



Case Study – QA Automation



Project Overview

Objective: A test automation framework was developed using Selenium grid over Docker for running end-to-end tests against the client’s customer portal (Liferay 6.2).

About The Client:

The client is a leading global provider of information and communications technology (ICT) solutions and is part of a group among the top 100 ranked corporations in the Fortune Global 500.



Case Survey

The Customer portal needed to be tested against multiple browsers using a data driven testing approach where the data sets & no. of test iterations can be controlled by the tester.

Technology

- ❖ Protractor/Jasmine
- ❖ Node.js
- ❖ Docker
- ❖ Selenium

QA Automation : Detailed Flow

Source Code



CI/CD System



Code pull



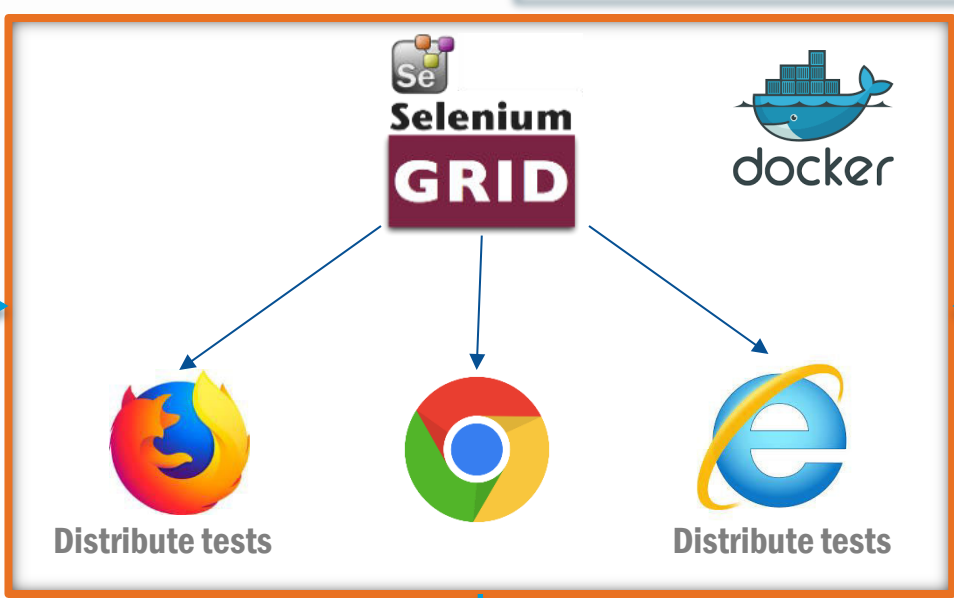
Trigger tests



Test results



Containers



Connect to selenium grid



Test results



Application



End-to-end tests



Our Solution

A test automation framework using Docker containers was designed and integrated to DevOps, for immediate verification of Liferay updates over multiple browsers-

- ❖ Consolidate existing Liferay test cases
- ❖ Test Scripts using Jasmine/Protractor .
- ❖ Mounting Selenium Containers using Docker.
- ❖ Register Selenium nodes for multiple browsers like -Chrome/Firefox, to the Selenium-Hub.
- ❖ Auto execution of Protractor tests against the application
- ❖ Reporting-
 - ❖ Process the test results and mock them into JUIT formats
 - ❖ Push the test results to Bamboo, for consolidated reporting.

Business Benefits Delivered

Our QA Test automation solution, using Protractor in a Docker configured environment provided below benefits-

- ❖ Simpler architecture & minimalistic setup.
- ❖ Tests run in parallel using selenium grid which distributes them across multiple physical or virtual machines reducing the test execution time.
- ❖ Consistent test environment provided by Docker ensures integrity of test results.
- ❖ Data driven testing isolates the data sets from the automation code providing greater control.
- ❖ Consolidated test results in to the Bamboo world for one shot DevOps/Build Reporting

About InterraIT

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