



ROBUST AUTOMATION FRAMEWORK FOR PERMISSION-BASED NETWORK MANAGEMENT COMMUNICATION

CLIENT OVERVIEW

Our client is the pioneer and recognized leader in permission-based network management for secured communication. They provide services in security, life safety and business continuity missions of commercial enterprises and government agencies worldwide. Our client provides a unified and consistent exchange of critical information among organizations, their people and devices.

KEY REQUIREMENTS

- To understand the test cases developed for windows application which had different conventions for different modules in application which had created high ambiguity
- Automate available test cases for the web based application
- All test cases should be independent and robust so that these can be executed in batches on any environment
- Analyse automation tool selection and feasibility study and provide Cost-Benefit analysis report
- Develop test scripts, execute them and help them quantify the advantage of reduction in time taken for QA build to be released to production

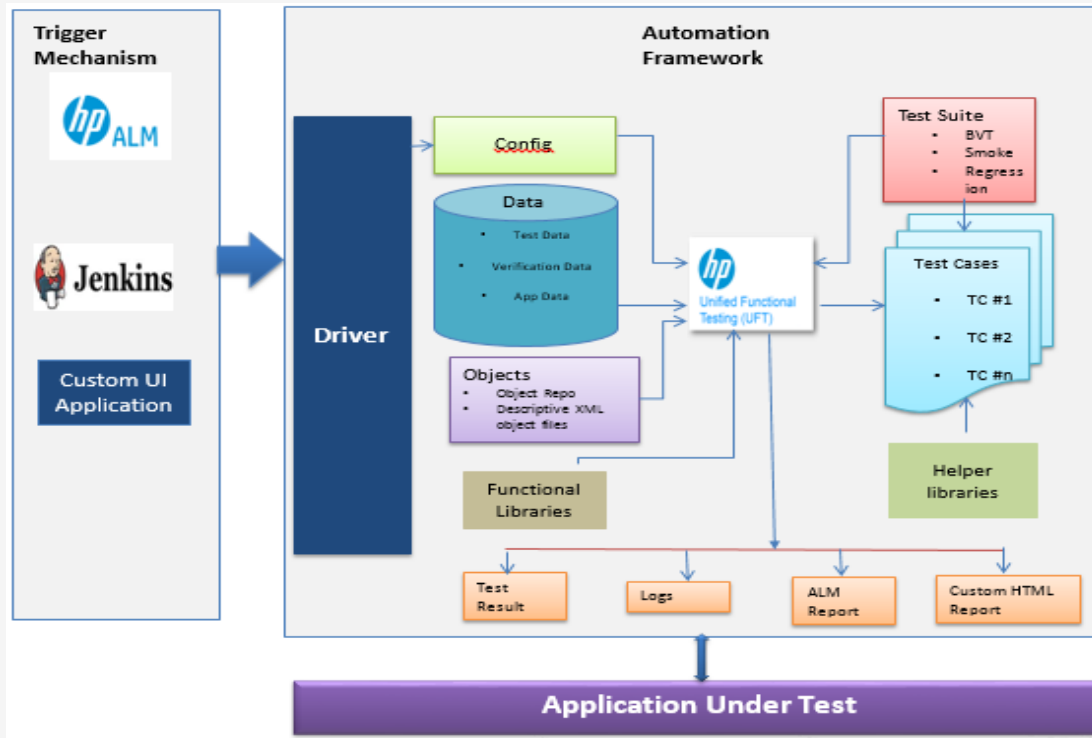
KEY CONTRIBUTIONS

- Developed a Robust Automation Framework that sufficed all functional and technical testing requirements
- Implemented libraries dedicated for Test Data generation using Stored Procedures and API
- Integration with Test Management tool (ALM) and CI tool (Jenkins)
- Every test case is independent in terms of test data and flow of execution. This ensured failure of one test case does not impact the entire test suite and every test case can be tested with multiple sets of data
- Reduced execution time by test case grouping mechanism which optimized test execution flow
- Reduction in maintenance efforts due to global test objects and application specific libraries
- Enhanced test case reporting using Test Results, detailed logs and screenshots
- Integration with Jenkins ensured continuous integration cycle such as Test Automation suite triggers immediately once the build is successful
- Incorporated Global parent and descriptive child objects mechanism considering frequent object property updates happening in the applications
- Extensive HTML auto status reporting via email for all stake holders was incorporated to help stakeholders get the execution summary after the automation execution got completed
- Integrated the automation framework with ALM, where test case status gets auto updated and hence the execution reports are visible to all stakeholders for generating metrics

KEY BENEFITS

- Reduced about 60% of configuration time with the complete paradigm shift of the architecture, where client can configure themselves
- Saved 40% of infrastructure cost over legacy infrastructure vendor and recurring license cost through multi-tenancy
- Supported high volume transaction processing and universal audibility for reliability and scalability
- 70% reduction in testing efforts for Regression Test Cases and reduced 40% bug leakage in cross browser testing and testing with different browser settings
- 65% reduction in overall effort spent for Product Testing
- Calculated track for ROI throughout the SDLC
- Provided 93% of total regression test coverage by creating robust reusable functions and test scripts
- Created all needed utilities which increased the productivity overall
- Integration with ALM ensures Test Coverage avoids bug leakage and visibility of test execution and reports to all the stake holders. This also facilitates traceability, perform impact analysis and root cause analysis at the time of bugs

HIGH LEVEL ARCHITECTURE



TECHNOLOGY STACK

- Function automation Testing Tools: HP Unified Function Testing (UFT 12.51)
- Test case management Tool: ALM 12.2x
- Version Control tool: SVN tortoise
- Supportive software: VbsEdit, NotePad++, MS Excel
- Technology: Web



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.