

# Outsourcing the Software Testing Effort

## Outsourcing Defined

*“Outsourcing” is a term that describes the practice of seeking resources outside of an organization to provide a service. The goal of outsourcing is usually to save money and/or to leverage a service provider that can do the job more efficiently or effectively than the internal staff.*

## Why Outsource Software Testing?

Dynamic organizations encounter many demands and shifting priorities of their internal teams. The need for outsourcing of any type can change as business circumstances change. It may not be a resource gap or a deficiency in the internal team that leads to outsourcing. Rather, in a mature organization, it is likely a business decision, driven by business value that leads to an outsourcing solution.

## Outsourcing Factors

Options for outsourcing the testing effort are numerous -- each with its own set of benefits and drawbacks. Layered on top of the complexities of the overall system implementation, the successful outsourcing decision considers the following factors:

- **Cost.** Focus not only on the hard dollars, but also on the return on investment. How quickly can success be realized within each option? How does each option achieve reusability for continued value?
- **Risk.** Consider how the sourcing strategy could positively or negatively impact the critical success factors of the project, as well as the critical success factors of the new system’s ability to support the business.
- **Organizational Readiness.** How will the sourcing option impact the organization’s capacity to maximize the value of the testing service? Organizational readiness is a compilation of work ethics, relationships, management style, leadership, process maturity and old baggage (successes and failures of the past.). Will outside resources be accepted or rejected?
- **Team Dynamics.** How will individual stakeholders perceive the various options as a personal win or loss situation? How do roles and responsibilities, reporting relationships, promotions, hiring and firing factor into the sourcing decision?
- **Technical Factors.** How do technical architecture, technical standards, industry knowledge, and regulatory requirements knowledge factor into in the sourcing decision?
- **Testing Capabilities.** The decision maker should weigh the skills, knowledge, experience and track record of the sourcing vendors? Bottom line – Can the job be done successfully?
- **Business Value.** In summary, consider how the testing sourcing strategy will benefit or detract from business goals and project objectives. What constraints (budget, time, scope and resources) must be balanced with potential benefits (ROI, time-to-market and quality)? In other words, “what makes the most sense for the current environment conditions? Where do I get the biggest bang for my buck?”

## Options for Outsourcing Testing

It is imperative that the organization aligns the business value and the impact of factors outlined above to the outsourcing decision. Once this is accomplished, the risk of making the wrong sourcing decision can be greatly reduced.

– **Deliverables-based Project.** In this option, the sourcing party (supplier) agrees to solve a business problem (in this case, to complete testing of the system) in exchange for a fee. This is typically known as a “Solution Provider” where the buyer is exchanging a fee for the promise of a pre-defined outcome. The supplier takes on significant accountability and ownership of the risk in this arrangement in order to meet the buyer’s expectations. In order to meet these expectations, the supplier drives the approach, selects the team resources, manages and directs the resources on a day-to-day basis and maintains the test environments as required. The general approach, deliverables definition, processes, communication, logistics and other details are agreed to in advance by the buyer and supplier.

As this arrangement is defined as a project, there is a definitive start and end, making this solution appropriate for an initial implementation or major release. This option is also viable for a buyer who is expecting “expert” services where the organization is lacking; or where the buyer wishes to shift ownership, management and direction to a third party in order to free the internal staff to focus on other objectives.

– **Managed Service.** This option has the same characteristics of a Deliverables-based Project, but is delivered on a time-based arrangement – generally one to three years. The two approaches differ in that a deliverables-based project spans the lifecycle of a development or maintenance cycle, while the managed service spans a calendar period. The effectiveness of a managed services is usually measured through Service Level Agreements (SLAs). Since testing is dependent, to a great degree, on the application itself, and the progress of the Build team, SLAs are sometimes difficult to measure. Ample thought should be given to the approach and effort for gathering data points and measuring SLAs against expectations. Many organizations zealously set too many expectations, or set expectations that can’t be easily isolated or measured. Organization should target a maximum of two to three SLAs for a managed service.

Some example SLAs include:

- On-Time Test Management Reporting
- Test Case Development Request Response
- Customer Satisfaction (measured by survey)

A Managed Service is ideally aligned with ongoing maintenance of the system. All things being equal, the buyer should look for the supplier to increase efficiencies over time, potentially reducing the cost of the service. As in the Deliverables-based Project, the Managed Service places ownership, management and control with the supplier.

**Staff Augmentation** – In this approach, the supplier provides a skilled and experienced resource who matches the buyer’s requirements. The buyer provides day-to-day direction for the resource and owns the testing approach, as well as the outcome of the testing process. Here, the buyer retains control of the resources. The buyer gains a resource that does not require training in the technology, but will need to learn corporate processes and adapt to the organization’s culture. Careful consideration must be given to the tradeoff between these two knowledge areas.

**Managed Staffing** – This arrangement is a multi-Staff Augmentation approach with the benefit of administrative supervision. One or more of the Staff Augmentation team members are given supervisor responsibility. The Staffing Supervisor offloads administrative duties from the client and pushes down the directives of the client to the team. As in Managed Services, this type of agreement is time-based, often spanning 1 to 3 years with possible contract renewal.

A Managed Staffing arrangement is ideal for an organization that is in need of skilled resources, but wants to retain direction and control of the Testing function. No SLAs are involved in this approach since the process and outcome is client-driven.

## ***Best Practices for Outsourcing Testing***

- Consider testing outsourcing strategy early, prior to contracting with other System Integrators/Vendors. Identify any overlap or conflicts in contractual terms and Statements of Work. Build in processes that allow each vendor to work effectively without negatively impacting the other. Unresolved issues are certain to delay the project, drive up costs and require renegotiation of terms.
- Utilize a structured RFP process to obtain, evaluate and compare vendors. Ensure that a vendor conference is included in the process so that vendors have an opportunity to thoroughly understand the testing requirements and desired approach. Requiring a presentation from the top two or three vendors can help ensure that expectations are aligned between all parties.
- Request examples of past experience from both the supplier company, as well as the lead resources that are relevant for the project. Ask for references and follow up with those contacts.
- Evaluate expertise, experience, communication, flexibility, cost and overall business value.
- Ensure that your organization is ready to take on and maximize the investment of outsourcing.
- Allow Business Value to drive the decisions involved in selecting the outsourcing solution.

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