

NORTH AMERICA

WORLD 20 QUALITY 13- REPORT 14

TOP TRENDS

- Even during the economic downturn, North American QA budgets didn't see a decline, and this year's analysis reveals continued growth in the share of IT budgets allocated to quality assurance.
- North American companies lead the trend worldwide for outsourcing the Testing and QA function, driven by the need to reduce costs, reduce time-to-market and improve software quality.
- The pattern of Cloud adoption among North American companies mirrors global trends: most businesses remain cautious about hosting large production systems in the cloud infrastructure.

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As the North American economy returns to growth, organizations are increasing investment in strategic and transformative projects. In anticipation of future market growth, proportionate spend on maintaining current IT systems and applications is declining in favor of new transformational initiatives (from 60% of the testing budget in 2012 to 53% in 2013), especially those that take advantage of new technologies such as cloud and mobile. At the same time, the role of QA within organizations continues to gain strategic importance, with virtually all companies maintaining high levels of investment in application quality. Even during the economic downturn, QA budgets didn't see a decline, and this year's research reveals continued growth in the share of IT budgets allocated to quality assurance. Analysis of businesses across the US and Canada shows that slightly more than a quarter (26%) of IT budgets is spent on QA and Testing – representing a significant increase from 18% last year. Executives interviewed for the research this year predict another significant jump in QA spending within the next two years, which they expect to reach 32% across North America.

Since 2011, the research has reported year-on-year increases in the number of operational Testing Centers of Excellence (TCOEs) – driven by the need to reduce time-to-market in what is widely recognized as a highly competitive domestic market. In this year's research, only a

quarter of research participants (26%) report that their companies have no plans to optimize QA and Testing capabilities through a TCOE, compared with 35% last year, whereas 27% report already having a fully operational TCOE, either in-house or through a third-party provider. Of the remainder, 15% of companies report that they plan to develop internally managed TCOEs within the next two years.

North American companies and public sector organizations are also among the global leaders for outsourcing the QA function. As many as 53% of CIOs and IT directors interviewed report that their companies have chosen to outsource at least some portion of application testing – a considerably higher number than the 46% global average. The main reason for outsourcing remains cost reduction (cited by 62% of respondents), followed by the desire to improve software quality after testing (55%). However, offshoring nowadays can provide different results for similar companies, even more than it did just a few years ago. Many companies, more recently, have experienced disappointing results from cost-saving offers based exclusively on labor arbitrage. The expected savings were often not sustainable in the longer term and provided little tangible improvement in the quality processes in the organization. The key to successful outsourcing and offshoring lies in an open collaborative partnership with a business partner who can bring more than



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just lower labor costs. They need to provide a complete package of industrialized processes, risk-based testing methodologies, test automation frameworks, metrics and script accelerators – to improve the overall efficiency of the testing process through automation and standardization.

In general, US and Canadian companies are becoming more mature in terms of understanding the business value of Testing. Increasingly, they are looking at skilled partners with vertical expertise to help them advance their testing processes in the most cost-efficient way. This year's research shows that managed testing services account for 22% of businesses' testing engagement model, where an external vendor takes responsibility for the Testing function, with an additional 14% consisting of a co-managed approach to Testing. In these cases, the client and the professional services vendor share responsibility for the quality outcomes.

In North America, while most companies have already begun the process of migrating applications and IT projects to cloud infrastructure, they are still mostly hesitant to host large production systems in the Cloud. Overall, the research finds that 21% of applications in the US and Canada have been migrated to the Cloud. Not surprisingly, Testing in the Cloud has followed a similar pattern – with an average of 25% of Testing occurring in cloud-based environments. Information security remains the main barrier to Cloud adoption, although companies are increasingly turning to service providers who can deliver test automation solutions in the Cloud. Executives interviewed for the research predict that nearly a third of all Testing (32%) across North America will take place in a cloud environment by 2015, and as much as 26% of all applications will be cloud-based.

For some years, North America has lagged behind many European and Asian markets in mobile technologies. Recently, however, US network operators have begun to ramp up their investment in mobile infrastructure, responding to consumer demand for all-channel experience. The rapid rollout of mobile technologies has brought new challenges to North American Testing organizations, many of which needed to develop specific methods and approaches to test functionality and performance of mobile applications and devices, in many cases from scratch. Even nowadays, some companies still struggle to find the right experts and device libraries to ensure thorough validation. Although more than half of North American businesses (55%) state that they test mobile applications, many respondents cite device availability (56%) and lack of testing expertise (56%) as barriers to successful mobile testing practices. Not surprisingly, the majority of participants (59%) say that if they were to outsource mobile testing, they would choose a partner with the capacity to test applications on a large range of devices and platforms.

Overall, quality assurance trends in North America remain positive. Companies continue to increase their investment in QA and expand their partnerships with business providers. Industrialized quality processes are quickly advancing among North American QA organizations as they realize the value of standardization, automation and frameworks. The business expectations of QA are growing even faster, and companies will continue to find new ways to deliver applications faster and more cost-efficiently.

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25%

of Testing occurs in cloud-based environments

27%

of organizations indicate that they have a fully operational TCOE

