

Enhancing Release Confidence Post QA



STAG's release worthiness assessment of a telecom operations management software that was extensively tested by the in-house QA team of a market leader in the business optimization space boosted the release confidence in the product to successfully launch into a mature market.



Domain - Telecom



Technology - J2EE

CUSTOMER AND PRODUCT BACKGROUND

The customer is a leading global provider of Business Support Systems software that enables telecom service providers to achieve competitive advantage through business optimization.

The product under test helps detect different types of telecom fraud in both wire line as well as wireless networks. It also helps detect fraud in roaming, pre-paid, and post-paid environments and is tailor-made for GSM, CDMA, fixed, as well as GPRS networks. The product was developed using J2EE technologies and had undergone multiple versions of build with a wide installation base in the Asian and US markets.

PROBLEM STATEMENT

The customer had ambitious plans of expanding the product reach and moving into a mature market – Europe. The product went through multiple feature upgrades and modifications to meet the demands of the new market.

Though the product was tested diligently by the customer's in-house QA team, the management was skeptical about its release-worthiness. They preferred to have an independent third-party product assessment by experts to de-risk the areas of concern and ensure the product was fit for release and its deployment 'incident-free'.

SOLUTION

The STAG team reviewed the customer's current test practices and also got the customer team to perform a product demonstration. The team identified the following gaps:

- Incorrect capture of critical requirements whose support cost was high
- Existing test cases focusing more on use aspects than abuse aspects
- Absence of both negative test cases and end-user perspective to testing

To determine the length and breadth of testing required, the STAG team adopted the following three-pronged approach:

- Identify areas that posed the highest business risk, areas that had been de-risked already, and areas that remained as risk to be assessed
- Identify how well the 'net' had been cast to uncover defects in the lifecycle and also assess whether the methods used to uncover the defects have been expansive/complete
- Determine whether the existing test cases (and the tests conducted so far) have the power to detect high-risk business issues

The team applied the HBT technique of BeST to design test cases that consisted of both positive as well as negative scenarios. The focus was on resolving end-user-situation types of issues; therefore the team used the actor-based testing approach to get the software validated by each of the different kinds of users (actors) anticipated. This led to the generation of effective and minimal end-user scenarios. The test scenarios were properly documented and the documentation was shared with the customer team for review and concurrence.

OUTCOME AND VALUE ADDITIONS

The STAG team strengthened the existing SDLC process to capture critical requirements. It formulated a new pre-release assessment test strategy to include end-user perspective scenarios to perform UAT. The team rated each identified module on a scale of 1 to 10 to translate the stability of the product, which finally resulted in a stronger buy-in by the customer.

The team improved the product stability by fixing the high-impact defects, which would otherwise have cost the customer potential losses of up to a quarter of a million dollars in terms of support cost within the first few months of product release. With the business risk lowered and the release worthiness certificate of the product in hand, the customer was able to launch the product to market successfully and on time.

CUSTOMER SPEAK

“...All defects reported are real defects. We had no other choice but to fix them before product release. Thank you for showing us where we can really improve”

- Chief Technology Officer.

 # test scenarios documented: 1085

 # test scenarios tested: 858

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 # high impact defects: 39