

INFOSYS EXTREME AUTOMATION SOLUTION FOR HEALTHCARE BUSINESS ASSURANCE

End-to-end business context
testing, leading to higher
customer satisfaction



Health insurance payor IT landscape is complex, with multiple systems handling front office, middle office, back office operations, and workflows to get the data end-to-end from source to target systems. During the software testing lifecycle, a significant amount of effort is spent on validation of healthcare business scenarios since business context tests are complex, time-consuming and involve multiple systems to be validated. Whenever healthcare companies implement new

requirements for their business needs, it impacts many business flows that need business scenarios to be validated. Moreover, lack of business context testing leads to critical issues in business and lowers customer satisfaction.

For agility and business continuity, it is important to have a one-stop automated solution that can execute healthcare business scenarios for improving overall efficiency.

Key challenges

- Manual end-to-end tests cannot cover vast business scenarios in stipulated testing timeline
- Lack of business context testing leads to business-critical issues and lower customer satisfaction
- Every production release might impact around 100+ applications, hence end-to-end business context tests need to be validated across several systems

The Infosys solution

Infosys Extreme Automation Solution helps healthcare clients automatically validate business capabilities with zero touch. It validates the member and provider journey in healthcare lifecycle end-to-end. With significant experience and knowledge in healthcare domain testing as well as emerging technologies, Infosys has created a unified framework to validate healthcare business value chain. The framework includes four key components as shown below in figure 1:

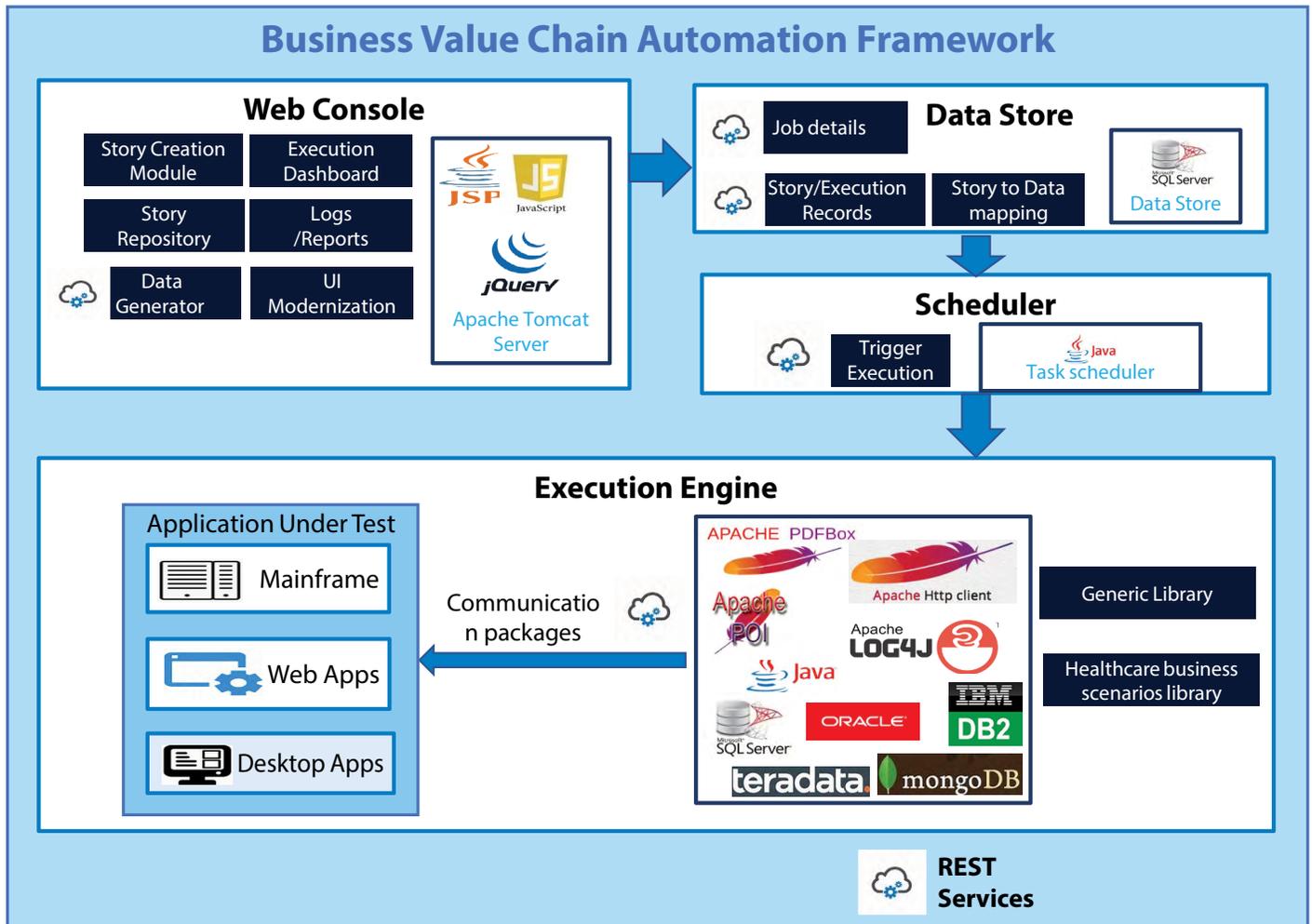


Figure 1: Business Value Chain Automation Framework

- **Web Console:** Self-provisioning portal which allows user to create and schedule healthcare business scenarios. Its key features are test data auto generation, robust dashboards, automated reporting capabilities, automated workflows etc. Business scenarios created are easily aligned to release calendar, thereby ensuring business assurance for every production release.
- **Data Store:** Centralized data repository

which stores business scenarios, data mapping scenarios, execution records and jobs.

- **Scheduler:** It continuously monitors the records ready for execution, thereby ensuring that the executions are happening at the right time. It also triggers the execution engine.
- **Execution Engine:** Automation controller with logical components

for healthcare business scenarios.

The healthcare business scenarios are exposed as REST (Representational State Transfer) services to implement specific business rules for the Application Under Test with minimal effort. Generic library has the list of healthcare reusable components like 834 and 837 files creation, validation of ID cards, validation of vendor extracts, validation of benefits, rates etc. for script less coding.

Solution Features:

- **Smart User interface:** Smart search features and a proprietary healthcare business scenario library
- **Business area coverage:** Covers all business entities such as member, provider, benefits, care management, claims, etc.
- **Integration with Infosys AI platform:** The solution can be easily integrated with Infosys AI Platform for test optimization and auto-triggering of business value chain scripts based on dynamic code impact analysis
- **Technology-agnostic platform:** Framework supports automation of scenarios in applications in discrete technologies
- **Solution has a modernized user interface** that allows users to drag and drop healthcare business scenarios to create user stories. These logical scenarios are reusable for validation of healthcare standard formats such as X12 files, PDF, xml, JSON, excel file formats, benefit booklets, letter communications and third-party vendor extracts.
- **Provides REST services as prototype** with reusable libraries for companies to implement their custom logic as needed with very minimal effort. The solution is compatible over all technologies such as mainframe, Java, .Net, Middleware, etc.

Thus, Infosys helps companies save significant cost and time through robust architecture and domain intuitive automation.

Why Infosys?

Infosys solution has a broad base of 1500+ healthcare business scenarios covering all business entities such as member, provider, claims etc. These scenarios contain knowledge and expertise gained from 15 years of testing across different healthcare clients. This solution integrates well with

Infosys AI Testing Platform and can extract cognitive information from execution logs, data flows and reports. It helps in automatically validating business scenarios in healthcare value chain which reduces Total Cost of Ownership (TCO), accelerates Time-to-Market and enables early defect detection.

Benefits

- Accelerates testing by reducing critical path for business assurance and initiates business context validations from day one
- Reduces end-to-end testing effort by up to 70% and minimizes dependency on subject matter experts
- Enhances business assurance through 100% business scenarios coverage
- Improves quality of product by reducing high-severity production defects by up to 30%
- Increases business agility by accelerating time-to-market by 20%
- Amplifies operational efficiencies such as reduction in claim processing error rate, inaccurate claim payments rate, credentialing success rate, claims first pass resolution rate, and benefit accuracy rate
- Reduces test data setup effort by 30%



A success story

Health Insurer slashes TCO by \$1.5 million USD through automated value chain framework

Client background – Leading healthcare payor in US partnered with Infosys for testing services. The key challenges were that focus on technical testing was more than business context testing and execution of business scenarios end-to-end in an IT landscape with 200+ applications in discrete technologies, was a tedious process given the limited timeline.

Infosys team built a robust automation

framework and automated 500+ source and target validation points in client's IT landscape to validate exhaustive business scenarios. Almost 1500+ business scenarios were created and executed in an unattended mode of execution for every production release. It has resulted in improved quality and effort saving. The solution not only improved business assurance and customer satisfaction but also helped in identifying 200+ issues leading to 30% reduction in production defects. Overall testing team efficiency was improved, which saved 1.5M USD.



Discover how Infosys can help you improve business assurance with reduced TCO using the Infosys Extreme Automation Solution. Connect us at IVS_Marketing@infosys.com

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