

# CIO Mindshare

## *New Approaches Are Needed To Develop Applications Faster*

### DEMAND EXCEEDS CAPACITY

Demand exceeds capacity. This is a common sentiment we hear from CIOs all the time. Why? Because our time-tested ways of delivering IT solutions are no longer fast enough to satisfy business leaders. The breaking point has been a long time coming. In the 1990s, globalization drove new competition and faster business cycles. Movement of businesses and business functions onto the Internet during the late 1990s pressed on the accelerator of business change. Now, the market uncertainties and regulatory pressures of the Great Recession have prompted many firms to transform their mission, structure, and operations. Businesses face two types of change; first is deep transformational change. Many firms are experiencing fundamental change in their market or regulatory environment. To survive and thrive, many firms must re-engineer their business models, business structures, and business processes. Deep transformational change remakes companies. The second key challenge is continual changes to business processes and customer channels. And then there is the “day job”: the incorporation of small and large changes into the applications used to run the business and interact with customers. Each of these changes tends to be small, but in the course of a month or a quarter, they can add up to a lot of IT delivery projects.

### FASTER BUSINESS CHANGE DEMANDS FASTER APPLICATION DEVELOPMENT

As if deep transformational change and continual change weren't enough, the velocity of those changes must increase to keep pace with competitors, pounce on new market opportunities, and especially, meet the increasingly fickle desires and expectations of customers. To keep pace, CIOs must find ways of developing and delivering applications faster.

In a study commissioned by Compuware in June 2011, Forrester Consulting interviewed 15 CIOs in the UK, US and the Netherlands, to gain insight into how IT organizations are coping with faster change. The research questions included:

1. How well are enterprise IT organizations keeping up with the needs of the business?
2. What are the top obstacles faced by IT organizations in developing, delivering, and changing applications faster?
3. How should IT organizations respond to the need for faster, continuous change?

### CIO FAST APPLICATION DEVELOPMENT REPORT CARD

To find out just how much pressure CIOs feel to develop and change applications faster, we asked them to rate themselves on how fast they are able to develop new applications and change existing applications. To gain deeper insight, we also asked them to guess how their business clients would rate them as well. The results (see figures 1 and 2):

## New Application Development

1. 12 of the 15 CIOs gave themselves B's and C's. None of the CIOs we interviewed gave themselves an A. Three gave themselves a D.
2. Unfortunately, 7 of the interviewed CIOs think their business partners would give them a D. In contrast to their rating of themselves, CIOs believe that their business partners would rate them a lot worse for new application development. This represents a big gap between how CIOs think they are doing and how they think they are perceived by the business.

## Changes To Existing Applications

1. 8 of the 15 CIOs gave themselves a B. Most CIOs felt that they were often good at making changes to applications.
2. Business partners give them heat. Only 4 of the interviewed CIOs thought that their business partners would give them a B. 6 said that their business partners would give them a C.

"How well does your IT organization develop new applications needed by the business on a timely basis?"

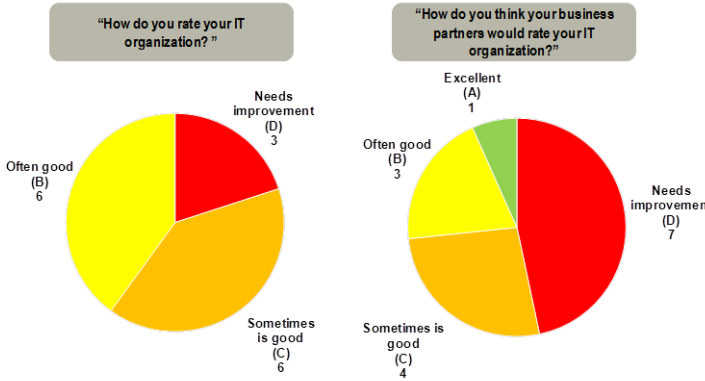


Figure 1: New Application Development  
Base: 15 CIOs in the US, the UK, and the Netherlands  
Source: A commissioned study conducted by Forrester Consulting on behalf of Compuware, June 2011

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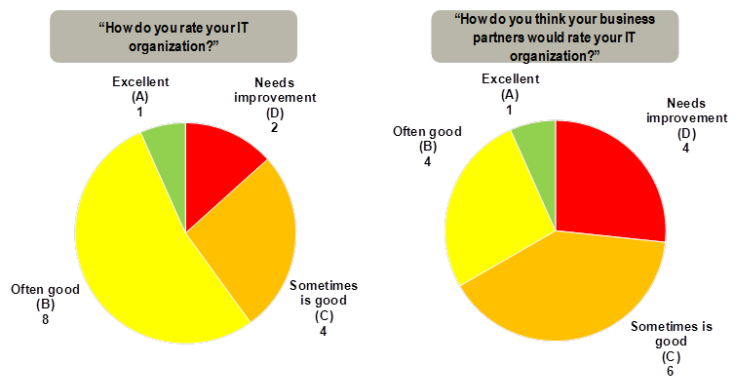


Figure 2: Changes To Existing Applications  
Base: 15 CIOs in the US, the UK, and the Netherlands  
Source: A commissioned study conducted by Forrester Consulting on behalf of Compuware, June 2011

## Users Must Also Be Satisfied

The demand to develop and change applications is driven by business needs. But those applications are used directly or indirectly by users who may be employees and customers. To be successful in application development, Compuware finds that CIOs must also satisfy the users. Forrester Consulting asked the CIOs how they thought users would rate both legacy and newly developed applications (see Figure 3). None of the CIOs said that users were very satisfied with legacy applications and only 4 CIOs said that users were very satisfied with newly created applications.

“When thinking about the user interface to the applications your IT organization develops how would you rate the user experience?”

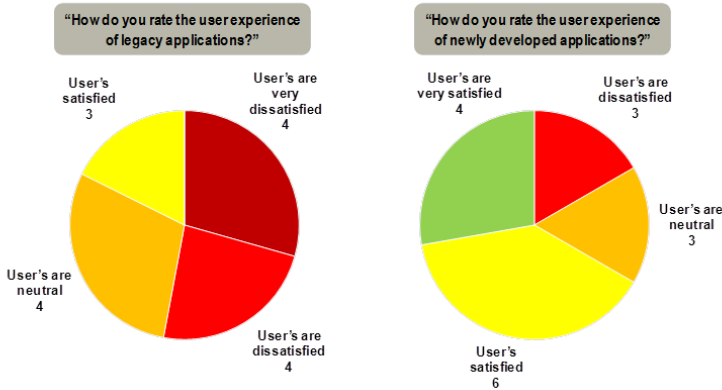


Figure 3: Users Must Also Be Satisfied With The Applications  
Base: 15 CIOs in the US, the UK, and the Netherlands  
Source: A commissioned study conducted by Forrester Consulting on behalf of Compuware, June 2011

## TOP OBSTACLES FOR APPLICATION DEVELOPMENT

The enterprises in our study all face five major barriers to change in their organizations, and in fact, their survival is often in play.

*“We are a rapidly growing organization with a huge number of priorities. IT works best when business has a high number of priorities, but when the demand is too high and the business cannot prioritize, then we have a problem.” (IT director at a UK-based insurance company)*

*“We have too many platforms (.NET, SharePoint, Java, PeopleSoft, and Siebel). These core systems have to integrate. We also have differences in methodology within the individuals in the team. Some teams use Agile, some use Waterfall.” (CIO at a UK HR and recruitment organization)*

- 1. Demand exceeding capacity.** CIOs report that they simply don't have the staff to handle the incoming requests from the business. Firms are extra cautious about their budgets and are reluctant to hire the way they used to, just in case the other shoe drops.
- 2. Skills shortage.** Even in the Great Recession, it continues to be a challenge to find talented people to fill key positions. Technology is changing rapidly and so are the expectations of the application user interface. Smartphone and tablet application development skills are hot.
- 3. Complexity of legacy.** Most CIOs we interviewed have hundreds of applications in their portfolio. No application is an island. The applications are interconnected together to provide the business capabilities needed. When the business requests a new capability, it often involves multiple applications, complicating the overall effort to deliver.
- 4. Fuzzy business requirements.** The age-old problem of getting solid requirements is still a challenge. But it is amplified by the urgency of business change. The business needs capabilities faster, and that means the real requirements must be fleshed out much sooner because there is less time for rework.
- 5. Complexity of platforms.** Most large firms have a cacophony of technology platforms and tools. This complicates application development because of skills and knowledge of legacy code.

## ADVICE FROM CIOs

Forrester asked the CIOs to provide words of wisdom for other IT organizations to develop and change applications faster. Here is what they said:

*"Understand your road map early on as well as your budget. Consolidate as much as possible because it's all about your reaction time to business requests. Consolidation helps reduce that reaction time." (SVP for application development at a North American recruitment company)*

*"Find a pragmatic solution as quickly as possible. I always end up delivering most things twice. Invest a lot of time and effort in the end-to-end software development process. Make sure it is well documented. Speed time from business idea to implementation. And most important, if your team is not big enough or lacks the right skills, then use co-source suppliers. For example, find a vendor which is a testing specialist that can give you a methodology to follow." (IT director at a UK-based insurance company)*

*"Minimize development environments. Have real true architecture as the core of the decision-making process, and pick one integration framework that will solve a lot of problems." (CIO at a UK HR and recruitment organization)*

*"Before you can talk about faster application change, you have to build a trusted relationship with the business. Focus on the technologies that really matter to your business. We have created a true supply and demand organization." (Director of application development at a US-based manufacturing company)*

*"These are lessons learned in my 10 years. Look at off-the-shelf and cloud solutions for commodity-based needs. Only invest in differentiation that helps the company achieve its strategy. Keep MOOSE costs as low as possible. Invest in R&D to understand how you can change legacy applications to improve. And finally, continue to invest in training to keep your talent up-to-date and interested. Keep talent fresh." (President of technology and CIO at a publication organization)*

*"Introducing SCRUM made a big difference to our organization. It not only increased speed but also helped make the team more consolidated. Make sure that you are entirely comfortable with the development framework and environment." (CIO at a Netherlands-based technology services organization)*

The pace of everything has accelerated. Customers want faster service. Users want better user experiences. And the business needs applications faster to satisfy customers, beat competitors, and drive productivity to boost profits. The CIO is the linchpin and knows it. Compuware believes that leading CIOs are changing the way IT does business to get faster by 1) anticipating business needs. Understanding the requirements and scope of a business need has always been a key challenge to getting applications developed faster. IT cannot rely on the business to convey the requirements perfectly. IT organizations must get into the business to understand. They must anticipate the requirements before the business needs them to get a head start. 2) Finding better tools and technology to develop applications faster. Traditional application development platforms like Java and .NET are not necessarily the fastest approaches to develop applications. CIOs should investigate application development productivity platforms that make application development professionals more productive. 3) Elevating user experience design in applications. User satisfaction is increasingly important. Customers and employees have increased expectations about the user experience of the applications because of the applications they use in their personal lives, such as iPhone apps and social web applications.

To keep up with the accelerated pace of business, Compuware recommends that CIOs must re-evaluate how they develop and deliver applications.

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