qTest: Make testing acompetitive advantage —build towards strategic testing



Introduction

We need to change how we deliver software across the business. The challenge is different for each organization. It could be decentralized automation efforts limiting the ability to scale, legacy tools preventing migration to Agile in a regulated environment, or fragmented analytics and reporting delaying informed decision making.

In any case, success is achievable and measured differently in every business. Rather than simply being a checkbox on the way to release, testing can create a competitive advantage. Start making a difference in your organization by implementing a unified testing strategy today. This eBook summarizes the business context and top challenge with testing today, the consequences of not transforming to a unified testing strategy, the benefits of strategic testing, and how Tricentis qTest offers a solution.

- CIO organizational decisions in the wake of innovation
- Blowing up the testing bottleneck
- Challenges to achieve testing change
- Test management in a unified strategic testing plan
- Audit and compliance trail
- Key takeaways
- Unified test management with Tricentis qTest

CIO organizational decisions in the wake of innovation

CIOs across all industries are performing a delicate balancing act with key initiatives and investment priorities while determining how to meet the challenge of delivering new features at speed without increasing risk or cost to the business.

Executives we spoke with are focused on building new digital solutions, modernizing, updating core applications, and potentially shifting to cloud-centric IT. These priorities align with key initiatives to:

- Deliver innovation faster
- Drive business efficiencies
- Improve digital customer engagement and experience



"Should an IT leader care about testing? Yes — but not about how many tests you have. What's far more important is whether the tests actually address business risks. Riskbased testing provides a fast and costefficient way to control top business risks in software releases. This can't be reliably achieved by simply throwing more people or more tools at the problem. It requires a deliberately architected approach."

— Terry Milholland, former CTO & CIO for the IRS, CTO for Visa Inc., CIO and CTO for EDS, and CIO for Boeing

Blowing up the testing bottleneck

Testing is a critical part of delivering software, yet it's widely recognized as the largest blocker to releasing faster. Many organizations jump to automation to accelerate testing. But it's not about testing more or just executing tests faster — those are just tactics. To make testing a competitive advantage and make automation more effective, teams need to take the leap towards strategic testing.

To get there, teams need to put their testing in context with those of other teams and the wider business by:



- Taking a full view across automated, manual, and exploratory testing
- Getting real-time analytics on testing to make informed, data-driven decisions
- Working collaboratively with other business areas, development, DevOps, even InfoSec and compliance to create more efficient testing and better release outcomes

To achieve this, organizations should either centralize automation to scale across teams, or build it into CI/CD pipelines to achieve a strategic plan that provides a full view of testing, connected with other teams.

"Automation is the lever that development teams pull to go faster. However, if not properly managed, automation can jeopardize quality and increase risk. To ensure that quality issues and unacceptable risk do not negate the velocity benefits of automation, firms must ensure they are tracking the right metrics to measure quality throughout development-testing-deployment."

Forrester DevOps Study



The status quo is both slow and risky

Challenges faced by enterprise testing organizations manifest themselves in diverse ways.

- Siloed tools, tests, and teams make it difficult to standardize best practices and scale specialized expertise across the business.
 Test cases are rewritten (or written from scratch), adding length to the testing cycle, increasing the maintenance burden for existing tests, and reducing the organization's ability to move talent across different projects.
- A particularly acute aspect of siloed work is **poor integration between testing and DevOps tools and processes**. As a result,
 testing is often seen as the blocker for releasing and innovating
 faster, failing to keep pace with increasingly fast development
 cycles. However, cutting corners during testing and QA to keep up
 increases risk in production, to the customer, and to the business.



- Without a single place to manage testing activities or a reporting mechanism, businesses lack visibility across testing activities, making it harder to accurately assess risk coverage, ensure compliance and governance, and identify opportunities for improvement.
- Organizations facing regular audits require the ability to easily track business requirements from idea to the turn of ignition. This includes the documentation and traceability between requirements to test case through testing. These industries require in-depth documentation of how frequently tests are run on a given business requirement, under which scenarios, and by which individuals (to show they hold the proper permissions to run those tests).

"Centralizing and modernizing test management has offered our highly distributed team significant efficiency gains. The global testing team operates from different locations around the world, and having a single pane of glass for managing, kicking off tests, and reporting on automated testing is critical to their success."

— Major Insurance & Financial Provider



— Alex Kyriazis, ANZ Bank

Test management in a unified strategic testing plan

What four benefits does test management play in helping organizations develop a unified and strategic test plan?

- It provides a central repository to encourage collaboration, drive consistency, and scale standards and specialized knowledge.
- 2. Centrally managed test automation is critical to accelerating testing, especially with Agile and DevOps practices. Identifying these opportunities to improve speed and stability of software delivery enables innovation to test processes and reduce bottlenecks. Furthermore, the ability to manage and orchestrate automated and event-driven test workflows optimizes testing assets.

- 3. It provides insights into testing activities across the business and creates an environment for business leaders to **make informed decisions** on how to scale and improve. This extends to controlling IT spend or making strategic build/buy decisions.
- 4. For regulated industries, it helps establish role-based permissions and an audit trail for testing activities to **meet growing compliance needs**.

"We've had testers move from traditional testing models into a continuous testing model — shifting left, ensuring that we focus on speed by getting the right feedback to the stakeholders at the right time, focusing on quality by improving our test coverage, and focusing on cost by increasing our productivity and efficiency."

— Tammie Davis, Director of Global Quality at IHG

"The value of time is a key concept. When you can increase the effectiveness and efficiency of your team and increase your speed of delivery, those are all propositions that your business stakeholders can truly grasp. It doesn't take long to demonstrate that value."

— Julio Da Silva, VP of Business Engineering at Prologis

Audit & Compliance Trail

When stakes are high, **prioritizing software quality is a nonnegotiable for doing business**. This holds particularly true for highly regulated industries (such as the food and beverage industry, pharmaceutical, medical device, and financial industries, to name a few) that require greater levels of testing scrutiny and audit trails for periodic evaluations.

Business risk and **priorities need to be easily translated, understood, and tracked** by both development and QA in order to avoid the business risk of "non-compliance" which often results in hefty fines to the business.

Disorganized workflows and unreliable traceability measures are the nemesis of compliance and audit. Regulated business can benefit from a unified testing strategy that includes all levels of development and testing to ensure that the correct rules are included in the test case design, execution, and results tracking to guarantee proper test coverage, regulatory compliance, and user needs.

Another key benefit for highly regulated organizations is the **alignment of key stakeholders for the full SDLC in advance**. This creates the ability to leverage domain knowledge to ensure both regulatory compliance and a positive user experience while creating a thorough audit trail.

"That quality stream starts all the way back at requirements through code development, QA testing, and all the way through to production and implementation. Effectively, working in conjunction with each other [QA & Development] towards the common goals is critical for the success of the organization."

— Rob Larsen, Director of QA at FISERV

"Testing is not an accident. When you go to test a project, it should always be a planned, methodical exercise. You should know exactly what you are testing, when, where, what type of data you will need, etc. It is really a thought-out exercise and it's not easy to do all of that."

— **Brietta Smith**, Director of Test Practice at Hiscox

Key Takeaways

- A unified test strategy is a competitive advantage
 Testing efficiently across the business and making smart tradeoffs
 keeps you ahead of your competition and keeps customers happy.
- Better, faster decisions require the full picture
 Acting and analyzing results within silos shortchanges and could even harm the rest of your business.
- Analyze and collaborate to continually improve
 Sharing data and results with other teams and leaders is key to making better decisions and staying competitive.
- Disorganized workflows and unreliable traceability can be your audit downfall

Ensure planning, requirements, traceability, and results are easily documented over time to make audit compliance streamlined.



Unified test management with Tricentis qTest

Tricentis qTest is an enterprise test management solution that integrates seamlessly with DevOps and third-party test tools, giving teams a complete, unified view of their testing activities throughout the development cycle. This allows QA and development teams to approach testing strategically and collaboratively and to release high quality software faster.

Complete view from idea to production

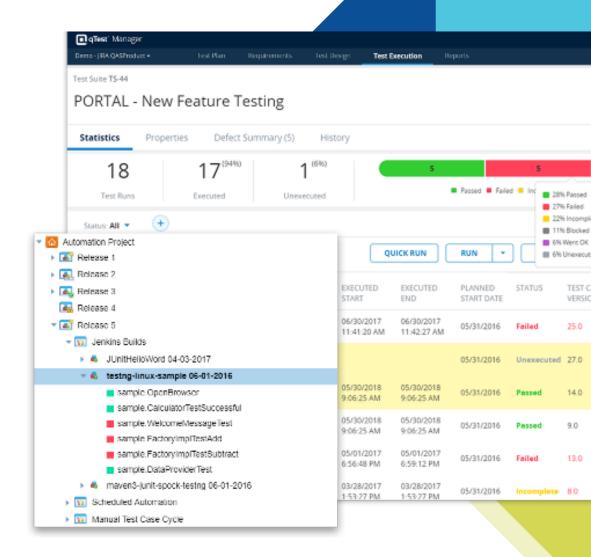
Integrate, automate, and orchestrate testing

Visibility and reporting across the business



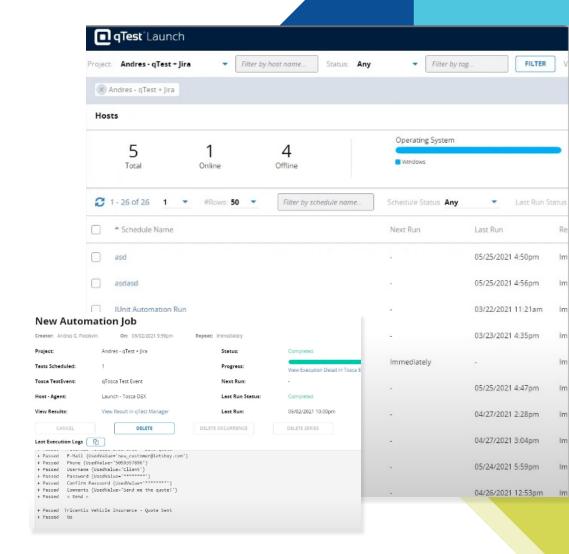
Complete view from idea to production

- Central repository for all your testing data
- Shareable, reusable test cases across projects
- Exploratory, automated, and manual test cases
- Best-in-class, real-time Jira integration



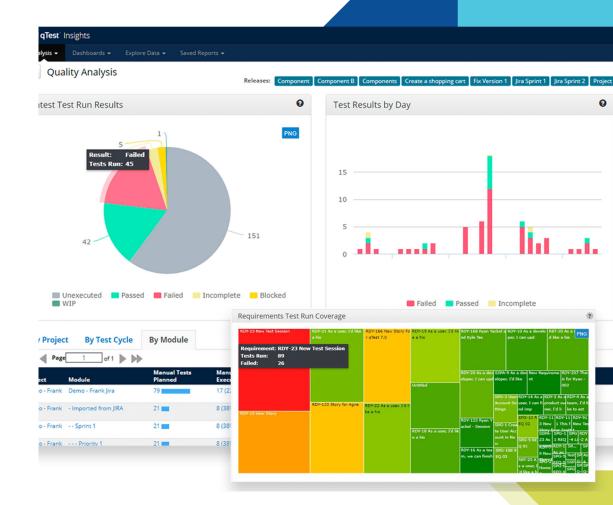
Integrate, automate, and orchestrate testing

- Agile, waterfall, and hybrid methodologies
- Automation and orchestration with any open source or proprietary third-party tool
- Native Jenkins, Bamboo, and GitHub integrations



Visibility and reporting across the business

- 60+ out-of-the-box reports
- Highly customizable dashboards
- Easy report sharing across the organization
- Report within and across projects





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