Mindtree
Welcome to possible

WHITE PAPER

Transform the way your enterprise tests applications for success in a connected world

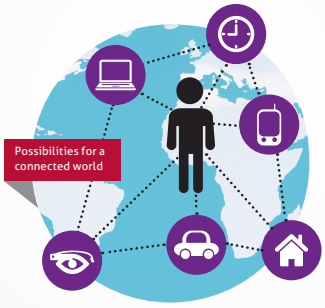
The changing business context of a connected world places new demands on enterprises

We live in a connected world where not only is technology becoming more pervasive and conveniently accessible, but it is also radically changing what our customers and end consumers expect. Businesses compete not just at the level of individual products or services, but also in terms of the customer experience they deliver and their sustained ability to improve on it.

On the one hand, enterprises are empowered by the multiple platforms that are now available to them to engage with their customers. But on the other, it also means that customers can now choose the channel(s) through which they wish to engage with enterprises. They will hold enterprises to high standards of engagement across all channels (subject, of course to inherent limitations of the channel itself). And what's more, customers now have greater opportunity to express their delight or displeasure via ubiquitous social media channels.

As a result, enterprises must develop and deploy an integrated Omni Channel-friendly applications landscape.

Is your test strategy ready for the connected world?



Moving from testing applications to testing customer experiences

Conventional testing approaches are inadequate in the current business context

Based on the changing context of business and technology that is summarized above, we believe it is time for enterprises to take a fresh look at how they approach application testing. Traditional testing paradigms were designed for individual applications and as such, were based on a simplistic conceptual model of assess-define-execute-improve. But when this model is applied at the enterprise-level to accommodate what "business" needs in a connected world (e.g. multi-platform, Omni Channel application portfolios), the assessment may become subjective or open to interpretation. In turn, this could lead to partial implementations or inadequate testing of scenarios / use cases.

Further, traditional approaches to testing have a higher risk of inadequately assessing:

- If the CIO's application portfolio is truly aligned to business requirements
- If what is being tested are indeed validated goals
- If other stakeholders are working towards the same goals
- If adequate emphasis is being laid on end-to-end customer experience

A new approach to testing

We believe that a new testing model is required to ensure that an enterprise does indeed have the right portfolio of applications at its disposal, that they are geared to consistently deliver superior customer experience across various channels, and to specifically overcome the above-mentioned shortcomings of conventional application testing approaches.

In a connected world, the move to a new testing paradigm must be determined on the basis of the following facets of the enterprise and its IT portfolio:

- Current maturity level of testing
- Potential for integration
- Complexity of the application portfolio
- The likely impact of the transformation

All of the above requirements must start with an end-to-end customer experience view across the enterprise and across business process. For example, consider customer acquisitions. There are indeed multiple channels and touch-points through which customers are on-boarded. The new connected testing paradigm will consider acquisitions in its entirety, even as changes to individual applications and touch-points are made.

The biggest difference is hence a business process or customer experience point of view as opposed to application portfolio-based testing.

Our new testing paradigm rests on three well-defined pillars:

The first is a clear and well-articulated **Vision** that tangibly connects enterprise IT with business outcomes such as customer centricity, service delivery excellence and value creation. That way, the testing team can test the applications to establish the degree to which such business outcomes are being achieved by the various applications. While defining and articulating the vision, the following elements must be considered:

- Shared services and CoEs (Centres of Excellence)
- Test data management
- Methodologies and governance
- Performance and automation
- Reusable and common test strategies
- Adequate resourcing models

The second pillar that supports our new testing paradigm is **Accountability**. It is vital that all the different stakeholders associated with developing, testing and deploying applications take individual and collective ownership and responsibility for the quality of products, services and communications. The testing organization must aim to constantly improve itself based on how

the overall customer experience is being evolved and addressed. This will require the testing leadership to focus on continuous improvement of testing processes and not limit itself to monitoring measures of test execution such as effort or defect density for a given project.

Rigor is the third pillar that must be in place to ensure that the edifice of the new testing paradigm is well-supported and balanced. This is about not compromising on goals that have been determined to be critical to business by modifying existing practices. For example, consolidated views of testing results that transcend individual applications or projects can shed light on how the application has contributed to achievement of larger business goals such as customer experience. In a connected world, such a measure is vital to create and adopt.

New organization structures and governance mechanisms are necessary to support evolving testing methodologies in a connected world

In a connected world, business relies on greater collaboration; so why should testing not do the same? We believe that testing organizations must leverage crowdsourcing, shared service teams and eventually, dedicated centres of excellence to drive better alignment between technology applications and the enterprise business goals that they seek to support.
A connected world is evidenced by a higher level of standardization across processes, tools, templates etc. The objective is not just to save time and money but more importantly, to reduce the risk of non-standard practices causing divergence with agreed business goals, even inadvertently. Why then should application testing for a connected world not adopt a similar approach?

New organization structures must be backed by appropriate governance mechanisms. The testing paradigm suitable for a connected world must cover the following elements:

- Prioritization of projects that drive portfolio testing strategy
- Integration with all phases of project / product life cycle
- Risk-based testing
- Testing data management
- Measurement and governance
- Development and use of automated testing tools (including robots) and adoption of reusable components to enhance speed and reliability of testing processes
- Training and people development in the context of new models such as Shared Services Units or Testing Centre of Excellence

Smart testing: more than just test tools and automation

Rationalizing testing tools is an essential element of our new testing paradigm. It goes much beyond test automation; indeed, tools must also be used for key testing processes and activities such as:

- Customer process-driven planning and scheduling
- Project portfolio linkages to customer experiences
- End user engagement
- Integration with architecture planning

Next Steps

The benefits of testing transformation can only be realized if the transformation is aligned with the outside-in approach. This means aligning testing portfolios with end-to-end customer processes spanning across application portfolios. Creating a roadmap to achieve this minimizes the magnitude of change while creating a more nimble organization to meet the needs of today's Omni Channel and connected world.

About the author

Shiva Hiremath, General Manager, Testing Practice, USA at Mindtree responsible for Testing Practice in the US. Shiva manages the testing business across industry verticals and helps define and implement strategic QA transformation solutions for customers. Prior to joining Mindtree, Shiva played the role of Testing Practice Manager for Wipro's US geography focusing on providing solutions for Telecom and Datacom customers. Shiva has presented in several testing conferences such as StarWest and has written blogs on testing trends and challenges

About Mindtree

Mindtree (NSE: MINDTREE) delivers technology services and accelerates growth for Global 1000 companies by solving complex business challenges with breakthrough technical innovations. Mindtree specializes in e-commerce, mobility, cloud enablement, digital transformation, business intelligence, data analytics, testing, infrastrucure, EAI and ERP solutions. We are among the fastest growing technology firms globally with more than 200 clients and offices in 14 countries.