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*Mortgage Industry White Paper*

# **Ensuring ROI from Mortgage IT Offshore Outsourcing**

Process and Relationship Management Best Practices  
That Address Key Challenges to Full Offshore IT Satisfaction

*Tavant Technologies, Inc.*  
[www.tavant.com](http://www.tavant.com)

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## Summary

### Unlocking higher bottom-line benefits from offshore IT.

The mortgage industry, along with the financial services industry as a whole, has widely turned to offshore outsourcing of IT functions. Some companies have established their own offshore IT organizations, taking full responsibility for employee hiring, training, management and compensation. Others conduct offshore activities through outsourcing partners. Theoretically, offshore application development, system maintenance and specific IT activities, such as testing, create significant benefits thanks to the high levels of IT expertise available offshore and considerable cost efficiencies.

Although adoption is substantial and economic benefits have been realized, satisfaction with offshore IT outsourcing remains relatively low. Line-of-business and IT executives frequently cite issues with communication, productivity and quality of code relative to their requirements. Many companies find that they must deploy significant numbers of personnel to manage offshore organizations and processes. Consequently, while recognizing that impressive opportunities certainly exist, mortgage-industry companies still seek ways to unlock higher bottom-line benefits from offshore IT.

**This white paper outlines three critical principles applicable to optimizing IT offshore outsourcing** and provides concrete recommendation and approaches:

1. For each IT activity or development approach, offshore IT requires specific and unique adaptations to commonly used onshore processes. Getting these adaptations right, and adding the right global team interactions and delineation of roles & responsibilities is critical for success.

2. Deep domain understanding is an absolute necessity. Offshore developers and QA engineers must understand mortgage-specific processes to produce quality code.
3. Communication must be comprehensive, real-time and electronically replicate face-to-face team interactions.

### Tailoring processes to specific IT needs.

For application development, these principles need to be applied to two basic development approaches: Waterfall Development and Agile Development. In a Waterfall methodology, the movement of key staff between onshore and offshore at the right time is critical. In an Agile methodology, involving highly frequent code deployment, team organization and electronic interaction must be tuned to replicate the frequent face-to-face interactions exemplary of onshore-based agile development.

Application maintenance mandates another focus. Here, rigor in managing priorities and demand-supply capacity control across competing constituencies and absolute release scope freeze are particularly critical. This leads to an analogy with airplane travel. M&E teams are the fixed capacity of the plane. The plane take-off and landing schedule is the release schedule. The destination is fixed. A plane cannot be overloaded, it brings it down. Once the plane has taken off, it cannot be stopped. Forcing change in destination or forcing an unscheduled landing wracks havoc with all passenger's plans. Bringing an onshore and offshore team into the same rigor as required in airplane travel is the prerequisite for running offshore application M&E like clockwork.

Offshore testing requires the offshore QA team to engage early with onshore requirements and specification development. The process must also place a representative of the offshore team onshore, and foster close virtual collaboration in test-case development, have efficient remote-

access into onshore test environments and the highest levels of test automation.

### **Domain expertise as critical foundation.**

Domain training and certification of offshore engineers, architects and business analysts is the success foundation for all the above activities. The use of Loan Consultant, Underwriter and Processor training materials within a structured mortgage certification curriculum creates the domain foundation for optimal translation of requirements into quality code. In the initial stages of offshore IT, this may require sending onshore operations and sales experts offshore for extended time periods to jumpstart and conduct the certification. Virtual face-to-face interaction through video conferences and the use of virtual-team discussion spaces also improve the clarity of communication while decreasing response time.

The implementation of these approaches to offshore IT outsourcing reduces – often dramatically – offshore management overhead, and increases speed and efficiency. This makes a significant impact on economic benefits and, even more importantly, stakeholder satisfaction. Properly engaged, offshore outsourcing enables global IT organizations to work better, whether in a captive or vendor-enabled context, and realize significant bottom-line gains.

## **The Satisfaction Gap**

***“To reap real cost benefits, companies must internally prepare for an outsourcing relationship by altering their processes; expectations; and employees' skills, roles, and responsibilities.” – Forrester, Aug. 2007***

Senior business and IT executives recognize the value of offshore IT outsourcing. However, many have yet to realize the enhanced productivity and efficiencies they believe to be available to them. Some recent studies provide insight.

Alsbridge Research (2007) reveals that:

- > About 80 per cent of 300 corporate IT buyers surveyed were currently involved in IT outsourcing. Half of these would describe their outsourcing projects as “unsuccessful” or “partially successful.”
- > A large number of ITO (IT outsourcing) contracts are being considered for renegotiation in the near future. This primarily is due to poor satisfaction levels with ITO providers.
- > Buyers experience numerous challenges with IT providers and are unable to realize all the benefits associated with ITO.
- > Almost 70% of respondents state that quality-related issues represent their major challenge with IT service providers, followed by missed deadlines, cost overruns, lack of understanding of the organization's core business and lack of flexibility.

Diamond's 2006 IT Outsourcing Study offers that:

- > Forty-seven percent of buyers experienced an abnormal contract termination in the past year, while only two percent had their outsourcing expectations exceeded.
- > Some buyers are sending employees to their providers' offshore training centers for extended time periods to establish tighter partnerships and better working relationships.

A survey by CIO Magazine (2007) presented respondents' greatest offshore outsourcing challenges as managing communication (67%), cultural differences (51%), a lack of internal processes for specifying work (40%) and a lack of internal customer management skills (32%).

Clearly the results of offshore IT outsourcing lag behind its promise in spite of some impressive

achievements. However, companies need not abandon that promise since responses to their challenges and concerns clearly exist.

## Critical Success Factors

Addressing the opportunity presented by offshore IT outsourcing in a piecemeal fashion serves only to parallel playing one of those “whack-a-mole” games. Pound one creature down into its hole and another pops up elsewhere. No matter how quick you are, the game ultimately defeats you.

Making offshore outsourcing work requires a comprehensive approach to all of the variables that contribute to the success – or failure — of an IT project. **A realistic approach to success involves four specific factors. All must be addressed, and all can be controlled:**

> *Adapting processes specifically to the type of activity being outsourced.* This goes beyond the maxim that no one size fits all. Different IT activities and application development approaches require different adaptations to be suitable and efficient in an offshore IT context. Successful outsourcing begins with making the right process choice.

> *Delineation and clarity of responsibilities.* Whatever the task and the process best suited to it, buyer and vendor roles and responsibilities – for both onshore and offshore teams – must be detailed and agreed upon in writing. A clear understanding of roles more tightly integrates both organizations.

> *Domain certification of development and quality engineers.* Business-critical IT projects serve specific purposes related to an organization’s industry and way of doing business. As such, offshore engineers must understand the industry in detail in order to interpret specifications correctly, ask the right

questions and produce quality functionality on first-code delivery.

> *Establishment of real-time and electronic face-to-face communications.* Offshore IT activities deliver real value only when they respond to human needs – the vision of increasing customer satisfaction while achieving greater efficiencies within the organization. Such needs can only be defined through communication that overcomes language and cultural barriers as well as email and telephone delays. This entails a mix of communications media, including travel (in-person meetings build trust and understanding as well as serve as forums for better expressing needs and responding to them), video conferencing, and chat and electronic team-collaboration tools.

A holistic approach optimizes the resources provided by offshore IT outsourcing companies to keep projects on schedule and within budget while maximizing effectiveness.

## Optimizing Offshore Application Development

In today’s application development environment, companies typically follow either a Waterfall methodology or an Agile development approach. Selection of the most appropriate approach is often dependent on the dynamic nature of the business environment, project size and development timeframes. Hybrid approaches have also emerged to combine advantages of both. Whichever approach is chosen, it must be adapted to critical offshore IT success factors to ensure efficiency and success.

### Waterfall Methodology

The Waterfall methodology is a more traditional approach used successfully by many organizations onshore. It is the right approach to take when the functionality of the application can

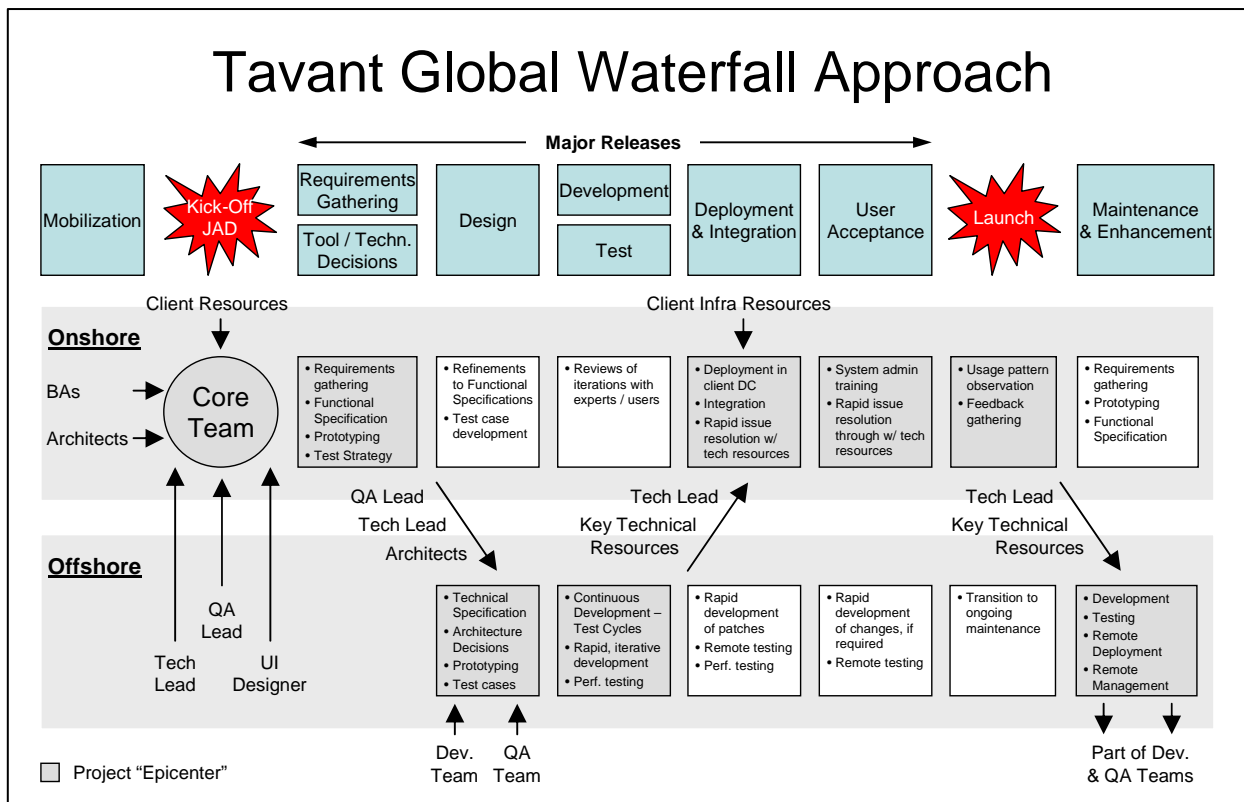
be clearly defined upfront and the desire is to work in a structured and well documented sequential process environment.

To make Waterfall methodology-based application development work in an offshore outsourcing environment, the following process elements are critical:

- > Kick-off working sessions held onshore so that subject matter experts and all key offshore contributors, including those leading development cells (Tech Leads), QA Leads and UI Designers, start on the same page.
- > Requirement gathering and development of an application UI prototype.
- > Technical team travel offshore to physically transfer detailed knowledge of applications and business context to the offshore development team.

- > Releases structured so that drop frequency is no longer than one month. This provides business stakeholders with the ability to give frequent feedback.
- > Onshore arrival of key technical resources bringing code. Deployment issues then can be resolved rapidly. Knowledge transfer takes place face-to-face with onsite, client technical and infrastructure staff.
- > User Acceptance Testing (UAT) sessions with technical resources sitting next to business stakeholders. This enables first-hand understanding of what needs to be changed and facilitates rapid bug fixes.

A Waterfall-based methodology which includes these elements inherently maximizes face-to-face communications while providing a release drop frequency of no longer than one month.



**A focus on best practices.**

Any Waterfall methodology must draw upon best practices acquired through experience. For example, Tavant's methodology includes:

- > Upfront creation of UI mockups to provide a visual application prototype. This enables business stakeholders to better respond by eliminating thick requirements documents and bulky specifications.
- > Closed, detailed, joint on-site meetings before a project begins. This promotes greater understanding of requirements, project architecture, plan process, and methodologies. Meetings also serve to set realistic, achievable goals.
- > Monthly delivery of a fully functional project component enabling the customer to "touch and feel" what has been developed. Clients and end users see and test the application to provide continuous feedback.
- > Continuous progress measurement in terms of completed features based on user acceptance tests.

At the completion of every phase, Tavant representatives travel to the onshore customer to ensure a smooth and accurate release.

**Agile Methodology**

Much has been written over the last decade about the need for greater flexibility in creating and implementing applications to automate business processes. The Agile methodology represents a proven way to:

- > Increase developer productivity for a faster path to working software
- > Speed response to changing customer needs with minimal cost of change

- > Maximize development discipline and developer focus at all times

As practiced by Tavant, process management is facilitated through daily stand-up meetings and physical project big boards that illustrate user stories, tasks assigned to developers and progress. The Agile methodology rests on several foundations that offer critical advantages:

- > Work is performed in fixed-length iterations – typically 2 weeks long – that result in continuously working, tested code
- > Work is done just-in-time in each iteration to address only the user stories (features) targeted for the current iteration – nothing more. This includes detailed requirements specification, design, and coding.
- > Frequent team interaction replaces detailed documentation
- > Detailed requirements are expressed as acceptance test cases for each user story (feature), making it easy to track progress

**Agile adapted to offshore context.**

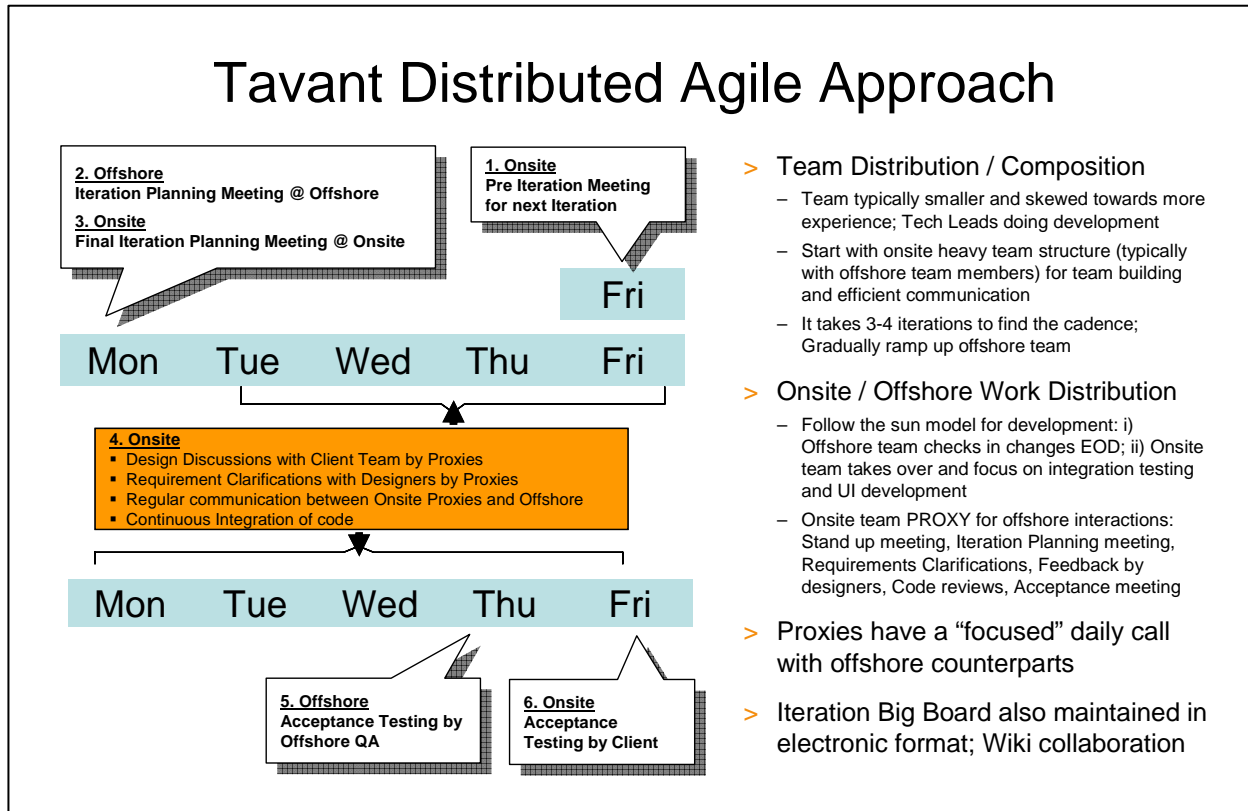
While the Agile development approach represents a newer concept, it has been tested in the often-turbulent waters of real-world, offshore-enabled application development. Although this methodology relies heavily on face-to-face interactions to allow for minimal documentation and thus favors team co-location, it can be applied successfully in an offshore IT outsourcing environment.

Through its experience with this methodology, Tavant has identified and implemented best practices that make Agile development work with offshore resources, including:

- > Stories continue to be written onshore by business stakeholders

- > Iteration planning undertaken offshore and verified with onshore stakeholders through an onshore “proxy” representative present with the offshore team

accumulated at the end of one team's workday provide immediate stimulus to the other team as it begins its own day.



- > Daily stand-ups taking place both onshore and offshore with the offshore team represented by an onshore proxy who holds daily focused conference call with the offshore team
- > Physical big boards with information moved to electronic big boards
- > Provision of a continuous remote demos to client business stakeholders

Tavant’s distributed Agile methodology compresses the time required to produce an application with offshore outsourcing benefits.

Integrated, agile onshore-offshore teams can virtually work “around the clock.” Results

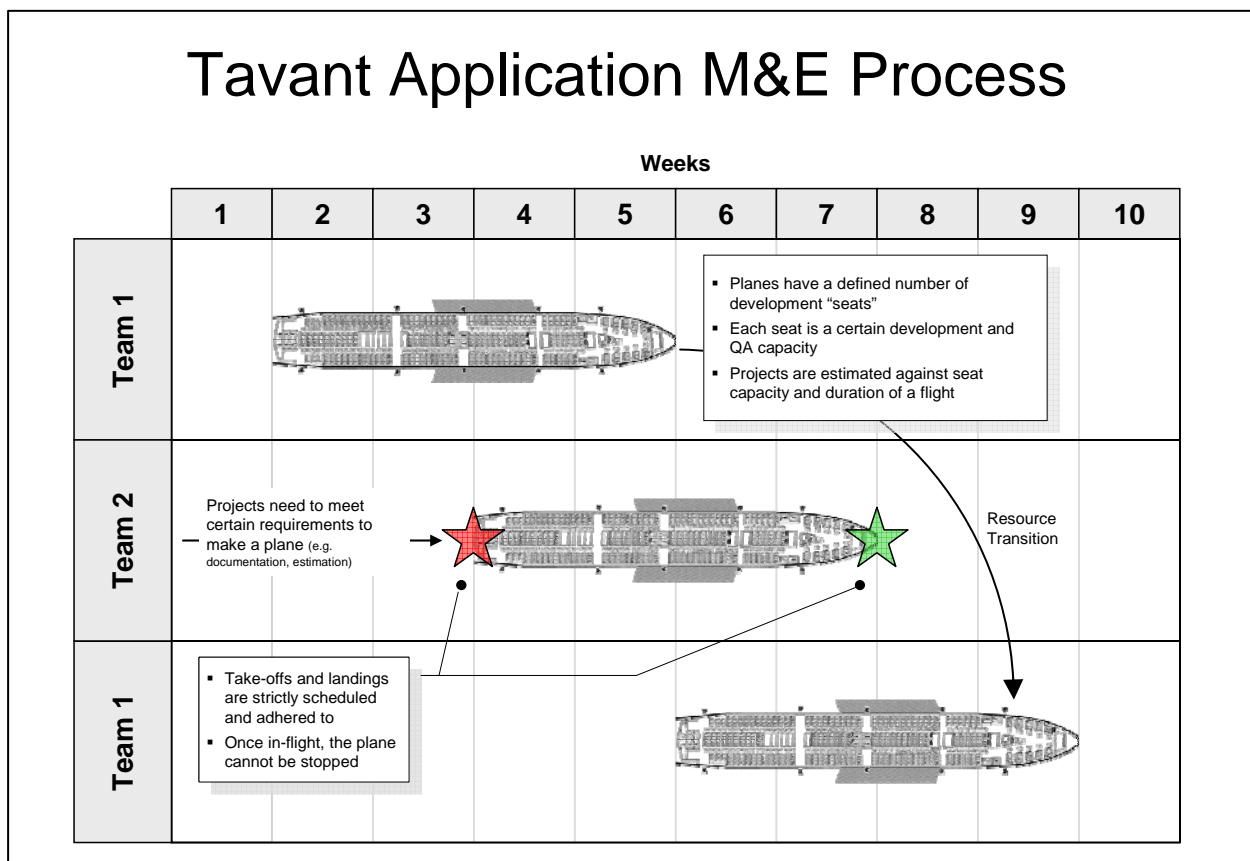
## Ensuring Predictable Offshore Application M&E

Processes for maintaining and enhancing applications require a different approach from those for developing them. The continuous need to refine an existing system necessitates a model that is not project-based since an offshore-outsourcing company must dedicate resources on an ongoing basis, manage the prioritization of initiatives and ensure a predictably continuous flow of releases. Whereas in development projects, changes can be accommodated and plan slack is available to adjust, M&E releases require absolute precision.

Achieving this precision in an onshore-offshore context is the challenge and puts a particular emphasis on managing what goes into a release and guarding a release once it is in progress. Development demand and supply must be aligned for maximum responsiveness and efficiency to enhance an existing application. M&E processes in general, and relating to offshore IT outsourcing environments in particular, fail when processes are not managed rigidly and too much is expected from M&E teams in any given release.

- > Release content discipline to assure punctual releases within tight business window and at desired M&E frequency

Process discipline cannot be underestimated. Offshore application M&E often fails because people, rightly concerned with the success of the project, try to get changes into a release until the last minute. A proper M&E methodology overcomes this by recognizing – and avoiding – what may be termed an “airplane metaphor.”



Critical process elements therefore include:

- > Standardized and accurate estimation of maintenance and enhancement efforts
- > Standardized prioritization across competing constituencies to ensure that development demand and supply align

Every plane has a fixed capacity – a set number of seats assigned to it. This mirrors the fixed engineering and QA capacity available for an application M&E. A plane cannot be overloaded without stretching the crew’s capabilities and risking catastrophe. The same is true for an M&E release. Overloading capacity will delay

the tight release schedule and tight business maintenance windows. Moreover, once the plane takes off, it cannot be stopped and brought back without negatively impacting its schedule. Therefore, anyone who misses a plane (or the Release) must wait for the next.

Although emergencies always come up in application M&E, they need to be dealt with outside of the “plane metaphor” based M&E process. Best practice is to forehold separate emergency capacity, which becomes a ‘bonus’ to the ‘plane’ if no emergencies emerge.

**Maintaining best processes.**

Maintenance and enhancement requires detailed management of proposed initiatives and their relative priority. Offshore development staff and onshore business stakeholders must accurately compute effort estimates (personnel requirements) as well.

At any given point, a prioritized and estimated list of initiatives must be accompanied by a published cut-off time after which the application's fixed M&E capacity has been filled. This, in effect, requires new initiatives to wait for the next plane to keep the system functional.

**Offshore QA/Testing**

Quality Assurance initiatives demand yet another methodology. All activities except for QA take place onshore. Offshore resources must be integrated for QA and testing only.

**Best practices raise quality.**

Tavant's experience in this area has led to the adoption of a number of best practices ensuring timely, accurate and cost-effective QA/Testing:

- > Presence of an onsite QA coordinator with strong business analysis capability

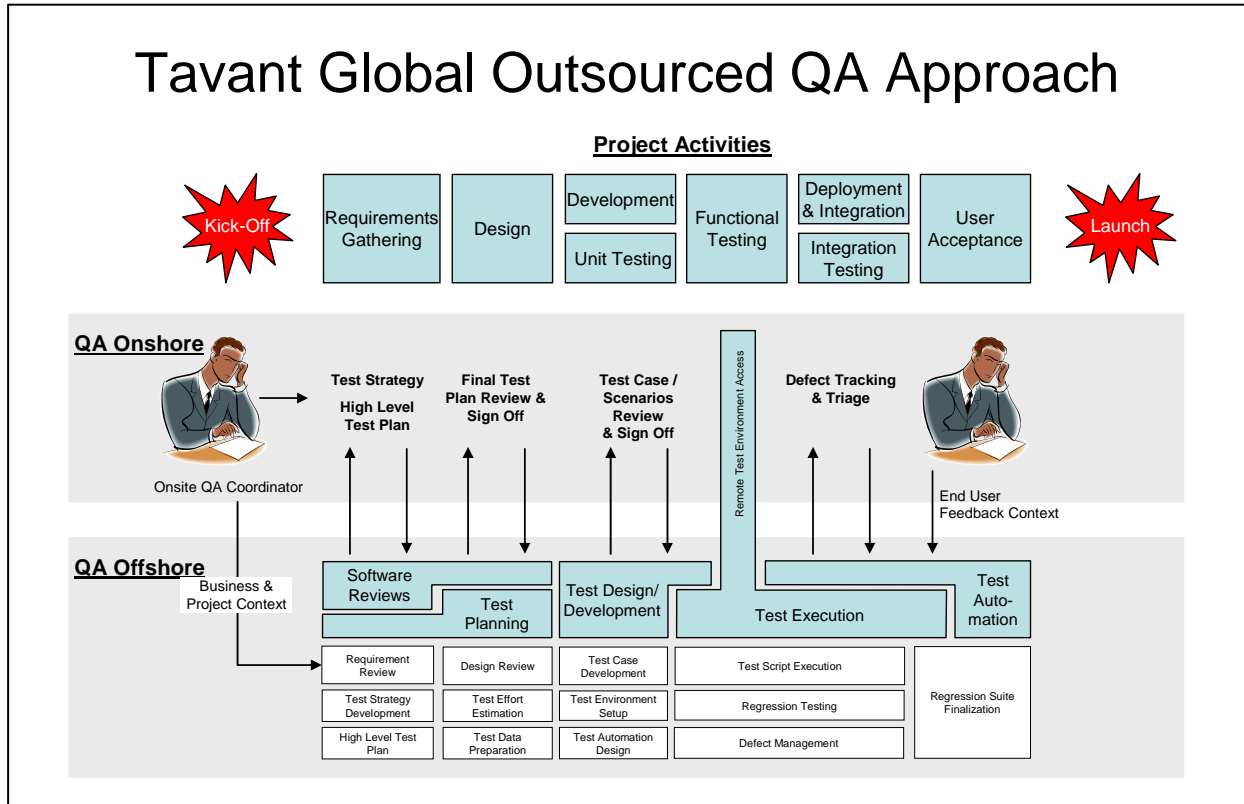
- > Early involvement of QA in the project/initiative process
- > Early test-case development and review by onshore business-analysts and development staff
- > Remote access into onshore test environments
- > Highest automation levels in regression testing
- > Electronic, remotely accessible bug-tracking and test-management tools
- > QA engineers with domain understanding

By adhering to best practices, companies can take full advantage of “testing with the sun.” This enables code completion onshore during business hours, offshore QA testing to take place during the onshore location's night hours, and readying of a defect list so that onshore developers can address it in the morning. Clarifications and defect triaging take place during time-zone overlaps. This process minimizes overhead and encourages testing and overall project efficiencies.

**The Role of Domain Certification**

The value of setting and determining the right process framework cannot be overestimated. But it is not enough. IT does not work in a vacuum. Every application functions in a distinctive business environment to achieve a specific objective.

Speeding the development or maintenance/enhancement of an application and maximizing its business effectiveness requires that everyone on the offshore team understands the business. Each engineer must not only be technically proficient but trained in the subject matter



domain and client specifics. And that domain expertise must be demonstrable.

Within the mortgage industry, a domain-specific curriculum should encompass:

- > Credit Analyst, Processor and Loan Consultant training materials
- > A rigorous approach to study
- > Objective, comprehensive testing with strict requirements for certification

This, however, represents only an initial phase. Domain knowledge constantly evolves. Tavant implements certification training and testing in the mortgage domain then follows up with ongoing refresher courses as well as certification at multiple levels to qualify employees for more complex tasks.

If domain knowledge is invaluable, so too is the knowledge of how a client company does

business. Mortgage industry leaders have risen to their position through innovation and adoption of proprietary methods. To keep pace, offshore engineers must also obtain additional training in client-specific processes.

### Efficient Global Communication

At the outset of an offshoring relationship, key players should be brought together both onshore and offshore to form viable teams. People need to get to know each other in order to make remote communication more efficient and avoid potential misunderstandings.

Communication policies should include:

- > Weekly video conferencing for status evaluation
- > A preference for telephone calls – they are truly interactive – over e-mails

- > Tracking of electronic discussions in virtual-team rooms rather than e-mail chains
- > Periodic travel to bring people together
- > Travel of subject matter experts (SMEs) offshore at key times in project implementation

Working with offshore resources knowledgeable in the mortgage domain and skilled at communicating presents the best assurance that expectations will be met.

## Conclusion

The opportunities made available to the mortgage industry by offshoring IT functions remain highly attractive. While a number of companies within the industry have realized lower-than-expected benefits, the problem lies not with the concept but with its execution – the selection of the right offshore partner.

An effective offshore partner addresses each IT function – application development, application maintenance and enhancement, and QA/Testing – separately. It recognizes that these functions, while related, require different process adaptation to be successful.

To obtain desired ROI, a mortgage-industry company must recognize this principle and search for an offshore partner who practices it. Jointly, customer and vendor must carefully delineate responsibilities so that global teams work effectively, establish communications that speed the flow of information, and demand domain certification to assure that offshore engineering teams understands the business.

Offshore IT outsourcing represents the global economy's drive to utilize the most effective, efficient resources available. Mortgage-industry companies who approach this opportunity correctly will ensure ROI from offshore IT while building their competitive positions.

## About Tavant

Founded in 2000, Tavant has quickly grown to a company of over 1,000 professionals delivering global IT solutions and services through its India-based development centers and Santa Clara, California, headquarters.

Tavant's strong foundation of engineering excellence and process maturity combined with a deep understanding of the mortgage domain make it the optimal IT offshore outsourcing partner for the mortgage industry.

Tavant accelerates software development through modular, configurable and SOA-based solution platforms resulting in quick delivery of reliable custom applications. We uniquely combine IT Services, mortgage functionality components and mortgage solution platforms to create rapid ROI.

We approach Application Maintenance and Enhancement and IT Services such as Quality Assurance/Testing with the same dedication, rigor and best practices to process execution and problem solving.

Tavant is a SEI-CMMi Level 4 certified, SAS certified and ISO 27001 compliant organization. Tavant has been recognized as a Top Employer in India by Dataquest and other organizations. Our high customer-satisfaction and employee-satisfaction scores reflect the passion we bring to IT services and application development, and the results we achieve for our clients.

For more information:

**Call us at 866.9.TAVANT (866.982.8268)**

**Email us at [bizdev@tavant.com](mailto:bizdev@tavant.com), or**

**Visit us at [www.tavant.com/lending](http://www.tavant.com/lending)**