Building Enterprise Applications to Withstand Project Failure

New end-to-end business application platforms let you produce high-fidelity application prototypes that reduce risks of failure or overruns.

IT Projects Face New Requirements and Old Challenges

The evolution of Cloud Computing and Rich Internet Applications (RIA) has brought about some fundamental changes in IT that is drawing attention to how IT projects are being managed and paid for.

The real goal of software development is the fulfillment and delivery of requirements. Yet, the puzzling reality is that (according to NIST) [1] 70% of the defects in a delivered application are injected during a project's requirements and design phase, and 60% of those are discovered only during user acceptance testing! **At that point, the cost of fixing defects is 20 times higher compared to if the problem were fixed during the design phase.**

A recent study[2] by IAG Consulting found that more than two thirds of companies are likely to have a marginally successful technology project or outright project failure. Half of this number experience project 'runaways' which take too long to deliver, consume too much budget, or under-deliver on functionality.

It seems that while computing power and development tools have improved tremendously over the years, the proportion of project failures nevertheless remain unreasonably high – making IT projects particularly unappealing for organizations attempting to improve competiveness in today's recession climate.

Written by
Avigdor Luttinger,
iCEO #26299

The Need for Testing and QA

According to Gartner Research, "The lack of testing and QA standards, as well as a lack of consistency, often lead to business disruption, which can be costly."[3] Gartner also reports that "testing consumes 25% to 50% of the average application life cycle and often is viewed as adding no business value."[4]

Clearly, then something is being lost in translation. **It seems that making an application fit to the corporate requirements and standards of the organization is an increasingly bigger challenge that is still frequently overlooked or taken for granted as an unavoidable evil.**

CEO Europe
Management on demand

Growing Complexity and Communication Issues

The problem may lie in the fact that business technology infrastructure has largely failed to address the growing complexity of the projects they are designed to support. **Software projects today involve multiple entities – requiring the active input of professionals from various IT and business departments.** And there is a big difference in the way most IT professionals and business managers reason and solve problems.

Largely speaking, IT professionals are often "process" centric, preferring structured information and algorithmic definitions (do this, make a decision and then do that). Business managers meanwhile, are more "interaction" centric, prefer loosely structured and rather interactive information (messages, meetings) and declarative definitions (table/choice driven).

This 'communication gap' can lead to situations where teams find themselves continually revising projects where specs are not properly defined, or where discrepancies arise between business requirements and the finished application.

Metadata Application Platforms Offer a Way Out

To solve the problem organizations need to carefully select technology that will support and encourage sound business analysis procedures and facilitate collaboration. A new breed of end-to-end application platforms is already available and may offer a way out. Products such as Magic Software's uniPaaS feature a single metadata-driven development and declarative paradigm to facilitate and shorten the application development cycle.

Metadata platforms work by substituting hard-coded business logic with lighter-weight code, or 'metadata'. By abstracting the technological complexities from the development process, business managers and IT experts finally find themselves on the same page.

- **Better Collaboration between Business and IT**

  The incorporation of metadata into the development effort shifts the emphasis of IT projects away from 'how' they will be achieved; instead allowing teams to broaden and focus on 'what' business functionality is required. This results in better collaboration and understanding and allows enterprises to more rapidly and efficiently meet their business and IT goals.

- **Faster and Easier Prototyping**

  Metadata-driven approaches are also more productive than traditional techniques. **This allows IT to produce high-fidelity application prototypes quickly and simply, without consuming large amounts of resources.**

  With an accurate prototype, business logic can be checked and double-checked in accurate scenarios to ensure the application fits the requirements of the project and adheres to corporate quality standards.

Written by
Avigdor Luttinger,
iCEO #26299

Find us on the Web:
www.ceo-europe.com

+33 (0) 970 448 419

CEO Europe
Management on demand

- **Shorter Development Cycles**

   Gartner points out that the "use of a metadata-based interpreter for the execution of applications enables excellent productivity."[5] Because metadata is relatively simple to implement in the design phase, **developers can create short and highly interactive development-cycles where the application can be easily modeled, reviewed for feedback, and modifications implemented and iterated quickly and cost-effectively.** This also means that testing takes up a much shorter proportion of the total application life-cycle.

A Solution for Today's Business Climate

With the current recession being felt in all areas of business, companies will have to shift their focus to more efficient IT project management in order to stay ahead. With the new breed of application platforms such and uniPaaS, businesses can now achieve a significant competitive advantage at a time when other companies are retrenching and retreating.

About the author: A Swiss based Board-level professional, Avigdor Luttinger helps technology providers achieve their business objectives by leveraging their core competencies and the market opportunities; he is one of the founders of Magic Software Enterprises, and continues to dedicate a significant amount of his time to the company, where he functions as Vice President of Corporate Strategy. With over 25 years of experience and recognized expertise in the software industry, Luttinger is a frequent speaker and contributor at industry conferences and publications, and is also Executive Consultant at APL Technologies & Management Ltd. Luttinger currently covers Cloud Computing, Mashup technology, High Performance Workplace, Application Platforms, BPM and Integration. He holds an MBA from INSEAD in France and M.S. in computer sciences from the University of Lyon.

Written by
Avigdor Luttinger,
iCEO #26299

Find us on the Web:
www.ceo-europe.com

+33 (0) 970 448 419

[1] *NIST Study, Planning Report 02-3: "The Economic Impacts of Inadequate Infrastructure for Software Testing"*

[2] *Keith Ellis, "The Impact of Business Requirements on the Success of Technology Projects", IAG Consulting.*

[3] *Partha Iyengar, Frances Karamouzis. "Offshore Application Testing Drives Greater Business Value." Gartner Research, August 17, 2007, ID Number: G00150394.*

[4] *Iyengar and Karamouzis. "Offshore Application Testing Drives Greater Business Value." Gartner Research, August 17, 2007, ID Number: G00150394.*

[5] *Yefim Natis, "Reference Architecture for Multitenancy: Enterprise Computing "in the Cloud"", 3 December 2008 ID Number: G00163395.*