THE BENEFITS OF OUTSOURCING SOFTWARE TESTING TO MULTIPLE VENDORS

An dedicated software testing company improves your quality and speeds time to market while simultaneously reducing risks and costs

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Companies are increasingly outsourcing to best-of-breed vendors to ensure that they receive high quality software on time and on budget. Using multiple vendors provides the flexibility to select individual specialists in development and software testing, who can provide the best results for each component of a project.

This paper explores both the single-source and the multi-source approach to application development, highlighting the advantages and disadvantages of each, and conclude with why multi-sourcing is the optimal choice.
SINGLE-SOURCE APPLICATION DEVELOPMENT

As its name suggests, single source application development revolves around a single vendor responsible for the development of an application as well as the majority of software testing and quality assurance (QA) functions. The selection of a single-source vendor may be part of a larger outsourcing effort or business process outsourcing (BPO) engagement. The aim in this process is to maximize efficiency and simplicity by engaging only one vendor. This method creates a single point of management, a single service level agreement (SLA), and a single point of accountability. In some cases, this organizational simplicity will help to drive down costs without harming the final product.

In reality, single source application development is rarely the panacea that it appears to be. There are a variety of trade-offs and difficulties that come with following this methodology, both in application development and software testing.

Potential problems with single sourcing can include:

1. **Compromising on best-of-breed in testing**

   Typically, the primary focus of a vendor is on software development, treating software testing as an afterthought or an adjunct to their primary development initiatives. It is important to remember that software testing is its own discipline, with its own methodologies that are separate and distinct from software development. This can lead to quality problems with the resulting software.

2. **Testing can be put in the hands of less-experienced and less-interested engineers**

   It is common practice for software development firms to assign software testing to their junior staff, who typically do not have a strong background with the fundamental concepts and practices that are critical to effective software testing - nor are they likely to receive related training. This exposes a significant drawback to single sourcing, which is made even worse when considering the social and psychological dynamic of software testing.

   Typically, staff join a firm to develop software, not to test it. There is no glamour in testing, and that often means it is done with minimal effort or interest. To make matters worse, given the business structures of these companies, junior testers may be hesitant to point out problems in the work of their more-experienced co-workers.

3. **Lack of independence introduces risk into the development process**

   When developers and testers are in the same organization, the testing process comes under intense pressure not to delay or prevent delivery. This is especially true of outsourcing relationships, where meeting or missing delivery deadlines may have financial ramifications for the outsourcing vendor. Because of this dynamic, the client may not receive complete information about the quality of the application under development. Even with an SLA, bugs may go unreported to the customer so that the outsourcing firm can keep costs down and meet its delivery commitments.
MULTI-SOURCE APPLICATION DEVELOPMENT

With multi-source application development (multi-sourcing), diverse best-of-breed outsourcing firms are hired, each to perform its own specialized tasks. Using this approach, a firm hires both a software development company, and a software testing company each of which demonstrate expertise in their particular discipline.

In a multi-sourcing arrangement, multiple departments manage the vendor relationships and coordination between the various vendors. In many cases, the company’s development department manages the software development vendor, and the software testing or quality assurance department supervises the contracted testing firm. Such a structure creates beneficial independence between development and testing.

There are many advantages of multi-sourcing:

1. Companies gain access to specialized firms

   By multi-sourcing, a company gains access to specialized vendors skilled in their fields. Hiring a dedicated vendor that is strictly focused on software testing enables a company to acquire the services of engineers who are trained software testing experts. Such engineers understand testing processes, methodologies, and tools to a high degree of proficiency, allowing them to thoroughly and properly test software. In these firms, software testing is not a step towards becoming a developer, but rather a chosen career in which accurate and thorough assessment is the desired outcome.

2. No conflicting interests

   Outsourcing companies can ensure a high degree of software testing expertise and professionalism by establishing independence between developers and testers. Since the testing vendor has no incumbent interest in the developed software, they can be honest in its evaluation regarding the quality and capacity for the market. Such insight can be invaluable to company management as they determine quality/time to market trade-offs. Having honest information from a trusted testing vendor permits more informed decisions.

   Though multi-sourcing requires multiple vendor relationships, lacks a single point of contact, and relies on onshore employees to manage and coordinate the work of multiple companies, these factors are more than mitigated by the benefits of hiring separate development and testing teams. Such independence contributes to the goal of higher quality software while reducing the risk of delays, unacceptable post-release support costs, and embarrassing software failures. What’s more, these disadvantages can be even further minimized or eliminated through the use of effective testing frameworks that facilitate global teams and good communication. A number of these tools are commercially available or can be developed inhouse.
CONCLUSION

Companies eager to lower costs by outsourcing must focus on the critical goals of maintaining quality and achieving time-to-market targets. For such companies, multi-sourcing provides distinct advantages over single-source solutions:

- Access to best-of-breed software testing firms
- Independence eliminates conflicts of interest
- Lower cost due to access to smaller markets and firms
- Risk mitigation due to vendors’ prioritization of quality in their specific task

When considering multi-sourcing vendors, LogiGear emerges as a best-of-breed firm with extensive expertise in providing global software testing solutions and industry thought leadership. By making use of LogiGear’s highly trained and expert test engineers in the low cost market of Vietnam, LogiGear provides economical yet high-quality testing solutions to deliver better quality software.

Clearly, multi-source application development has substantial advantages over the single source alternative, and selecting the right software testing vendor helps to bring these advantages to bear.
THE ADVANTAGES OF MULTI-SOURCING WITH LOGIGEAR

1. Experience

Since 1994, LogiGear has been delivering software testing tools and QA software, onshore and offshore testing solutions, software testing process and strategy consulting, and software testing training for a broad range of clients, from early stage start-ups to Fortune 500 companies.

2. Recognized best-of-breed firm

LogiGear’s founder and senior management team are widely recognized as industry leaders in software quality assurance testing. Hung Nguyen, LogiGear’s CEO, President, and Founder is coauthor of the top-selling book in the software testing field, Testing Computer Software (Wiley, 2nd ed. 2002) and other publications including Testing Applications on the Web (Wiley, 2nd ed. 2003). LogiGear’s Chief Technology Officer, Hans Buwalda is coauthor of Integrated Test Design and Automation (Addison Wesley, 2001); and Michael Hackett, LogiGear’s Vice President of Training, is coauthor of Testing Applications on the Web (Wiley, 2nd ed. 2003).

3. Global Test Automation

LogiGear offers innovation, not just commoditization, by combining a unique, low-cost, offshore outsourcing opportunity with cutting-edge automation engineering, onshore project management and onshore account management. LogiGear has established the first and only US-led software testing company in Vietnam. LogiGear’s US team members are experienced in software testing, test automation, training and testing strategy. Combined into this strategic approach, Global Test Automation offers you the cost and speed advantages of off-shoring and automation.

4. Innovative and proven testing approach

LogiGear has an innovative and proven approach that combines Action Based Testing, Keyword Based Testing and Test Automation Methodology, with its TestArchitect process and test automation framework. This combination of methodology, tools, and expertly-trained staff allows LogiGear to deliver highly scale-able and maintainable test automation solutions while still providing the cost benefits of off-shoring.

5. Access to lower-cost resources

In Vietnam, LogiGear has access to the talented engineers, and employee turnover is not a problem. Unlike other popular outsourcing locations, salary costs in Vietnam are not growing excessively. All of this allows LogiGear to deliver extremely cost-effective testing solutions, with their customers’ success in mind.
6. Access to trained testers

In addition to having access to the best of a talented candidate pool, LogiGear continues to train its engineers in software testing practices, methodologies, and tools, using the same rigorous curriculum developed for its US training customers. LogiGear also offers its engineers an extensive testing-based career path, allowing them to grow professionally while they become more experienced at delivering high-quality assessments. Recruiting and developing this expert test engineering staff enables LogiGear to deliver more comprehensive and thorough solutions at a lower cost.

7. Reduced Risk

LogiGear’s software testing-centered program, recognized leadership, and highly-trained engineers all help to significantly reduce risk. With over a decade of outsourcing experience, the quality and function of any software under test is guaranteed with LogiGear as a partner. Management acquires critical information to make informed decisions, ultimately delivering a higher quality software product on time and on budget.