ecosystem,” Mr. Dixon notes as an example.

One way Mr. Dixon expects to maintain visibility of the value-creating experiments throughout the business is by working with the purchasing team to identify IT assets or services purchased outside of IT. The goal is not to micromanage such expenses or initiatives—“you could spend all your waking hours chasing the small stuff,” Mr. Dixon warns—but to identify the business needs those expenses represent. With that visibility in place, IT can identify the big ideas from the many activities going on “and go straight to those,” Mr. Dixon says.

In addition to the big ideas that global IT may detect and then champion, Mr. Dixon expects the local business unit CIOs to test low-cost, agile capabilities with their business units. Even if they affect just a few people, they allow good prototyping opportunities, he notes. Because the local CIOs report to Mr. Dixon in addition to their business unit president, Mr. Dixon’s global CIO organization provides the hub for such experiments to become visible to other business units and to the global IT team, and thus evaluated for further investment and for any core system implications or adoption.

Creating a different conversation.
Ultimately, for IT to be part of the business in a meaningful way requires what Mr. Dixon calls a different conversation from the traditional dialog in which the business requests and IT enables. Mr. Dixon has facilitated that different conversation by combining in-the-business prototyping and the creation of a process for sharing ideas globally.
What this means for your business

Increase your value with better, not tighter, controls
These examples demonstrate how CIOs can increase their influence in the business itself, by taking a more nuanced control approach that enables critical experimentation to facilitate business growth yet ensures that the core systems remain protected. Figure 5a shows the new control process for context activities that results from adopting this strategy.

What all these CIOs have realized and explicitly acted on is that IT is not just the back-office execution engine. Instead, IT is part of the business mosaic, working side by side with business professionals to identify new or changed business processes, opportunities, technologies, and information sources.

For these CIOs and their companies, the boundary between IT and the business is permeable and often forgotten—until something crosses into the core, of course, at which point IT should use a traditional, formal, controlled approach.

GE Healthcare’s Mayer has seen the critical value of IT’s involvement in innovation, and not just within IT systems: “Innovation means both inside of GE as well as outside of GE. The ability to collaborate among different parts of the world working on an engineering design—being able to interconnect across time and across geography—allows us to get something done faster or get something done with a lot less cost or create some new product that we wouldn’t have dreamed about creating prior to this collaboration in the innovation process.”

**Figure 5a: Traditional process management approach to new service requests.**

The traditional rigorous process management approach to develop new services includes the implementation of IT standards and governance frequently referred to as the waterfall model of development. This approach inhibits innovation and experimentation within business units.

Traditional control approach for all activities
Likewise, at the Washington Post Company, CTO Yuvinder Kochar has helped IT create business value and change the old perception of IT as just an operations function by leveraging IT’s skills to support business value creation: “We find ourselves frequently engaged during the contracting process and in evaluating what the vendor provides as governance features and functionality. We are becoming more sophisticated around what data will be sent to this vendor, what data they will have, and how much worry we should have around security and privacy,” he says. As a result, he adds, “Everybody on the business side has caught on, so when they are thinking new models, they get IT involved early on.”

It is key to note that at all these organizations, the loosening of control in the value-creating front-office activities, where the business is given freedom to experiment on its own and with IT, does not mean a free-for-all. GE’s Mayer sums up the proper approach: “We just want to make sure that people understand where the boundaries are, about what you can’t do—or what you can do.”
Gaining influence through a nuanced approach

All these CIOs have clear governance processes in place, clear standards, and a clear method of knowing what control is needed for each activity. They have established—in partnership with their business colleagues—the oversight, awareness, and governance to ensure that lessons learned are lessons shared, that core processes and requirements are never compromised, and that the overall strategy of the business continues to move in a desired direction even as the individual movements are not so tightly choreographed or managed.

And it’s key to note that the CIOs profiled here all had an advantage over many CIOs: all had extensive experience in their companies and/or industries before they became CIO. That experience gave them a high degree of business expertise—and understanding of the company culture—that no doubt was critical to their ability to successfully leave behind their security blankets in areas of value-creating experimentation:

- Their business expertise let them be taken seriously as business leaders at the outset.

- Their business expertise gives them the foundation for understanding what is core and what is context.

- Their business expertise gives them the knowledge of how to effectively orchestrate and govern activities across the business.

Thus, CIOs without that kind of deep industry or company experience may need to start with a more supporting enablement role, initially relying more on business partners to identify the opportunities and help connect the dots to the core/context boundary. Industry knowledge helps greatly, but the strategy outlined here can apply to all CIOs.

Some CIOs understand that more than one type of control is available and that the use of influence, soft control, and hard control in varying amounts according to the context will result in more engagement by IT in the business itself. That realization is key to a CIO’s ability to get out of the operations box.

The loosening of IT’s traditional hard control—where it is safe to do so—lets IT become a welcome partner outside of IT’s traditional realm, and thus gives the CIO the opportunity to be a key business leader. The CIO’s security blanket doesn’t always need to be used, and it doesn’t always have to be so tightly wrapped. Understanding this nuanced approach results in a win-win for the business and the CIO: the business is more able to test ideas that could improve revenues and customer engagement, and the CIO is able to demonstrate leadership abilities beyond strict IT management.

What this means for your business
Acknowledgments

Advisory

Sponsoring Principal
Thomas DeGarmo

US Thought Leadership

Partner-in-Charge
Tom Craren

Center for Technology and Innovation

Managing Editor
Bo Parker

Project Lead
Terry Retter

Principal Author
Galen Gruman

Editorial Advisers
Vinod Baya, Laurence Best, Bud Mathaisel, Alan Morrison, Terry Retter

Copyeditor
Lea Anne Bantsari

Contributing Participants

Robert Dixon
Senior Vice President and Global CIO
PepsiCo

Yuvinder Kochar
Chief Technology Officer
Washington Post Company

Russ Mayer
Global Chief Information Officer
GE Healthcare

Joseph Spagnoletti
Chief Information Officer
Campbell Soup Company

Phuong Tram
Chief Information Officer
DuPont

Reviewers

Laurence J. Best
Robert Kramer
Larry Marion, triangle-publishing
Justin R. Mcpherson
David A Stuckey
Christopher Wasden

Graphic Design

Designers and Illustrators
Suzanne Lau, Diana Lira, Alaina Jones McDermott, Chris Pak

Online

Director, Online Marketing
Jack Teuber

Designer and Producer
Scott Schmidt

Marketing
Robert Kramer
To have a deeper conversation about how this subject may affect your business, please contact:

Tom Degarmo  
267-330-2658  
thomas.p.degarmo@us.pwc.com  
Philadelphia

Philip Garland  
703-918-4523  
philip.a.garland@us.pwc.com  
Washington Metro

David A. Stuckey  
203-539-4274  
david.a.stuckey@us.pwc.com  
Stamford

Bob Zukis  
213-217-3222  
bob.zukis@us.pwc.com  
Los Angeles