



Product Testing Made Easy with Atos Syntel's Testing Framework

Electronic Medical Record (EMR)/Electronic Health Record (EHR) systems implemented at healthcare organizations are not only functionally complex but undergo frequent changes in their release cycles. The frequent product releases pose challenges in planning and accomplishing the required testing with quality. At times comprehensive testing is compromised due to the need for releasing the product to the end business users (providers, nurses, front desk employees, administrators, etc.) and to meet business goals. As a repercussion, increased production defect leakage impacts the business and attributes to increased costs.

Further, the business complexities and the cascading influence on revenues, increase the need for thorough and optimized testing that can control costs and drive results with efficiency. In order to ensure complete business coverage in testing, many of the provider organizations leverage their end business users (providers, nurses, etc.) for application testing. Such measures often shift the focus of providers from core patient care.

The Challenges

Some major areas of concern for provider organizations are:

- Need of domain expertise for thorough testing of EMR systems which enforces SMEs to involve the core testing activities to bridge the gap. This also implies that an SME's bandwidth is consumed for testing.
- Time constraint for businesses to transfer knowledge to testers.
- Insufficient or limited test assets with incomplete coverage and low test asset reusability rate.
- Short testing timelines for a product release and testing activities rendered with little or no mechanism to speed up activities.
- Inadequate test management and test governance to drive the overall release testing process.
- Constraints on IT spend.

Solution

Atos Syntel's Product Testing Framework (PTF) offers a repeatable, stable, and adaptable framework through a process driven approach for end-to-end testing activities, thereby, accelerating the entire product testing lifecycle. This is a comprehensive integration-enabled framework that brings in efficiency at every stage of testing through our intelligent test solution – domain test repository (test assets) and efficient accelerators addressing all aspects of the testing process.

Atos Syntel's provider test repository caters to most of the provider business functions which are customizable for most of the EMR products. The repository comprises around 150 business process diagrams resulting in more than 900 business driven test scenarios that span across a patient's stay at a hospital, ambulatory, and emergency set-ups. Test assets created in the framework are integrated with Atos Syntel's in-house **integrated test platform**.

The overall solution helps providers to prioritize, customize, and manage test cases during the entire cycle of testing, planning, designing, and executing reduced time to market.

Our Approach

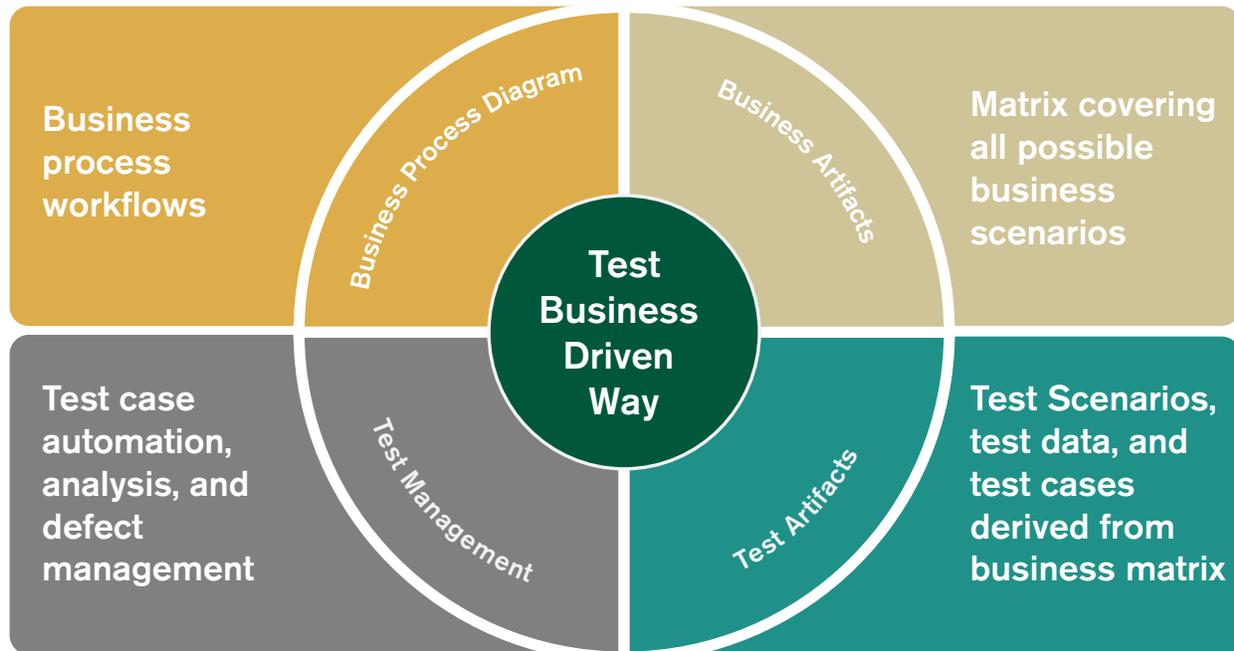
This is a model based approach where all test assets are derived from business process workflows crafted from detailed business process blueprint. Test artifacts derived from business process flows ensure optimum coverage.

The framework delivers ready-to-use business flow diagrams, and domain specific business and test scenarios for the provider value, covering patient journey from admit to remit. The end result is to have baseline domain test artifacts which can be customized for any provider to derive the product test cases. The final product test cases can be leveraged for System Integration Testing (SIT), Regression, and User Acceptance Testing (UAT). It also enables comparing and managing the test cases for release specific changes. The test assets are then ported into testing platform which provides a mechanism to synergize and facilitate overall process efficiency.

BUSINESS BENEFITS

- Reduces dependency on SMEs and accelerates the test design and test execution processes by 30%
- Process driven testing through the integrated testing platform enables reduction in testing costs
- Drives testing efficiency to accomplish testing on time with quality
- Ensures effective coverage from business perspective and enables early detection of defects
- Guarantees optimized test coverage
- Facilitates business and product knowledge with shorter learning curve
- Uses industry standards and process driven approaches to generate test artifacts

The platform provides a resourceful way to achieve effectiveness in the overall testing lifecycle, bringing in structured testing processes combined with industry best practices. Industry best practices would include test case management, test management, automated framework, test bed creation, optimized regression testing, and metrics management. It can also be integrated with leading third party products like HP Quality Centre for manual/automated execution.



Salient Features

The reasons why you should choose our solution are:

- **Efficient release management testing:** Module based testing methodology ensures comparing and identifying the impacted test artifacts with each release based change.
- **Domain driven testing:** Test artifacts created out of PTF are domain driven and enable business process based testing.
- **Time to market:** Accelerated test design and test execution phases are achieved through test design and execution frameworks. Ready to use repositories provide a head start to testing activities. Documented business flows enable shorter learning curve.
- **Reduced effort for SMEs:** Availability of business process diagrams help the technical team to reduce the turnaround time to accommodate the proposed changes.
- **Low maintenance:** The Atos Syntel testing approach provides maximum shelf life to the test assets with up to 30% reduced test design effort during BAU.
- **Optimized testing lifecycle:** Integrating all the elements of the testing process helps achieve an optimized testing lifecycle.
- **Continuous improvement:** Intelligence is built and maturity is gained over time.
- **Reduces effort on test data identification:** Provides the ability to design, maintain, and manage test data separately.

About Syntel

Atos Syntel is a leading global provider of integrated information technology and knowledge process services. Atos Syntel helps global enterprises evolve the core by leveraging automation, scaled agile and cloud platforms to build efficient application development and management, testing and infrastructure solutions. Our digital services enable companies to engage customers, discover new insights through analytics, and create a more connected enterprise through the internet of things. Our "Customer for Life" philosophy builds collaborative partnerships and creates long-term client value by investing in IP, solutions and industry-focused delivery teams with deep domain knowledge.

To learn more, visit us at: www.atos-syntel.net