5 Insights for executives

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The velocity of change

How uncharted risks are redefining the role of the CIO

It feels like the perfect storm. Virtualization and cloud computing, social media, mobile and other disruptive technologies are converging upon CIOs. The velocity of change — the pace at which technology is evolving — is creating uncharted risks that make navigating today's IT environment increasingly challenging.

In the evolution from providing tactical support for the business to becoming a strategic partner, CIOs need to align IT's priorities to those of the business. They also need to provide sage counsel, turning information into insights when the business is seeking to implement new technology solutions to achieve competitive advantage. The need to be faster to market may encourage organizations to procure and implement new technologies without understanding the full range of risks those new technologies may present.

1

What's the issue?

The velocity of change in technology has moved many IT functions to adopt a new approach to sourcing and managing technology vendors and service providers as part of their overall IT infrastructure strategy. The current landscape of disruptive technologies presents numerous opportunities for IT functions to provide more cost-effective, flexible and scalable infrastructure that better meets evolving business priorities. This change is largely driven by advances in broadband that now allow mobile devices to take full advantage of the cloud technologies that have been developing over the last decade. These advances are providing greater business functionality for organizations that have previously operated with a smaller internal IT footprint. But this change comes at a cost, creating a new set of risks that CIOs must effectively manage to be successful.

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2

Why now?

The rapid introduction of disruptive technology is fundamentally changing how organizations go to market with products and services, interact with their customers, innovate and achieve competitive advantage. It is also creating a host of new risks that CIOs need to address.

3

How does it affect you?

In the past, IT functions had to create elaborate frameworks to deliver services that were primarily administered in-house. Infrastructure was developed and purchased under a peak usage scenario, and any outsourcing involved long-term contracts with large vendors and included a transfer of physical infrastructure and resources. Going forward, infrastructure will be purchased on a pay-as-you-go or consumption-based model. Organizations are contracting with smaller, more nimble vendors with new contractual terms that are reviewed on a more frequent basis. Even as the physical IT footprint shrinks, the business expects CIOs to improve service delivery.

The other change with which CIOs will have to contend is a loss of control in the selection of technology platforms. Those decisions are increasingly being driven by consumers. IT's only option will be to react and respond.

This new hybrid infrastructure model creates a number of inherent risks for CIOs, including:

- **Strategic and financial risks.** The number of vendors is growing, but the required size is shrinking. This can raise questions about their long-term viability. There could also be business continuity risks if these smaller providers fail to meet service level agreements. What plans need to be in place if a vendor's data center goes down? What losses could result?
- **Geographic risks.** Geopolitical risks, from natural disasters to political unrest to persistent terrorism threats — particularly in emerging outsourcing markets — present significant risks of disruption to outsourced IT services.
- **Capacity risks.** Smaller vendors may be able to offer greater flexibility, but their size could end up working against them. Ultimately, they may not have enough capacity to support a growing customer base.
- **Control risks.** An increase in outsourcing results in less control over your data. This presents the potential for data breaches and other security exposures.
- **Contract risks.** IT functions will need to implement a rigorous vetting process to ensure that contracted vendors offer the right services in stable locations with sufficient capacity to support the business now and in the future. New vendors will also need to prove ongoing solvency and robust security.

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What's the fix?

There are four steps CIOs can take to help mitigate the risks in an evolving technology environment:

1. **Understand the risks.** As the pace of technology changes accelerates, a new set of risks emerge. In addition to external threats, IT functions face evolving internal threats and potential misuse as they attempt to blend the use of new technologies within their IT infrastructure.
2. **Identify the risks.** The complex factors that drive uncertainty and risk need to be effectively adapted to the design and implementation of governance, processes, controls and tools. As the degree of IT project complexity increases, the risk of failure or of not meeting the IT project objectives also increases.
3. **Mitigate the risks.** A comprehensive program risk management strategy is key to mitigating risks. Once the risk factors have been identified, they can be managed throughout all stages of the evolution. The probability and impact of each risk need to be evaluated, highlighting the highest risks, as well as sequencing the remediation. It is important to note that not all of the risk management strategies will be technical in nature. Some will involve policy changes and increases in awareness training. IT functions should plan for 90% of the risks, understanding that 10% of the risks will be in constant flux.
4. **Evolve risk management and controls processes.** Additional lines of defense are also key in ensuring IT program success. Elements include:
    - Appointing experienced and dedicated risk managers
    - Creating a risk committee that is tasked with managing and monitoring the end-to-end risk program
    - Enhancing the role of internal audit
    - Leveraging external risk experts to complement or extend knowledge beyond the experiences within your organization


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What's the bottom line?

The pace at which technology is changing will not slow — it will only accelerate. To be successful, CIOs need to establish a robust set of processes and controls to effectively manage the new risks that new technologies bring.

This will require the CIO to gain an immediate understanding of the changing demands from the business, the technologies that are likely to make the greatest impact to their business, and the ever evolving vendor landscape within their organization. The CIO doesn't necessarily need to react to every aspect of this rapidly changing environment, but he or she will need to thoroughly understand the change drivers and the impact to the organization.

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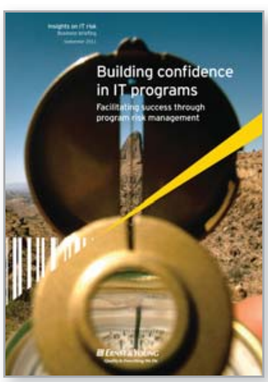
Cloud computing issues and impacts

All signs point to the rapid adoption of cloud computing as a fundamental shift in the delivery model of information technology (IT) - but abundant challenges will make it a difficult adoption curve.

The evolving IT risk landscape

The why and how of IT Risk Management today

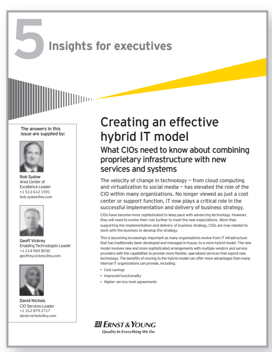
Security risks posed by mobile computing, cloud computing, virtualization, social media and online payments are a critical issue for investors, regulators, shareholders and executives.



Building confidence in IT programs

Facilitating success through program risk management

Despite an increase in investment, organizations continue to fail to deliver on large IT programs. Engaging independent Program Risk Management (PRM) assistance is ultimately about building and sustaining confidence in the IT program and having the right information at the right time to make well-informed decisions throughout the program life cycle.



5 Insights for executives

Creating an effective hybrid IT model: What CIOs need to know about combining proprietary infrastructure with new services and systems

New technologies are fundamentally changing how organizations go to market and achieve competitive advantage. CIOs will never be able to change their IT organizations fast enough to keep pace with technology evolutions. But they can take advantage of hybrid computing models that effectively combine the old proprietary infrastructure with new services and systems that address changing business needs.

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