

case study

# QA To QE Transformation

for one of the Leading Health  
Technology Customer

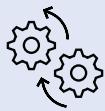


## Client Overview:

One of the world's largest healthcare companies, the client is firmly committed to improving people's health and well-being through innovation in everything from artificial intelligence to machine learning and virtual reality.



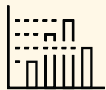
## Challenges:



Inadequate E2E test automation coverage



High cycle time with multiple COTS test automation tools, leading to high tool and maintenance costs



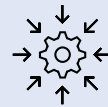
Growing test repository with high duplication and considerable overlap



Huge regression suite with a short timeboxed execution window



Complex applications and integrating regulatory systems



Lack of industrialized test processes and Agile/CI-CD best practices

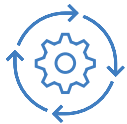


Frequent changes in the application



Lack of a single solution automation framework with a common skillset

## LTIMindtree Solution:



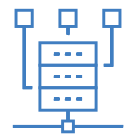
Selected Tosca for test automation and implemented LTIMindtree's Enterprise BDD with a unified, robust, and scalable framework to integrate and automate front-end and backend systems, achieving 80% regression automation penetration with 60% lesser execution time



Designed a framework to effectively manage cross-browser capabilities, mobile and API automation, and SAP integration with minimal operating and maintenance costs



Implemented in-sprint BDD as part of the automation-first shift-left approach, fully aligned with the client-mandated DevSecOps model for faster and efficient testing cycles and coverage



Implemented LTIMindtree's regression optimizer and self-healing with a clustering approach to identify duplicates and similar behavior test cases with structured risk-based testing



Implemented self-healing of automation scripts to accommodate changes in the application



Implemented TCOE model in line with the client's application or business clusters and industrialization of testing processes along with in-house tools and accelerators, SLA-based governance, and KPI-driven delivery.



## Benefits:

**Reduced 50% cycle time and costs** with E2E automation achieved by consolidating multiple automation frameworks into a unified framework

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**Saved 15% to 20% of efforts** by identifying similar test cases

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**Provided near 100% automation coverage** on test data management and data lake testing on any environment

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**Delivered on or ahead of time with zero defect** leakage in user acceptance testing (UAT)/production and increased productivity

**Covered up to 60% in-sprint automation** with BDD implementation to handle the stringent testing window effectively

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**Reduced 30% of maintenance effort** with self-healing

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Ensured defect removal efficiency by **98%**

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### About LTIMindtree

LTIMindtree is a global technology consulting and digital solutions company that enables enterprises across industries to reimagine business models, accelerate innovation, and maximize growth by harnessing digital technologies. As a digital transformation partner to more than 700 clients, LTIMindtree brings extensive domain and technology expertise to help drive superior competitive differentiation, customer experiences, and business outcomes in a converging world. Powered by 83,000+ talented and entrepreneurial professionals across more than 30 countries, LTIMindtree — a Larsen & Toubro Group company — combines the industry-acclaimed strengths of erstwhile Larsen and Toubro Infotech and Mindtree in solving the most complex business challenges and delivering transformation at scale. For more information, please visit <https://www.ltimindtree.com/>.