2012 IT Outlook

A New Wave Of Priorities, Initiatives, and Investments

IDG Research reveals that in just one year the IT tide has shifted dramatically from cost control, efficiency and operational effectiveness to new technology and greater innovation as cloud, mobile, social and big data drive change.

Cognizant

2012 Outlook: The Tide is Shifting

Executive Summary

Recent research conducted by IDG reveals a dramatic strategic shift in IT. A shift away from cost control and operational efficiency toward greater innovation and new technology. This new directional mandate is being driven by a corresponding change in executive priorities, and is evident in increased IT spending, and a significantly improved ability to support technology and innovation initiatives.

Every year IT leaders must contend with myriad and often competing priorities, while focusing on the hottest initiatives and moving them from planning to delivery. This year has shown a much faster adoption of new technologies than even these IT leaders themselves predicted just a year ago. And this emphasis is placing unprecedented demands on IT to roll with the waves of technology as they hit while embracing and enabling innovation.

What are these waves? Last year cloud was hot. This year it's mobility. According to our research, next will be social media. And they come in phases, moving from planning to delivery to maturity. Sometimes they overlap and converge, as these three are contributing to the "Big Data" challenge.

At the same time, business executives have begun to recognize that innovation is the key to gaining a competitive advantage. That means IT executives must not only quickly understand technology, but how it can be applied to its business' needs.

Will IT ever catch its breath? The fact is, there will always be a hot technology imperative now and another on the horizon. But in planning for and facing each wave and their inherent phases, can IT get better at anticipating and being proactive rather than reactive when it comes to spawning innovation? As the velocity of consumer-driven technology demands increases, how can IT improve its analysis, deployment and optimization of new capabilities? And how can IT balance predicting and preparing for what's ahead—not to mention how it impacts the business—when it's immersed in today's challenges?

Importance of Technology
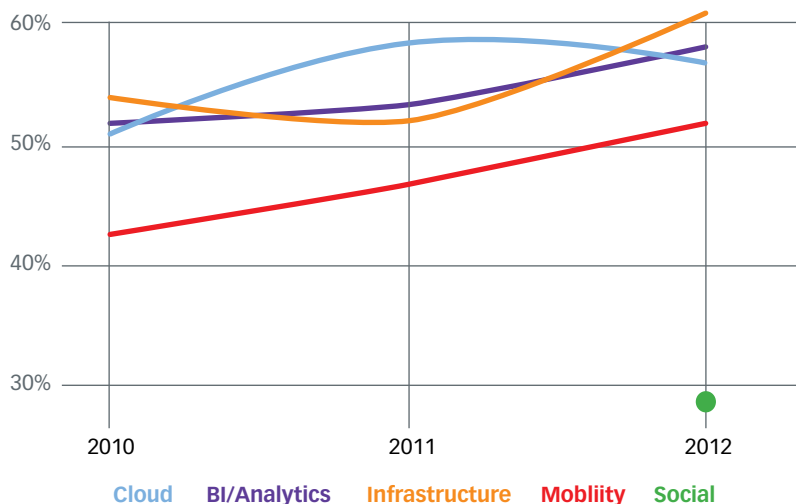
Relative importance of a technology over time follows a traditional bell curve. 135 responders indicate that cloud peaked in 2011. Infrastructure and analytics leapfrogged cloud from 2011-2012. While mobility has been consistently lower, it increased the fastest and is projected to catch up or surpass all 3 next year. And social just got on IT's priority radar for the first time in 2012.

Cloud   BI/Analytics   Infrastructure   Mobliity   Social

This paper examines and provides insights into answering these critical questions, referencing results from an IDG Research Services survey of 135 CIOs and IT leaders across all industries in North America. Now in its third year, the study—undertaken to assess current IT priorities, delivery effectiveness and spending—is sponsored by Cognizant, a leading global provider of IT, consulting, and business process outsourcing services.

Accelerating Innovation

The survey results for 2012 reveal some intriguing challenges for IT, especially regarding the velocity with which new technology becomes increasingly important. Take just one example: cloud computing, which has proven to deliver more flexibility and speed in adding capabilities, without capital investment. Even though CIOs cite security concerns, they're still moving forward into the cloud at a much faster pace than even they predicted. From 2010 to 2011, the percentage of respondents with active cloud programs doubled. This year, the number hit 41 percent, and by 2013, 70 percent of respondents expect to be in the cloud.

And that's just one wave. Behind cloud comes mobility. In 2012, some 52 percent of respondents report investment in mobile/wireless technology as critical or very important; that's compared with 43 percent two years ago. But with the pace of IT consumerization, the innovation model seems to be accelerating faster than expected as well. Clearly, the benefits are obvious and users are bringing their own devices into the mix with or without IT's blessing. So is IT moving fast enough as each phase of a technology wave rolls in?

Innovation And New Enterprise Technology A Priority Among Executive Leadership

Meanwhile, the social media wave is about to crest, just as cloud crested last year and social media will undoubtedly crest next year. Still, only 29 percent of respondents in the 2012 survey rank social media as critical or very important. And these IT leaders are not particularly bullish on their companies' current

Increase in Priorty, Effectiveness and Spending Year over Year

Importance to Executives
Delivery Effectiveness
Level of Investment
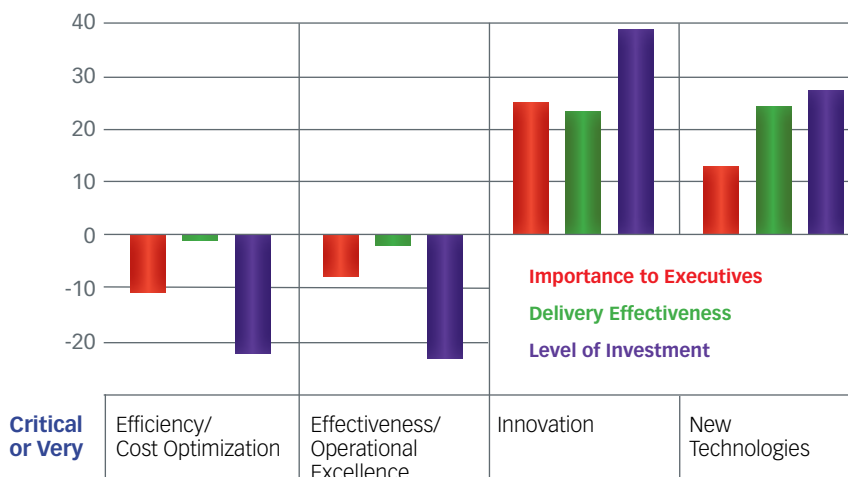
Innovation and new technologies are increasing as a priority from 2011 to 2012; the level of planned investment in both areas is rising.

ability to leverage the technology for better customer service or even for enhancing company image (a similar stance to how they felt about cloud in earlier surveys, a position that shifted over time). That resistive stance won't weather the tide, and competitive pressures will likely win out as business units clamor to keep pace with new communications and collaboration standards set by the social trendsetters.

Worse still, with that velocity, there's volume to these waves. Cloud computing, mobility, and social media are huge contributors to the "Big Data" phenomena—hoards of data that must be stored, analyzed, and mastered.

In addition, there is a spike in innovation trending this year. When asked what their own executive leadership is most interested in, respondents indicate that 60 percent are looking for innovation in 2012, compared with 49 percent in 2011. The percentage of executives stressing new technology investment moved from 45 percent in 2011 to 50 percent in 2012. Not surprisingly, that interest centers around mobile/wireless technology, collaboration tools, software-as-a-service, cloud computing, and social media.

Executive leadership is so committed to innovation and new technology that it's increasing IT budgets this year, according to the respondents. Some 43 percent believe that overall IT spending will rise in 2012, and estimate that IT budgets will increase by 20 percent in 2012. That's one of the advantages of both executives and users gaining a greater understanding of the value of technology—it's clearer that if the business doesn't invest, it's at a competitive disadvantage. Furthermore, survey respondents indicate that the budget increase is not necessarily entirely related to the improving economy. "Spending is the differentiator that will make us competitive," says one airline industry CIO.

Best Practices for Accommodating New Technologies

It's rare that IT faces such a fortuitous convergence of elements: executive commitment, financial support, and new technologies. At this crucial inflection point, what's the best way to take advantage of the first two to accommodate the third? Even more important, how can IT create systems that accommodate the innovation waves coming in from beyond the horizon? How can IT manage technology and collaborate with the business, so that when the latter establishes a new strategy, IT understands how to deploy the kind of innovation that will help the company succeed? Simply put, how can IT transition from tactical to strategic?

Perhaps the most important thing to remember—and this is nothing new—is alignment with the business. Alignment is even more critical today because the waves of technology are rolling in so fast. "It's easy to get out of step with the business," says Jimmy Livingston, vice president of consulting at Cognizant Technology Solutions. "IT needs to continually understand what the business needs, so it can apply new technologies quickly and accurately to those needs."

CIOs recommend conducting a needs assessment to determine exactly what will work best for the

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business side. For one innovation initiative at one private university, its CTO says IT "spent a year documenting needs and risk, not only to determine if we were getting the best product, but working with the users to ensure that it served their needs. Getting their buy-in meant it was their project, not just an IT project." The result was a "remarkably smooth" process because of the time committed to assessment. "IT likes to skip that and go right to the implementation," he says. "But you don't take an

exam if you haven't studied."

That kind of thinking helps develop what's known as a virtuous cycle in IT. The more IT probes for what the business needs, the more likely IT is to deliver positive results. The more often it delivers positive results, the more likely it is that the business trusts IT. The opposite is also true: The less IT listens to the business, the less likely it is to deliver valuable solutions, and the less likely the business is to trust IT.

A big part of being aligned is being proactive about new technologies, and constantly being aware of potential solutions to business problems.

When IT isn't aligned with the business, companies could be disadvantaged by business units going around IT to deploy software-as-a-service systems paid for from within their own budgets. It's not dissimilar to the scenarios experienced during the mainframe days, when businesses— frustrated by IT's lack of responsiveness—brought in minicomputers and desktop PCs. Ditto with smartphones in today's world. IT no longer has the option to say no,

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because the business users will gravitate to what works for them.

That's why a big part of being aligned is being proactive about new technologies, and constantly being aware of potential solutions to business problems. If IT is not proactive about new technology, it will be constantly trying to catch up. Worse, IT runs the risk of creating a disconnect between what users experience at home and what they experience at work.

Infrastructure Is Innovation, Too

Not surprisingly, technologies like cloud, mobility, and social media show up on CIOs' list of technologies that are top investment priorities this year. But so do infrastructure initiatives:

- **Information security:** cited by 68 percent, down from 70 percent in 2011

- **Data center:** cited by 61 percent, up from 52 percent in 2011

- **Business intelligence and analytics:** cited by 58 percent, up from 54 percent in 2011

- **Virtualization:** cited by 57 percent; down from 58 percent in 2011

- **Mobile/wireless:** cited by 52 percent; up from 47 percent in 2011

These are not random categories. In fact, they're highly interconnected, and represent key pieces of an increasingly intricate infrastructure puzzle. The data center, which made the biggest jump in importance, is the foundational core, similar to the mainframe of yore but with easier access from a wider variety of devices. Without that infrastructure in place, it's impossible to build incremental layers on top of it relating to business processes and applications. It's impossible to use virtualization for more efficient implementation and hardware consolidation. It's impossible to consolidate the application data for analysis. It's impossible to secure the data on a consistent basis. So infrastructure, in and of itself, must be another focus of investment and innovation.

Key Research Findings

- **CIOs expect IT spending to increase or remain stable.**

- **Innovation and new enterprise technology are increasing as priority investment areas.**

- **Increases in IT spending are most often expected in the areas of mobile technology.**

An IT vice president in academia adds, "If you find yourself having no time to think proactively because you are constantly bogged down with issues that create an almost entirely reactive environment, you need to sit down, take a deep breath, and make a comprehensive list as to what needs to be addressed."

Another way to be proactive is to set time aside for research and development—essentially, thinking about new technology and how it might support the business strategy. "It's not easy," adds a public sector CIO. "But if you don't do it, you're stuck maintaining what you have and never getting to the new ideas." Nor is it solely IT's responsibility. "We have people in both the departments and IT coming up with new ideas. IT innovation comes from many different directions." If the business side has a voice as well, chances are greater that the new technology is going to serve a strategic need.

To combine alignment with being proactive, Cognizant's Livingston recommends developing liaisons between IT and each department. "If there's a champion of business in IT, someone who knows technology and the art of the possible, they can brainstorm with the business on how to solve a problem, and then go back into IT and make the magic happen," he says.

Ultimately, IT has to build innovation into its culture. "You'll make mistakes," warns Livingston, "because that happens with new technology. But if you're not willing to make mistakes, then you become one of those companies that can't get out of its own way in embracing new technology." Then there's the distinct possibility a company will end up undercut by new technology, the way of both Borders and Blockbuster.

Balancing What's Next with What's Left

One of the challenges of a constant onslaught of new technology is dealing with what is already installed: legacy systems. What was state-of-the-art five years ago is no longer, so companies have to constantly hone their focus. Many companies make the mistake of trying to squeeze every bit of investment possible out of technology, long after it's viable. That's how they end up focusing the vast majority of their resources on maintenance, leaving too few resources to deal with the onslaught of new technologies.

"You have to be willing to jettison some of the investments you've made," says Livingston. "You'll probably never be able to get rid of all legacy systems, but you want to minimize them, because at some point they won't support the business."

As a result, IT always has to be thinking about where best to deploy its resources. Even with budgets increasing, efficiency is still important. "IT has advanced enough that you can use it to leverage efficiencies and do more with less," says the academic technology leader.

"Everyone is doing more with less," concurs the aviation CIO. "We want to grow the business, but we can't add tons of people to make that happen, so we're eliminating as many tactical things as possible. I outsource anything that doesn't add value." That lets her focus on strategic issues, such as deploying mobile devices—the current wave—and hiring someone to handle social media—the coming wave.

Ultimately, that's the best way for IT to tame veloc-

ity. The pace of technology may never change, so IT will always need to focus on the cutting edge: researching, analyzing, piloting, and deploying what works for the business. Everything else can be passed off to service providers who focus on those capabilities.

Only then can IT move beyond being a utility and become a strategic partner to the business, providing what one CIO calls "IT as a service." With strong external partners, IT can become an even stronger internal partner.

About Cognizant

Cognizant is a leading provider of information technology, consulting and business process outsourcing services, dedicated to helping the world's leading companies build stronger businesses. Headquartered in Teaneck, New Jersey (US), Cognizant combines a passion for client satisfaction, technology innovation, deep industry and business process expertise and a global, collaborative workforce that embodies the future of work.

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