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## Overview

While the topic of IT infrastructure continues to permeate conversations across industries, the content, participants and tone of those conversations are changing. As business leaders across the C-suite recognize the link between a strong IT infrastructure and the ability to drive competitive advantage, they also understand that this dependency will grow with continued advances in big data and analytics, cloud, social and mobile technologies.

While many companies are only beginning to leverage the power of a robust IT infrastructure, our recent survey identified a small group of forward-thinking IT leaders. Working to tackle next-generation IT infrastructure challenges, these organizations are leading the right conversations in their companies, elevating the importance of IT infrastructure, making the right investments for the future and, perhaps most important, collaborating and serving as advisors across the business.

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## IBM Institute for Business Value

# The IT infrastructure conversation

*New content, new participants, new tone*

Today's conversations about IT infrastructure are changing. Specifically, the content is changing. Traditional issues of computing speed and reliability remain important. However, the continued advancements and integration of cloud technology, mobile devices, social media and business analytics are significantly reshaping the discussion.

The participants in IT conversations are also changing. No longer is the discussion solely among IT architects and data center leaders. More and more, the business is taking a closer look at IT infrastructure – and whether it is able to keep up with a continuously changing and increasingly complex business environment.

Finally, the tone of conversations is changing. With information technology increasingly at the core of today's organization, system disruptions and security breaches become front-page headlines with implications for senior executives and shareholders alike.

Much more than a dialogue about managing system costs or operating system choices, the conversation about IT now centers on success or failure in the marketplace. Over 70 percent of senior IT executives recognize IT infrastructure as essential in enabling competitive advantage or optimizing revenue and profit.

To understand how this IT infrastructure conversation is changing, the IBM Institute for Business Value, in conjunction with Oxford Economics, surveyed 750 IT executives.



Our study reveals that while the majority of companies are just starting to engage in this new set of conversations, a small number of leading organizations are already working in tandem with their line-of-business leaders on the challenges of the next generation of IT infrastructure needs. These visionary companies represent more than simply good practices: they also are more likely to outperform their peers across several business outcomes.

### Many organizations are unprepared

In today's business climate, technology is increasingly important for a competitive edge, as illustrated by our research findings on Chief Executive Officers (CEOs). In 2012 and 2013, CEOs identified technology as the leading external force impacting the enterprise.<sup>1</sup>

At the same time, our recent study reveals today's organizations do not believe that their IT infrastructure has kept pace with the increasing demands associated with technological advances (see Figure 1). Only about one-third of companies in our survey reported that their IT infrastructure was prepared to address these new trends, with less than 10 percent stating they were fully prepared.

### Meeting the changing demands

Not only do companies deem IT infrastructure as important, but two-thirds are increasing their spending on IT infrastructure over the next several years. In an era of tighter budgets and constrained resources, why are IT organizations looking to invest in their infrastructure? Reducing overall infrastructure costs was the leading response, cited by 33 percent of respondents. However, cost was not the only major driver. Running a close second was faster application development/deployment at 29 percent, followed by new or enhanced revenue opportunities and more effective disaster recovery, both at 28 percent.

#### Level of preparation of existing IT infrastructure to address the following trends

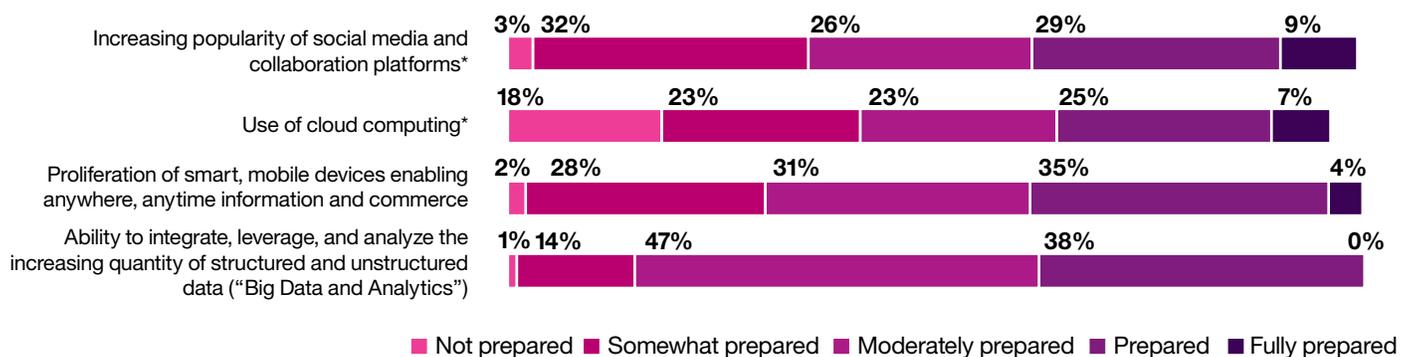


Figure 1: Less than 10 percent of surveyed organizations are fully prepared to address mobile, social, big data/analytics, and cloud trends.

Source: IBM Institute for Business Value, IT Infrastructure Study, Q2. How prepared is your existing IT infrastructure to address the following trends? (On a 1-5 scale, Not prepared represents a "1", Somewhat prepared a "2", Moderately prepared a "3", Prepared a "4", and Fully prepared a "5", n=750;

\*Note: 1% of respondents answered "Don't Know" for Social and 4% answered "Don't Know" for Cloud.

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And, there was no single area of infrastructure where organizations overwhelmingly planned to invest. Topping the list were security solutions, and servers and storage for big data/distributed analytics processing—roughly one-third of companies expected to invest more in each. Organizations are also looking to invest in open standards and open source-based architecture.

Hailed as a potentially groundbreaking force, cloud technologies offer significant benefits for companies, allowing access to vast amounts of computing power and innovation without the capital expense associated with infrastructure improvements. Companies recognize the potential for cloud, but are uncertain about which form of cloud computing can service their needs and how cloud-based approaches can be integrated and reconciled with the existing IT infrastructure that runs the majority of their IT efforts.

When asked about their planned new workloads, more than half of surveyed organizations (56 percent) said they “don’t know.” Further, when asked about the broad direction of future investments in areas such as private cloud and hybrid cloud technologies, roughly half of companies were uncertain.

## Recommendations

**Provide the platform for a customer-activated agenda.** Prepare to support and provide the platform on which an organization can build new and differentiating capabilities, including connecting back-end transactional systems with front-end “systems of engagement.”

**Prepare for the unusual (or worse).** An IT infrastructure must adapt to changing technologies and business requirements, and be prepared to address numerous disruptions that can halt a digital enterprise.

**Remove the haze around the cloud.** Educate the business about opportunities that cloud technologies make possible, and explain the technological and cultural realities of managing applications across private, public, hybrid or community environments.

What’s underway is a fundamental reframing of the discussion about the IT backbone necessary to drive competitive differentiation. The increased reliance on data as a natural resource coupled with changing expectations of today’s customers are forcing companies to seek new and innovative ways to use hardware, software, networking and storage.

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## How can IBM help?

In the era of cloud, big data and analytics, mobile and social, the IT decisions you make matter. IBM can provide the foundation for your computing, network and storage infrastructure needs. We help clients create efficient and resilient IT environments with intelligent servers and storage systems that empower employees to share information, secure transactions and drive real-time insights.



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#### Reference

1. “Leading through Connections: Insights from the Global CEO Study.” IBM Institute for Business Value. April 2012. <http://www.ibm.com/ceostudy>; “The Customer-activated Enterprise: Insights from the Global C-suite Study.” IBM Institute for Business Value. October 2013. <http://www.ibm.com>



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