

TEST CENTER OF EXCELLENCE

– A Practical Implementation:

Test Center of Excellence (TCoE) is a term that is gaining a lot of visibility in the recent years due to the benefits of this execution model that have been widely talked about. When carefully planned for and diligently implemented this model, certainly has a lot to offer to improve the overall test team's productivity and efficiency. This write-up aims at talking about things to keep in mind in such a TCoE implementation to make the overall adoption process smooth and successful.

Firstly, let's look at what a TCoE is. A TCoE is a team model where multiple teams come together to work in a "shared" mode to share knowledge, best practices and resources. It is a model which retains the core specialization of individual teams yet offers room for cross team collaboration.

The ideal operating model to be implemented for a TCoE will be one that leverages the strengths of the TCoE setup and at the same time that does not add too much overhead and bureaucracy to the overall setup. It will be setup as a model that promotes end to end collaboration, yielding:

- Team load balancing
- Cross product knowledge
- Tools and process sharing
- Faster team ramp up
- Access to specialists

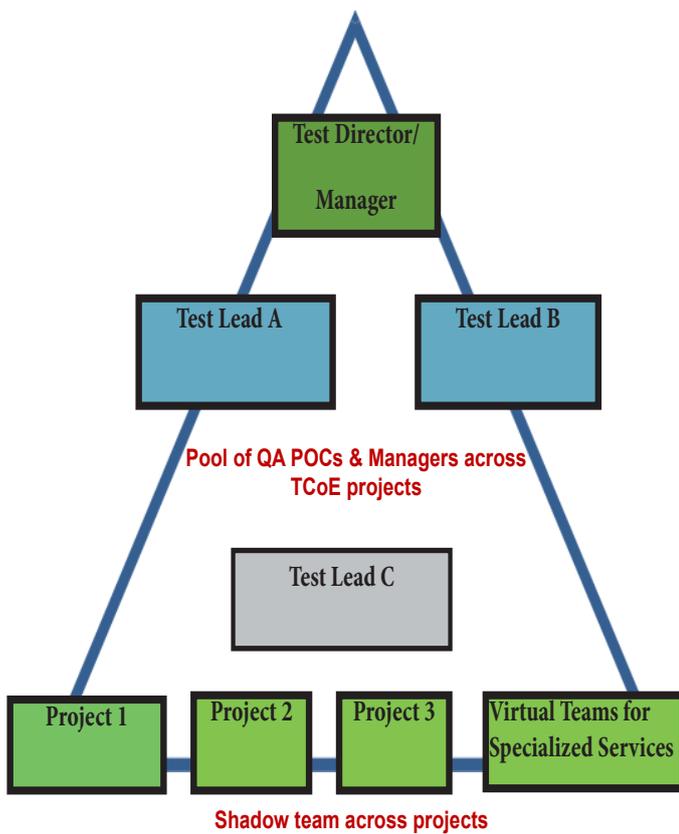
Individual silos with core teams will be setup for specific projects so as to have focused test effort to meet the quality needs of each of the projects. These individual teams will

be managed by lead level resources who will manage daily project deliverables. Virtual teams will be setup with specialists to handle specialized testing needs such as performance, security, globalization, accessibility/usability across the TCoE projects. Given that these testing needs do not span throughout the Software Testing Life Cycle (STLC) and these resources are expensive they will work as a virtual team to address the specialized testing needs of all the projects in the TCoE umbrella, rather than just one project. All these leads, their respective teams and the virtual specialized teams will report to a test manager, who will manage the overarching TCoE. He/She will ensure:

- Projects share common best practices
- Teams understand the bigger picture and quality requirements at large so as to drive value upstream
- Teams are empowered with the required common training
- Buffer resources are maintained across projects to take care of flexible and dynamic project needs

Such a test manager will work closely with the stakeholders from the product team and conduct quarterly reviews reflecting the work done under the TCoE umbrella helping everyone on the product team understand and be on the same page about the project and product status and health, from a QA standpoint. This review will not be just a retrospective/backward looking meeting, but will be proactive in focusing on the road

ahead to practically implement an objective QA effort. A visual representation of this model is as seen below:



The test manager should encourage monthly meetings of the entire team, inclusive of all projects in the TCoE umbrella. During such meetings the following could be discussed: Project accomplishments, challenges, work arounds, presentations made by team members on specific products/new technologies. Such monthly meetings could also set aside 15 to 30 minutes for cross group bug bashes, allowing testers from other teams to test cross group products. This promotes cross product knowledge as well as helps find bugs that the core team may have missed. Such meetings bring in good team bonding which plays a major role in the TCoE's success. Email aliases should be setup for intra project and inter project communication helping share useful information to the required set of people on time.

Dedicated trainings should be conducted periodically either during monthly team meetings or outside of such sessions. Depending on the size and scale of the TCoE implementation the test manager should determine the size of the buffer team to be

maintained. Such a team will be trained and ready to work on any of the TCoE projects within a very short lead time. Typically a 10% shadow/buffer team of the overall team size is a good size to have providing the flexibility of the shadow team yet not being an expensive overhead to maintain.

Thus, a TCoE has its own nuances for a right implementation. A test manager plays a very pivotal role in its successful implementation. As a first step the test manager should get buy in from the overall product team in educating them about the model, how it works etc. and then carefully implement the TCoE as a step by step process. Such a planned approach along with the test manager's objective mindset open to feedback will help make the overall model a success and well received by the entire product team.

We, at QA InfoTech, have successfully leveraged the TCoE model for some of our strategic project implementations including one for a leading ISV in the rich media product space. Our team strength for this account at peak times has been upwards of 75 people. This included testers' onsite at the client's location, and in our premises, each working on different release cycles, reporting into various client managers. From our end, we had an overarching TCoE setup which accommodated the individual needs of each project but provided specialists across the board. Our common pool of buffers combined with different release cycles at the client's end, helped us effectively load balance resources. Such cross sharing of resources also helped share knowledge across projects, build detailed product and process training material and also the entire team understand the overall mission of the test effort. Such a team setup not only helped provide great opportunities to our team but also share the economies of scale with the client in providing cost effective services at a much faster turnaround.

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