INTRODUCTION
This document describes the business benefits associated with outsourcing software testing. It is not uncommon in the software industry for developers to test their own code or for organisations to establish a dedicated in-house testing department. The following highlights some of the issues associated with this approach, describes how TVS manages a client engagement and how an outsourcing strategy can improve your time to market, reduce your costs and improve product quality.

THE ISSUES WITH DEVELOPERS TESTING CODE
Companies that use their development team to test their own software face a number of issues.

» **Product quality**: It is generally accepted by the industry (and backed by research) that developers do not do a thorough job of testing (especially their own code).

» **Time to market**: Testing starts after development thus missing the opportunity to reduce time to market through parallelization of the development and testing activities.

» **Missed opportunity costs**: Often testing of the current product will delay the start of the next project. New features requested by customers can be delayed whilst developers are stuck testing features from the previous release.

» **Reduced morale**: Developers like to develop and whilst they do take a pride in the quality of their code, they are not motivated to undertake systematic testing.

SEPARATE TESTING TEAM?
Companies that recognise the issues of having their developers perform testing often try to set up an independent test team. Whilst this helps this to overcome many of the issues above, it creates some further potential issues. For example:

» The company needs to develop a testing strategy that maximises both the effectiveness and efficiency of the test resource.

» The testing team needs training and to keep up to date with testing techniques. The management team can find themselves investing considerable time on these activities. Many companies decide that for these reasons it is easier to outsource their software testing.

THE POTENTIAL BENEFITS OF OUTSOURCING SOFTWARE TESTING
Software testing is often viewed as a “hygiene” activity: it can not motivate customers to buy, but it is essential to maintain customer satisfaction. For this reason, many companies see it as a suitable activity for outsourcing. They see the potential benefits as follows.

» **Improved product quality**: The high level of independence offered by an external testing agency leads to increased product quality.

» **Reduced costs**: By selecting a supplier with offshore execution facilities then it is possible to reduce the cost of the testing function.

» **Reduced time to market**: Testing can proceed in parallel with development. This ensures that the product matures earlier and can be released sooner. An offshore supplier can also more easily meet peak demands in resource.
KEY ISSUES WHEN OFFSHORING
Offshoring is seen by many as introducing more problems than it solves: cultural differences; communication issues; overinflated expectations; missed project deadlines; lack of understanding of key strategic goals. For that reason it is key for those unfamiliar with offshoring to work with companies with extensive experience of success.

THE TVS MANAGED SERVICE MODEL (MSM)
Through several years of successful offshoring experience with numerous clients, TVS has developed an MSM to address the key challenges in the implementation of an outsourced software testing capability.

» **Staffing:** TVS selects experienced personnel around a team structure that reduces the client management and communication overhead. A ramp-up plan ensures the resources are productive as quickly as possible with minimum disruption to the client.

» **Communication and Knowledge Management:** Well defined communication channels are created to ensure effective, efficient communication. TVS reduces dependency on the client through the efficient management of knowledge within the team. That knowledge becomes a deliverable at the end of the project.

» **Planning and Reporting:** A schedule of project deliverables is defined with clearly defined dependencies, quality targets, interim milestones and review procedures. Regular progress reports with corrective actions help to ensure completion.

» **Infrastructure and automation:** TVS creates the offshore infrastructure required to create the deliverables. TVS is also able to identify potential areas for productivity and quality improvements through automation.

» **Continuous Improvement:** TVS will ensure the continuous improvement of the service they provide through regular senior management reviews of the service delivery.

SUMMARY
There are significant potential benefits to be gained through the outsourcing of software testing including improved quality and reduced time to market. In addition, reduced costs will be obtained when the supplier is able to offer an offshore capability. There are however some risks, therefore any company considering this route should seek a supplier with a long history of success in both software testing and offshoring.

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