Digital and Devops is enabling enterprises with various opportunities to build smart applications that can improve efficiencies and deliver customer value across the full range of lifecycle. However, these changes are posing challenges for QA teams in such a way that they can optimize and execute their testing.

Challenges faced by quality assurance (QA) teams

With newer paradigms of Digital and DevOps

Diverse and extended scope
Varied tool sets and their integration
Long time to automate
Lack of visibility and control

Common challenges faced by QA teams include the following – how to optimize testing, how to build and execute tests faster, and how to select from varied tool sets so that they integrate seamlessly with overall continuous Integration (CI) / continuous development (CD) pipeline. There is also a strong need of collaboration across various business functions.

Infosys Quality Assurance Workbench

It helps overcome these challenges with a number of delivery benefits. The below illustration explains the same:

- Lower TCO by 50%
  Tools available on demand
  Centralized orchestration for various testing types, usage based pricing.

- Accelerate Time to market by 40%
  Life cycle automation,
  CI/CD integration, reusable test artefacts, test optimization.

- Brings Predictability to testing
  Learn from social and technology footprints, risk profiling, failure prediction, avoidance and traceability.
Infosys Quality Assurance Workbench

Infosys Quality Assurance Workbench is a comprehensive QA solution that helps QA organizations holistically address their validation requirements. The Infosys Quality Assurance Workbench is built on a modular architecture that enables users to select only the required components to address their testing needs while enabling a seamless flow of information and data between these. This cloud-based solution enables on-demand provisioning of testing tools.

![Figure 1. Infosys Quality Assurance Workbench](image)

It comprises of the below components:

- **Service delivery and request management** - It provides integrated, workflow-based demand management capabilities from project initiation to closure including project request management, estimations, demand forecasting, and tracking

- **Reporting and dashboards** - It is an integrated reporting solution for real-time tracking of performance across the QA organization that enables reporting of operational and strategic metrics as well as interactive visualizations for improved decision-making

- **Core automation engine** - This enables automation of the entire testing lifecycle. It comprises a CI/CD engine for test orchestration, automation accelerators for functional and non-functional testing, application program interface (API) testing, data, and package testing

- **Analytics engine** - It leverages the power of predictive analytics and machine learning to derive insights from real-time project data and enables test optimization through continuous learning

- **Knowledge base** - This inbuilt knowledge base comprises of prebuilt business and test assets

### Key Features

- Lifecycle delivery management - project initiation, estimation, governance, execution and reporting of testing
- In-built data mining for analytics
- Powered with domain-based knowledge assets
- Scripted and script less automation across technologies
- Flexible for Agile/DevOps/Waterfall models
- Support for leading digital technologies - mobile, big data, cloud, Internet of Things (IoT)

### Success Stories

- For a leading CPG company: Test suite optimization using machine learning resulted in effort saving of ~15 percent per cycle
- For the world’s largest healthcare provider: Analytics-based extreme automation resulted in improved quality and complete coverage - automated file parsing and analysis ensured 100 percent file data coverage
- For a leading US telecom service provider: Achieved 60 percent automation in first eight months of the steady state with 35 percent progressive automation and 65 percent regression automation

For more information, contact askus@infosys.com