White **PAPER**

TEST TRIANGLE
Trusted Partner in IT Consulting

Need of QA Transformation in the Current Digital Age

"Quality is never an accident; it is always the result of intelligent effort."
– John Ruskin

Quality is essential to the success of any business organization, let alone IT industry. All kinds of industries and business organizations have quality control programs that control different dimensions of product quality. In software industry, testing assures that the end-product is of desired quality and offers a good user experience. Although quality assurance is a time-consuming and rigorous process, it is essential for several reasons in the present competitive environment. Nowadays, the companies are shifting towards agile project management and DevOps methodology to ensure high quality and fast product deployment time.

Need of Quality Transformation

In the present highly competitive environment, companies are facing two main challenges in the form of staying ahead in the market competition and offering a high quality customer experience. Further, it has become necessary for companies to offer smooth, highly interactive and stable consumer applications. Quality assurance aids the business organizations in dealing with these challenges.

However, in the new age of digital transformation, quality assurance is itself transforming. There are various factors behind this transformation such as technology, tools and team processes. In digital age, quality has transformed in several ways including its ownership, use of automation tools, and reduction in manual efforts in the quality engineering endeavors. This new age QA should be in sync with the digital behavior of applications and offer a high quality user experience. The digital transformation has also increased the risk of cyber crimes; therefore, it is really important to protect the assets and resources. Quality assurance in terms of security and compliance is essential to mitigate these risks.

The QA transformation is the best-fit approach to offer 360 degree quality solutions to the business enterprises. It should be able to offer proper frameworks in terms of security, functionality, performance, and user experience. It should align with the enterprise solution and offer resources and assets to improve testing efficiency. The QA transformation platform should be able to cover all the digital value chains. Gone are the days, when the companies used to wait two to three months before releasing a product. The organizations today are focusing on frequent updates and quick market delivery.

Quality Assurance strengthens the product in the software development lifecycle and addresses several main objectives in an organization's digital journey.

Creating a High-quality Customer Experience

Quality assurance has an integral role in maintaining a high-quality user experience across all digital platforms. In terms of customer experience, QA has several functions such as optimizing accessibility and response time, and maintaining brand consistency. QA can improve the customer experience in several ways:

- Comprehensive coverage of user expectations and requirements
- Implementing test tools for managing customer experience
- Managing test data for testing purpose

Automation

QA transformation is pursued so that the companies can speed up their testing process. The QA transformation not only conducts application-level automation but also lifecycle automation.

In the present environment, automation is also necessary for delivering seamless quality in the smallest turn-around time. These days, automation has evolved into continuous integration, where it is scheduled to run as soon as a build arrives. With the decline in product release cycle, the time required to ensure the product quality has also reduced. The quality engineering team contributes to the quality transformation process in several ways:

- Optimizing the test cases
- Adoption of new test tools
- Development of automation framework and solutions specific to use cases

Advanced Analytics

Advanced analytics are used to mine data from social and commercial platforms and use them in decision-making. The QA transformation strategy will help in creating a strategy for comprehensive quality review. It should be able to deliver seamless, responsive and multichannel quality experience to the customers.

Test Driven Development and Behavior Driven Development

Today, the quality transformation team has the utmost pressure to ensure the product quality, API validation so that testing happens in the fastest way possible. Therefore, TDD/BDD has become the most common software development approach due to its promise of high productivity and product quality. These approaches let the developers test their own code, before it is advanced for further quality checks.

In BDD, the quality definition is outlined by user story and the QA team automates the same. The Quality transformation ensures that development team work with the business goals and has a better understanding of the product, service, and software development methodologies. They should also posses high-level skills, domain and code knowledge.

Delivering Rapid and Flexible Business Value

Quality Transformation helps the organizations in adopting latest technologies and approaches like continuous delivery, continuous integration and continuous deployment. These methodologies help the organizations in delivering highest value at minimal time. The quality transformation approach help the organizations in ensuring predictable, reliable and high quality software.

Competency Centers

The quality transformation approach is also crucial in creating competency centers wherein, the organizations can develop their domain expertise in accordance to the business, agile methods and other industry regulations.

Conclusively, the QA transformation approach meets the present need of a dynamic business model and heterogeneous delivery structure, thus, creating mature testing practices. The organizations today should be able to deliver exceptional quality, effectively and reliably. The quality transformation approach will lead to efficient business operations and successful business outcomes.

About Test Triangle

Originally founded in 2012, Test Triangle has become a leader in IT consultancy services providing services in application testing, DevOps, RPA, Custom software development, mobile app development, Atlassian consultancy, niche IT staff augmentation and training in advanced technologies. Test Triangle is headquartered in Ireland; but it also has branch offices in London, United Kingdom, and Hyderabad, India. We have exponentially grown to become a team of 200+ members providing services in different verticals such as Banking & Finance, Utilities, Pharma, Retail, IT & Education etc.

Test Triangle's R&D department has created a propriety platform, Test Outsourcing Dashboard [TOD] which can be used to manage software testing lifecycle using collaboration tools like email, live chat, video conferencing. We have also launched a self- service testing platform (the premium version will be released as SaaS solution), which can provide a project overview and real-time updates of the software development lifecycle.

Over the years, we have established the reputation of being a 'trusted partner in IT consulting'. Test triangle is an agile software company, which constantly strives to exceed the expectations of its clients. We adopt the software testing and software application lifecycle to meet the customer's demand in an efficient and reliable manner. With a global workforce, we have proved ourselves in delivering tight-deadline projects.

We are proud to declare ourselves a client of Enterprise Ireland and European commission.

ENTERPRISE IRELAND
where innovation means business

European Commission

For inquiry please contact: inquiry@testtriangle.com

Ireland - HQ
Suite 12, Plaza 212 Blanchardstown Corporate Park, Ballycoolen, Dublin, D15 W535

UK
4th floor, 86-90 Paul Street, London, EC2A 4NE

India
1-98/9/3, Plot No.3, Flat No.102, Jaihind Enclave, Madhapur, Hyderabad 500 081

Sales Phone Number

ROI Hotline
+353 1 9685077

UK Hotline
+44 (0) 2071933020

India Hotline
+44 (0) 2071933020
+91 40 49510533

facebook.com/TestTriangle   linkedin.com/company/test-triangle   twitter.com/testtriangle   youtube.com/user/TestTriangle