

View Point



Common Concerns with Traditional QA Environments Is Cloud the Answer?

Vijayanathan Naganathan

Abstract

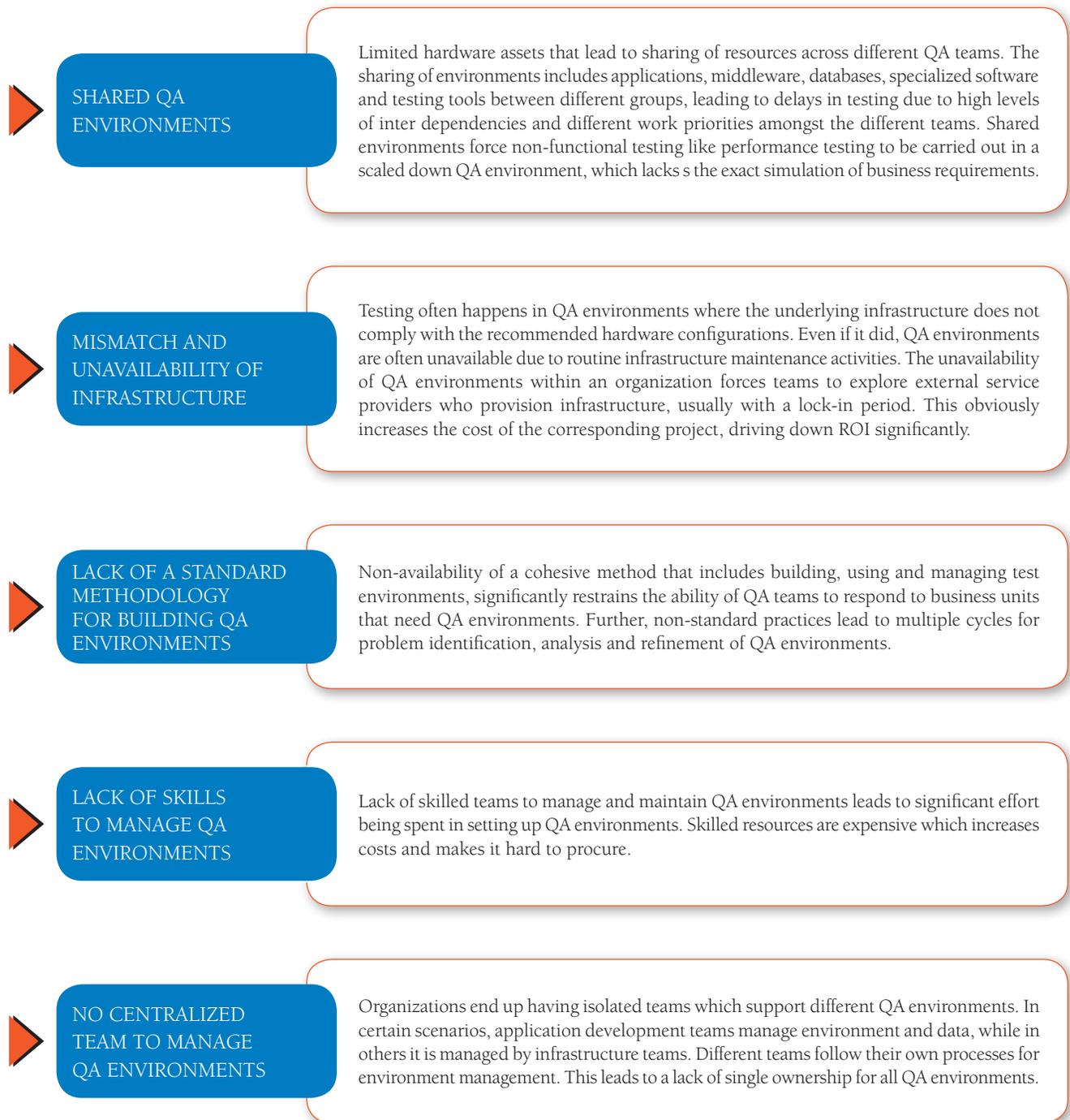
Applications come with an unique set of functional and non-functional requirements. This necessitates the need for having multiple QA environments to validate business applications, across all types of requirements.

Today, organizations are facing a lot of challenges associated with QA environments like unavailability of environments, lack of skills to manage environments, coordinating with multiple vendors who manage these environments, etc. These challenges inhibit the efficiency of QA teams, which eventually impacts the organization's business. These inherent challenges, along with the cloud evolution, have been catalysts in driving organizations to explore possible cloud adoption for the creation of QA environments. The prime features of cloud based QA environments such as on demand provisioning, elasticity, resource sharing, availability and security, address the challenges associated with traditional QA environments very well and offer businesses the ability to complete 100% end to end validation faster, with higher quality and lower risk.

This paper attempts to summarize the challenges faced by organizations with regards to traditional QA environments, and the possible benefits that Cloud adoption could bring to this space.

Introduction

Large global organizations which have multiple business portfolios have a large number of business applications. These applications are an integral part of the business operations and need to be thoroughly validated for functional and non-functional requirements before their release into production. QA teams within some organizations certify the application conditionally in constrained filled environments. These constrained environments include shared environments between QA and DEV teams, shared databases amongst different QA teams and scaled down production environments for non-functional requirements validation, etc. Some of the common concerns/challenges related to constrained filled QA environments of this nature are as follows:





HIGH LEVEL OF MULTI-VENDOR COORDINATION

To avail various testing services, test infrastructure tools, hardware, etc., organizations land up dealing with multiple vendors. Dealing with multiple vendors involves setting up stringent operational level agreements (OLA) in order to ensure delivery of the application, on-time and within acceptable costs.

Multi-vendor engagements often require close monitoring of the progress on projects with multiple vendor coordination involving leased environments, leased testing tools, etc. Besides the coordination challenges that get thrown up by this model, the burden on “management time” is immense. Management gets locked into operational level details, instead of focusing on strategy.



QA METHODOLOGY REMAINS STAGNANT AS TECHNOLOGY EVOLVES

Organizations fail to revise their QA methodologies to match technology evolutions like SOA, cloud computing, etc. This results in validation gaps which lead to defect prone applications going live. With the evolution of technology, more applications are migrating to or are being built on newer technologies like cloud, SOA, etc., which necessitates the need for the organization to have a robust QA methodology in place to test these new age applications.

So what is the way forward?

A separate QA environment dedicated to application validation can address most of the challenges stated above. In the current traditional models, organizations end up owning many hardware and software assets or leasing additional infrastructure from external infrastructure service providers. Both these options increase the CAPEX of the organization which does not go down well in the current economic conditions with decreasing spends in IT. Traditional QA environments involve procurement and leasing which further delays application go live due to factors like procurement lead time, contract negotiation with external infrastructure provisioning vendor, etc.

Businesses can find means to effectively address QA environment concerns with the adoption of Cloud. On the Cloud, organizations will benefit from features like demand provisioning, elasticity, resource sharing, availability and security. Organizations will also be able to move from traditional CAPEX models to OPEX models, leveraging the on-demand and pay-per-use model of computing resources for their testing and QA infrastructure needs. This would result in significant cost savings for the businesses. The pay-per-use model can also help organizations reduce the maintenance overheads and help them focus more on their business rather than spending effort/management time over environment procurement/leasing, environment management and infrastructure vendor management.

With the adoption of the Cloud, organizations would also be able to effortlessly bring in centralization of QA, thus putting an end to issues arising due to the lack of standard methodologies for building QA environments and non-availability of skilled resources.

Conclusion

The QA environmental need is the perfect opportunity for organizations to begin their cloud adoption journey before making any decision on moving applications to the cloud. Leveraging cloud for the QA environment needs will help organizations address their QA environment challenges as well as help them achieve benefits like shorter release cycles, business flexibility and better business service levels. Businesses need to ensure that they have all the necessary roadmaps and knowledge to help them transform their traditional QA infrastructure to a cloud based QA infrastructure.

About the Author

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