Actual IT workloads for knowledge-based development

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The 2011 IBM Tech Trends Report

Tech Trends of today. Skills for tomorrow.
Executive Summary

The 2011 IBM Tech Trends Report offers a glimpse into the future of where technology is headed over the next two years. More than 4,000 IT professionals from 93 countries and 25 industries shared their opinions, and the report highlights trends from the five countries with the highest number of responses: the United States, Brazil, Russia, India and China.

The survey focuses on business analytics, mobile, cloud and social business, four critical and interconnected technologies that developers can use today to determine which skills they need to build a Smarter Planet. Over the next 24 months, these areas will only continue to grow, fueling development, architectural and analytic opportunities:
Highlights

- **Business analytics** is the most adopted technology in the survey, showing the least adoption resistance as businesses struggle to automate processes and make sense of ever-increasing amounts of data.

- **Mobile computing** is here to stay, and offers room for IT professional growth as more and more organizations build mobile applications. Globally, Android emerged as the top platform for mobile application development; 70% of respondents are expected to develop for the Android platform over the next 24 months, while 49% plan to develop for iOS.

- **Cloud computing** offers new opportunities for technical professionals as businesses are moving beyond saving costs with infrastructure and beginning to build applications to innovate in the cloud.

- **Social business** adoption for business purposes varies by country, depending on the perception of security concerns and local acceptance of this technology.
Business Analytics

Business analytics was the most-adopted technology area in the survey, reflecting the struggle for organizations to automate processes and make sense of ever-increasing amounts of data by turning that data into actionable reports and insights. This technology has a bright future, with 42% of respondents naming it as an “in demand” area for software development and as having the highest adoption tendency (90%) when compared with other technology areas. IT professionals believe these technologies will have the highest impact in the education, healthcare, aerospace/defense, computer software and life sciences industries. Developers who want to grow their skills to meet these needs should take note that 87% of respondents cite open source platforms such as Apache Hadoop and Linux as playing a key role in the future of this application development.
How organizations plan to use business analytics (n=1814)

- 49% Increase automation
- 46% Streamline process to deliver analytics more effectively
- 37% Get better leverage from the productivity tools we use today
- 37% Provide education on use of business analytics tools
- 35% Integrate analytics capabilities into other applications using a software development kit
IBM Watson

This year, the possibilities of business analytics reached the public consciousness like never before with the unveiling of IBM Watson.

IBM Watson uses sophisticated analytics to understand the meaning and context of human language. With this capability — unprecedented in history — IBM Watson’s analytics technology can draw upon tremendous stores of data to instantly recommend responses to questions. In fact, the IBM Watson technology is able to sift through an equivalent of about one million books or roughly 200 million pages of data, analyze this information and provide responses in less than three seconds.

Survey respondents identified education as the industry with the biggest opportunity for IBM Watson’s abilities, with healthcare and aerospace/defense a close second and third, respectively. But how can the capabilities of IBM Watson impact the IT professional? When asked about IBM Watson’s ability to quickly analyze large volumes of data, 70% of respondents said data analytics would be most affected by this; another 69% said artificial intelligence would be most affected.

IBM has been committed to research and innovation for over 100 years. IBM Watson is a testament to this commitment. The next challenge is to apply IBM Watson’s underlying analytics and data management technologies to the business world. Stay tuned. The story of the IBM Watson system has just begun.
Mobile computing

Planned mobile development platforms (n=2920)

Android 70%
iOS (iPhone/iPad) 49%
Windows 7 35%
Blackberry OS 25%
Embedded (any) 14%
Web OS 9%
Cloud Computing

Cloud computing has become more established in the technical landscape. Increasingly, organizations are taking advantage of the cloud, not only to build infrastructure but also to build and deliver new applications, services and business models, many of which are also tied to their mobile applications. At this stage in the technology lifecycle, IT professionals need to focus on learning how to integrate the cloud into application development.
How organizations plan to implement cloud computing (n=3142)

- 25% Develop new applications for the cloud
- 24% Virtualization
- 24% Storage
- 22% Private cloud
- 21% Extend existing applications to the cloud
- 20% Hosted applications
- 19% Enterprise and/or Mission Critical
- 18% Security
- 16% Community cloud
- 15% Hybrid cloud
- 13% Public cloud
- 11% Out of the box cloud applications
How organizations plan to become more social (n=2851)

43% Internal deployment (employee-facing)

41% External deployment (customer-facing)

20% Use of mass market social networks

Looking ahead, internal deployment still edges out external deployment as the top social-business focus area. Organizations with customer-facing external deployments are more likely to deploy their own social platforms (41%) than use third-party systems like Facebook (20%). This provides a much higher level of control and the ability to better understand their customers, while limiting exposure to other networks’ ever-changing privacy policies.
THANKS A LOT FOR YOUR TIME AND ATTENTION!

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