

Automated Insurance Analytics

Client: Anonymous

Business Size: Corporation

Industry: Automotive

Country: UK

Technology: Java, Spring, Hibernate, JSP, JavaScript, jQuery, Jenkins, SQL Server

Objective: Java Applications Development and Maintenance

The Brief

To provide development expertise for the development and maintenance of the client's extensive in-house application suite, primarily Java web-based applications for both internal and external users, running on JBoss web servers.

Background

The client is a subsidiary of a Japanese multinational corporation known for its motorcycles, automobiles, and other motorized vehicles. Without a major manufacturing presence in the UK, all finished goods are imported prior to distribution to the dealer network. The client's presence in the United Kingdom dates back to the early 1960s and OCS Consulting has been working closely with them since 2011.

Challenges

Our consultants face many challenges working with this client. A complex business model and environment with numerous applications, utilising many web services and multiple databases requires a proper understanding not only of the business processes, but also the individual applications. The single sign-on application is especially tricky to master and reuse for new applications. Some applications, such as that used by dealers to register new vehicles with the UK licensing authority (DVLA), are critical and their smooth running is necessary for day-to-day operations. A full understanding of these applications is necessary before making modifications. This is facilitated by ensuring specification documents contain sufficient detail to fully understand the requirements.

Technology and Skills

The developers take advantage of several tools when making Java code changes. The basic IDE is Eclipse with Postman for restful API testing, and Soap UI tool to test SOAP APIs. Development tasks and bug-tracking are managed with Jira.

The Java application technology stack includes:

Case Study

Vehicle and Marine Engine Importer and Distributor

- Spring and Hibernate frameworks, allowing developers to spend more time concentrating on fulfilling business requirements by lightening the development load for the UI and database interactions.
- JSP and JavaScripting: these established tools are relatively easy to learn and development can begin quickly.
- jQuery, simplifying navigation and manipulation of the HTML Document Object Model (DOM).
- Jboss Server: provides a flexible environment for Java-based web applications.
- Web Services (Rest & Soap): multiple web-services are utilised both internally and externally. Spring Framework, Hibernate, JSP, Java script and jQuery.

Source control was moved from SVN to GIT LAB, with Jenkins introduced for continuous integration and deployment.

In addition, the ability to communicate and collaborate effectively is very important for the delivery of successful software solutions. Our consultants work closely with the client's team to ensure that the projects are delivered on time, meet the specific requirements and the stakeholders are happy with the delivery.

Results

Our deliveries include two critical dealer facing applications, managing new registrations and warranty claims. While these applications are fully functional and robust, we are still implementing enhancements as the client's needs evolve.

In addition to these flagship applications, many changes and enhancements have been made to others to satisfy change requests and improve the client's business.

Over the years, the cycle of development, testing and deployment has improved considerably, in part with the introduction of improved test tools and the recent decision to use Jenkins.

Lessons learned

Working with this client has provided our consultants with the opportunity to enhance their full life-cycle experience in the development, testing, and deployment of many applications.

Ensuring that specifications are clear and unambiguous is always important. Time wasted on developments that are not quite what the client wanted helps no one.

Finding the appropriate test method for unit and system testing, for both the client and the application or subsystem in question, aids the developers and testers and ultimately the client.