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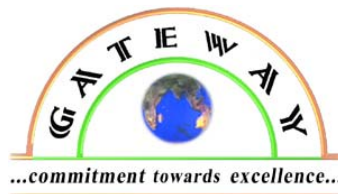
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# Case Study

## For

# End to End Testing of a Large Scale Mortgage Application

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## 1. The Client

The client is a Netherland based leading provider of Mortgage and Financial Planning application across the Europe. This application is widely used across different Financial Advisory firms and Banking Institutions.

## 2. Business Need

One of the major modules of the existing multi-user windows Client Server desktop application written in Delphi was to be developed from scratch in .NET development platform with addition of new features and functionalities. The main objective of re-developing the module from scratch was to give an intuitive user interface and better performance.

The client wanted a very intuitive user friendly application with completely new type of navigation, which would present only required information to the user, based on the user interests and data filled in the usage process.

The client was expecting the new .NET application to be thoroughly tested for new functionalities implemented in the project along with the navigational flow. Testing was done against the existing desktop application, requirement specifications, design documents and the new features specifications that were incorporated in application developed in .Net. The functional verification also had to include the matching of functionalities to the existing desktop application.

The client aimed to implement effective offshore Quality Assurance for the product.

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### 3. The Challenges

- Understanding the existing application with very little knowledge transfer and exploration of application
- Document the complete Test Documentation as the client was planning to enhance the same application in customized way for different financial institutions.
- To complete understanding and testing of major modules within a short span of time as client wanted to launch the product in the market before start of the new financial year. Number of modules with complex functionalities to be tested in short span of time.
- Provide in-depth suggestions in areas of performance improvement and user interface
- Application understanding due to language barrier as the application was in Dutch.

### 4. Gateway's Approach and Solution

Gateway was chosen as an ideal partner, to implement effective offshore Quality Assurance for the product and carry out the complete end to end testing of the application by doing manual testing.

The key challenge was the application understanding as it was a vast application completely in Dutch. To get the functional understanding dedicated QA resource explored the existing desktop application. After getting a basic functional understanding of the application QA resource coordinated with the offsite development team to get the in-depth functional understanding of complex functionality and interdependent modules. The communication was done on MSN on one on one basis with the client representatives. As and when required complex functional understating was also demonstrated by client using collaborative net-meeting tools.

Functional requirement and business rules were understood by client interactions, specification documentation and the existing application.

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In the initial phase of the project Knowledge Transfer and Exploration of existing desktop application was carried out to get more functional understanding. In initial stage of testing no test cases were written as testing had to be done against the existing desktop application. Over a month's time, the test cases were defined when testing of crucial and complex functionalities had to be done.

These test cases were reviewed and approved by the client. The crucial and complex functionalities of the application were tested against the approved test cases. Defects/issues were reported in Mantis bug tracking tool which were reported to client and development team for further actions. The defects/issues were closed after they were resolved by the development team and by performing a round of regression testing.

Testing involved functional, integrated, regression, usability and volume testing.

## 5. Benefits

- Risk was identified and reduced in the primary stages of development instead of in the closing stages.
- Findings of defects and functional gaps in the development life cycle.
- Due to early involvement of QA member, quality of application was improved throughout the application lifecycle.
- Repairs to problems were less costly.
- The release dates were predicted more accurately throughout the project.

## 6. Tools and Technologies

- PLATFORM: Microsoft Windows
- TECHNOLOGY: .NET 2.0, Pervasive
- DATABASE: Pervasive 7.9 / 2000i
- TOOLS: Mantis for Issue Tracking
- TESTING TYPES: Functional Scope Validation, Regression Testing, Usability Testing, Integrated Testing and Volume Testing

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## 7. Duration and Resources

- 10 months
- 1 Full Time Engineer in dedicated testing model