

QA AND TESTING SPECIALISTS FOR FINANCIAL APPLICATIONS



Case Study: Specialist Testing Provider Helps Improve Quality of Flagship Product

1. SUMMARY

When testing applications of highly specialized nature, expert testers with deep knowledge of the particular domain can significantly improve the effectiveness of the QA process (vs. using "vanilla" testing resources that do not possess the understanding of the underlying business logic). In this case, engaging a specialist testing provider impacted the amount of testing effort needed to achieve required levels of quality, as well as time-to-market, the product's quality and reputation, and customer loyalty.

2. CHALLENGE

The client, a world leader in market information product and services, was implementing a large-scale upgrade to its flagship product (a powerful trader's workplace). Product quality and customer satisfaction were a distinct priority for the client in the highly competitive marketplace; plus, the upgrade implied a significant increase in the amount of testing, in particular regression testing. However, operating under time and budgetary constraints, the program management was having difficulty finding sufficient testing resources that would deliver the required quality and would be competitively priced. Hence, the decision was made in late 2002 to engage external partners who would take over various testing parts of the SDLC.

3. SELECTION OF EXTERNAL PROVIDERS

The client tried several options, such as using local contractors in Western Europe and an offshore company in India, but with variable results. Other staff and companies failed to meet the client's expectations based on the following:

Lack of the business knowledge of the financial industry: Massive updates to test scenarios required deep understanding of the underlying realities of markets and exchanges, trading instruments, market data, etc.



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- Inability to learn the client's systems and technologies quickly enough: The critical factor here was reliance on self-initiative, because the client was not prepared to devote excessive amounts of time and effort to training of external resources plus, as is often the case, product documentation left much room for improvement
- Lack of compatibility in terms of culture and work ethic
- Inability to accommodate peaks and valleys in staffing demand: Large amounts of manual testing and "lumpy" staffing requirements meant that a high level of flexibility was required from the vendors
- Inability to work in partnership with the client, either taking a wholly passive role or wanting to take full control

4. ALLIED'S INVOLVEMENT

Based on these criteria, the client found that, from the vendors it tried, Allied Testing delivered the best solution for its purposes through a combination of Allied's domain expertise, specialized tools and company culture. Initially, the need was for straightforward staff augmentation, but the relationship has developed over time so that Allied is used as a partner with a degree of autonomy and trust.

After the initial phase of project was successfully completed, when Allied Testing was included in the approved vendors list, multiple teams from various parts of the client's global IT organization who participated in the development of components and plug-ins for the flagship product started engaging Allied to take over responsibility for testing their modules. There are several reasons for such success:

- ▶ The extremely distributed nature of this product development program resulted in non-synchronized release schedule and in workload peaks for individual teams. Allied earned a reputation for being able to address that problem by having a strong pool of cross-trained testers able to get up to speed in very short time. Allied Testing kept a dedicated core team on each project, and was able to scale up and down on short notice (up to 25% in 2-4 weeks).
- Over time, Allied's specialists developed strong knowledge of client's products and underlying technologies, which increased the quality of testing.
- Allied's offshore/onsite ratio was on average 95% to 5% or lower, which, coupled with efficient offshore test management practices, made Allied's total costs lower than even those of the client's own offshore captive delivery centers in Asia.

5. PARTNERSHIP

As a result of successfully delivering on the first projects, Allied earned an excellent reputation with the client's global IT leadership. Eventually, the scope of Allied's involvement in the client's QA program has expanded beyond the manual regression testing into the following other areas:

- Business analysis
- Test automation and automatic testing
- Test automation R&D
- Stress/load/performance testing
- Operability testing
- In-depth financial testing
- Test management, coordination between multiple vendors and in-house technology teams



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Even beyond QA and testing, Allied has since been asked by the client to take on other responsibilities, including financial engineering, technical writing, software support and maintenance, and new software development.

6. RESULTS

Five years after embarking on this outsourcing journey, the client was enjoying significant and measurable benefits from this partnership. The following results were reported by the client's program management to analysts at Gartner, the leading industry research firm, in 2007:

- **User satisfaction:** The volume of customer issues per user position reported with the product has fallen 60%.
- ▶ **Testing accuracy:** About 75% of defects that used to be found after releases were made public but has since dropped to 10%. Finding faults earlier in the test cycle improves its reputation, and they are less expensive to fix.
- ▶ **Testing efficiency:** The old ratio was that, for every day of development, the client needed two days of testing. With Allied, that ratio has improved to 1-to-1.