SMART ENTERPRISE

Insights and Perspectives for the CIO

Lead with Lean

Ginny Lee, CIO of Intuit, drives new business value with Lean IT.
PAGE 12

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Editor's Perspective

An Irresistible Force
Lean IT is an idea whose time has come. The benefits are simply too attractive to ignore.

"An invasion of armies can be resisted, but not an idea whose time has come," wrote Victor Hugo more than 150 years ago. Today, that idea is Lean IT.

Lean IT is an approach to process improvement that is based on efficiency concepts first developed by manufacturers. It promises to help CIOs deliver more value to customers. Lean IT eliminates work that fails to add value to a product or service. In return, the benefits include greater visibility into IT applications and services, lower costs and higher quality.

In this, our ninth issue of *Smart Enterprise*, we explore the many facets of Lean IT. In our cover story, "Intuit's New SaaS," contributing editor Larry Lange shows how Ginny Lee, CIO of Intuit, uses Lean approaches to extend her company's reach online. Intuit, which for many years has dominated the business of packaged software for tax preparation, personal finance and small-business accounting, is now expanding to offer its software in online versions. To get there, CIO Lee is eliminating waste, optimizing her staff and implementing other Lean IT practices. "The concept of Lean is a big part of Intuit's DNA," Lee says, "and it's no different for IT."

In addition, our cover story also examines TechTeam Global. This IT outsourcing provider has been relying on Lean IT techniques to power a three-year effort to deepen relationships with customers.

Lean IT is also the focus of several other articles in this issue. In our CIO Roundtable section, IT leaders from Manpower, Time Warner and Nationwide Children's Hospital detail how they use process improvement strategies to thrive in these challenging times. In Smart Practices, veteran security writer George Hulme explains how CIOs can reduce risk, cut costs and ease the challenge of regulatory compliance by integrating security operations throughout IT.

Here at *Smart Enterprise*, we are big believers in the irresistible power of Lean IT. How about you? Is your organization applying Lean IT to the creation and delivery of its most important products and services? And if so, with what kinds of results? I welcome your answers, further questions and comments at the e-mail address below.
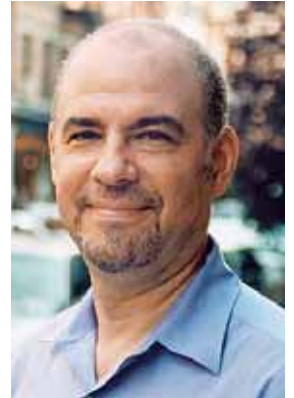
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"Our strategy [is] to be a premier, innovative growth company in connected services."

—Ginny Lee | CIO, Intuit

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COVER STORY
Intuit's Lean Expansion

Intuit — a leader in the market for small business accounting, tax preparation and personal finance software — is expanding to offer its software in online versions. To help the company achieve this goal, CIO Ginny Lee (shown above) applies Lean IT practices.

PLUS: How outsourcing provider TechTeam Global uses Lean IT as part of its three-year push to drive higher value to customers.
By Larry Lange

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Are you investing in IT?
Or just spending on IT?

How you perceive your IT investments may well
determine what you get out of them. While some
focus on the outlay, the highest-performing businesses
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Taking the Measure of Lean IT

For CIOs, using metrics that business managers understand is key to demonstrating the value of IT.

| **By Michael Christenson**

Lean IT — the application of Lean manufacturing principles to IT — can help CIOs eliminate IT inefficiencies, increase productivity, control costs, and improve service quality and customer service. CIOs who apply Lean thinking to IT can maximize the value their department delivers to both the business and its customers.

Looking to get started? Here are some practical tips to help ensure that your Lean IT efforts deliver results that will please your CEO, your CFO and, perhaps most important, your customers:

Focus on Quick Incremental Wins. When starting with Lean IT, consider small projects that can help lower costs and yield quick results. Identify one or two essential IT processes where inefficiencies exist, and focus on reducing waste and cycle time there.

One such area is server provisioning. In a recent Benefits of Practical Innovation survey, conducted by *Smart Enterprise* magazine and IDG Research Services, 45 percent of CIOs said their server-provisioning processes could use improvement. One of our customers, a financial services company, used to take 34 days to provision just one new server. Our sales and services teams worked with the company to implement process improvements and automation that reduced the process to just six days. This improvement saves the company more than $12,000 each time it provisions a new server.

Focus on the Customer Experience. Increasingly, customers interact with companies through the Web and online applications. And across nearly every industry, a great deal of revenue is driven today by electronic transactions. CIOs can enhance this by applying Lean IT practices, which aim to maximize the value delivered to customers — and to ensure that customers have a positive online experience when they engage with your company.

In the Practical Innovation survey, nearly 85 percent of senior IT executives said that improving their customers' experiences with business-critical or revenue-driving applications would yield a major business benefit. In this issue's cover story, you can learn how we've helped software provider Intuit Inc. ensure that its customers have a positive experience.

Focus Your Resources to Maximize Value. In this economy, no company can afford to spend precious IT resources on projects that fail to yield sufficient business benefits. More than likely, the challenge you face is one of prioritization. Since the constituencies you serve have no shortage of ideas for how they'd like IT to support their initiatives, how do you pick the ones likely to deliver the greatest business benefit?

You're not alone. In the Practical Innovation survey, nearly 75 percent of senior IT executives said their IT investment processes could stand improvement. Project and portfolio management (PPM) solutions can provide CIOs with insight into how well various projects align with organizational objectives, leading to informed, fact-based investment prioritization discussions. PPM solutions can also help CIOs ensure that, once resources are assigned, the intended projects are delivered on time, on budget and on track to deliver the expected results.

These three approaches can help you apply Lean practices — and start enjoying the benefits — today. ◼

❖ Michael Christenson is CA's President and COO.
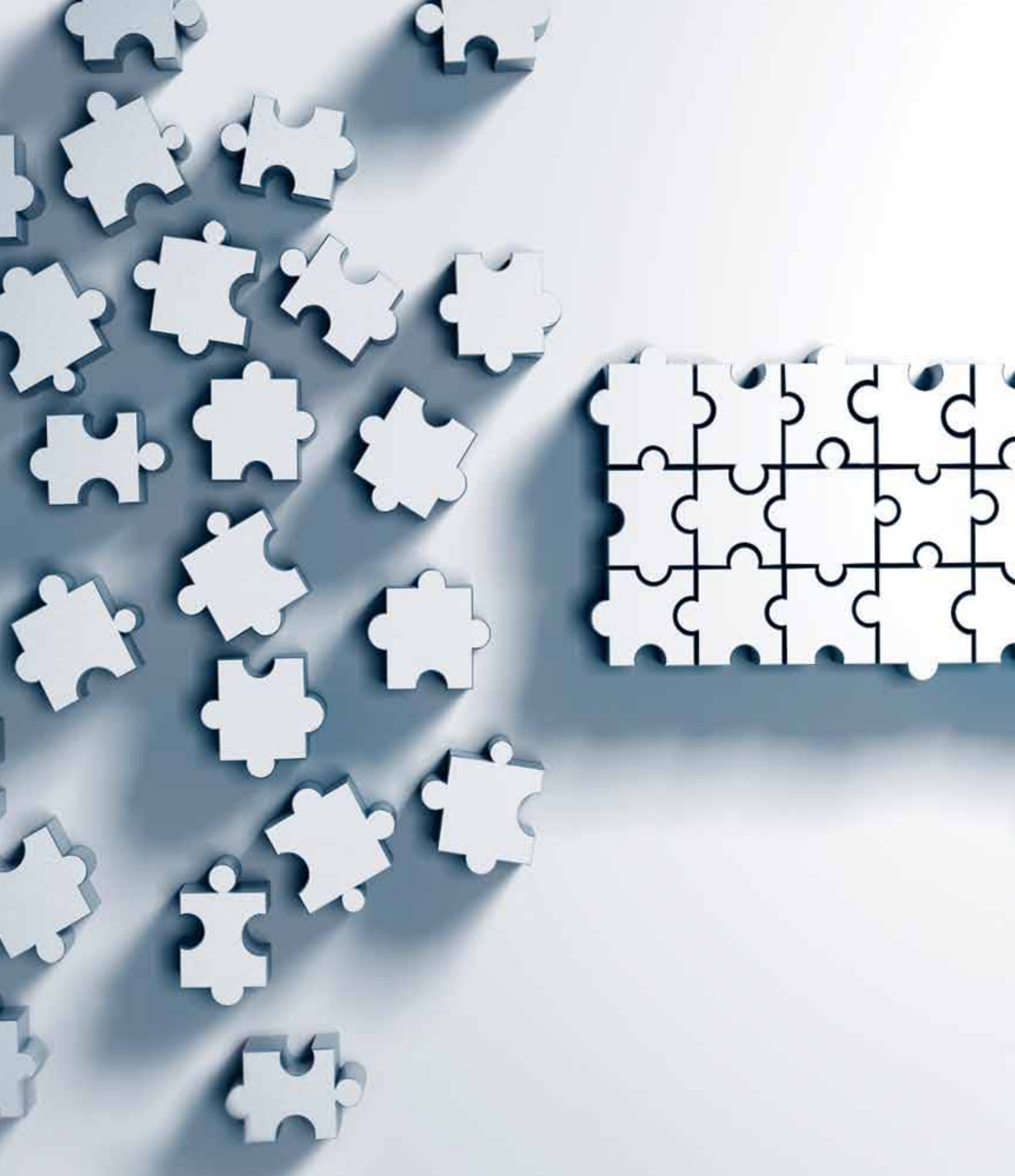
As virtualization expands to take on mission-critical production workloads, CIOs are making sure to manage physical and virtual resources in a unified, integrated manner.

| **By John W. Verity**

Virtualization Takes Shape

Virtualization technology promises a great deal in the way of lower hardware expenditures, increased agility and further automation of IT operations. But to reap those and other benefits, and to take full advantage of the technology's unique capabilities, CIOs need the right tools.

Most CIOs understand that virtualized environments are best monitored and managed not as self-contained silos of functionality, but as seamless extensions of the data center's overall infrastructure. Take "virtual sprawl." Virtualization makes it easy to provision new servers within minutes, yet the end user doesn't need to write a purchase order, the way he or she must do with physical servers. At the mere push of a button, users can deploy virtual machines that may not be properly documented or managed. And these machines can burn up far more server and storage capacity than might otherwise be needed.

Fortunately, new tools are available to help CIOs manage virtual servers as effectively as physical servers. By using the same workflows and processes to manage the two realms as one, CIOs can optimize the full range of data center resources as a single set of systems. In this way, they can attain optimal results, getting the most from their virtualization investment.

These tools can automatically discover and track, in real time, changing logical relationships between virtual and real resources, both hardware and software. This, in turn, facilitates the provisioning and migration of virtual machines and their accompanying software stacks across pools of physical servers in response to changing business conditions. Keeping track of all resources in a unified way also enables root-cause analysis for diagnosing faults across the entire IT landscape.

The new virtual-ready tools fully integrate the management of virtual and physical servers, delivering real-time views of resource utilization and applications and service performance levels through a single "pane of glass." Also, CIOs can apply to their virtual servers and other resources the full arsenal of methods for diagnosing, isolating and remedying faults. Integrated tools make help desks more effective, too, as policy-driven mechanisms route problems, when necessary, to specialized teams, thereby holding downtime to a minimum.

Managed effectively, virtualization can deliver many benefits, including lower hardware costs, improved agility, raised levels of IT automation, speedier recoveries from disasters and improved end-user productivity. Virtualization can also make data centers "greener" and less energy-hungry. To enjoy these benefits, CIOs need effective oversight. "Virtualization

simplifies customers' infrastructure through consolidation and standardization," says Dr. Steve Herrod, CTO and Senior VP of R&D at VMware, a major provider of virtualization solutions. "But to drive true operational efficiencies and savings, IT needs the right processes, oversight and tools to manage the environment."

Perhaps the most important tools are those that give CIOs visibility into virtualized systems and their performance. "If you don't have visibility into what's going on, and the ability to think through sophisticated service levels, the risk goes up," says Stephen Elliot, VP of Business Unit Strategy at CA. "You must have an aggregated view of elements that takes into account all policies, service levels and metrics dealing with both virtual and physical resources."

As Elliot explains, an infrastructure manager may discover that 500 physical servers are hosting 1,000 or even 1,500 virtual machines. "They have

to understand the implications of spawning all these virtual machines," he says, for without proper monitoring, the IT organization could see average utilization rates drop to only 20 percent on virtual servers — precisely "what they tried to get away from in the first place." Yet, a tool monitoring only at the physical level might measure server utilization as reaching a considerably higher and more acceptable level. One result of such misunderstandings: inefficient use of floor space, energy and labor.

Also, because virtualized infrastructures bring new mobility to applications, "dynamic visibility into the various layers of the technology stack is critical to managing business services," Elliot of CA says. Only with real-time views of what's going on can IT take full advantage of the technology.

Another benefit of managing virtualization proactively: monitoring virtual resources in a larger context. For example, Virtual Performance Management (VPM) solutions

provide an integrated view of physical and virtual environments. Working in conjunction with policy-based server provisioning and automation tools, VPM solutions can also discover all logical relationships among applications, virtual machines and physical servers (including mainframes). In turn, they can monitor the performance of each virtual resource — server, network, application — in the context of the others, which helps the CIO to maintain maximum efficiency and keep costs under control.

Experts say that real-time views of the complete IT infrastructure also will be key to fulfilling one of virtualization's biggest promises, namely, more-extensive automation of IT management processes. The relationships between every virtual and physical element — every application, database, OS and virtual machine, for instance — must be documented precisely and refreshed immediately with every change. Only then can resources be provisioned

No Cloud Left Behind

Management is the next challenge for cloud computing. New tools can help.

The next challenge is how to best manage this new resource, especially one that is off-site, in parts unknown. "Cloud computing will be as transformative to IT as the Internet Protocol [IP] was to enterprise networking in the 1990s," asserts Roger Pilc, Corporate Senior VP and General Manager at CA.

To use cloud computing effectively, CIOs need tools that seamlessly provision, monitor, manage and secure capacity that's supplied by data centers, Pilc says. In other words, cloud-based computing can't be treated as a stand-alone resource. Instead, it will be used in close conjunction with traditional data center infrastructure — and managed accordingly.

It's easy to envision business-critical applications that could span both external and internal clouds. So-called "cloudbursting" will let CIOs offload extra-demanding jobs to the cloud — say, when a marketing promotion floods a Web site with visitors. Alternatively, certain applications can be orchestrated to work that way all the time, with extra-intensive tasks handled in the cloud while sensitive data remains secure in a company's data center. "Management capabilities in the cloud are still rudimentary," warns Roy Illsley, Senior Research Analyst at the Butler Group, an IT consulting and research firm. "But users recognize that a good management layer will make cloud computing much more valuable, especially if it's cross-platform."

In fact, it's happening already. Amazon and other cloud-computing providers now offer open APIs based on Web services. These interfaces enable tools to provision and monitor cloud infrastructure "as if it were in your own data center," Pilc says. For

example, CA Spectrum® Automation Manager helps customers dynamically and rapidly respond to fluctuations in resource demand through automatic provisioning and configuration of cloud resources. Similarly, CA Wily Introscope® manages transaction performance in internal physical and virtual systems and external cloud resources. And tools such as CA eHealth® Performance Manager and CA Spectrum® Infrastructure Manager monitor the performance and availability of both physical and virtual servers in cloud environments, whether internal or external.

At CIBER Inc., a large managed services provider, CA tools have proven particularly useful, says Tony Ferrigno, Global VP for Sales and Strategy for the company's IT Outsourcing unit. Among other things, CIBER hosts enterprise applications for global companies on its own server cloud. "Customers may expect virtualization and cloud technology to reduce their cost, complexity and server footprints, but we have to manage everything against SLAs," Ferrigno says. "That means we need the best tools we can find."

As for security in the cloud? "Clients want to know their data is walled off and safe, that it's hacker-proof," says Andi Mann, VP of Research at Enterprise Management Associates, an IT research firm. Indeed, says CA's Pilc, "Security is the No. 1, 2 and 3 factor in every discussion of cloud."

Fortunately, solutions exist that can control access to both cloud-based and internal servers and applications with equal effectiveness. So while there may be clouds on the horizon, IT looks well-prepared. – J.W.V.

dynamically, immediately and under software control in response to spikes or other changes in business demand.

In the past, each instance of an application and underlying operating system was associated with a specific piece of hardware. This made it relatively easy to automate many management processes. But now, with perhaps thousands of virtual machines at work, many more OS and virtual-machine instances will exist within the enterprise, albeit many of them only temporarily.

Context is critical to finding and fixing faults, too. If a virtual machine crashes, its hypervisor program will immediately send alerts to an operator's console. That's powerful. But also needed are mechanisms for what CA's Elliot calls "siphoning out all the chaff" and promptly identifying the root causes of problems. Without these, IT departments will be hard pressed to determine appropriate actions and prevent business services from being adversely affected.

"We depend on a single panel to give us an end-to-end view," says Anthony D'Ambrosi, Chief Operating Officer of the Global IT Outsourcing division at CIBER, Inc., an IT services provider. That view, he explains, must include the network, applications, operating systems and hardware — and, increasingly, virtual servers. "We need to have events correlated across all these layers and fed to one console," D'Ambrosi adds. "Point solutions are fading into the background."

Lower Costs

CIBER executives say virtualization management solutions are particularly helpful in squeezing more work out of physical servers, and thus reducing both power consumption and administrative costs. CIBER also depends on virtualization for improving disaster-recovery processes. But the company has been careful to get all the right management tools in place beforehand. "We're both innovative and pragmatic," says Tony Ferrigno, Global VP for Sales and Strategy for CIBER's IT Outsourcing unit.

For many CIOs, virtualization's biggest payoff will arrive in the form of increased

Five Reasons to Virtualize

1 **REDUCE IT COMPLEXITY:** Applications and their operating systems are encapsulated in virtual machines that are defined in software, making them easy to provision and manage.

2 **ENABLE STANDARDIZATION:** With applications decoupled from hardware, the data center may converge on a narrower range of hardware devices.

3 **IMPROVE AGILITY:** Applications and virtual machines can be copied and moved in real time — even into the cloud — in response to changing business conditions.

4 **IMPROVE COST-EFFICIENCY:** Virtual machines can be easily moved to consume spare capacity wherever it exists, thus squeezing more work from less hardware.

5 **FACILITATE AUTOMATION:** Virtual infrastructure is easily provisioned and orchestrated by software-driven processes, especially when the underlying hardware is standardized.

SOURCE: *Smart Enterprise*

agility. By making IT more flexible and adaptable, virtualization can also enable the entire enterprise to be more agile: better at adapting to changing business conditions and at jumping onto new opportunities as they arise. "Virtualization management is the core enabler," explains VMware's Herrod. "Once you've encapsulated an application and server as a file, any operation you can perform on a file you can also perform on that application and server. You can back it up, copy it, send it across the network and so forth."

Many CIOs envision the day when end users will provision business applications completely on their own. On physical systems, provisioning applications can take days, even weeks. By contrast, their virtual equivalents can be set up and put to work in a matter of minutes. This makes possible entirely new ways of using computers, Herrod explains. With virtualization, test and development engineers can start and stop virtual machines at a rate of dozens per hour. And when balancing dynamic application workloads across a large pool of servers, new virtual machines can be spawned, then taken down, every five minutes or so. Both tasks would be literally impossible using physical servers alone.

Until now, virtualized servers have mainly been used to help develop and test new software. However, as virtualization has matured and hands-on experience has grown, IT departments are expanding their

use of virtual servers to include day-to-day business activities.

Virtualization may seem to simplify systems from the user's point of view. But Roy Illsley, Senior Research Analyst at the Butler Group, an IT research and consulting firm, notes that the technology can actually add complexity to data centers. He predicts that both large enterprises and cloud-computing service providers will eventually run multiple pools of virtual servers, with each pool based on a different type of hypervisor. Ideally, virtual machines will be transportable across these hypervisors, much as different word-processing programs today can share text documents. (In fact, several software companies, including VMware, already have sketched out an open standard — the open virtualization format (OVF) — to help facilitate this kind of portability.)

Assuming he is correct, integrated management of virtual and physical servers will become even more critical. "As the transport mechanism matures and moving virtual machines becomes easier, the need to look across the entire [IT] estate will become dominant," Illsley says. By then, CIOs will be better prepared, with a well-integrated set of IT management tools in place, ready for all the real-time action virtualization can provide. ∎

JOHN W. VERITY writes about technology from Santa Rosa, Calif.

Intuit's NEW SaaS

The desktop software maker is now expanding into software as a service. To get there, CIO Ginny Lee is using the best of Lean IT. | By Larry Lange

What would you do if your company's underlying business model was changing so quickly that more than half its sales were coming from a new way of delivering your product? That's the challenge facing Intuit Inc.

Intuit, a provider of computer software for small-business accounting, tax preparation and personal finance, offers such well-known brands as Quicken, QuickBooks and TurboTax. The Mountain View, Calif.-based company, founded in 1983, today has annual revenue of $3.1 billion, some 8,000 employees, and more than 10 million customers in North America, Europe, Asia and Australia.

Ginny Lee, CIO of Intuit: "The Lean concept is a big part of Intuit's DNA, and it's no different for IT."

Ginny Lee, Intuit's CIO, talking with IT Program Management Leader Kei Sato (left) and VP of Enterprise Applications Development V.K. Rajaram (right). "We enable the business units to accelerate their growth ... via great processes and technology solutions," Lee says.

While Intuit has grown largely by selling packaged software, the company has also been developing both its online-only, software as a service (SaaS) product offerings and its connected services, an integrated package of software and services in one offering. It is critical that it do so because new competitors are offering their products in SaaS-only versions. Even at Intuit, SaaS products now account for more than 50 percent of the company's sales.

Opportunity Shift

Intuit's CIO, Ginny Lee, is playing a large role in this opportunity shift. Lee was appointed CIO last year, building on her background as Intuit's VP of Business Operations and VP of Small Business Payroll, its largest services business unit. (Lee joined Intuit in 1996.) Now she leads the company's 650-person IT organization and is helping to take Intuit's SaaS model to the next level. It's all part of a Lean IT effort to deliver maximum customer value and eliminate waste. "The Lean concept is a big part of Intuit's DNA, and it's no different for IT," Lee says. "We enable the business units to accelerate their growth, and we enable

functional groups to maximize employee productivity via great processes and technology solutions."

Intuit's ongoing move to SaaS makes sense in today's challenging economy, say industry experts. Industrywide SaaS sales are expected to reach $8 billion this year, up by more than 20 percent, according to Gartner, and they will grow by nearly the same annual rate through 2013. As Robert Mahowald, Director of SaaS Research at market watchers IDC, wrote in a recent report, "SaaS services ... allow for relatively easy expansions during hard times."

What's more, customer satisfaction with SaaS products is determined by the online experience, since these are online applications, rather than ones that are installed locally. So monitoring the performance of these online transactions is vital. That ties in with another Lean IT tenet, namely, ensuring a positive customer experience. The SaaS model also helps Intuit lower its costs and create a more direct link with its customers, says Chris Cook, Corporate Senior VP and General Manager of Products at CA.

This direct link with customers also means Intuit can offer associated services

and create online user communities that not only enable customers to find help on an as-needed basis, but also lower Intuit's support costs. "There's now an opportunity for Intuit to offer customers advice and other enhanced capabilities," Cook explains. "Customers can also have the option of upgrading to more feature-rich versions of Intuit's products, simply by clicking online. In turn, this helps Intuit maximize the value they provide to their customers, and grow the business."

Also, Lee, by initiating programs and projects that enable her IT organization to automate business processes and create self-service for customers, is helping Intuit differentiate itself from competitors. Lee is also careful to explain that Intuit is not abandoning the packaged-software business. Rather, Intuit is expanding to offer both online-only and traditional boxed software. "Our heritage of shrink-wrap software is what made us great over the past 25 years, and Quicken and QuickBooks on the desktop are still a big part of many of our customers' lives," Lee says. "Our strategy isn't either/or, but rather, to be a premier, innovative growth company in connected

services, where it's both software and service — desktop and the Web — and where we've made it all seamless for the customer."

To accomplish this, Lee has adopted a framework developed by consultant Geoffrey Moore. In his book, *Dealing with Darwin: How Great Companies Innovate at Every Phase of Their Evolution* (Portfolio, 2005), Moore argues that free-market economies operate much as organic systems in nature do. Both, he writes, are governed by competition for scarce resources, resulting in a natural selection that leads, in turn, to new products and services, and the refinement of existing products. So companies either gain competence or risk marginalization, Moore adds.

Core Focus

Moore also makes a crucial distinction between "core" and "context." Core is any aspect of a company's operations that creates differentiation leading to customer preference during a purchasing decision; context is everything else. And Moore believes that established businesses tend to lose out to newer and smaller rivals mainly because they let their resources gradually drift from core to context.

Lee's interest in Moore's ideas might seem surprising for a CIO. But she is in fact steeped in business philosophy. She earned a master's degree in business administration from Stanford University and holds a dual bachelor's degree in both business economics and in organizational behavior and management from Brown University. Lee also has held several business-line leadership responsibilities at Intuit.

Over the past 12 months, Lee and her team have begun to apply Moore's framework to their work. She urged her leadership team to work with Moore's quadrant grid system, which shows four ascending areas used to rank what a business does in terms of value-add. "I ask all our leaders to plot the activities they do in these four quadrants, and to focus on determining what is mission-critical and what is not, what is core and what is context," Lee explains.

When the team finds things that are not mission-critical core, those activities go into the context quadrant. "We want to be ruthless about eliminating non-value-add context work, so we can free up those resources and pour them back into the value-add, mission-critical core quadrants," Lee says. "Ultimately, this allows us to allocate resources to the things that actually provide value to customers." It's another link with Lean IT's emphasis on maximizing the customer experience.

As part of her Lean IT approach, Lee is reworking the traditional IT department into what she calls a Business Unit IT organization. In this model, IT leaders work directly with business-unit representatives to focus on the most important business objectives, namely, growth, expansion and profitability. This means the organization comprises both IT and business partners working for a variety of business units, such as the Consumer and Small Business Groups.

Each team has clearly defined, business-oriented functions and roles, and it must adhere to a rigorous process to ensure that the work is prioritized according to value-add for the business. Ultimately, this lets the organization allocate resources where they can best benefit Intuit and its customers. "I run IT like a business," Lee says. "The Business Unit IT organization is an integral part of ensuring line-of-sight of key priorities between the business units — our internal customers — and IT, and ensuring that we deliver the value-added services needed to enable the business units to grow."

Lee illustrates her goals with a simple pyramid diagram. At the bottom layer is what she calls the Fundamentals. These include the day-to-day, run-the-business activities. (See chart, "Intuit's IT Goal Pyramid," below.) "These are the basic IT functions we just have to nail — and with the most amount of efficiency and the least amount of investment," Lee explains. "It's the stuff that's just got to work in the most effective and efficient way possible."

Lee's remaining two layers are Succeed and Transform. Succeed is where she wants Intuit's IT to partner with customers — both internal and external — and become a value-added business partner. Lee also expects IT to build or develop new feature/function sets that help Intuit's business units expand and grow. The third layer of the pyramid, Transform, includes sets of activities where IT can proactively transform customers' businesses; for example, "How do we leverage the data we have and help the customers save and make money?"

To make it all happen, Lee first defined roles for each of Intuit's business units. Her Business Unit IT leaders include product managers and business analysts whose primary responsibility is to understand their respective business units' strategies and determine what IT needs to deliver on to enable flawless execution of those strategies and priorities. Lee then ensures that they are "double solid line" to the respective

Intuit's IT Goal Pyramid

CIO Ginny Lee urges Intuit IT team leaders to think of goals in the context of a pyramid. The bottom two layers (Fundamentals and Succeed) are targets for constant improvements to effectiveness and efficiency. The top layer (Transform) highlights what customers are likely to need in the future.

WORLD CLASS **IT** ORGANIZATION

TRANSFORM
Predict Future Needs

SUCCEED
Meet Customers' Desires

FUNDAMENTALS
Price of Admission

SOURCE: Intuit

business unit, meaning they report to both Lee and the general manager of their business unit. "This way," Lee explains, "my leaders intimately understand the business unit's strategy and priorities, because they sit directly on the GM's staff."

All of the projects go through a rigorous top-down evaluation with their general managers and leadership teams. The evaluations are based on one overarching factor: Which will bring the largest return on investment to their respective business units? "There's joint ownership and accountability," Lee says, "both to the success of the business unit and to the success of IT."

Integral Tools

To accomplish these Lean IT objectives, Intuit uses a solid base of technology tools. Much of that base is built around Application Performance Management (APM) solutions. By combining solutions that work together, Lee has provided Intuit with end-to-end visibility into the performance of its customers' millions of online transactions.

Here's how it works. The CA Wily APM solution monitors end-user transactions 24x7, providing Lee with a complete understanding of how application performance affects customers' online experiences. This, in turn, provides real-time insight into what Intuit's customers are experiencing, and it maps their transactions back to the infrastructure itself, pinpointing any problems so they can be quickly resolved before they become a significant issue for the customer. At the same time, the solution maps dependencies of the various components and services. Basically, Lee's team can monitor the customer experience, applications and transactions, and actual components of the infrastructure.

For example, when Lee wanted to know what TurboTax customers were experiencing while using the Intuit product online, she used CA monitoring tools to find out. Now she can proactively find and fix problems.

> ## "We need to maximize value to our internal and external customers at the lowest cost."
>
> —Ginny Lee
> CIO | Intuit

"It's our canary in the coal mine," Lee says of the solution.

The APM solution also provides Intuit's IT team with real-time visibility into relevant business metrics provided by customer interactions. This is done by first mapping an application to Intuit's infrastructure. This creates a "user-experience dashboard" that shows the experience of each individual user, as well as an aggregate experience of all active users.

The APM dashboard displays what Lee calls "key moments of truth" for the customer experience; for example, customer login. This may sound simple, but for a successful login, several activities must happen concurrently: the user must be allowed to log in, his or her account and password must be verified, and the user's different logins must be matched with various Intuit products.

The dashboard also displays the business metrics associated with these processes and their health. Each process shows directly on the dashboard itself with a red, yellow or green color-coded status. Then an IT person can drill down to see what's happening with the underlying infrastructure that supports these business processes. "That's what we mean when we talk about mapping the application to infrastructure," Cook of CA says.

As a real-world example, Lee offers a customer preparing a tax return on TurboTax Online. "Every time a user is 'in-session' with us, we want to adhere to a great customer experience as if there were only one user using our product," she says. "That's true even though hundreds of thousands — or even millions — might be using the product at the same time."

The Intuit IT team, in partnership with the business units, aims to determine what Lee calls the "key bets we need to make to reach our objectives." For example, deploying monitoring tools (such as APM) so they can proactively offer a great customer experience for shopping, buying and using Intuit's products. "We do all that instinctually," Lee says. "We need to maximize value to our internal and external customers at the lowest cost." ∎

Ginny Lee's Top 5 Tips

Intuit's CIO runs the IT organization the way Intuit runs its business. This means Lee continually seeks new ways to add value for customers (both internal and external), differentiate Intuit from competitors, and ensure that the right people are on the IT team.

1 GET FOCUSED "It's absolutely imperative to know what makes a difference and maximizes value for the business and for your customers — and then get focused purely on that."

2 MAP YOUR WORK "Make sure your work value-differentiates your company from your competitors. Find out what's 'core' — mission-critical — and what's 'context' — everything else."

3 BE RELENTLESS "Be ruthless about optimizing those non-value-add or undifferentiated areas. Then you can redeploy the resources to the areas that are value-differentiated for the customers you serve."

4 IT'S ABOUT THE PEOPLE "Make sure you get the right folks on and off the bus — and in the right seats. Have a vision and inspire them to achieve."

5 EMBRACE TRANSFORMATION AND CHANGE "With Lean IT, you can take the money you've saved and reallocate it to innovations that fundamentally change the way customers use your products. They'll have a greater experience than your competitors can offer — and you'll have the customers' loyalty and trust."

LARRY LANGE is a technology writer and former Senior Editor at TechWeb, PlanetIT.com, *EE Times* and *IEEE Spectrum*.

The Efficient Organization

When the going gets tough, outsourcer TechTeam Global gets Lean.

Other companies may be waiting out the tough economy, but not TechTeam Global. The $260 million (revenue) outsourcing firm is in the midst of a bold three-year effort to both expand its market presence and deepen relationships with its customers. Southfield, Mich.-based TechTeam is powering this effort with an equally bold Lean approach. "We've got to double-down on our opportunities to be more efficient," says Gary Cotshott, TechTeam's President and CEO. "That's where Lean comes in."

TechTeam could easily rest on its laurels. The company, now in its third decade of business, delivers IT support in more than 30 languages and has a direct presence in more than 15 countries. But Cotshott is not one to rest. His three-year plan involves adding new capabilities to the company's infrastructure, expanding geographic coverage and increasing TechTeam's visibility in the global market.

Cotshott and his colleagues use Lean throughout the business to improve service to customers and to drive efficiencies that help the company invest to achieve its three-year plan. An important part of this is Lean IT for optimizing and automating the processes and systems that support IT's value to the business. "Lean has evolved inside TechTeam Global very aggressively over the past 18 months," Cotshott says.

TechTeam's CIO, Armin Pressler, says his IT organization looks at Lean from a big-picture perspective. "We're 100 percent aligned with our business goals," Pressler explains. Since his team actually serves two sets of clients — external customers and TechTeam staffers — "Lean

IT is absolutely critical to the company's overall value delivery," Pressler adds.

TechTeam is steeped in what Cotshott terms a "global factory" model of doing business. This

Gary Cotshott, President and CEO of TechTeam Global (above), is leading the company through a three-year push to expand market presence and deepen customer relationships.

means deploying a standardized single-point-of-contact (SPOC) model delivering services from locations in North America, Europe, the Asia-Pacific region and soon, Latin America. The results: greater efficiencies and cost savings because of global consistency and integrated self-service, service desk, remote infrastructure management

and onsite support solutions.

Cotshott joined TechTeam in early 2008, and one of his first projects involved deploying an array of CA Enterprise IT Management solutions. He says this has given TechTeam Global an ITIL®-based foundation for all of its business processes, and an integrated service-delivery platform the company can deploy on a consistent and global basis. What's more, having a robust, feature-rich service-delivery platform lets TechTeam deliver a customer experience that is markedly more satisfying than the competition's, Cotshott says.

Cotshott's claim is backed by independent customer satisfaction research. In a 2009 Survey on Top Infrastructure Management Outsourcing Vendors, Orbys Black Book of Outsourcing, named TechTeam No. 1 globally in help desk outsourcing across both Tier 1 and Mid-Tier customers, and No. 1 globally in overall IT infrastructure outsourcing for Mid-Tier customers.

Today, more than 1,000 TechTeam agents, analysts and technicians use CA technology to support customers. "We're globalizing and we're standardizing wherever we can," says Bob Gumber, TechTeam's VP of Global Client Service Management. "And we are always working diligently on workforce optimization, first-call resolution, average handling time, problem avoidance and remote resolution — these drive efficiency and effectiveness. This means higher value for our customers, higher customer satisfaction — and ultimately, increased profitability." Now that's Lean IT. – L.L.

OPENING

THE DOOR
to Better GRC

Governance, risk and compliance efforts can benefit
when CIOs apply waste-reducing, efficiency-promoting practices.

| **By Leon Erlanger**

The evolution of corporate governance, risk management and compliance (GRC) may enable organizations to adopt a more streamlined, or Lean, approach. Organizations that apply Lean strategies to GRC processes find they can make those processes faster, more effective and more cost-efficient. In this way, organizations can reduce redundancy and poor alignment from their organization's compliance and governance processes. This lets them manage risk more effectively and reduce the number of resources needed to develop and maintain the GRC solution.

This approach is called LeanGRC™ by the Open Compliance and Ethics Group (OCEG), a nonprofit organization that helps companies enhance their GRC efforts. LeanGRC isn't only about greater efficiency, the organization says. Integration also plays a vital role in helping corporate departments share preferred practices. "One department might be strong in policy development and distribution," says Scott Mitchell, Chairman and CEO of OCEG, "while another is strong in detection and controls."

LeanGRC efforts are still in their early stages, as many companies have instead tackled individual regulations and compliance activities as they come along. While this is a valid approach to complying quickly with international, governmental and industry regulations, it can result in a great deal of overlap and repetitive processes. That's because each team typically applies a unique set of methodologies, controls, tests and technologies to various regulations.

"In many companies, you have silos of compliance activities with very little communication or sharing of information," says Robert Hansen, a Principal in the Audit and Enterprise Risk Services Practice at Deloitte & Touche LLP (Deloitte & Touche). "So if a company has five major compliance programs, chances are it also has five unique evaluation and reporting processes. In many cases, these programs are asking the same individuals in the organization to provide the same information and perform the same tests multiple times."

Also, many companies focus on the proverbial trees — regulations and controls — at the expense of the forest — the underlying risk these regulations aim to mitigate. That's backwards, industry experts warn. "To optimize your controls, you need to understand the risks they're associated with," says Margaret Brooks, VP of Product Marketing at CA. "Yet in most companies, risk management comes into play after compliance, not before."

As a result, the very business units most responsible for compliance may be less effective than they could, and should, be. What's more, senior management and board members — bombarded by reports from multiple GRC teams using different methodologies, terms and metrics — often have limited visibility into their organization's overall risk profile. For example, offers Sumner Blount, Director of GRC at CA, if a departmental control fails, nobody knows what the effect is on the company's overall risk profile.

Get Lean

CIOs can address these and other issues by applying Lean techniques at both a macro and micro level, integrating and consolidating their GRC initiatives. "Lean actually lets you slash your compliance costs while increasing your level of compliance and risk reduction," says Robert Zanella, CA's VP of IT Compliance and Security.

At the macro level, the goals of LeanGRC are visibility, integration and consolidation of overlapping or duplicate compliance processes. "That's important," says Hansen of Deloitte & Touche, "because in a typical organization, while each compliance effort will most likely have some unique control requirements, many of the controls tested in these compliance areas will have broad applicability and reusability across the organization." That's why Hansen and his colleagues work with companies to take a holistic approach to GRC. "We help our clients develop an enterprise risk-and-compliance strategy, framework and set of tools," he adds.

Employing LeanGRC concepts can allow an organization to run a particular control test once, then apply the results to many compliance requirements across a range of regulations and best practices. Without a coordinated strategy, organizations must run the test again and again for each compliance activity.

At the micro level, the goal of Lean is to cut waste from each individual GRC compliance process or policy. Often, duplication takes place within IT. That's why CIOs and their teams should meet with the relevant departments for each compliance process, advises Zanella of CA. The participants in such meetings can then map out affected regulations and processes in detail, as well as the relevant controls, technologies and risks involved.

For example, many of the controls for access and segregation of duties that are typically applied to Sarbanes-Oxley Act rules also often apply to the PCI Data Security Standard (DSS). "If that's the case, then all you have to do is document those controls once," Zanella says. "Then you're able to reduce efforts for all relevant compliance activities."

Four Steps to Better GRC

1 ELIMINATE WASTE
Focus your Lean IT efforts on addressing these seven waste categories:

- **Overproduction:** Excessive staff and resources applied to a risk portfolio defined too broadly
- **Inventory:** An overly complex network of policies, procedures, controls and training that overburdens governance, risk and compliance (GRC) staff and business executives
- **Overprocessing:** Too many steps added to a GRC process over time
- **Motion:** Too many GRC-related interruptions that overburden employees, resulting in errors and compliance fatigue
- **Defects:** GRC process errors detected downstream by customers, regulators or the media, rather than internally and early in the process
- **Waiting:** Too many reviews, approvals and authorizations can delay GRC processes
- **Transportation:** Movement of information (such as compliance materials) across too many locations, increasing cycle time, expense and loss potential

2 FOCUS ON PEOPLE WHO ADD VALUE
Assign LeanGRC™ responsibilities to the people on the front lines with detailed process knowledge others might not have. Cultivate LeanGRC leaders and champions who inspire ethical compliance behavior in others.

3 FLOW VALUE FROM DEMAND
Provide risk assessment information at the point of need within the business process. Embed reminders of corporate ethics policies within processes where unethical behavior could arise.

4 OPTIMIZE ACROSS THE ORGANIZATION
Provide a common GRC framework with common terminology, risk identification, assessment processes, and metrics. Replicate proven efficient best practices and techniques across the organization.

SOURCE: "LeanGRC Overview," CA and OCEG, May 2009

In some cases, departments may even be able to outsource GRC activities to a peer department for greater efficiencies, Mitchell of OCEG says. For example, if a company's labor law department is particularly skilled at internal investigations, other compliance risk areas may consider moving their investigative processes to this group, essentially creating a center of excellence.

For CIOs getting started with LeanGRC, the first step often involves a review of GRC processes for similarities, redundancies and overlaps, along with an evaluation of compliance across the enterprise. Both efforts can help CIOs coordinate resources effectively.

To do so, CIOs can look to software solutions that create a single, companywide GRC framework. For example, CA GRC Manager establishes a single large repository of compliance and risk-assessment information across regulations as well as other compliance and risk activities. The solution provides a centralized mapping of controls to regulations and risks, consolidated reporting, real-time compliance and risk dashboards. It also offers workflow automation, which can speed compliance processes by automatically routing information and approvals to the right people as each step is completed. Another component of the solution, compliance program management, improves the resource tracking and management of both compliance activities and their total costs.

Once CIOs have integrated the organization's compliance efforts, they can begin to cut wasted steps in each GRC process. Ideally, these cuts will be guided by leading practices learned from other departments. "You can focus on issues such as how you write and distribute policies and confirm they've been read, and how your company trains people on the compliance risks they face in their jobs," says Mitchell of OCEG. "You can reduce a risk-assessment process from 20 steps to just five."

Once GRC activities have been integrated and are efficient, CIOs will find it much easier to adjust and accommodate the next regulation or compliance requirement that comes along. Instead of reinventing the wheel, CIOs can simply add a few incremental controls and other activities specific to a particular regulation. For example, many companies have found that implementing ISO certifications can provide them with controls that help them comply with nearly any regulation that comes along. This is particularly true of three: ISO 38500, which includes strict controls for corporate governance of IT; ISO 27000 for information security; and ISO 20000 for service management (ITIL®).

For CIOs who are further along the implementation curve, the ultimate goal is to build LeanGRC activities directly into existing business processes, rather than applying them as a separate effort. "Baking GRC into the lines of business is where we ultimately want to be," says Mitchell of OCEG. "You want to be able to monitor and flag transaction issues automatically and assess risks as part of your strategic planning process, not separately." For CIOs looking to rein in GRC efforts, that's a secure, low-risk scenario. ■

LEON ERLANGER is a consultant and writer who specializes in security, storage and unified communications.

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LOOKING INTO GOVERNMENT

"Transparency" is the latest demand for government agencies worldwide. To respond, government CIOs are using IT to increase the accessibility and usability of their data — and the services they provide.

| By John Zipperer

With a growing number of government agencies looking to IT as a way to make their operations and performance more transparent, Beth Simone Noveck couldn't be happier. Noveck, a law professor at New York Law School, is the author of *Wiki Government: How Technology Can Make Government Better, Democracy Stronger, and Citizens More Powerful* (Brookings Institution Press, 2009). Her book is a clarion call to revamp government's relationship with people. But Noveck is no longer only making suggestions as a government outsider. Today she also serves in the Obama administration as Deputy CTO for Open Government. This puts Noveck, the person California's CIO calls "the largest proponent of the concept of freeing the data," in position to transform her vision of transparent government into reality.

Washington isn't alone. Governments around the world are being pressured to increase access to their information. Transparency is seen by governments as a way to better serve citizens, contracting partners and other branches of government. A worldwide trend toward granting more access to information for appropriate audiences has emerged and is gaining traction.

The effort got a high-level boost this year when, on his first day of office, U.S. President Obama issued a memorandum committing his administration to "an unprecedented level of openness in government." (See sidebar, "A Bipartisan Push for Transparency," p. 25.) Whether this pledge can be honored will likely depend, in part, on the government's long-term commitment to the process. It will also depend on the continued development and availability of IT applications and services that let governments easily combine data from multiple connected systems, then feed that data to citizens and others over Web portals and dashboards.

To do so, however, governments will need databases and system management tools behind those dashboards and portals, to help IT services find information and handle it properly. "Data must be put in context, be made searchable, be rendered secure and presented on demand to oversight teams in varying formats," says Joe Page, Regional VP at CA.

Much of the data — project, expense, risk, resources, costs — is available today on the government agencies' systems, Page explains. In fact, this data was being collected before the need for transparency was codified. "The problem now," he adds, "is really data aggregation and representation."

Enterprise-level common file and data repositories, management tools for providing context, as well as sorting and searching capabilities, are some of the tools government agencies will need to provide information to wider constituencies online. But such

automation also ties that information into a governance or reporting structure, says Bill Clark, CA's Public Sector CTO. Keeping tabs on data at all points in the system therefore makes it more secure and auditable.

The most visible element in the Obama administration's effort is Recovery.gov, a Web site aimed at providing the public with updated information on the status of the U.S. government's economic stimulus spending. With pie charts detailing spending and tools for reporting fraud and waste, Recovery.gov aims to help keep government accountable.

Open.gov

Washington has launched other public-access sites, too. The Obama administration recently unveiled Data.gov, a Web site where the public can download data from the executive branch, and crunch and explore the data. This past June, the U.S. Office of Management and Budget launched its own public resource, the IT Dashboard Web site (it.usaspending.gov), where local officials and the general public can analyze federal IT spending. Newly minted Deputy CTO Noveck oversaw the creation of the Open Government Blog (whitehouse.gov/open/blog) to foster greater transparency, participation and collaboration.

Other countries and localities also realize that transparency via IT can transform how people and organizations interact with their government. In an age of smartphones and ubiquitous Internet access, people expect their governments to use the Net as a tool for transparency. They want to be kept up to date on governmental activities, and they want data to be available online.

In Germany, for example, the federal government has created an online portal (bund.de) with the aim of making all e-government services easily accessible. By posting job offerings, information on project bids, and RSS feeds of its services, the German approach is to make it as easy as possible for citizens and businesses to interact with their government.

In California, Governor Arnold Schwarzenegger is a high-profile tech aficionado, using blogs, Twitter and other online services to reach his state's citizens. The governor recently ordered a state Web site, ReportingTransparency.ca.gov, to post all state contracts worth at least $5,000. Schwarzenegger's reasoning: He is concerned about government accountability to taxpayers. In fact, at the governor's direction, the state also posts online staff travel expense reports and forms, staff financial information, school statistics (amount of money spent per pupil, test scores, etc.), all external and many internal audits of its programs, and even the overall state budget.

California's information is being offered two ways: in prepackaged formats that everyone can read without recrunching the numbers, and in machine-processable formats, explains Teri Takai, the state's CIO. Where the general public is the intended user, Takai is trying to make data accessible in a way that's not too complicated, she adds.

Behind virtually all these projects is the open and nearly free access of the Internet. "For all practical purposes, the main mechanism for government agency openness is the Web," says John Sabo, Director of Global Government Relations at CA. In fact, Sabo believes all government bodies should consider publishing their complete unclassified proceedings on the public Web. If they don't, he adds, someone else will.

Still under debate is the best way for governments to disseminate information.

Some experts say the medium should fit the message. "If you're just looking to convey information, then forums and social networking are not likely to be worth deploying," says Russ Conwath, Senior Research Analyst at Info-Tech Research Group, an IT market research firm. "But if input is being sought, the benefits of social networking and forums are tremendous."

Of course, it's not enough for governments to simply post information, experts say. Although the Web provides an easy-to-use interface, government agencies will likely need

to also create sophisticated infrastructures behind that interface. These infrastructures will help government CIOs manage information, allow people to find information in different databases, and make information more easily searchable and presentable in various formats. "Infrastructures must now be highly federated," says Page of CA. "That way, there are few to no barriers to data assimilation."

Management tools are needed, too. These can include records management and project management tools that identify the data's location, type, security parameters and record retention.

Behind these new moves is a belief that a transparent government is an efficient government. As the old saying has it, "Sunshine is the best disinfectant." One proponent of this is Chad Kirkpatrick, a long-time taxpayer advocate who is now CIO for Arizona.
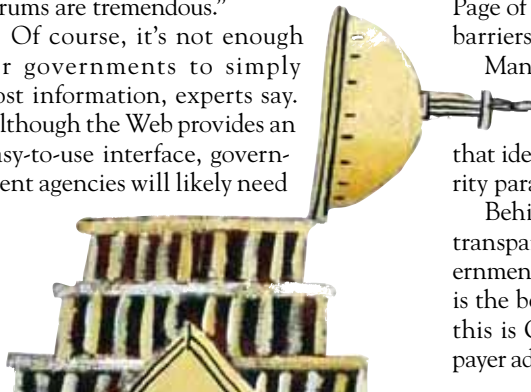
Best Practices for Government Transparency

IT executives who are looking to ride the transparency wave can follow these eight suggestions.

1 **_DON'T_ BE TRENDY.**
Make sure you have a business reason for deploying a new technology, says Chad Kirkpatrick, CIO for Arizona. Facebook might be all the rage, but don't go there unless you know who your audience is and what you hope to get out of using it.

2 **KNOW THE APPLICABLE LAWS AND REGULATIONS.**
Any data that's offered up for use must still adhere to privacy rules, open meetings laws and other standards.

3 **BE SECURE.**
Strong spam control, firewalls, federated identity and trust systems are needed for government data access services, especially when they involve private contractor information or other sensitive data.

4 **STICK TO OPEN DATA STANDARDS.**
"Provide more data — of good quality, in common, open formats — and get out of the way," says Jim Harper, Director of Information Policy Studies at the Cato Institute, a conservative think tank.

5 **DON'T LOSE CONTROL OF THE MESSAGE OR THE TONE OF THE COMMUNICATION.**
"Don't put anything out there that you wouldn't want your mother to read," says Russ Conwath, Senior Research Analyst at Info-Tech Research.

6 **LISTEN TO THE FEEDBACK, EVEN IF IT'S NEGATIVE.**
"Transparency is a double-edged sword: You put your data out there, your problems will become visible and you have to be courageous enough to say, 'We've got to make it better,' " says David Kralik, Director of Internet Strategy at American Solutions, a U.S. citizen action network.

7 **REMEMBER THAT BETTER SERVICE ISN'T NECESSARILY CHEAPER.**
"Don't think that the task of creating and maintaining content and interaction won't require additional resources and staff," says Conwath of Info-Tech Research Group. Be prepared to spend, but also be prepared to see greater customer satisfaction and return on investment (ROI), since informed users are generally happier users.

8 **USE TOOLS THAT AUTOMATE DATA GOVERNANCE.**
"It's one thing to provide information, and it's another to ensure that the information is reliable," says Bill Clark, CA's Public Sector CTO. "Our customers who have automated data governance have seen their ability to report to Congress [and] to departments [and other] agencies increase. The reliability of the information is sound, and it's auditable." – J.Z.

SOURCE: *Smart Enterprise*

"Transparency leads to accountability," he says. "Using IT to add sunlight to government processes simultaneously forces government to act responsibly and reassures citizens that government is working for them."

Arizona has jumped aboard the transparency train. The Southwestern state has created presences on social-networking sites Facebook and Twitter to reach more citizens and give them insight into the state's operations. Another initiative may offer even meatier results: a reporting system that tracks how federal stimulus dollars are being spent within Arizona. "Citizens will be able to track when, where, how and how much of their tax dollars are being spent," Kirkpatrick explains. "At that point, we will have truly democratized the data."

Governing 2.0

Other governments use Web 2.0 concepts and tools for greater transparency. Canada's federal government, for example, in 1999 set a goal to become "the [world's] government most connected to its citizens." Since then, Canada has embarked on a series of initiatives aimed at bringing government agencies together to improve delivery of services and to regularly measure citizens' satisfaction with those services. In 2003, as part of this collaborative effort, the government launched an Internet panel to poll citizens about a range of Web-related topics.

The panel seeks perspectives about issues that range from the look and feel of the Canadian government's Web sites to the interpretation of various government policy statements. The Internet panel can be seen as Canada's early effort to adopt, what would become known as Web 2.0 technologies, transforming citizens into active participants rather than passive observers.

Soon after, with the emergence of true Web 2.0 tools, the Canadian federal government launched a collaborative environment, code named GCpedia, that today supports a large number of internal contributors and observers in a collaborative and time-flexible environment, says Ken Cochrane, Managing Partner for SSG Southside Solutions Group Inc., who was Canada's federal CIO from 2006 until early this year. "We have the opportunity to take advantage of these technologies to engage with stakeholders in a way that augments traditional approaches," he explains. "But government needs to learn from this internal experiment and determine how to monitor, participate

and even guide some of these external-facing Web 2.0 conversations in support of better public policy and to meet the calls for greater transparency."

Tools that allow collaboration between citizens and their governments are game-changers, according to Cochrane. "These tools and practices have the potential to positively affect government's relationship with stakeholders," he says. "They can also deliver new and increased value through data liberation and service integration, such as mashups of data and services to deliver new and highly integrated services."

Others say more mundane IT services and products could have an even bigger effect over time. "I don't see any dot-com boom changing government the way it changed book-selling or the newspaper business," says Jim Harper, Director of Information Policy Studies at the Cato Institute, a conservative think tank in Washington, D.C. "Transparency will change things only marginally — but a marginal change in a federal government that spends $3 trillion a year is a big change."

Before that can happen, however, many governments will have to become more comfortable with making information public and searchable. One way might be to award government-transparency IT projects to nongovernmental groups, argues American Solutions, a U.S. citizen action network. David Kralik, Director of Internet Strategy for the organization, points to the success of the Apps for Democracy project, co-sponsored by the CTO of the District of Columbia. The project held a contest for Web 2.0 applications and awarded $50,000 in prizes. In just 30 days, the contest yielded nearly 50 applications, which, if sold on the retail market, would cost the District of Columbia an estimated $2.3 million. "There's a tremendous opportunity to make the data available online," Kralik says.

That could soon be every government's mantra. Government CIOs will continue to roll out transparency efforts and experiment with new forms of accessibility, offering data and services in both new and old ways. Web 2.0 tools and more traditional methods, all based on deep databases and networked systems, will make those systems more transparent than ever before. ■

JOHN ZIPPERER is a San Francisco-based writer and editor and a former editor of *Internet World* and *Windows Server System* magazines.

In the U.S., a Bipartisan Push for Transparency

The Obama administration, still in its first year of office, has a natural interest in proclaiming its goals and intentions. That's why observers are watching to see how closely the executive branch will live up to the president's recent pledge: "Executive departments and agencies should harness new technologies to put information about their operations and decisions online and readily available to the public. [They] should also solicit public feedback to identify information of greatest use to the public."

Fortunately, government transparency in the U.S. has not emerged as a partisan cause. In fact, one of the most widely praised government transparency projects was begun by Newt Gingrich, a Republican, when he served as Speaker of the U.S. House of Representatives in the 1990s. Called Thomas.gov, the site was launched "in the spirit of Thomas Jefferson," according to its own billing. It is a Web portal offering in-depth information about legislative bills, as well as information on other branches of government. Perhaps more important, all the information is stored in a searchable database behind an interface easily used by the average citizen.

"Thomas.gov was revolutionary, if only because we were starting from a zero-transparency baseline," says Jim Harper, Director of Information Policy Studies at the Cato Institute, a conservative think tank. Newer efforts, such as Recovery.gov, haven't yet lived up to their hype, Harper says. But he's hopeful. "What's good about Data.gov is that the raw data can be collected by private [citizens] who can slice it and dice it any way they choose," says Harper. "I think that will produce exciting new insights." –J.Z.

The
STRONGEST
Link

Security Information Management solutions help CIOs block potential threats — while identifying and eliminating duplicated processes.

| **By George V. Hulme**

At first glance, a raw diamond looks like nothing more than a dull, worthless piece of stone. Only with careful selection, cutting and polishing can it be transformed into the glittering bling of legend.

The same is true for corporate security logs. In its "raw" state, data from user and security activities doesn't offer much to CIOs. But once properly aggregated and analyzed, this data — including information from application logs, change-control processes, ticketing systems, and identity and access management applications — can be extremely valuable to CIOs.

More specifically, centralized solutions that manage this data can help CIOs deliver required security information, prove security compliance quickly and at low cost, and generate (and update as needed) security reports rapidly and efficiently. "Security often is too isolated," says Paul Davis, Executive VP and Chief Operating Officer of Decurity, a Tampa, Fla., security services provider. "When security is isolated or fragmented, it can't be leveraged across an enterprise to make the enterprise leaner. But when you centralize security management, that enables efficiency and consistency.

Security Information Management (SIM) solutions give CIOs visibility into their enterprisewide security processes, allowing them to quickly spot (and fix) vulnerabilities, bugs and other issues. Such broken processes are not only costly and raise risk, but can also be wasteful, since they can duplicate processes. "Different parts of the IT organization sometimes end up doing similar or even fully identical functions," Davis says. "For a large company, this doesn't mean just one worker wasting a few hours a week; it could mean teams of people doing the same thing and wasting time and valuable resources."

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> ## "There is a fair amount of role and process engineering that should take place before any IdM deployment." —Paul Engelbert | VP of Global Practices and Security Services | CA

Commonly duplicated efforts include excessive approvals before allowing the provisioning of access to system resources, password strength checks, system evaluations and redundant testing of regulatory controls. To manage such problems, security should be integrated across the organization, says Gijo Mathew, VP of Security Management at CA. "Whether it's because of different IT platforms being deployed over time, acquisitions or a preference for point solutions, security applications and processes are often managed as silos," he adds.

This situation can be mitigated by an interface that connects the infrastructure "agnostically," Mathew explains. "Say two large organizations merge; one is based largely on the J2EE development platform and the other on .Net. If security and regulatory controls aren't managed properly, this could create a costly disconnect," he offers. "The idea is to manage everything so that the security data can be collected and everyone is talking the same language."

Not doing so is one primary cause of poor security management. "I've seen situations in which [a company had] just finished vulnerability assessment and mitigation on a segment of its infrastructure," Decurity's Davis says. "All of a sudden, the servers that had been secure for a number of months were vulnerable again. Why? Because someone in operations rebuilt the server and failed to get the new patches on the system."

Get Smart
Avoiding these pitfalls requires work. But that doesn't necessarily mean greater expense, says Pete Lindstrom, Research Director at Spire Security, an information security market research and analysis firm. In fact, the most successful security implementations are the leanest. "The key is to focus on getting smarter," Lindstrom says. "Every event has some possibility that it's negative. The larger and more diverse the organization, the more important it is to integrate the systems to cover the basics — from identity to security devices to events across all of your platforms."

CIOs who manage security and regulatory compliance efforts centrally across applications and underlying IT infrastructure can dramatically reduce the number of redundant and poorly conceived compliance and security practices. This cuts costs and better aligns IT spending with business needs. At the same time, it also enhances the organization's security and compliance posture.

Lean practices can help IT security by managing processes, procedures, data, technology and people centrally so that the organization's security and regulatory compliance programs are as effective and efficient as possible. As an additional upside, CIOs can gain a cost-effective, sustainable IT security management program that attains regulatory compliance and mitigates risk.

Interested in implementing a Lean approach? Here are five practices CIOs can consider:

1 Leverage SIM tools to gather security intelligence.

SIM tools help collect, normalize, analyze and archive security data. They also help enterprises streamline reporting for regulatory compliance and security investigations. "Effective use of SIM enables companies to prove that they're in compliance, adhering to privacy mandates and internal security policies by culling log data from multiple applications, networked resources and platforms," explains CA's Mathew.

SIM also helps to extract meaningful data from log repositories and network events. Adds Decurity's Davis: "This is the classic example of using technology to streamline security."

2 Streamline provisioning and identity management.

Continuous provisioning and deprovisioning, as well as ensuring that people have access to the correct resources at the appropriate levels, are fundamental to both security and regulatory compliance. Identity management (IdM) applications help automate these processes and ensure correct access to network, application and Web resources.

The key to using them successfully, however, is to focus on ways to improve workflow before turning on the IdM software. "There is a fair amount of role and process engineering that should take place before any IdM deployment," explains Paul Engelbert, VP of Global Practices and Security Services at CA. "You just don't want to spin the wheel and start automating bad processes. We've had customers cut the number of steps required for provisioning from 21 to seven."

3 Look to data and resource protection (DRP) as a safety net.

DRP reduces the risks of both accidental data loss, such as an employee inadvertently sending confidential information via e-mail, and deliberate espionage — for example, an insider sending sensitive data to someone who shouldn't have access to it. It does so by controlling how and where information can be sent, Engelbert says, and helps put additional controls in place to increase security and comply with regulations.

Using DRP, CIOs can use identity attributes such as job titles, roles and location to quickly detect breaches. If someone with a particular title is trying to e-mail a document out of the company, the software will catch it before it happens. This enables an organization to minimize the threat of misuse or loss of important business information such as customer data, intellectual property and financial data.

4 Centralize security management.
While most aspects of IT security need to be distributed tactically throughout all IT operations, it also needs to be managed centrally. And that, explains CA's Mathew, entails sharing information across business and operations teams. "Just as national intelligence and law enforcement agencies need to share information to stop crimes and potential attacks, the same holds true for IT security," he says.

Business managers, developers, operations teams, application owners and end users should have access to security best practices, decisions and skills. They should hear about what's happening in the

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company in regard to the enterprise security in a way that enhances understanding and raises awareness of the need to protect people, assets and intellectual property. Distribution topics should include people and processes, technology and data. "Most enterprises have many log repositories that reside in network equipment as well as data leak prevention systems, applications, access management and control," says Davis of Decurity. "All of that information needs to be understood and appropriately integrated to extract actionable intelligence you can disseminate to your teams," he adds.

5 Improve incrementally, not systemically.

Why wait until tomorrow when you can make measurable improvements today? Set a goal of showing rapid time to value, skipping — at least for now — radical overhauls. "What customers are looking for now is how to show a quick return on investment," says CA's Engelbert. "The key is to show value, or prove the solution is working very early in the implementation."

For instance, in an identity management initiative, start with streamlining the workflow associated with provisioning and deprovisioning users, such as implementing a self-service password program for cost savings. Then begin to add more value as the program matures.

With these five steps, CIOs can begin to gain more complete visibility into their IT security efforts, demonstrate compliance with greater ease and speed, and create reports quickly. Taken together, these efforts can also help to keep enterprises more secure. ■

GEORGE V. HULME is a Minneapolis-based business and technology writer.

The Path to Lean Security

In an interview, Paul Davis, Executive VP and Chief Operating Officer at security services firm Decurity, discusses ways to streamline IT security management.

Q: Log management, which has existed for some time, is gaining new levels of prominence. Why now?

A: There are a number of reasons. The first is related to regulatory compliance. Auditors are getting very good at reviewing logs to gain an understanding of the business operations' maturation and the health of security and regulatory controls in IT systems. How well a company collects and monitors logs is crucial. Too many times, organizations find out during an audit that, while they may be collecting logs, they're not appropriately managing them.

The increasing number of logs also plays into the growing importance of Security Information and Event Management (SIEM). Such applications can help manage a multitude of regulations as they apply to various log stores: application, network, transaction and security logs. The goal now is not only to make the process of reviewing easier, but also to leverage all this data to make the organization more efficient and effective.

Q: Do governance, risk and compliance (GRC) initiatives help increase efficiency? And if so, how?

A: The requirement to govern security and compliance policy has been around since the very beginning of IT. Organizations always have had to measure the value of systems and information to quantify risk. You know that you don't want to go to the ultimate extreme of protecting a printer that's not critical to a business process.

Yet, it's just not enough to measure risk in technical terms, understood only by IT and security teams. Risk and regulatory compliance controls need to be put into terms that can be understood by people who own the data or run the business.

Q: What's the relationship between Security Information Management (SIM) and log management?

A: A log management system is an investigative repository coupled with a reporting tool. SIM culls actionable intelligence from within logs, initiates remediative tasks and improves the overall signal-to-noise ratio. SIM could analyze logs and identify how a user had five failed logon attempts from five different locations within a 10-minute time span.

That's the sort of information you need to see — not every mundane event. There are tens of thousands to millions of "security events" occurring daily. We've found that maintaining a log management system under SIM can be very successful at increasing the ability to identify what is important when it comes to security and regulatory compliance issues.

Q: CIOs are told to integrate security management vertically throughout the organization. Why? Does this help the organization become more streamlined?

A: Security professionals must be fairly specialized. But at the same time, they must have a wide awareness of a lot of different technologies. They can't just be purely network, applications or Sarbanes-Oxley specialists. They should have a firm understanding of not only how the infrastructure works, but also how networks, serves and applications fit together so that they can help set acceptable business risk. Any given security risk doesn't affect just one technology.

For instance, when a user changes job roles, but IT doesn't change his or her access rights, that lack of change doesn't just affect one application. It can also lead to serious security and segregation-of-duty violations. The failure to execute the change of role could have several causes. It could be a failing in the processes for identity management, the failure of a manager to notify the right people, or someone overlooking an isolated system not integrated with the enterprisewide access control system. Resolving that issue can be a complex strategy of understanding capabilities and business imperatives.

This is what makes security professionals so valuable. They can help mitigate risk and improve the audit process, as well as improve best practices. When security managers help the business find ways to mitigate the risks of new technologies without disrupting the business, they improve efficiencies and, sometimes, profit. – G.V.H.

Beyond

Bean Counting

Financial-services CIOs turn to Lean IT for help with business priorities, budgets, security and regulations.

| **By Bob Violino**

Rapidly changing business priorities, fast-shrinking budgets, burgeoning security threats and regulatory overload. For many CIOs, that may sound like a nightmare. But for those in finance, it's all in a day's work.

Yet CIOs in financial services aren't battling these challenges unarmed. They have a new aid: Lean principles — created to eliminate waste and improve efficiencies in manufacturing — that can be applied to IT management and operations. Companies can achieve Lean IT through key technologies and delivery mechanisms.

By building Lean IT organizations, many finance CIOs find they can transform IT architectures, reduce costs and increase support for both the business and its customers. "It's more important than ever for financial-industry CIOs to find ways to cut costs and be more efficient," says David Potterton, VP of Global Research at Financial Insights, a unit of Framingham, Mass.-based financial services research firm IDC. "The financial crisis has hit financial services particularly hard, so achieving greater IT efficiency is that much more important."

IT departments at financial services firms face pressure in numerous areas, including optimizing resources, improving performance and increasing availability, explains Shaena Heintz, Director of Global Financial Services at CA. CIOs have also been tasked with ensuring compliance with numerous new regulations, and they are responsible for ensuring that the end-user experience is safe and trusted. "All of this comes at a time where there is ever-increasing internal demand for IT services, and a rapidly changing environment, often fueled by mergers and acquisitions," Heintz says.

Achieving Lean IT can pay off for financial services firms. Raymond James Financial Inc., a provider of financial services to individuals, businesses and municipalities through its subsidiaries, has launched several initiatives — and is seeing results. "We studied Toyota's manufacturing methodology closely, and took some of the constructs they use to build cars and applied them to our solutions framework for building software," says Mark Abbott, the company's Senior VP of Strategy and Technology Alignment. One result is that Abbott and his colleagues have assigned a "team of peers" to each project. Not a traditional hierarchy, it is instead a group of peers using a structured decision-making process to deliver solutions.

Another effort at Raymond James involves service-oriented architecture (SOA). The approach will continue to be a big focus for the firm as it builds and integrates systems, Abbott says. One public-facing SOA project is a relaunch of a client portal called Investor Access. "SOA is helping us turn software development into a more repeatable and efficient process with the ability to reuse services," he says.

In fact, the ability to reuse services is one of the biggest SOA benefits for Raymond James. "Our internal clients are happier when we respond quicker," Abbott explains. "Having the ability to reuse Web services allows us to deploy future products much faster."

With Investor Access, Raymond James' external clients will have an easy-to-use, integrated experience. Leveraging SOA lets the firm rapidly deploy new features to support its 5,300 financial advisors.

Lean IT encompasses all four key financial services themes identified by research firm Financial Insights for 2009: reducing expenses, supporting mergers and acquisitions, managing risk, and helping to acquire and retain clients. This last area is an especially important attribute in a competitive market where every customer counts.

Industry experts say it's critical for financial services firms to improve the customer experience. "The only way to sustainably and profitably grow is to treat customers well, so they come back for more and bring their friends," says Fred Reichheld, a

Partner at management consultants Bain & Co. and author of the book, *The Ultimate Question: Driving Good Profits and True Growth* (Harvard Business School Press, 2006). "In financial services, the economic imperative of earning customer loyalty is magnified due to the powerful economic advantage of attracting and retaining the right customers."

What's more, Bain's analysis shows that companies with the highest customer loyalty grow more than twice as fast as competitors — and at much higher margins. Reichheld says the best way to measure the excellence of customer experience is to ask: "On a scale of 0 to 10, how likely is it that the customer would recommend the company to a friend?" Those customers who score you a 9 or 10 represent your most valuable assets, he adds.

Banking clients' overarching need to win new business is one big reason why TCS Financial Solutions executes core banking transformations — both big-bang and transitional. The company, a unit of Tata Consultancy Services, has among its clients financial institutions of all sizes, some quite large. One of the largest: State Bank of India, which has some 17,000 branches serving 228 million customers and conducting approximately 39 million transactions daily. By transforming its legacy IT architecture and applications solutions, State Bank of India saw a 103 percent increase in deposits, 229 percent increase in loans and 83 percent increase in profits. "Often, market opportunities to win new business drive the banks' decisions to transform their systems," says Dennis Roman, Chief Marketing Officer at Tata Consultancy Services, which works not only with banks with legacy systems, but also with "greenfield" startups.

At many companies, Roman explains, outdated applications do double damage: On the one hand, the bank cannot bring on and service new customers quickly, whether organically or through acquisition. On the other, the bank risks losing current customers to more nimble competitors.

To solve that problem, TCS Financial Solutions offers the TCS BaNCS application suite to help financial firms implement Lean practices for banking applications quickly. It's a suite of applications that support functions such as core banking, compliance and payments. For example, the core banking software helps financial institutions quickly introduce new products and manage changes in existing products, such as savings accounts, checking accounts and loans. TCS BaNCS is sold primarily to banking institutions that are burdened by what Roman calls their "brittle, costly, inefficient and nonintegrated" banking applications. "They have decided to change their approach to IT and applications and have chosen either a rip/replace approach or a more conventional phased progression," he adds. "Both are eminently doable and well within the experience scope of hundreds of similar TCS engagements."

While these projects are neither short nor cheap, once implemented — in either big-bang or phases — the new application suite quickly and dramatically improves efficiency, time to market, cost reduction, agility and, ultimately, competitive advantage.

Another solutions provider, Fidelity Information Services (FIS), is working to modernize its teller and platform applications with SOA-based, workflow-driven solutions. The result should be the ability to focus in-house staff on customer differentiation, reducing the risk and costs of the overall application deployment, according to Steve Bone, a Senior VP at FIS. "Our evolutionary approach allows the business to gain indirect benefits from an application's progression through its lifecycle," he says.

"Rather than implementing under a big-bang approach, we're working to implement an overall solution in planned phases over time," Bone adds. That way, as a particular application matures and is adopted in the marketplace, standard integration to a wider array of third-party applications becomes available. Most important, says Bone: "The supply and availability of knowledgeable resources that can support the application will increase substantially."

By applying Lean practices, CIOs can identify opportunities to reduce waste, boost efficiency and improve the customer experience. And in so doing, they can also manage IT complexity more effectively, lower risk and maximize IT's value to the business. ∎

The Wall Street Diet

To get Lean in financial services, CIOs need credit with their nontechnical peers. These four steps can get them started:

STEP 1: SECURE ORGANIZATIONAL SUPPORT
Senior IT executives can begin by endorsing Lean initiatives, then following through with constant reinforcement of Lean goals and objectives. At some institutions, a charismatic and determined CIO can champion the cause and bring organizational alignment. At others, the process is more systematic and often involves proving return on investment.

STEP 2: ALIGN EXPECTATIONS WITH REALITY
Just as CIOs need to gain organizational support, they also must be careful to avoid overpromising results. To be sure, Lean IT can meet many goals. But successful CIOs will clear up any misconceptions about what will and will not be achieved during each phase of a project.

STEP 3: CREATE A CLEAR ROAD MAP
To maintain support and meet expectations, financial-services CIOs should develop realistic project timelines and transparency regarding their Lean IT projects.

STEP 4: DEPLOY LEAN TECHNOLOGIES
(SUCH AS ADVANCED IT PROCESS AUTOMATION)
Reducing manual intervention for core processes — and not just the trivial ones that are already automated — leads to effective Lean IT. For example, automating identity and role management with compliance-driven provisioning of users can bring these processes up in minutes or hours, instead of days or weeks.

SOURCE: Financial Insights

BOB VIOLINO is a business and technology writer in Massapequa Park, N.Y.

Discover the unknown
Who's cracking your defenses?

Without a doubt, data security is an uppermost consideration for companies today. Business leaders have discovered that data of every kind — customer, employee, vendor, financial — is the most important asset of the enterprise — and perhaps the most risk-intensive of all. Finding the value, determining the risk, and meeting regulatory and compliance requirements are the challenges of the Information Age as well as the new economy.

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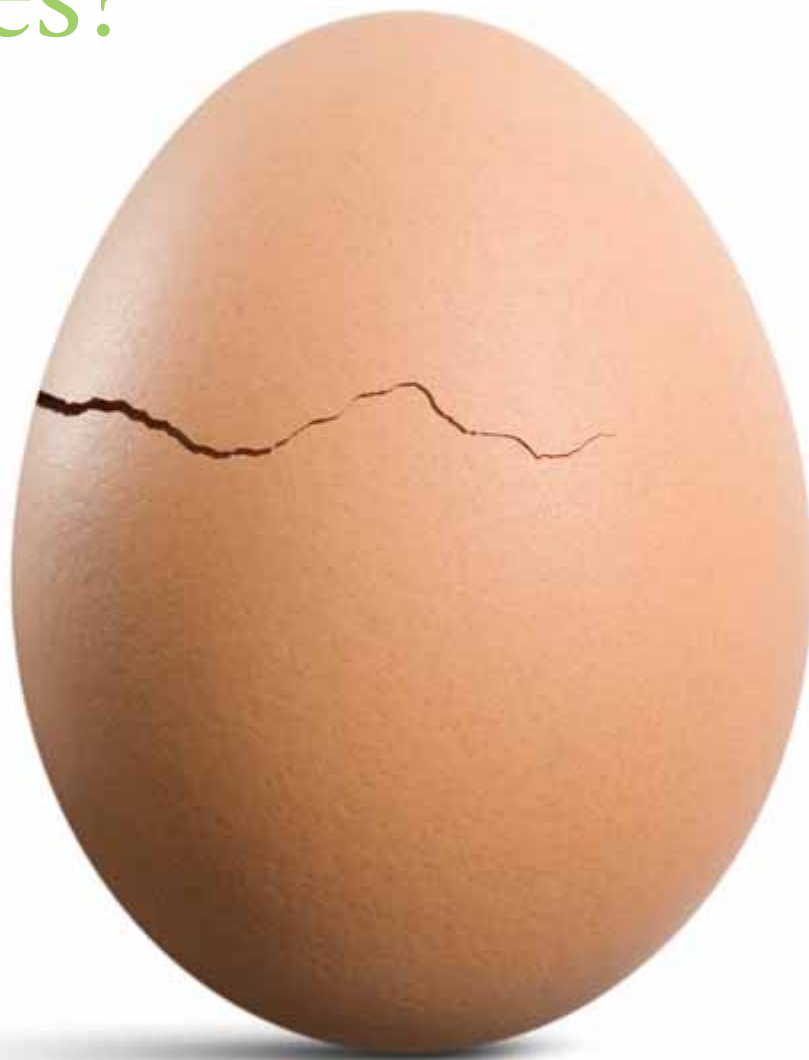
Deloitte.

Orange Business Services, a European telecommunications company, is taking global optimization to the next level. Vincent Kelly, the company's CIO (shown right), and his team are using Lean principles and good old-fashioned end-user feedback to optimize the IT organization.

| **By Mary E. Morrison**

Helping Orange See Green

O range is Lean. Orange Business Services, that is. The company, a division of France Telecom that provides telecommunications solutions and services to enterprises, is serious about Lean IT, the practice of delivering better IT performance and more value while spending less. And for a company with more than 20,000 employees and 3,750 multinational customers, such gains can be impressive.

Lean approaches are nothing new for the company. In fact, between 2001 and 2005, its IT staff integrated the IT infrastructures, business processes and application chains of two companies it had acquired

— Global One and Equant. More recently, the company moved to an optimized IT model. As part of this process, by 2008 it had outsourced and offshored application development and maintenance. Roughly 60 percent of all IT activity was being performed by outsourcing partners. Combined, the two moves let its 700 IT employees concentrate on projects that create business and customer value.

But Vincent Kelly, CIO of Orange Business Services, realized that many IT processes still needed to be improved. The company's executive team decided to use Lean for performance improvement. This

was the starting point for a continuous improvement program driven by Lean principles and aimed at delivering more value to IT users, Kelly says.

At the core of the program is first communicating with internal IT end users to determine what is most important to them, then delivering that value in the most efficient way possible. The program has led to a number of improvements. For instance, using Lean principles, Orange Business Services has become more efficient in handling customer calls, and it has adapted the company's scheduling engine to reduce slack time between dispatches.

The goal now, Kelly says, is global optimization — making the company's IT organization, which supports people in 166 locations across the globe, work better end-to-end. "It is true when people say 'One must not offshore and forget,'" he explains. "When you offshore, you have to work that. You have to focus on ongoing iterative improvements."

In some cases, outsourcing partners work directly with Orange Business Services in the offshore locations, Kelly explains. In others, the outsourcing partner has a small front office that works with the company in Europe, with the rest of the partner's team offshore, mainly India.

Talk to Me

To improve the customer experience, Orange Business Services began surveying internal IT users on a monthly basis — touching each user twice a year — starting in early 2008. The automated surveys have about 30 questions and yield a global satisfaction measure. Reviewing the verbatim responses is key to the process, says Kelly.

These surveys, in turn, have led Kelly and his team to adopt a 360-degree improvement program, supported by Six Sigma and Lean methodologies, to optimize the performance of IT. Resulting projects have included standardizing desktops and software, using virtualization for new projects, implementing common productivity tools such as instant messaging and Web conferencing, and turning to third-party software as a service (SaaS) and cloud computing when it is the most cost-efficient choice. The Orange Business Services program has also addressed processes by streamlining incident management, change management, release management and service improvement plans.

Earlier this year, the IT team took the process one step further. The team conducted deep-dive interviews with a subsection of end users, front-line managers and top 20 executives to pinpoint their key issues and ensure that they're being addressed. "It's about listening to our business users, our end users," Kelly says.

For instance, internal users raised questions about having too many passwords, in part because Orange Business Services runs more than 650 applications across its business units. To address this, the IT team is launching an identity and access management initiative, using CA technology, which will create a single sign-on environ-ment for users. This should not only help users, but also result in fewer access-related calls to the help desk, which now receives more than 160,000 incident tickets a year.

Such initiatives are smart moves, experts say. In fact, clearly defining and reviewing ongoing communication processes is an important part of optimizing IT after off-shoring, says Jennifer Thomson, Research Manager at IDC European Software & Services. "It's typically quite a time-consuming process, but all the companies we've spoken to have found huge benefits going forward," she says. "While Service Level Agreements [SLAs] and key performance indicators [KPIs] are important to measure and report, it's often the 'soft' parts of the relationship — such as communication, trust, honesty, openness and cultural awareness — that make a big impact on the ground."

For Orange Business Services, user feedback from surveys and interviews only highlights the importance of these intangible — but invaluable — components. "We can never communicate enough," Kelly says. "Communication is key to the satisfaction our users get from IT."

To further improve communication between IT and the business units, Kelly explains that the IT team has instituted an ongoing series of events and publications. One example is a program called Ask IT Days. Key members of the company's internal IT staff visit company sites to address users' process, application and hardware issues, and to answer their questions.

The IT team also publishes "IT Tips" on the company intranet, offering readers relevant advice on topics ranging from how to use PCs and applications more effectively to how to improve teleworking skills, among others.

Kelly and his team have refocused on the importance of communicating up, too, talking with senior business users about projects and prioritization issues. "It might sound simple or obvious, but in our case, we were not doing enough of it," Kelly says. Doing so helps the IT staff explain technology projects in terms the business understands.

"Since business priorities and strategies change, it's also important that the IT team quickly responds to changing needs," Kelly says. "For example, cash is very important for all businesses in the current economic climate. So for IT, we have to prioritize to make sure the investments we're making are ones the business truly needs." As a result, Kelly's team is now prioritizing projects related to customer experience, new offers and improved margins; investments in any IT project related to business-as-usual efficiency gains have to show fast payback. "Nine months is the payback threshold we have set today," Kelly says. That's a lesson every company can take away. ■

MARY E. MORRISON is a Chicago-based technology and marketing writer and editor.

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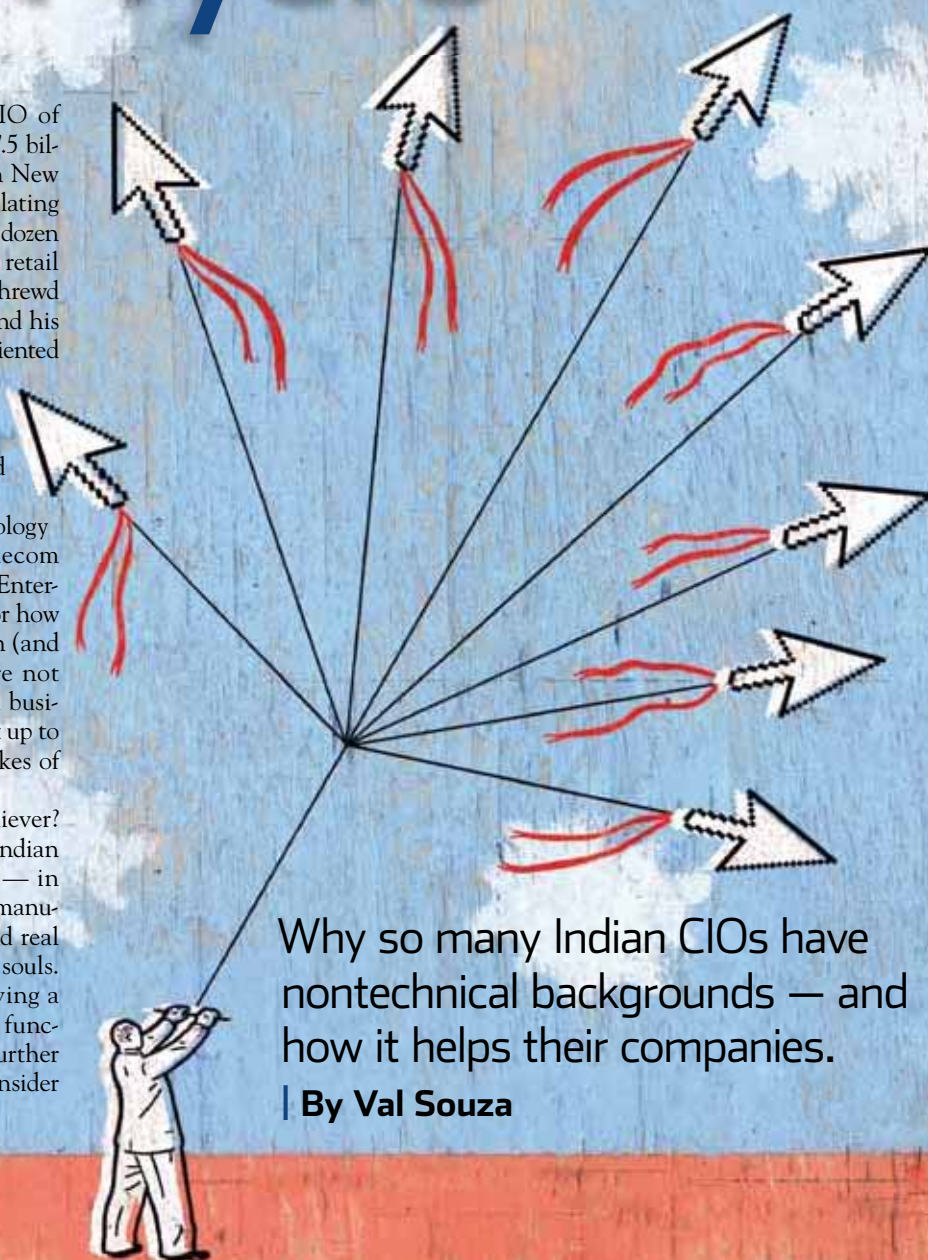
❖❖ INDIA

High Flyers

Meet Jai Menon, Group CIO of Bharti Enterprises Ltd., a $7.5 billion conglomerate based in New Delhi. Menon is responsible for formulating and leading IT strategy for more than a dozen businesses, ranging from telecom and retail to agriculture and real estate. With a shrewd understanding of business needs, he and his team have built a business-outcome oriented model for the telecom business whereby the entire IT expenditure is no longer a matter of capital expenditure or operational expenditure, but is completely and directly linked to revenues.

Menon is also Director for Technology and Customer Service at Indian telecom giant Bharti Airtel, a unit of Bharti Enterprises. In this role, he is responsible for how the company deals with its 100 million (and growing) customers. As if that were not enough, Menon has also launched a business unit for his organization. He set it up to handle strategic alliances with the likes of Google, Apple and VeriSign.

Is Menon a one-of-a-kind overachiever? Hardly. In fact, he is typical of today's Indian CIO. There, CIOs across the board — in sectors as diverse as finance and retail, manufacturing and advertising, telecom and real estate — have proved to be versatile souls. These CIOs go far beyond IT by having a keen understanding of core business functions and organizational strategy. For further examples of India's versatile CIOs, consider these four executives:

Why so many Indian CIOs have nontechnical backgrounds — and how it helps their companies.

| **By Val Souza**

ILLUSTRATION: DAN PAGE/THE ISPOT.COM

Laxman Badiga, Corporate VP and CIO, Wipro Technologies: Badiga oversees myriad operational issues at this Indian software services provider, including global facilities and administration, material procurement and movement, and global visas. In fact, he is responsible for all operations except those that are directly related to finance and HR. Badiga is also Wipro's CIO. In this role, he has established a seamless IT infrastructure for the company's massive global workforce and initiated innovative concepts that have blurred the traditional lines between supply-chain management, HR and the operations of Wipro's IT business.

Vikas Gadre, CIO, Tata Chemicals: Gadre has augmented his degrees in chemical engineering and business management with company secretary and company law qualifications, enabling him to take on a long list of responsibilities. He has at various times held the position of VP for strategic planning and new businesses, driven acquisition opportunities, negotiated with legal experts and conducted due diligence, among other things. "I strongly believe that the CIO must work at regular intervals along with sales teams in the field and spend time on the factory shop floor to understand primary business requirements," Gadre says. "And he must have a very good understanding of finance."

Arun Gupta, Customer Care Associate and CTO, Shopper's Stop: At this Indian retail chain, part of the diversified K Raheja Group, Gupta has not only managed the IT requirements of the group's companies, but is also responsible for the food and beverages (F&B) business, a series of cafes located in department stores across the country. "I was put in charge of F&B to help improve processes and lead the initiative toward break-even and profitability," he says.

Sunil Mehta, Senior VP and Area Systems Director, Central Asia, JWT: At this global advertising agency, Mehta led JWT to become the first Indian agency to implement ERP and use VSATs (Very Small Aperture Terminals, two-way satellite ground stations) for its virtual private networks (VPNs). "I think like a businessman and an entrepreneur," he says, speaking like the CIO with a finance background that he is. "I recognize which technologies and solutions — implemented within the right strategy, in a cost-effective way and in the least possible turnaround time — would put my organization ahead of the times and the competition."

The phenomenon of the versatile Indian CIO is compelling. In fact, Forrester Research conducted a study to delve deeper and establish the reasons for it.

Forrester found that IT departments in India actually drive business innovation.

"Indian CIOs act internally as consultants ... they treat their business peers as prospective 'customers of their IT services,'" the report says. "As such, Indian CIOs are proactive in engaging their business peers in building the business case for promising new technologies as soon as they spot them."

Multitaskers

The fact is, cross-pollination between functions is more of a rule than an exception in Indian organizations. "Multitasking is an Indian specialty, and with CIOs, that quality seems to have been magnified," says Mehta of JWT. "You search for new avenues of business, you keep questioning other business heads, you solicit business and become a business ambassador for your company, and you finally end up with new business ideas."

At some companies, multitasking executives are actually part of the organizational philosophy. Wipro, for example, has a policy of rotating executives among various jobs. "Job rotation helps tremendously," says Wipro CIO Badiga. "As a CIO or IT head, I am already aware of the business and have been running the business."

Saurabh Srivastava, an Indian software-industry pioneer who is today Chairman of CA India, says Indian CIOs are successful largely because they work so closely with their CEOs. "In India, CIOs are very connected.

Four Roles of the CIO

Indian IT leaders map their resources to four services of "Innovation Networks"— fluid ecosystems that tap into the creativity of rank-and-file employees, customers and partners to conceive and implement innovative business solutions.

❖ Innovation Network Service	❖ Specialization
⚒ **INVENTORS**	Academic or private institutions that conduct R&D, or entrepreneurs and independent developers who design products and services that result in patentable inventions.
⚒ **TRANSFORMERS**	Multifunction production and marketing services that convert inputs from inventors into valuable business or societal innovations for either internal or external customers.
$ **FINANCIERS**	Funding source for Innovation Network service providers — especially inventors and start-up transformers. Financiers may seek to own intellectual property rights for inventions.
👥 **BROKERS**	Market makers and facilitators who find and connect Innovation Network service providers — buying and selling, or enabling service delivery both within and among companies.

SOURCE: Forrester Research, "Indian CIOs Excel as Chief Innovation Officers," 2008

It's not considered a dark-room job; it's a role very much central and integrated with the business from the CEO's viewpoint," he says. "Indian CIOs are therefore much more business conscious, effective and outcome based."

This view is corroborated by Diptarup Chakraborti, Principal Research Analyst at research firm Gartner. "Many Indian CIOs have a direct channel of communication with the CEO or, at least, the COO," he says. "Indian CIOs communicate the need for large IT investments to their CEOs and boards quite easily and quite effectively." For instance, Gupta of Shopper's Stop has a monthly meeting with his managing director, deliberating on where the business could be headed in the next two or three years.

The Industry Factor
So what is it about India that has prompted business managers to don IT robes? It took an academician to provide the insightful answer. Professor S. Sadagopan, Founder and Director of the International Institute of Information Technology in Bangalore, attributes this phenomenon to the rapid rise of the Indian software industry in the 1980s and 1990s. This was an era when corporate India was coming to grips with the demands of enterprise-level computerization. "The software exports services firms — like TCS, Wipro and Infosys — attracted hardcore IT professionals in droves," Sadagopan explains. "So working professionals from other functions, who were bright, energetic and enthusiastic, got into IT in non-IT companies. And they did a great job!"

One of the pioneers of India's software services, CA's Srivastava, agrees. "A couple of decades ago, it was definitely not attractive for highly qualified techies to join user companies in India," he recounts. So some non-IT companies hired businesspeople to run IT. Many of these people had management backgrounds and also had, he says, more open minds than a typical IT person.

A growing number of Indian IT leaders are taking their cues from these front-runners. By moving from strength to strength, they are contributing to the efficient computerization of their nation. ∎

VAL SOUZA is an Indian journalist who has covered his country's IT industry since 1990.

Seven Distinctive Traits of the Versatile CIO

Indian CIOs often exhibit a combination of distinctive traits that contribute to their versatility and effectiveness.

1 **DEEP BUSINESS ORIENTATION:** Many Indian CIOs play multiple roles in their organizations. They are concerned not only with IT, but also with operational aspects and customer-facing functions. "There is no entrenched formality in Indian asset management in terms of definition of roles, so fewer silos are created," says Saurabh Srivastava, Chairman of CA India. "Anybody doing one function is very much aware of what's happening elsewhere."

2 **RESPONSIBLE FOR P&L:** Indian CIOs are often given additional profit-and-loss responsibilities as general managers or business unit leaders. This helps them understand where the business is headed. "CIOs must proactively lead the creation of new revenue streams," says Jai Menon, Group CIO at Bharti Enterprises. "There is no reason why IT leaders cannot participate in product innovation and stimulate new revenue."

3 **MULTIPLE QUALIFICATIONS:** Indian CIOs have training and certification in finance, law and other non-IT management subjects. As a result, they can communicate effectively with their counterparts in nontechnical functions.

4 **BUSINESS-SAVVY IT MANAGERS:** The rapid growth of the Indian software services industry in the 1980s and 1990s led non-IT companies to hire IT managers from other business functions. Because those selected for the CIO role already had a good understanding of business, they could execute their IT management roles much more effectively.

5 **CULTIVATION OF INTERNAL AND EXTERNAL INNOVATION NETWORKS:** Indian CIOs frequently get involved with strategic planning and participate in cross-functional teams. They actively cultivate relationships with their industry peers and both internal and external stakeholders, facilitating innovation and execution. "People are seeing the value of the role of the CIO here in India, and there is a realization that IT is a key component," says Laxman Badiga, Corporate VP and CIO at Wipro Technologies.

6 **COST-CONSCIOUSNESS AND FRUGALITY:** Because CIOs know finance and understand the way the business works, they are known as shrewd, tough negotiators. "Indian CIOs are not swayed by the vendors, not even the really big multinationals," says Diptarup Chakraborti, Principal Research Analyst at Gartner. "They are savvy negotiators and understand the nuances of the contract more than a pure techie would."

7 **DIRECT CHANNEL TO THE CEO OR BOARDROOM:** Indian CIOs frequently interact with the CEO and other C-level executives. A culture of openness helps the CIO promote IT investment and initiatives. – V.S.

Pinpointing the Workload

How oil-industry services provider Saipem optimizes its most valuable asset — people. | **By John Zipperer**

Italian energy-services firm Saipem isn't taking the troubled economy lying down. Instead, it's focusing on making better use of existing staff.

While many companies have reacted to the current economy with layoffs and cutbacks, Saipem has instead improved its ability to deploy staff to targeted projects. This improvement now applies to hundreds of projects being worked on by the many offices and companies that are part of the Saipem group.

Saipem, a Milan-based unit of Italian corporation Eni S.p.A., provides onshore and offshore services for the oil industry — drilling, maintenance and operations in some of the world's most difficult mining areas, including remote areas and deep water. With more than 35,000 employees in some 35 countries, Saipem needed a resource management tool to help its managers determine which office can best execute a specific project. Saipem also needed help planning and tracking its vast, blended workforce, which includes both internal employees and third-party contractors.

Saipem began the project in 2007, initially focusing on Snamprogetti Sud, an Italian plant-design firm it had then recently acquired. Snamprogetti Sud was small enough that the project could be contained on a manageable scale, yet large enough that it could serve as a model for the rest of the company. That helped Saipem meet two important goals, says Alessandro Tintori, Project Management Manager with Saipem's Human Resources Organization and ICT (Information and Communication Technologies) division. First, to implement a new resource management system. And second, to identify workable solutions that, once approved, could later be rolled out to other parts of Saipem.

While Snamprogetti Sud already had in place a solution derived from its ERP system, Saipem wanted a scalable system, one that could be expanded to serve other companies within the Saipem group. For the foundation, it selected CA Clarity™ Project and Portfolio Management (PPM), which helps organizations gain optimal results from their staff. The CA Clarity PPM solution, by maximizing resource utilization through capacity planning, helps managers reduce organizational costs while delivering successful programs. The solution's advantages are quite evident, Tintori reports, in terms of balance and making the most efficient use of the group's talent. It was important for Saipem to manage resources and measure hours spent by these resources.

The CA Clarity PPM solution was implemented in October 2008 to support Saipem's onshore business unit. The effort was a large one, involving more than 300 users and some 400 projects, what Tintori calls a "sort of big bang." The solution also helps Saipem engineers tame the complexity of managing a worldwide staff.

For example, while a project performed in Saipem's India branch will likely be less expensive than one performed in Italy, other factors need to be considered, too. The resource manager could show how many workers are available at each location, and with which skills. It could also show how many hours a project is likely to take, an important consideration for projects that typically take months, even years, to complete. It also helps Saipem be flexible enough to compete in a complex environment.

"The ability to track current projects in real time provides organizations with the ability to make tactical decisions around critical staffing areas," says Gareth Doherty, a Research Analyst with Info-Tech Research Group. "This helps them ensure that projects are properly aligned with the business goals from a staffing perspective."

That alignment is the bottom line for Saipem's resource management automation efforts. This is definitely a project driven by business requirements. ∎

JOHN ZIPPERER is a San Francisco-based writer and editor, and a former editor of *Internet World* and *Windows Server Systems* magazines.

CIOs Get a Seat on the Board

In France, involving IT leaders in top-level strategic decisions is more than just a good idea. It's a powerful way to move CIOs closer to the business.

| **By Alan Joch**

In a quest to serve the enterprise, IT departments have always struggled with their organizations' business units for common ground. But a growing number of companies have come up with a powerful way to resolve this issue. They're putting their CIOs on their boards of directors, giving these IT executives close access to the enterprise's most strategic decisions.

That's certainly the case in France. There, CIOs at nearly 70 percent of companies sit on their boards of directors, finds a recent survey conducted by Vanson Bourne, a market research company. That's the highest level anywhere in Europe, the survey found; on average, European CIOs sit on the boards at only half of all companies.

Some in the industry say the motives are purely practical: Regular input from senior IT managers leads to better business decisions on the part of nontechnical executives — and vice versa. "We have a bottom-up and top-down flow of information about what systems people need to do their jobs better," says Laurent Allard, CIO of Logica plc, a U.K.-based IT and business service provider.

In fact, CIO Allard reports directly to Logica's CEO of global operations. He says the high-level positioning allows him to "better articulate how IT solutions align with the company's business strategies." After all, he adds, "You are closer to the definition of those strategies."

Board-level participation of French CIOs isn't consistent across all industries, however. Philippe Compagnion, an executive recruiter with Paris-based Egon Zehnder International, says board-member CIOs are most common at French retail banking, insurance and telecommunications companies, followed closely by corporate and investment banking firms. The reason: It's in these industries that French executives consider IT most integral to the development and delivery of products and services.

A generational shift is also making a difference. In France, many CIOs have professional experience that includes not only IT, but also other disciplines, thanks to stints as divisional or product-line managers. "The new generation of CIOs in France has a profile in financial management," says Alain Pétrissans, Associate VP of Consulting at IDC France. "They're not pure technical and IT specialists."

Richard Valenti, CIO of Generali France, agrees, but cautions his fellow CIOs to use their access to business leaders wisely. As the IT leader of a subsidiary of the Italian company Generali Group, Valenti frequently presents to the corporation's president and management committee. "IT people need the support of the board, but to get that support, they must explain in plain language what they are doing," Valenti says. "Years ago, people spoke about IT being like a tribe with its own language. Companies today accept that separation less and less."

Logica's Allard says plain speaking can be influential for both big transformation projects and in more subtle ways. When Allard joined Logica late last year, top managers were cutting costs to weather the recession. At one board meeting, some managers wanted to cut spending on Allard's plan to expand customer relationship management (CRM) systems. But Allard, able to speak in terms the business leaders could understand, was able to push through his vision. That's an approach that can extend to CIOs anywhere in the world. ■

ALAN JOCH is a business and technology writer.

Smart IT leaders aren't sitting out the tough economy. Instead, they're implementing IT strategies aimed at helping their companies get — and stay — ahead of the competition.

| **By Jennifer Zaino**

Aiming for
GROWTH

Are you focusing on cutting waste while driving internal and external customer value? You may not know it, but you've taken steps toward creating a Lean IT practice, one that probably stretches across IT domains such as infrastructure and software management, software provisioning, and customer-facing processes. Maybe you're pursuing Lean IT in a bid to help your company prepare for growth after the downturn. Or maybe you are looking to Lean IT as a way to keep up with your industry's rapid transformation.

You are not alone. Both strategies were discussed by senior IT executives at a recent *Smart Enterprise Exchange (smartenterpriseexchange.com)* online event, as well as in follow-up interviews conducted by *Smart Enterprise* magazine. IT executives from Manpower Inc., Time Warner Inc. and Nationwide Children's Hospital participated in the discussions.

For example, as a provider of temporary, permanent and contract employees, Manpower Inc. felt the recession early. As such, the company today is among those preparing for growth after the downturn

to stay ahead of its competition, says Denis Edwards, CIO at Manpower.

Edwards says one lesson of the downturn is that IT innovation must progress, even when economic circumstances aren't perfect. But this also requires IT to be as precise and efficient as possible in supporting business efforts. This is one reason why Manpower has moved to what's known as Agile software development, a term given to the practice of iterative and incremental software development; Lean development is one of Agile's methodologies.

Clear View

This approach enables Edwards and his team to create greater transparency for internal customers. It also helps them deliver desired functionality more quickly by prioritizing and developing the features that users have indicated are most important to them. Additional features can then be added following initial delivery if and when they are needed. Manpower's embrace of Agile relies on a Lean methodology that reduces waste, both by not overdelivering on features upfront and by making the most efficient use of IT development resources. "Moving to Agile development from waterfall development refines your thinking to the specific functions you need," Edwards says.

It also provides the business users time to consider whether adding more capabilities will add value. Getting the business what it needs quickly and with greater transparency into the development process has also helped Edwards and his team get more involved in strategic discussions around initiatives that will serve Manpower when the economy recovers. Combined, these efforts have helped Edwards conclude that Lean is good for business.

In Manpower's case, Lean thinking applied to software development means there is less functionality to build, less complexity in usage, fewer application support requirements, and more satisfied customers. That's a win-win-win-win on costs and agility for applying Lean thinking to software development.

Job 1: Innovation

At media and communications conglomerate Time Warner, Corporate VP of IT Kurt Rao looks at Lean IT from a different perspective. Rao has refocused the conversation between business and IT on streamlining processes. His larger goal: help Time Warner compete in a changing business environment.

With digital technology transforming the way audiences consume media, home video and television viewing has declined seriously and isn't expected to rebound even once the economy improves. So Rao focuses on removing waste from business processes. This improves the company's ability to deal with this new reality by reducing the cost of business operations and increasing agility.

Rao has also streamlined his IT organization to support these efforts. For example, business analysts in the IT Planning function have been refocused to think in terms of Lean principles. They look at specific business functions and identify opportunities to reduce process cycle times. Similarly, the Build group now focuses on technology improvements to support important business projects; they also contribute to a leaner-running organization through efforts such as automating business processes.

❖ **Denis Edwards**
CIO
Manpower Inc.

❖ **Lynette Larkins**
Director of
Information
Assurance
Nationwide
Children's Hospital

❖ **Kurt Rao**
Corporate VP of IT
Time Warner Inc.

Virtually Efficient

Here's how virtualization technology helps two CIOs create efficiencies and cut costs.

Thanks to server virtualization, a two-year-old data center at Nationwide Children's Hospital (NCH) has more capacity than expected. Originally, IT leaders at NCH thought they would have to build another data center to support the growth of the hospital's Research Institute. But instead, a recent assessment showed that the new building, and indeed all significant investments in the data center, could be deferred for at least five years. "That's based on the fact that we are not adding physical servers," says Lynette Larkins, Director of Information Assurance at NCH. "So we're not consuming the power and footprint of that space as quickly as we thought we would."

Similarly, at Time Warner, Corporate VP of IT Kurt Rao is adopting virtualization to help cut costs. "When you can take out 100 servers and replace them with 20, that's an easy metric," he says. "Being in New York City with our power and cooling costs, those are easy savings we'll realize."

But Rao is also taking a disciplined approach to virtualization, largely to avoid creating service headaches. "If you put all your heavy-hitting applications on the same box, all running at the same time, you potentially will have service issues," Rao says. To avoid this, Rao's team is looking to acquire tools that will continuously monitor its virtual machines and help manage the peaks and valleys of application demand in virtual environments.

Larkins of NCH says that virtualization can bring additional layers of complexity and management for IT, and that's why she's taking a conservative approach to implementing some of virtualization's capabilities. For example, she's cautious about automated failover for major electronic medical records applications. "Our system can be run at a totally different data center in the event of a serious outage, but we don't let failover occur in an automated fashion," she explains. While the system is preconfigured and ready to go, NCH helps the humans decide when to approve a failover. "We drill the scenario routinely," Larkins adds, "so we all know how to do it, should the need arise." –J.Z.

In another innovation, Rao's IT teams identified an opportunity to move data across the company more efficiently. They are now working on automating the movement of financial and tax information across Time Warner's divisions. This was crucial, Rao says, since each division runs a different ERP system. Among other benefits, the system should dramatically reduce the amount of manual rekeying that's necessary. Also, Rao would like to keep the Run function — the lights-on processes surrounding day-to-day IT operations — as minimalist and low-cost as possible. To enable that, he is considering a move to an alternative sourcing model.

Optimizing and automating IT maintenance processes are as important as automating business processes to creating a Lean enterprise. In fact, according to Enterprise Management Associates (EMA), an IT research and analysis firm, automating one or more IT processes offers a multitude of benefits, including freeing up strategic resources, improved data center uptime, reduction of human errors, and savings on staffing costs. "With automation, adminis-

trators are freed up to do proactive problem prevention rather than knee-jerk firefighting," says Steve Brasen, a Principal Analyst at EMA. "That also drives innovation by giving time back to the technology staff, so they can be more available to provide solutions that drive the business's profitability."

In healthcare, a main goal is creating greater efficiencies around patient care. In today's economy, many people use hospital services for their primary medical care. This has led to a hospital sector boom, which, in turn, has added urgency to the call to transform healthcare and reduce the cost of services. At Nationwide Children's Hospital (NCH), a nonprofit organization in Columbus, Ohio, Director of Information Assurance Lynette Larkins sees more

> ## "Through the innovative use of technology, we get the right user to the right patient data at the right time."
>
> — Lynette Larkins
> Director of Information Assurance | Nationwide Children's Hospital

requests to make process-improvement efficiencies and use automation. "We are asked more and more to bring technology to bear on automating processes and improving patient care and patient flow," Larkins says. "We're focusing on innovation as much as possible."

Speedier Log-In
More specifically, the hospital has implemented identity and access management technologies, including biometric log-in for clinical workstations, which lets staff members enter their passwords just once a day. Typing in a password each time you visit a workstation may not seem like a big deal to the average office worker. But doctors and nurses can use workstations hundreds of times during a single shift, so speeding this process delivers significant value.

In another project, the IT staff automated online workflows so NCH staffers can access the appropriate patient information from the multiple applications. "Identity and access management is much more real time," Larkins says. "Through the innovative use of technology, we get the right user to the right patient data at the right time — and with the right audit trail in place."

Looking ahead, Larkins may also implement a configuration management database (CMDB). This would track not only all components of the hospital's IT environment, but also its configurations and relationships to each other — and how that affects IT and business services. Implementing a CMDB is a smart step in a Lean strategy, says Brasen of EMA: "The CMDB becomes the central utility for managing the configuration of each endpoint."

IT leaders are exploring various ways to streamline systems and processes, and spark greater innovation. After all, as efficiencies and service improve, the relationship dynamic between CIOs and business leaders changes for the better, and conversations with business peers can focus more on the value IT enables than on its costs. ■

The Paths Taken

Senior IT executives offer two top tips for creating a Lean IT approach that supports the business.

Keep IT Pilots Separate Until You're Ready to Take Them Live.
When designing IT pilots and prototypes, some CIOs are looking to infrastructure as a service model. Think cloud computing, for example. "Reducing provisioning time is a huge opportunity," says Denis Edwards, CIO of Manpower. "By isolating prototypes and pilots and using a cloud model, there's no worry about how it affects the rest of your production environment. You can do things more cost effectively, and it lets you test more theories and opportunities."

Manpower also uses the ITIL® framework to provide guidance for its pursuit of process automation and identifying root causes. "We look at ITIL for ideas to help us make the right choices and refine focus on our priorities," Edwards says.

Stay in a Continuous-Improvement Cycle.
Three years ago, when Lynette Larkins, Director of Information Assurance at Nationwide Children's Hospital, originally implemented biometric sign-in capabilities, her team measured how the system helped accelerate the log-in process and then published the results. But now, she says, "amnesia around the facts starts to set in." So to keep IT's accomplishments piling up, Larkins regularly consults the vendors who supported the hospital's original effort. Her goal: continual improvements in the system's speed and efficiency.

This effort helps Larkins update the user community about her team's ongoing improvement efforts. It also whets users' appetite for supporting IT changes and enhancements. — J.Z.

JENNIFER ZAINO is a New York-based writer and a former editor at *InformationWeek* and *Network Computing* magazines.

IT costs cut: 30 to 45%
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Who's That Employee?

As internal roles change, so does the way IT needs to deal with them.

| **By Alan Radding**

Creating effective and efficient identity management competencies requires more than just the input of the IT department. This is, in part, because a single employee can hold many roles as he or she moves from task to task during the workday. With CIOs increasingly focused on governance and compliance auditing and reporting, identity management solutions need to play a broader and more strategic role to help build competencies while supporting business growth.

To effectively manage access to enterprise systems, applications and resources, CIOs need to understand each role and responsibility within a company, and the impact these virtually intangible influences have on the organization and its IT infrastructure — both software and hardware. What's more, this information must be accurately maintained and updated as employees are hired, leave the company or shift roles.

It's not a job that CIOs can hand off to Human Resources, either. "HR really has only a static definition of what a person does," says Bill Mann, a Senior VP at CA. "Typically, HR doesn't know what a person really works on at any given time, and they shouldn't have to." Herein lies the challenge of role lifecycle management.

Costly Roles

At one large manufacturing company, that simple fact delivered a big surprise. The organization, which has approximately 40,000 employees, was trying to maintain more than 80,000 roles. This quickly became a tedious and unmanageable task. What's more, the CIO knew there were direct and indirect costs associated with the company's existing role management infrastructure. Needing help, the CIO and his team looked to Deloitte & Touche LLP (Deloitte & Touche). "It was obvious they needed to step back and look at the entire role

management lifecycle process, since the misalignment of roles was causing broader security and compliance issues," says Deborah Golden, Principal in the firm's Enterprise Risk Services, Security and Privacy practice.

Ultimately, the organization leveraged Deloitte & Touche's Role Management for the Enterprise (RM4E) approach for role lifecycle management. At the same time — in an effort to enhance and automate the process itself — Deloitte & Touche integrated CA's Role and Compliance Manager (RCM). The integrated solution provides the organization with effective methods and technologies to better manage the excessive proliferation of roles, which had compromised access control and security.

Such solutions enable organizations to proactively address changes in their business portfolio and corresponding roles. They also let CIOs modify the IT environment to encompass new strategic initiatives, while

simultaneously balancing governance, risk and compliance requirements.

They also help IT executives take a business-aligned approach, rather than focusing solely on technology. For the manufacturer, the solution provided the organization's employees with timely, secure access to the applications they needed to perform their work. At the same time, it supported the IT department's goals of centralized auditing and management reporting of access compliance. This position enabled the organization to proactively encompass new strategic initiatives.

"As identity management and security information management requirements converge, organizations are further recognizing the value proposition of role management and its enablement capabilities, especially as the IT aspects mature to include such features as virtualization and strong authentication, as well as the ever-present and increasingly persistent environmental threats," says Golden.

Role Model

The advantages of an integrated solution may also help CIOs and other executives refine resources and make difficult business staffing decisions, says Kevin Kampman, a Senior Analyst at the Burton Group, an IT advisory firm. The CA and Deloitte & Touche solution is one such system. For example, if a CIO is faced with creating a specific role, the solution can help him decide which employees may best fit that new role. It does this by allowing executives to examine the decision strategically, identifying skills, roles and projects. In some cases, it may even become clear that the perfect candidate is readily available.

As the challenges of identity and role lifecycle management are realized — information in multiple places, lack of coherent processes — the potential payback becomes apparent. The benefits include: stronger authentication, streamlined compliance efforts, more efficient auditing, consolidated enterprise reporting, and consistent information for management decision making.

As the large company found out, identity management and the tools that support the identity lifecycle management process may be powerful. Initially, the company used identity management as a system for assigning data access; it was essentially a security system. But today, its use goes far beyond such applications. Since it can, for example, be used to restructure teams, it can help employees reach personal goals, which boosts retention and reduces staffing costs.

Today the need for such a solution is growing due to the complex nature of the enterprise itself and the infrastructure that supports it. Such complexity makes achieving a consolidated view of resource access more difficult and increases reporting, auditing and compliance costs. For example, if an employee leaves the company, there are necessary associated changes that often never happen or happen in a less-than-timely manner. Access isn't adjusted. "People change jobs, change roles, but very frequently, access remains in force," says Kampman of Burton Group. As a result, companies may terminate access in one system while leaving it unchanged in others, creating a potential security problem.

Regulatory pressures exist as well. With a growing number of mandates requiring compliance — for example, the Sarbanes-Oxley Act or HIPAA — and the need to reduce administrative costs, companies are looking to technology to solve the challenge. The sheer scale of the problem begs for an automated solution.

But technology is only part of the solution. "Companies need to look at the management of roles and the role lifecycle," says Golden of Deloitte & Touche. "We are seeing role overload, and companies just don't have a process for role management."

CA's Mann agrees: "Technology tools will help, but it is the combination of automated tools and business process methodology that will provide the full solution."

Such a solution includes a process to model, manage and validate an identity's roles, and a way to integrate the various technology tools involved to support each. Technology can gather the data from different systems and apply analytics, but it needs to be guided by a proven methodology to define, manage and enforce access control privileges through enterprise class roles.

Once the identity management process is under control, issues such as improper segregation of duties or people with too much, too little or incorrect access may be efficiently identified and resolved. "We see a quantifiable return on investment in all of this," says Golden. "Role management has a broad impact on not only security administration and supporting processes, but also compliance adherence and reporting requirements."

Companies begin to realize what Kampman calls a "Return on Organization" when they don't merely satisfy application compliance mandates, but also sustain and build on the knowledge they've collected. "Return on Organization is achieved by providing managers with the insight they need to support business decisions," he explains. "It's not just about administrative efficiency; it's about effectiveness." That's an attractive offer, no matter what role a CIO plays. ■

ALAN RADDING is a business and technology writer.

Finding the Payback
ID Lifecycle Management's 'Return on Organization'

WHAT	Helps to ensure that authority, responsibilities, resources and communication channels are aligned to meet organizational objectives.
WHY	Provides insight into structures and relationships to achieve an effective and efficient organization.
HOW	Helps consolidate management and administrative perspectives into a common solution. Captures and monitors assignments and exceptions. Enables simulations and analysis. Facilitates approvals, verification and structural alignment. Provides authoritative decision-support information for a variety of purposes.
TAKEAWAY	ID lifecycle management tools are strategic enablers between business and technology. More than just projects, they constitute a discipline.

SOURCE: Burton Group

Full Business Alignment

To show IT value, think service first, technology second. | **By Minda Zetlin**

Alignment of IT and the business is a phrase most IT executives hear and read about on a daily basis. Yet many CIOs continue to report that achieving alignment remains their most important challenge. An emerging best practice called Service Portfolio Management promises to address that challenge by making IT-business integration a repeatable, standardized discipline.

Traditionally, achieving business-IT alignment was seen as a function of project management, so it was usually overseen by a project management office (PMO). That was a fundamental problem, says Alex Cullen, VP and Research Director at Forrester Research. In most organizations, he points out, less than a third of the IT budget is spent on projects. Two-thirds or more is allotted to what Forrester calls MOOSE, short for Maintain and Operate the Organi-

zation, Systems and Equipment. (See chart, "Where the IT Dollar Goes," p. 51.) "You can't gain a good understanding of something by focusing on less than a third of its overall budget," Cullen says.

Enter Service Portfolio Management (SPM) as a way for IT executives to organize IT's financial, technical and human resources around business value. Recently introduced as part of ITIL® version 3, SPM is an IT management discipline. It focuses on the services IT provides to the business as a means of delivering value, rather than focusing on completing projects or providing technology resources such as processing power or storage. "Implementing SPM helps CIOs align IT resources with business services that can then be linked to business value," says Peter Waterhouse, an Advisor at CA. "IT's position within the organization transforms. IT becomes a value-added

service provider with transparency into its operations and spending."

Why is this such a powerful way to bring IT into alignment with business? Here are three of its most important benefits:

1. Business gains a better understanding of technology's true cost.

Business alignment is achieved when service from IT is balanced across business requirements in four dimensions: The function of the service, the quality of the service, the total cost of providing the service and the ultimate business benefit it provides. "Sometimes people talk about business value when what they really mean is business 'benefit,'" says David Wilt, Director of Product Marketing at CA. "To understand value, you need a sense of what something costs. A service that brings the business only a small benefit but at a high cost is of low value," he says.

A central element of this new management discipline is a service catalog, which is a menu of services that business executives can choose from. The catalog should ultimately include the cost for different levels of service and a notation of whether or not IT will actually be charging for those services. "If there's an option for employees to have expanded mailbox storage of 3 gigabytes upon request, everyone will ask for it," Wilt of CA says. "But they might not be so quick to request it if they understood that each expanded mailbox creates an added expense of $500."

Giving users visibility into cost before they request a service can be supplemented by monthly invoices that show exactly which services the business units consumed and at what cost. This correlation of services is one way SPM helps businesses better understand what they're getting for their money as well as helping businesses make better decisions, Wilt adds. "Think of it as getting a bill from your electric company that actually shows how much you're paying to heat your house a few extra degrees in the winter," he says. "Once you were aware of the cost, you might say, 'Wow, I'm going to wear a sweater, turn the heat down to 68 degrees and save 10 percent each month.'"

Providing such precise cost data might be difficult at first, but it doesn't need to be absolutely perfect as long as the catalog reflects an approximate value for each service, he says. "Think about the cost of providing help desk support. Maybe you'll estimate that it costs about $20 more to respond to a phone call than to an e-mail," Wilt says. "The important thing is to show the business the financial impact from using IT services, so you can help [the company] find ways to run leaner."

2. IT departments that typically function in silos come together to form holistic services.

When you're creating a service catalog, it's probably best to avoid listing too many services, since longer catalogs may be more difficult for a layperson to read and understand. The fix: Create service offerings that combine several technologies, which encourages disparate IT units to work together.

"We advise taking it a step higher, using multiple IT services to create a single business service," says Forrester's Cullen. "For instance, let's say you have a business ser-

Where the IT Dollar Goes

On average, CIOs spend nearly a third of their budgets on new initiatives.

INDUSTRY	IT SPENDING BREAKDOWN	
	NEW INITIATIVES	IT MOOSE*
Manufacturing	30%	70%
Retail & Wholesale Trade	35%	65%
Business Services	31%	69%
Media, Entertainment & Leisure	32%	68%
Utilities & Telecommunications	34%	66%
Finance & Insurance	34%	66%
Public Sector	29%	71%
Weighted Average for All Industries	32%	68%

SOURCE: Forrester Research Inc. survey of 1,000+ executives at North American enterprises, 2009
*MOOSE = Maintain and Operate the Organization, Systems and Equipment

vice called 'Field Sales Support.' That might include use of a laptop, a mobile device, help desk support and a license for a customized version of Salesforce.com."

An IT organization might view those as four separate services, Cullen notes, but that would make little sense from a business point of view. "The business model is simply that salespeople need to be able to do their work when away from the office. There's no option to take the laptop without also taking help desk support. So why offer that as a choice?"

The change requires a cultural adjustment that would be beneficial for IT, adds Christopher Thomas, VP of the IT Transformation Group at CA. "Getting two siloed organizations to align with each other around a service portfolio that's optimized for business is a necessary change. And it's transformational in most organizations."

3. IT learns to think in business terms.

"One fundamental barrier to alignment has been the tendency of technologists to equate value with technical sophistication," says Pamela Taylor, President of Share Inc., an independent association for enterprise technology professionals. By contrast, she adds, "a service portfolio management model reorients the conversation to what technology delivers in terms of cost, value proposition, or ROI. Decision makers can then appreciate the strategic value they derive from IT investments."

When you stop thinking about IT as technology and instead see it as the business problems it solves, you create something

truly powerful inside your company. "Most IT organizations think of themselves as having a set of applications that they offer the business," Wilt says. But there's a better way to visualize what they do. For example, "We offer communications services" might be a better way to look at IT than "We manage a Microsoft Exchange Server," he says. "When you start thinking about IT as offering a service, it broadens the scope of what you're providing and supporting," Wilt says. "Then it's not just about keeping the servers from crashing; it's asking how users access their e-mail, whether they do it from mobile devices, and what hours of support they need."

Ultimately, the biggest value may be that SPM allows for much better and clearer communication between IT and its business counterparts, which allows IT to better serve business goals and finally achieve its goal of better alignment.

"You can say, 'Here's a business service. Is it meeting your needs?'" Cullen explains. "You can offer the choice to lower IT costs, or invest in IT to lower other costs for the business, or improve capabilities. SPM allows us to have these conversations with the business, all in one place. And in a way that the business truly understands." ■

MINDA ZETLIN is co-author of *The Geek Gap* (Prometheus Books, 2006).

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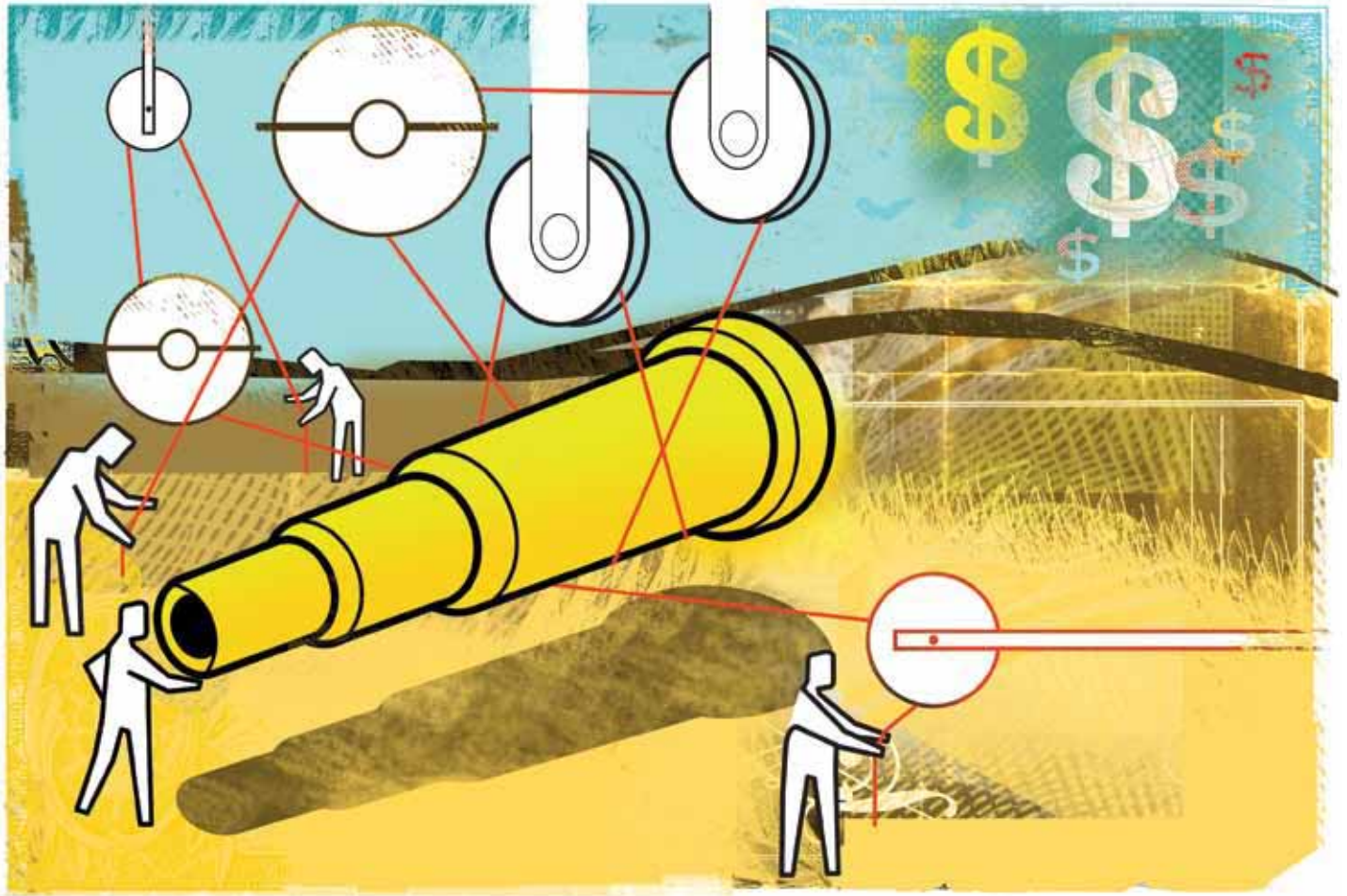
Greater Visibility, Greater ROI

To diagnose performance bottlenecks, CIOs turn to solutions that monitor business transactions from beginning to end across layers of technology.

| **By Tom Farre**

Inside Starwood Hotels and Resorts Worldwide, if there's a glitch with a room booking, rate quote, reservation charge or any other customer-facing process, VP of IT Keith Kelly knows about it right away. That's thanks to Starwood's central hotel reservation system, known as Valhalla. The system is critical to customer satisfaction at Starwood's 1,000-plus hotels and resorts worldwide.

In fact, Valhalla is a massive, Java-based application. Its numerous processing engines are linked in a complex matrix of dependencies. Written to employ a service-oriented architecture (SOA), Valhalla operates so that a single request to one engine generally involves the interaction of all. While that improves certain efficiencies, it also means that performance glitches in any one process are sometimes difficult to diagnose. "With

SOA, we're always battling this 'needle in a haystack' issue," Kelly explains.

To win such battles, Kelly needed a technology fix that could monitor and ensure both the performance and availability of the Valhalla system. And it had to do so before technical issues affected customers — or Starwood's revenue stream.

Kelly's solution: Application Performance Management (APM), which helps Starwood better manage its software development processes and monitor mission-critical SOA applications. "Application Performance Management allows us to isolate performance issues quickly, helping us understand the exact source of any problem," says Kelly, a user of CA Wily APM. "Using the software's customization features, we've created consoles that depict our environment. If

booking has a problem, for instance, we can immediately see if the problem's in booking itself, in one of booking's back-end systems or in a once-removed dependency."

Such accurate problem diagnosis contrasts sharply with the processes used by organizations that don't use APM, notes Scott Gilland, a Partner at Accenture and Global Lead of the consulting firm's performance engineering practice. "We see IT staff using code instrumentation or error log files to piece together what might be happening, but they never see the whole picture and often engage in finger-pointing," he says. "What they need is the ability to monitor business transactions from beginning to end across different layers of technology to diagnose the source of performance bottlenecks."

APM helps CIOs do just that. These solutions provide real-time, 24x7 business-transaction monitoring across complex, heterogeneous application and middleware environments. As a result, both operations and IT managers can follow a transaction to ensure a better user experience.

Smart Dashboard
At Starwood, Kelly's team has created what are known as "business insight dashboards." These tap into the APM solution to provide display metrics from the reservation system, such as booking volume, average daily booking rates and daily revenue. When the Valhalla reservation system has a problem, the dashboard immediately displays the top-line impact. This helps the IT staff drill down to resolve whatever issues are most critical to the business. It also helps Starwood monitor high-value transactions, such

New Features, New Control
As enterprise applications evolve and business processes change, organizations need agile and efficient application management. Here's how APM solutions, such as CA Wily APM, can help:

BUSINESS-CENTRIC MEASUREMENT: Enabled by custom business dashboards that display real-time operations of a Web business and how end-user service quality affects the bottom line. Dashboards can be customized, too.

PROBLEM RESOLUTION IN SOA ENVIRONMENTS: This helps application-support managers visualize complex environments to improve problem triage and resolution. It is enhanced by visualization capabilities that show dependencies of Web services.

BETTER VISIBILITY OF MESSAGE-QUEUE ENVIRONMENTS: This benefits mainframe and other users of MQ messaging by giving them visibility into how message-queue performance affects the application.

ENHANCED VISIBILITY OF END-TO-END TRANSACTIONS: Comes via support for more middleware and infrastructure platforms. New features include support for Oracle Enterprise Service Bus, IBM WebSphere Process Server, databases through integration with CA Insight™, and Citrix and Oracle forms through integration with CA eHealth® Performance Manager.

SOURCE: CA

as its interactions with the Travelocity and Sabre reservation systems. If performance of these transactions drops below agreed-upon Service Level Agreements (SLAs), the IT team is alerted by the dashboard before the glitch can have an impact on revenue — or the customer's experience.

Such APM-powered capabilities may deliver a positive economic impact and

return on investment (ROI), according to a study conducted by Forrester Consulting and commissioned by CA. When Forrester researchers interviewed four companies using CA Wily APM, they found these organizations achieved a multitude of quantifiable benefits, including savings on application support, the operations team and help desk; revenue assurance and enhancement; improved customer experiences; and better end-to-end transaction monitoring, performance and stability. Forrester also found an anticipated risk-adjusted ROI of more than 260 percent within a payback period of eight months. (See chart, "The APM Payback," left.)

Kelly of Starwood Hotels seconds the appeal of APM for managing production applications. He especially appreciates its power in the application-development process, where APM was essential in developing Valhalla. "We bet the farm on developing Valhalla in SOA," Kelly says. "It would have been virtually impossible to do without this tool. The overhead is low, and it's easy to use." ∎

The APM Payback
Composite company ROI for users of CA Wily APM

FINANCIAL RESULT	UNADJUSTED (BEST CASE)	RISK-ADJUSTED
ROI, 3 Years	305%	269%
Payback	7 months	8 months
Total 3-Year Costs (PV)	$1.045 million	$1.082 million
Total 3-Year Benefits (PV)	$4.229 million	$3.996 million
Total 3-Year Net Savings (NPV)	$3.184 million	$2.914 million
Internal Rate of Return	266%	235%

SOURCE: "The Total Economic Impact of CA Wily Application Performance Management," a commissioned study conducted by Forrester Consulting on behalf of CA, June 2009
Note: "Risk-Adjusted" figures represent a conservative estimation. They take into account the potential uncertainty that exists when estimating the costs and benefits of IT investments
Key: ROI = return on investment; PV = present value; NPV = net present value

TOM FARRE is a computer journalist and the former Editor of *VARBusiness* magazine.
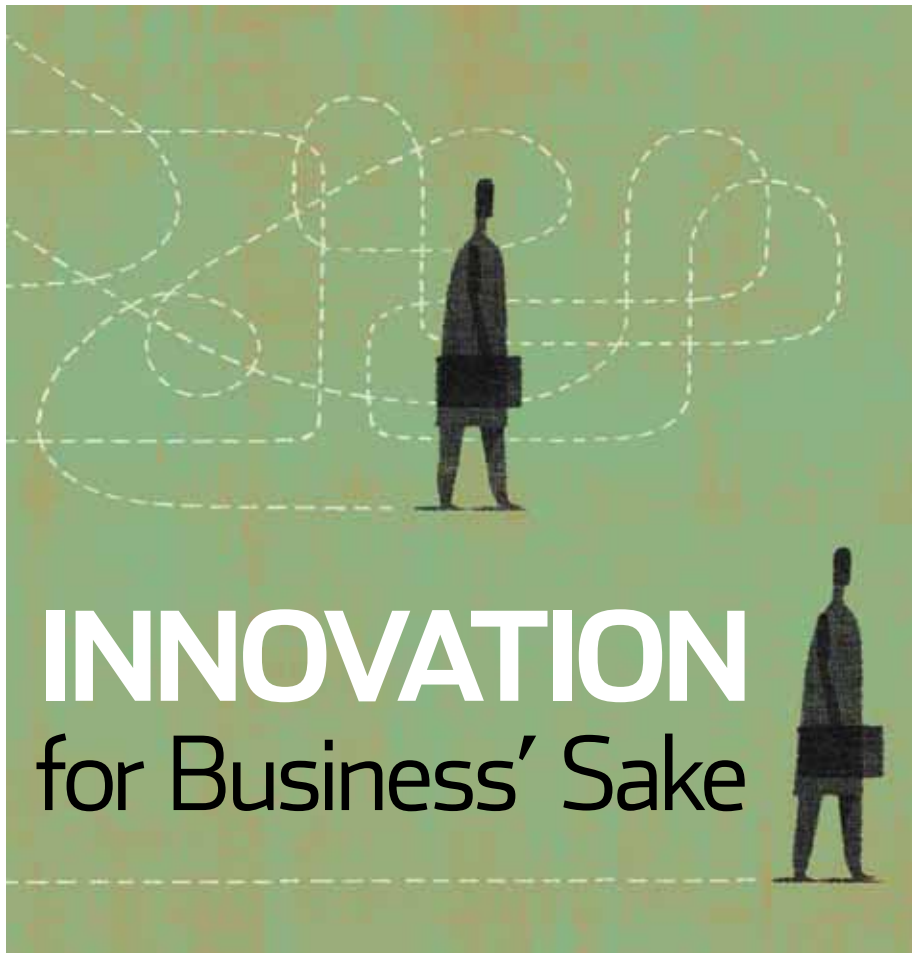
INNOVATION
for Business' Sake

'Practical innovation,' the new mantra for smart CIOs, involves combining current technologies in new ways. The powerful gains: sky-high customer satisfaction, revved-up productivity and lowered costs.

| **By Karen J. Bannan**

Today's IT departments are business enablers, a new survey finds, with CIOs increasingly acting as agents of change and drivers of innovations. In fact, CIOs who find new ways to reuse or enhance existing technology deliver several important benefits to their organizations. They help keep customer satisfaction and productivity high, and costs low. They also inspire their nontechnical colleagues to view IT as a practice that enhances the business.

So finds a study of 400 senior IT executives at enterprises worldwide, conducted earlier this year. The survey, "The Benefits of Practical IT Innovation," was sponsored by *Smart Enterprise* and conducted by IDG Research Services.

The benefits of practical innovation are profound, the survey finds, affecting the core mission of CIOs. "The days are over when IT could just keep the lights on and bring software rollouts in under budget," says Gary Beach, Publisher Emeritus of *CIO* magazine. "CIOs must execute flawlessly on two busi-

ness fronts. First, they must leverage existing IT resources to drive top-line growth and create infrastructures that allow employees to deliver innovative solutions. Second, they must have a relentless focus on running IT more efficiently and at lower cost."

Beach continues: " 'Do more with less' is yesterday's headline. Innovative IT strategies that are firmly grounded in the reality of the business and have built-in flexibility for growth and contraction — that's what matters. 'Practical innovation is key,' is the new headline."

Practical innovation is also simple: CIOs who make changes or enhancements to existing technologies, processes and applications can improve business performance. Consider the auto industry's implementation of in-dashboard GPS systems. While GPS devices have been around for years, they lacked mass appeal until car manufacturers made the systems user-friendly. Now even low-end cars have GPS as an option, adding $1,500 to $2,500 to a car's purchase price while improving driver satisfaction.

This type of innovation is catching on in IT as well. Fully 85 percent of the IT executives polled say they practice practical innovation at their IT organizations, either frequently or continuously. Separately, more than 55 percent of the respondents say innovation is a primary focus of their company's IT strategy.

The most important benefits of practical innovation, CIOs say, are improved efficiencies and reduced costs. These goals make sense, given the challenging economy. In fact, nearly 85 percent of respondents cite these benefits as either "critical" or "very important." Similarly important, say more than 75 percent of respondents, is maintaining or improving productivity levels, despite a reduction in headcount. Almost as important: being better prepared for the time when the economy recovers, which was cited by nearly 70 percent of the survey takers. And nearly half (49 percent) of IT executives say they have already achieved improved data security and privacy from employing practical innovation.

Mike Close is a perfect example. The North American CTO for food company Danone, Close and his colleagues spend their days creating Dan 2.0 — a new way of working that incorporates Lean and Agile methodologies to enhance profitability and make the company's 15,000+ employees more efficient at doing their jobs. Danone, headquartered in Paris, does business

in more than 50 countries worldwide, and Close has been charged with using technology to enhance North American productivity and international collaboration. "We want to give employees more tools," he says, "so we can enhance their lives and culturally help them to change the way they do their jobs."

One offshoot of Dan 2.0 at Danone: migrating all voice and high-definition video communications to a Voice-over-IP (VoIP) system. Although Close and his colleagues set out to improve communication and collaboration with VoIP, the system has also helped the team in the U.S. reduce its corporate travel budget by 30 percent. "We're using high-definition videoconferencing for everything — even recruiting," Close says.

Best of all, Close and the team made such strides using technology that was already in place. "We're not using anything we didn't already have," he says. "One of the most important things we did was to see how we could leverage the technology we already had in-house."

Investments that Matter

These types of gains lead more than 55 percent of IT executives in the survey to call innovation a primary focus of their company's IT strategy. By contrast, only a small number of respondents — 7 percent — say innovation is low on their IT priority list, since it is neither actively encouraged nor rewarded.

Experts are impressed. "I interpret this as moving away from traditional views of justifying IT, which led to provable cost reductions as the dominant role for the application of new IT," says James Cash, Professor and Senior Associate Dean Emeritus at Harvard Business School. "For many companies, revenue-generating and enhanced-distribution applications that help companies work with partners and customers have proven to be far more valuable."

Of course, practical innovation can also involve new technologies, not only those a company has on hand. That was the case, for example, at Danone. To provide high-definition video, CTO Close authorized the purchase of new LCD displays. Similarly, the company is expanding into new virtualization technology for its servers and data centers.
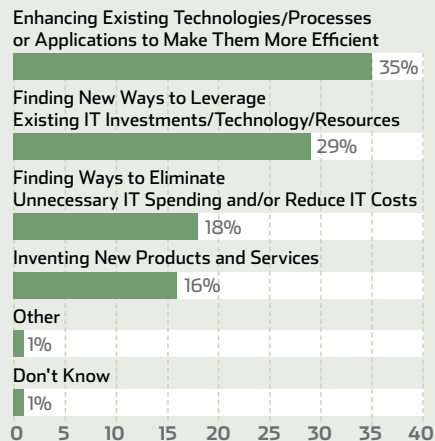
But it took more than just technology for Close to get Danone to the point where he could, for example, ask employees to use videoconferencing instead of face-to-face meetings. Employees had to be prepared for what was coming and had to be receptive to new ways of using technology. Close is not alone. Nearly 55 percent of study respondents say finding new ways to communicate and demonstrate the business value of proposed practices and projects is critical. (See chart, "How To Succeed," p. 56.)

Exactly half the respondents suggest IT executives should be working directly with the business, getting its help in prioritizing IT-related projects. That's how Michael

Use What You've Got

Existing technology, rather than new acquisitions, forms the base for more than a third of IT innovation.

HOW COMPANIES DEFINE IT INNOVATION

Enhancing Existing Technologies/Processes or Applications to Make Them More Efficient — 35%

Finding New Ways to Leverage Existing IT Investments/Technology/Resources — 29%

Finding Ways to Eliminate Unnecessary IT Spending and/or Reduce IT Costs — 18%

Inventing New Products and Services — 16%

Other — 1%

Don't Know — 1%

0 5 10 15 20 25 30 35 40

DATA: *Smart Enterprise* and IDG Research Services, "Benefits of Practical IT Innovation," June 2009

Cut Costs – But Don't Stop There

Low costs matter to innovative CIOs, but so do high productivity and streamlined business processes.

TOP BENEFITS EXPECTED FROM MOST-CRITICAL IT INVESTMENTS

Cost Savings — 49%

Increased User Productivity — 31%

Streamlined Business Processes — 30%

Risk Mitigation/Reduction — 28%

Improved Data Security/Privacy — 27%

Increase in Profitability/Revenue — 27%

Improved Competitive/Market Position — 24%

Improved Agility in Reacting to Market Changes — 21%

Increase in Customer Loyalty/Retention — 20%

Scalability — 16%

Improvements in Workforce Morale — 11%

Other — 1%

0 10 20 30 40 50 60

DATA: *Smart Enterprise* and IDG Research Services, "Benefits of Practical IT Innovation," June 2009
Note: Multiple responses were permitted

Five Ways to Get Started with Practical Innovation

1 Download a copy of the Practical IT Innovation survey at smartenterpriseexchange.com.

2 Short-term planning is fine, but don't forget the long term. Many IT managers, the survey found, are planning aggressive investments in business intelligence, virtualization and automation — areas where it may take 12 or more months for benefits to accrue.

3 Make innovation a primary focus of your IT organization. That's what more than half of all IT executives do, the survey finds.

4 Frequently practice practical innovation, as more than a third of IT managers in our survey say they do. Nearly a third also say that devising practical innovation solutions help them avoid painful cost-cutting.

5 When selecting areas for practical innovation, look first at areas that can deliver business (rather than technical) benefits. These include: customer satisfaction, cost savings, increased productivity, and profit/revenue growth. IT managers in our survey say these types of gains are vital to practical innovation's success.
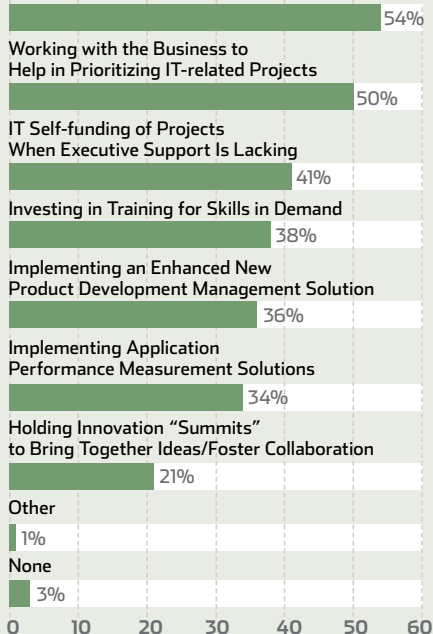
SOURCE: *Smart Enterprise* and IDG Research Services, "Benefits of Practical IT Innovation," June 2009

How to Succeed

Top ways CIOs overcome the many challenges of IT innovation.

APPROACHES SUCCESSFUL IN HELPING IT ORGANIZATIONS TO OVERCOME CHALLENGES RELATED TO IMPLEMENTING INNOVATIVE PRACTICES

Finding Ways to Communicate/Demonstrate
the Business Value of Proposed Practices/Projects
54%

Working with the Business to
Help in Prioritizing IT-related Projects
50%

IT Self-funding of Projects
When Executive Support Is Lacking
41%

Investing in Training for Skills in Demand
38%

Implementing an Enhanced New
Product Development Management Solution
36%

Implementing Application
Performance Measurement Solutions
34%

Holding Innovation "Summits"
to Bring Together Ideas/Foster Collaboration
21%

Other
1%

None
3%

0   10   20   30   40   50   60

DATA: *Smart Enterprise* and IDG Research Services, "Benefits of Practical IT Innovation," June 2009
Note: Multiple responses were permitted

Karaman, CIO of NightHawk Radiology Services, achieved his latest IT innovations. They came after both IT and the business side recognized a competitive need for improved workflow management.

NightHawk, based in Coeur d'Alene, Idaho, provides around-the-clock radiology services from facilities in Australia, Switzerland and the U.S. These services are available to U.S. and Canadian radiology groups, which submit millions of radiological studies a year. NightHawk's team of over 100 certified radiologists interpret these scans, then submit their interpretations within a predefined amount of time.

Staffing can also be an issue. "Not having a radiologist on shift with the right credentials is a challenge we're addressing with advanced scheduling and forecasting algorithms. Night-Hawk deals with enough volume that we've seen all the patterns," Karaman says.

That's why NightHawk's IT group and business units agreed to optimize and identify process improvements. The larger goal was to provide a higher-quality service. To do so, NightHawk formed an investment committee made up of seven senior executives and functional leaders, including CIO Karaman. By eliminating unneeded steps, the IT group reduced the average radiologist's study process time and dictation time. They also reduced the process time for outliers — processing that falls outside the normal distribution — by more than 50 percent. "We tried to link business IT demands to the overall business strategy, to make sure they fit," Karaman says. "The committee forces everyone to talk about and sell their proposal in a quantifiable way: 'We will spend this much, and it will have this impact on the organization.' Everyone has a pretty good understanding of the importance of an IT investment."

NightHawk is in good company. While IT is the functional area most likely to benefit from practical innovation, it isn't the only one. According to the Practical IT Innovation study, IT executives report that innovation also benefits production and operations (cited by 48 percent), customer service (cited by 47 percent) and finance (cited by 43 percent).

Similarly, the most critical or important potential benefits of innovation, according to the study, are customer satisfaction (cited by 84 percent), cost savings (also 84 percent) and increased user productivity (83 percent). Increased profitability and revenue are also important, according to more

> ## "To knock down the geographical and political issues and make it all work, we need to innovate."
>
> —Mike Close
> North American CTO | Danone

than 80 percent of respondents. "Innovation extends within the IT organization as well as externally," agrees Jim McGregor, Chief Technology Strategist with research firm In-Stat. "Innovation affects customers and suppliers, and it improves the communication links between them."

Another factor is driving innovation, says Close of Danone: the evolving workforce. Companies — and their IT departments — must innovate to keep up. "The new generation is fundamentally changing the values we have used in the past about managing people," Close says. "We need to work together with people we've never met, speaking different languages, in different time zones and in different countries. To knock down the geographical and political issues and make it all work, we need to innovate." That's not a bad definition of innovation that is truly practical. ∎

KAREN J. BANNAN is the Executive Editor of *Smart Enterprise.*

About the Survey

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BOOKS

- ***Creating Passion-Driven Teams: How to Stop Micromanaging and Motivate People to Top Performance***
  by Dan Bobinski (Career Press, 2009).

  A true team leader creates the right conditions for passion to flourish, motivating people without manipulating them.

- ***The Real Business of IT: How CIOs Create and Communicate Value***
  by Richard Hunter and George Westerman (Harvard Business Press, 2009).

  Too many CIOs get bogged down discussing budgets. Instead, they should discuss the value the IT organization adds to the enterprise.

- ***Lean Six Sigma Secrets for the CIO: ITIL, COBIT, and Beyond***
  by William Bentley and Peter T. Davis (CRC, 2009).

  Lean and Six Sigma practices, traditionally used in manufacturing, can also be applied to IT, and with good success. The authors show how.

BLOGS

- **Greener Computing**
  greenercomputing.com/current/blogs
  This blog is the companion of an online magazine devoted to environmentally responsible computing.

- **Agile CIO**
  http://agilecio.co.uk/
  Sponsored by IndigoBlue Consulting, this blog provides a refreshingly different perspective on IT leadership and alignment. Its authors are specialists in Agile and Lean management.

RESOURCES

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This series of informational insights, covering topics of interest for IT executives, is offered by *Smart Enterprise Exchange*. The current edition, focused on Mainframe 2.0, illustrates big iron's cost-effectiveness and ease of use.

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http://smartenterpriseexchange.com/docs/DOC-1140
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2 **Building an Agile Enterprise for Rapid Response.** CIOs who use technology and processes with skill can help create enterprises that respond quickly to changing market conditions.

3 **IT Productivity and the Drive for Automation.** Look at your IT infrastructure: What should be automated? And what efficiencies can be expected?

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