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Agile Testing

Agile Collocation

Combining the powers of Agile Testing and Global Delivery Model

by Uday Ghare & Ravi Sheshadri

As Charles Dickens once said, "It is not the strongest of the species that survives, or the most intelligent, it is the one most adaptable to change." This has never been truer than in the current recessionary environment, and is thus an important part of successful post-recessionary strategies. To survive in the market place, the customer has to adapt to change rapidly and on reduced costs.

The Agile model is based on the concept of adaptive methodology. The core differentiation from the traditional waterfall model in the Software Development Life Cycle [SDLC] is that there is iterative agile testing, early participation of all stakeholders (including the customer), early visibilty of the product and an iterative approach towards building the final product. In a nutshell, this is an approach that adapts to change in its entirety.

While the advantages of agile testing are obvious and well known, it is imperative to understand its challenges/disadvantages such as high costs, heavy onshore and people-dependent communication. This paper aims to understand and address the challenges of agile testing by introducing an offshore collocation center. This collocation center works towards making the agile testing process quicker, faster and, most of all, cheaper by amalgamating the agile process onto an effective offshore-based delivery model. However, before moving onto Agile collocation center, it's of utmost importance to understand and appreciate the innovative way of offshoring (i.e. the global delivery model).

Global Delivery Models (GDM) have been instrumental in providing cost-effectiveness on IT spends for customers around the globe. The access to low-cost and efficient resources with heterogeneous skill sets and core domain competency have been the drivers for GDM. The advances in IT computing and communications have made this possible and have served as the impetus to encourage customers to look beyond geographical boundaries in order to gain cost advantages. GDM has been successfully implemented for large-scale programs on varied SDLC and has proven to reduce costs and increase access to a larger pool of skilled experts.

So how does one implement an Agile Testing strategy in an offshore collocation model?

Agile Testing demands continuous integration testing across iterations and test phases. Throughout the phases there are two keys aspects:

1. Effective communication channels for faster issue resolution, and
2. Test environment availability and resilience to accept continuous code releases.

GDM also necessitates better communication channels, as the overall work is scattered across time zones, locations and sometimes different vendors. Therefore, communication is a common success factor in both Agile and GDM, and so we introduce the model of "Agile Collocation".

Agile Collocation is an approach to get all key stakeholders on the program together in a single location, with higher representation from the testing community, preferably 60 to 70%. The remaining 30 to 40% would be representatives from component development team, solution design team, environment support, business representation etc. The greater percentage of testers is necessary to maintain high levels of throughput in the testing phases. Also, this is imperative, because success on an Agile testing project is most often derived by test-driven development and delivery management.

The choice of the location could be based on where the maximum cost benefits are derived. For example, if the customer has a lot of work distributed in an offshore center, then an Agile Collocation center could be built offshore at one of the vendor premises through an RFP process or mutual agreement.

Another important aspect to further expedite testing is that the Agile Collocation center's network infrastructure can be setup as a customer's extended network. The advantage is that the people working in the center will be part of the customer network with:

a. no access to their individual company networks/intranet resulting in data security, and

b. fewer firewall restrictions resulting in lower transaction response times

Agile Collocation is a continuously running center in which the testing team will have direct access to representatives from business, project executives, solution/process design and individual component/application development representatives. With direct coordination, the model tends to expedite the defect resolution process and also ensures direct ownership for all issues.

Key factors responsible for the success of an Agile Collocation center include:

1. Clear and continuous communication
2. Trust-based relationships
3. The ability to acknowledge and overcome cultural challenges
4. Building remote domain knowledge
5. Technical infrastructure to support distribution

Key features of Agile Collocation are:

- **Test-driven development**

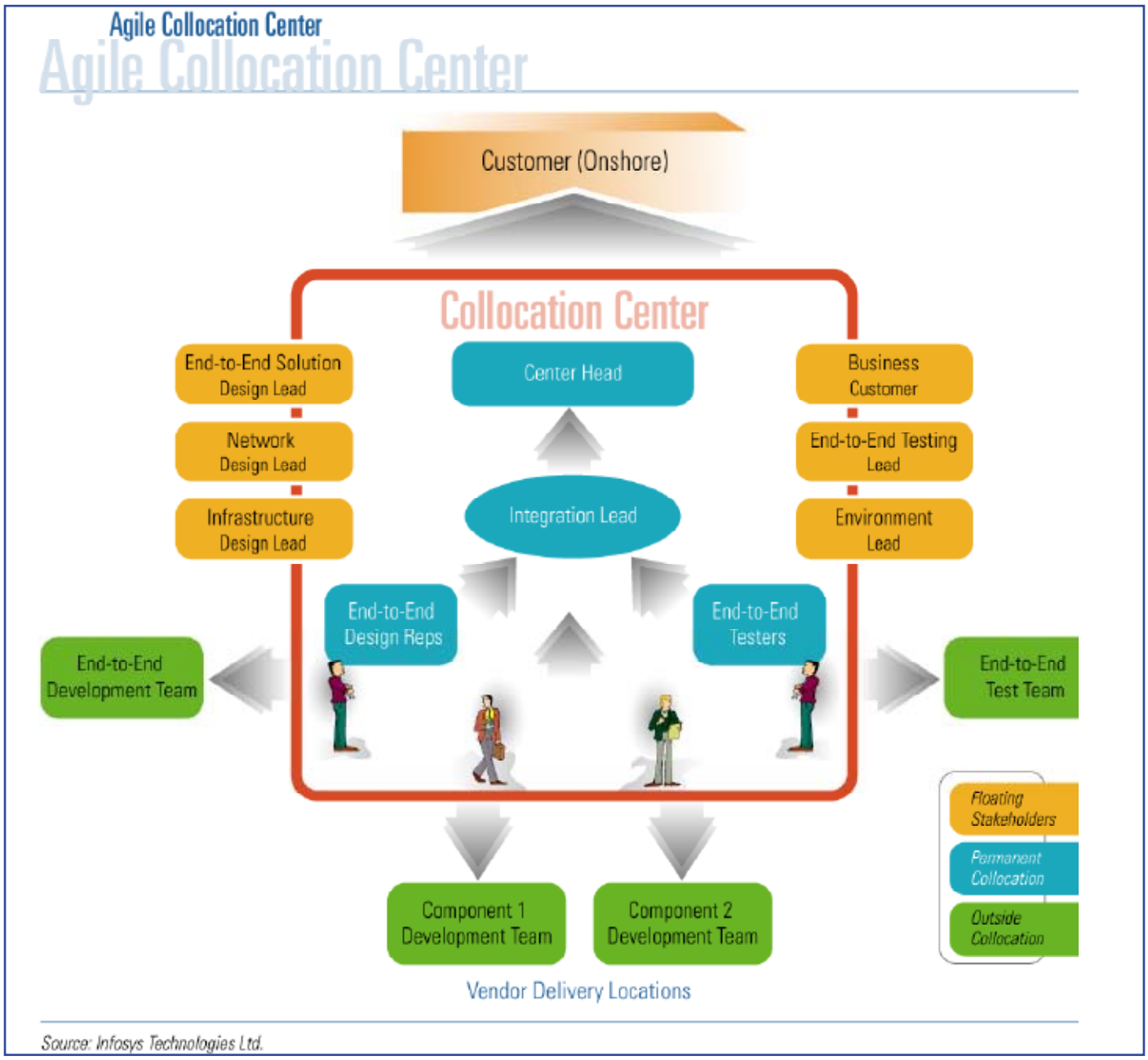
- Test leads driving the delivery by chairing the scrum/daily calls with decisions made on daily code drops, environment/model changes and defect management.

- **Ownership of issues**
  - Improved process resulting in faster turnaround time
- **Better communication**
  - No emails, emphasis on face-to-face communication resulting in faster issue/defect resolution.
- **Better end-to-end coordination**
  - Design, development, test, business and across E2E delivery management under one single roof, with one single common objective of delivery excellence.
- **Increased senior management focus**
  - Emphasis on problem resolution, forward planning and effective escalation process for blockers.
- **Coordinated collocation model**
  - Model cutting across the program resulting in better information sharing, in a regular cohesive fashion.

Customers receive enormous cost benefits and effort-savings due to a test-driven Agile Collocation model. By transferring more work to the Agile Collocation center, the need for maintaining people onshore is reduced considerably, and the customer could go with a reduced onshore team and the remaining people at an offshore collocation. While onshore costs are reduced dramatically, Agile Collocation also provides the added benefit of direct offshore effort reduction due to cutting down on communication delays, continuous environment monitoring and faster, quicker resolution of defects and show stopper issues. A typical offshore effort saving of 40% is envisaged by customers implementing an Agile Collocation Center.

A well implemented Agile Collocation Center brings in huge cost benefits due to a high degree of offshoring, optimization of efforts by effective coordination and direct ownership of defects/issues. Agile Collocation helps to reduce time-to-market and total cost of ownership. More importantly, this model brings the best out of all stakeholders, to achieve the program commitments, by establishing a clear vision, continuous communication and trust-based relationship.

It is vital to understand that this model inherits all the values and practices of the agile process, and the model is to be used in conjunction with the agile process, not instead of it. Agile excellence by offshoring is an innovative extension of the agile process and not a replacement for the agile process.



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Biography

Uday Ghare (Uday_Ghare@infosys.com) is a Group Test Manager with Infosys Technologies. He has over 13 years of IT experience in the Telecom and Media domains.

Ravi Sheshadri (Ravi_Seshadhri@infosys.com) is a Group Test Manager with Infosys Technologies. He has over 13 years IT experience across Banking, Energy & Utility, Communication, Media and Entertainment domains.

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