

APPLICATION TESTING & MAINTENANCE

Automation | Accuracy | Productivity

Trending

With the virtualization of healthcare services, applications have become the source of differentiation for businesses in the industry. Even though technology is evolving at a tremendous rate, the healthcare industry is required to operate within the strict regulatory framework and meet high-quality standards.

Organizations are expending significant resources and time on thorough testing of applications operating in integrated digital ecosystems. Companies necessitate business objective-driven and user-centric quality assurance practice that operates at speed and scale to meet the demand of today and tomorrow.

With increasing investments in R&D, safety and efficacy remain the cornerstone of any healthcare software lifecycle that is capable of meeting the increasing demand for secure and reliable data interoperability, stable performance, and most importantly, regulatory compliance such as HIPAA, HL7, GDPR guidelines, etc.

Businesses are adopting agile methodologies and process-driven testing solutions to ensure faster time to market and reduce testing costs and resources. However, such testing practices, especially in the healthcare industry, require comprehensive domain knowledge, regulatory compliance experience, and technical skills to assure the quality of healthcare systems accurately and efficiently.

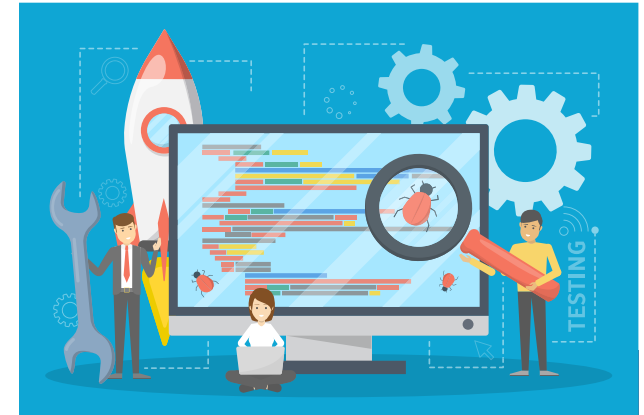
Opportunity & Challenges

The latest technology trends in the healthcare industry are creating multiple opportunities for businesses and users. However, healthcare systems have become more complex and integrated that present quality assurance challenges. Healthcare applications must operate like clockwork while meeting the stringent requirements of interoperability, security, data privacy, and industry-specific standards compliance.

Improved quality and performance of healthcare applications can deliver better health or patient outcomes. However, in the increasingly complex ecosystem with multiple permutations for information flow, testing the applications for efficiency and security, along with HIPAA compliance, is essential.

To achieve a high-quality standard, gain customer confidence, and build a strong brand, businesses must adopt automation and DevOps environments for end-to-end CI/ CD, advanced quality control tools with end-to-end tracking, frameworks, and reusable components. Moreover, testing of healthcare applications needs domain, technology, regulatory, and functional expertise to meet the critical requirements for clinical use.

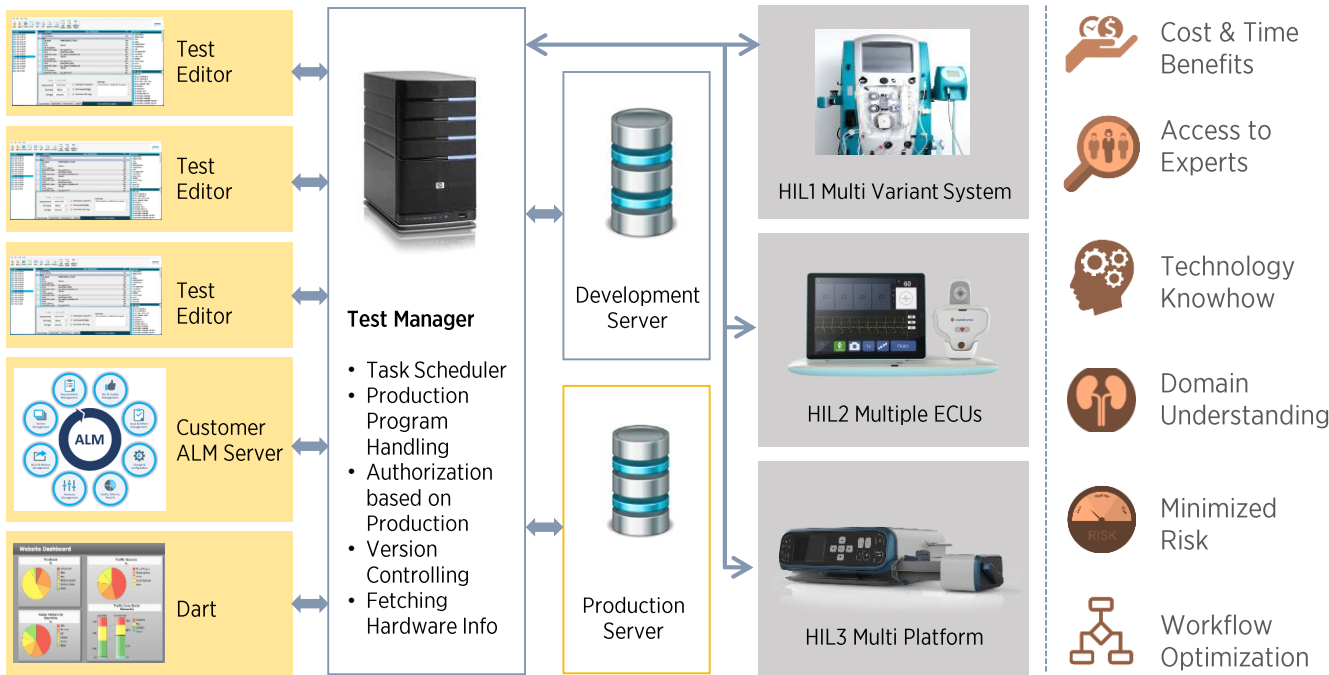
Investing in process, tools, and people can help companies optimize, streamline, and drive value for the business.



Benefits for Customers

- Improved quality at reduced cost
- Reduced technical and business risk
- Increased operational agility
- Improved time-to-market
- Continuous improvement

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Differentiators

- More than 15,000 person-years of testing experience
- ISO 13485 certified facilities with QMS aligned to meet ISO 14971, IEC 62366, IEC 62304, 21 CFR part 820 & part 11, and EU regulations
- Dedicated V&V Center of Excellence
- Automation experience with multiple COTS & open-source tools
- A talent pool comprising of automation specialists, industry and technology professionals, medical doctors, and regulatory experts

Cases

Automation testing of High Intensity Focused Ultrasound (HIFU) system application resulting in 30% reduction in overall cost of quality

- Hybrid automation framework for conversion of existing manual test cases to automated test cases
- Regression testing for major and minor update releases
- Localization testing
- V&V documentation update

Automation testing of Hygiene monitoring and management system

- Defined and developed test automation framework for the existing application using widely adopted open source automation technologies
- Validated all UI and functional requirements of the application
- Enabled efficient localization testing
- Accelerated cross-platform/ browser testing

AutomaTE - Intelligent Test Automation framework



Automation Testing Tools

