ThincGlobalSoft
Powered By Quality And Innovation

Whitepaper

Testing Center of Excellence

- An IT imperative

Despite the vagaries of economy, competition has far from slowed down and businesses today have to take a closer look at their operational efficiencies to sustain and justify themselves. The growing demands of clients coupled with faster adoption of technology advancements pose a serious challenge to IT enterprises encumbered to deliver innovative products with minimum time, investment, and effort. Quick turnarounds do not necessarily imply quality of service – and businesses in their attempt to deliver faster solutions fall back on quality, face operational hurdles, and ultimately incur higher costs.

Testing in IT organizations is complex with shorter development cycles, new methodologies, limited resources, and constant churn of systems and processes. The execution of testing in IT organizations despite growing challenges leaves much to be desired. There is a clear lack of structured, organized testing methodologies that fail to keep pace with business demands cost-effectively and quality-consciously, extending time-to-market for mission critical systems.

"The growing complexities and infrastructure investments needed to adequately address massive testing needs will force organizations to seek out third parties for expertise across a variety of testing services and for lowering internal testing costs."

*IDC Study on Discrete Testing Services Forecast 2013-2017**

Emergence of Testing Centers of Excellence (TCoE)

Today, traditional testing models are moving out of project and business teams and making way for the emergence of a centralized and independently managed Testing Center of Excellence (TCoE) that optimizes processes, best practices, and tools to deliver proven results and increase testing effectiveness. By managing its own pool of resources and with standardized methodologies, a TCoE deploys its testing solutions across multiple projects, ensuring a high level of quality and lower failure rate. However, businesses need to manage the transition into a TCoE bearing in mind the potential benefits that outweigh the preliminary costs and efforts involved in change management.

Challenges overcome by centralized TCoE

Through optimal usage of business resources and technologies, alignment to IT goals, and better measure of effectiveness of testing processes and the quality delivered as a quotient of the investment, transition to a TCoE overcomes several challenges posed by outdated frameworks.

- ### *Starting from scratch*

  Testers working on independent projects start afresh for each testing requirement and need to work ground up to understand project requirements and engage with developers without the support of shared components or scripts.

- ### *Patchy learning and improvement*

  A decentralized testing model offers no scope for assessing current practices and identifying areas of improvement.

*http://www.idc.com/getdoc.jsp?containerId=241998

- *Assignment of quality resources*

  Earlier, projects were assessed and prioritized for the scope of work and projected business revenues. Resource allocation hinged on the best being slotted for large-scale projects, and this resulted in dearth of a shared knowledge pool of processes, best practices, and technologies, leading to poor quality, higher instances of production errors, and shoddy productivity of the testing function.

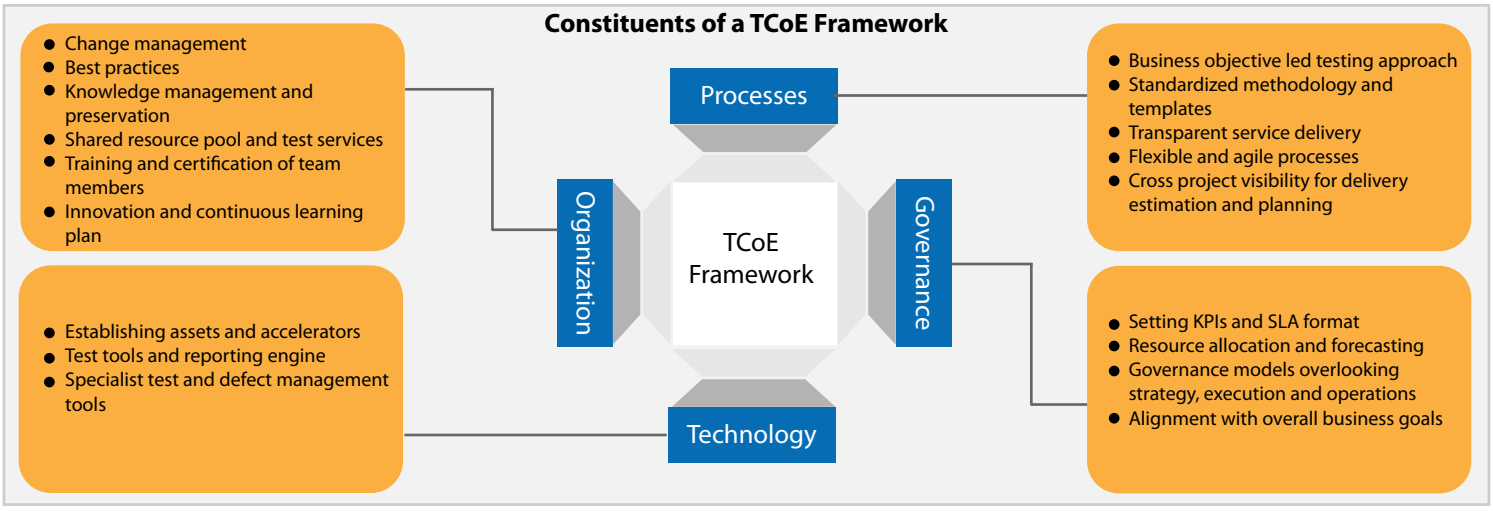
- *Low standardization and collaboration*

  Technology and business requirements are changing at a dizzying pace and silo-ed testing teams cannot respond to the demands swiftly. Without the adoption of standardized quality practices, clear documentation, and good cross-project visibility, critical applications often falter in meeting deadlines and reaching the market on time.

Structure of a TCoE

In a typical TCoE setup, People – Process – Technology assets are pieced together with an overarching governance model backed by strategic enablers. Through standardized industry-backed testing solutions, the TCoE can clock in significant savings by maximizing returns on testing investments, and enhance quality with an almost negligible defects rate, offering scope to reinvest in building core competencies. A dedicated test center also helps firms perk up the range of testing services with a shorter delivery cycle, better quality, and low cost, all of which equates to a higher score on customer satisfaction.

Despite the obvious significance of installing a structured TCoE, businesses are wrought with teething issues including lack of resources and expertise and resistance to change for the considerable organizational transformation and realignment entailed in the transition. A recent IDC study has forecasted that many businesses will resort to a trusted, third-party service provider who will function as a strategic partner with the requisite knowledge, tools, and expertise in TCoE capabilities.



Investing in an outsourced model of TCoE requires substantial ownership from the top management and execution initiated at the bottom levels of the organization. It is imperative to assess the organization to firm up and tailor the transition to match the industry, overall needs and business goals, standard practices, and culture before commencing the TCoE incorporation. The factors to study include -

- Maturity of the organization in terms of cultural receptiveness towards adopting new standards
- De-facto quality processes in the organization to understand integration of quality in service delivery
- Skill set availability to plan, forecast, or initiate training to develop a dedicated core test team as required
- Buy-in from top management in leading the TCoE installation and compliance involves setting strict governance guidelines, tools, and processes
- Standardization of industry-led test practices and automation of processes as a precursor to TCoE establishment
- Identifying performance metrics mapped with the core business objective and role of IT in overall business to set benchmarks and justify investments once the TCoE is set in motion

Steps in transitioning to TCoE

Establishing a TCoE is a multi-pronged process that involves a careful, phased progress after assessing the ground realities of the IT organization. An important point to note is that TCoEs can also be virtually installed – which means that a physical change in structure and centralization is not mandated. Based on the requirement of the firm, testing teams can either be co-located or virtually deployed thus enabling collaboration of best practices, tools, and resources.

While the path to TCoE implementation may vary from firm to firm, a four-phased approach is set as a general guideline during transition –

Phase 1 - Standards and Governance Process Introduction

Here companies without prior formalized test practices are familiarized with fundamental policies around software and application testing. This phase includes defining and putting in place governance processes, and introducing the teams to basic reporting formats and metrics for quality standards.

Phase 2 – Establishing Test Infrastructure

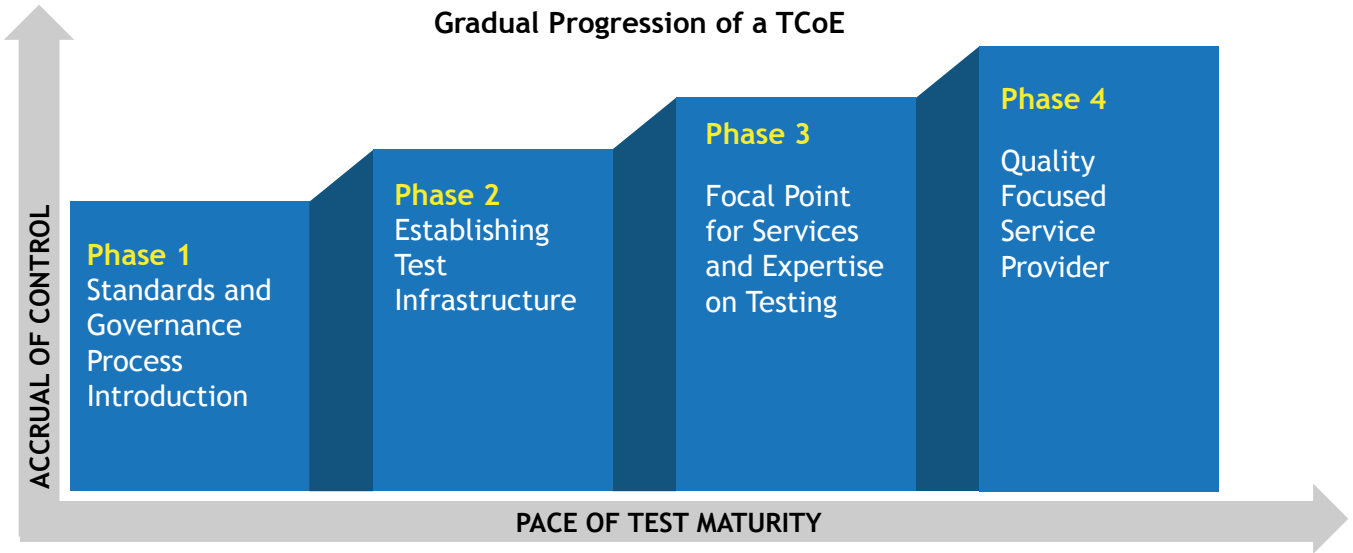
Earlier, teams garnered their own set of tools and platforms while establishing the best possible testing environment to execute QA projects. However this leads to teams working in silos and generating incompatible assets that cannot be commonly utilized, thereby increasing redundancy and wastage. In this phase, the TCoE functions as a shared service; while QA and test personnel are rigorously trained on strict guidelines and frameworks, the firm can benefit from consolidation of tools, frameworks, and processes and reuse of scripts and components, thus realizing tangible benefits through lower costs of test automation.

Phase 3 – Focal Point for Services and Expertise on Testing

After certification of experts and implementation of industry-leading test practices, the firm is now geared up to utilize the services of the TCoE to test complex business applications spanning multiple projects. Here, continuous improvement and learning can generate expertise in various facets of high-end testing that is focused on delivering quality and operational excellence. Alternatively this function can be outsourced to a third-party provider, helping the IT firm gain visibility over the quality of projects; allocate resources; and set timelines based on business risk and objectives.

Phase 4 – Quality Focused Service Provider

A fully centralized TCoE offers its services and resources to projects across the organization. In this phase, the center can focus on integrating testing as a quality imperative in every phase of the application or software development lifecycle. The center is now geared to develop its own mature quality-oriented practices, enablers, and accelerators to stoke innovation while churning out products and services. While this phase can be outsourced as well, quality and operational excellence has penetrated every facet of the IT organization and can reveal insights on the performance of all services offered.



Business benefits

A well-structured and successful implementation of a TCoE helps businesses reap positive benefits that can be quantified and measured over time ensuring intrinsic intangible results such as being future-driven, quality-focused organizations.

- Track ROI from testing through a centralized hub
- Testing as a managed service lowers costs and improves productivity through standardized tools and frameworks
- Continual process improvements at the testing center benefit multiple projects
- Agility in identifying bugs, maintenance, and implementation
- Faster time to market with closer alignment to business objectives
- Fostering a culture of quality and innovation seekers

As businesses brace themselves for fluctuating economies and tighter competition, they are today charting the path to a centralized, standardized business center that can benchmark itself in delivering quality software solutions and in the long run, gain the goodwill of customers through foolproof, efficient products and services.

About ThincGlobalSoft (TGS)

TGS has employed an outcome centered philosophy to augment clients' ROI. With years of expertise under our belt in Global Systems Integration, we offer reliable, cutting-edge, and trusted Software Quality Assurance and Testing services to our partners. Our Software Testing services offered in a secure and scalable scenario, integrate information while ensuring reduction of Total Cost of Ownership to clients. TGS has been partnering with Global Corporations and helping them streamline the Testing Centers of excellence.

In short, TGS' 'Business Outcome oriented Testing Methodology' has been instrumental in delivering superior business impact for our customers. TGS' on-demand lifecycle testing solutions offer enhanced user experience, quicker time to market, cost reduction, and demonstrated ROI.

To know more about how TGS can help you reduce project cost overruns and time to market, please sign up at ***signup@thincglobalsoft.com.***