XORIANT

END-TO-END TESTING OF A HEALTH INSURANCE EXCHANGE

CLIENT OVERVIEW

Our client is the leading provider of health insurance related solutions for providing online and easy access to health insurance. Our client offers these services to a range of consumers spanning from employees of small and medium businesses, state governments and several other customers across the Americas. Our client also acts as an agency that provides a bridge between the carriers and the brokers in offering Health Insurance. They offer information on plans, rates, carriers and eligibility requirements for enrolment, also quotes in easy-to-understand formats are given to brokers and groups.

KEY REQUIREMENTS

- Determine the performance limits of the application including both scalability and reliability on cloud.
- Identify bottlenecks at various system levels.
- Execute performance benchmarking & failover testing.
- Perform security testing to ensure compliance and assure controlled access and authenticity of data.
- Ensuring regression automated test coverage for bi-weekly releases to the client.
- Functional, Regression and Automation testing for key functionalities.
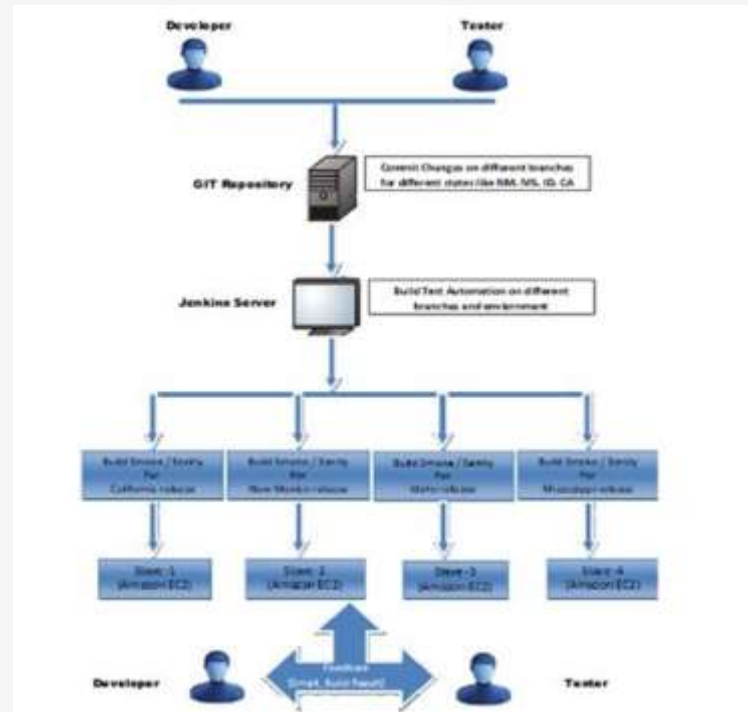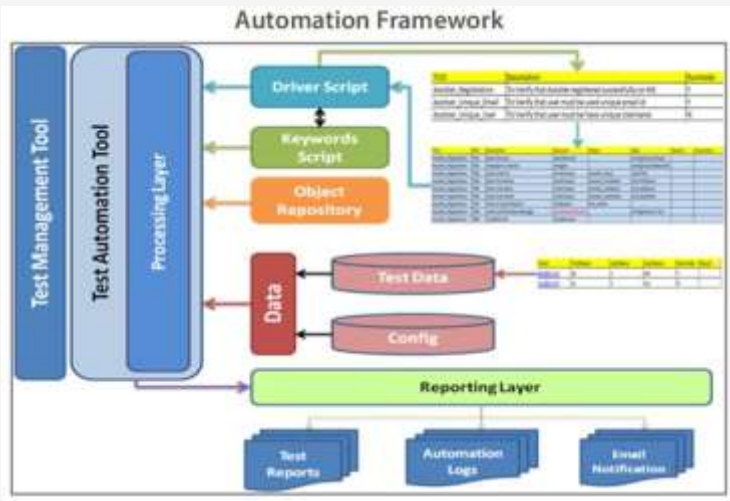
KEY CONTRIBUTIONS

- Functional Testing
  - Xoriant testing team primarily focused on client's business functionality and ensured end-to-end functional precision without any exception. The oshore testing team partnered with the client and followed Agile methodology for testing services. An eective communication channel between the client, oshore teams and onshore teams ensured completeness and clarity of the requirements. Xoriant functional testing experts implemented robust test process using Zephyr of JIRA to deliver complete test management and reporting.
- Regression Testing
  - Xoriant team created business critical regression test suites for all States the product was developed for. Weekly regression cycles were carried out with identi-cation and closure of defects well before time of the product releases.
- Performance Testing
  - Xoriant Performance engineering team was engaged from initial phases of the product development. With the domain knowledge and technical expertise on cloud platform, Xoriant team facilitated quick detection of high impacting issues
- Performance Testing Contributions :
  - End user script creation and validation using JMeter & LoadRunner
  - Understand/formulate test scenarios based on Hardware & Software setup for testing

KEY BENEFITS

- Continuous integration and release management with test automation achieved high build stability

- Automation test execution reduced total cost dedicated for quality assurance by 20%

- Scalable automation framework reduced the testing cycle time by nearly 30% thus accelerating product releases

- Trigger mechanism enabled easy verification of any changes to the application on user levels ultimately avoiding any significant system impacts

- Parallel execution parallel execution by utilizing master and slave architecture to run the automation suite on cloud platform reduced infrastructure costs by 15%

- Identify Test Data & setup Develop test accelerators for EDI and volume data creation
- Test Agent setup & Monitor setup (JVM, CPU, Memory) (Jrockit, New Relic, Native tools)
- Failover testing
- Single/Multi user scenarios to validate end-to-end functional/infrastructure stack to understand/validate Web/App/DB servers

- Automation Testing
  - Xoriant automation testing experts provided a hybrid automation framework which was scalable for automating 1500+ testing scenarios across multiple States.
- Automation Testing Contributions :
  - Built a hybrid automation framework using Selenium for regression test coverage.
  - Jointly created tool for automating code deployment with features like: Issue/File selection,   File/version analysis, Server selection and Integration with code repository
  - Used tools like WAVE, PowerMapper to check compliance with different regulations.
  - Created automated test scripts for performance, availability tests using JMeter and New Relic .
  - Used SoapUI for exhaustive web service testing.
  - Implemented simulation of real time environment load on the application server, database server and network and analyse overall performance under different load types.

HIGH LEVEL ARCHITECTURE

TECHNOLOGY STACK

- Selenium
- Burp
- Paros
- Wireshark
- Nessus
- IBM Appscan
- Qualys
- New Relic

- JMeter
- JIRA-Zephyr
- WAVE
- Power Mapper
- JAWS
- SOAP UI
- Jrockit
- LoadRunner

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About Xoriant:

Xoriant Corporation is a Product Development, Engineering and Consulting Services Company, serving technology startups as well as mid-size to large corporations. We offer a flexible blend of onsite, offsite and offshore services from our eight global delivery centers with over 2000 software professionals. Xoriant has deep client relationships spanning over 25 years with various clients ranging from startups to Fortune 100 companies.