Validating a Complex Workflow Financing Portal

ORGANIZATION

Our client is the world's most advanced digital industrial company, offering software-defined machines and connected, responsive, and predictive solutions. They provide financial and technological support for energy infrastructure projects around the world. The client's business activities include power generation and distribution, oil and gas, pipelines and storage, water, venture capital, and renewable energy sources. Our client provides electricity at a low cost to millions of American households and businesses.

CHALLENGE

ICFP Rewrite (Inter-Company Financing Portal) focuses on delivering a web-based portal that will host multiple robust workflows to provide control and governance around inter-company financing transactions. The portal will serve as the entry point for all inter-company funding transactions. However, only one group within the Treasury Department is responsible for managing all funding types. The portal should be designed, developed, and deployed into production along with the workflows. This project is one of several which fall under the Recovery and Resolution Plan ("RRP").

ICFP Rewrite (Inter-Company Financing Portal) is an internal application for providing the required approval, governance, controllership, and transactional status reporting. The Treasury needs to build a front-end mechanism to operationalize and improve the current inter-company financing process. The key challenges are:

- Overlapping the time schedules with the business SMEs/stakeholders to have daily communication regarding project milestones & requirements
- The portal is developed with complex workflows with multiple access controls. There is a considerable need to test all these workflows with different roles involved in the funding process
- Multiple rounds of testing are necessary due to the unstable nature of the application

TECHNICAL SOLUTION

The XTIVIA QA team prepared test scenarios for all complex workflows and performed smoke/sanity, functional, UI, non-functional, and regression testing. Each workflow should be built to support different types of activities.

- The QA team was up-to-date with the requirements with the help of KT sessions and extensive documentation.

- The team ensured the tracking of frequent requirement changes, and the respective test suite was in-line with the changed requirements.
- Testing of complex workflow functionalities:
  - Day 1 activities: capturing all requests for new inter-company funding requests for debt and equity products like revolving credit agreements, term loans, bonds, etc.
  - Day 2 activities: capturing "events" that take place during the lifecycle of a transaction: drawdown, prepayment, amendment, termination, extensions, assignment, sale/purchase, dividends
  - There was also a flexible decision tree for the flow of various transaction events. All the events listed above will not follow a uniform path for required approvals; therefore, the solution built had to be tested for the various possible paths.
- Testing the above functionalities required an elaborate test suite and deep knowledge of the system to ensure no page was left unturned.
- Complex calculations to arrive at the equity; derivatives were considered for preparing a comprehensive suite.
- The test plan document clearly defined the test scope and estimations. As a result, all stakeholders were informed about the different dependencies, risks, and mitigations required to achieve a successful solution.
- The team prepared end-to-end scenarios for all the workflows.

BUSINESS RESULT

The XTIVIA team used flexible workflow architecture to manage all transaction approval processes with different roles. The QA team prepared end-to-end test cases for all workflows. The QA team validated all workflows with various test data and access roles and privileges. The current application integrates seamlessly with other treasury applications and provides a rich user experience.

SOFTWARE

Java, JSP, Struts, Spring, JQuery, JavaScript, Tibco EMS, Tibco BW, Tibco iProcess, Oracle, Tomcat6.0

ABOUT XTIVIA

XTIVIA is a proven technology integration and innovation company known for delivering leading-edge technology solutions to our client's specific requirements, regardless of project complexity. We bring next-level business operations to reality through Application Development, Business Intelligence, Data Warehousing, Database Support & Management, Enterprise Information Management, Digital Experience Solutions, and Enterprise Resource Planning. Our success stems from a demonstrated ability to deliver deep expertise via professional services, empowering clients to leverage their chosen technology successfully, competitively, and profitably. XTIVIA has offices in Colorado, New York, New Jersey, Missouri, Texas, Virginia, and India. www.xtivia.com