Client:

Classified as a sole community provider by Medicare, it is New Mexico's oldest hospital, a major regional medical center covering seven counties.

Business Needs:

The client had made significant investments in implementing the web based medical application to maintain an efficient, simple and secure system within the organization.
The client needed a partner to test and ensure the overall quality of the product in co-ordination with development team to ensure a smooth release cycle. This required the setting up of the test environment, template/process definition of the testing activities.

Approach and Solution:

Manual testing was carried out for the entire project. Test case generation techniques like boundary value analysis, equivalence partitioning and error guessing were used to optimize the number of test cases generated. Exploratory testing, Ad-hoc testing and Security testing was done after every round of testing. The testing team ensured the testing of all possible scenarios including negative test cases. Load testing was done manually by giving numerous data to ensure that the application was capable of processing them within the optimum response time.

Challenge: Handling frequent builds.

Builds were received every alternate day due to the application being unstable. This resulted in not being able to follow up with the daily and weekly plans.

Solution:

Formal reviews were set in place for each activity performed by the team to ensure that every activity was performed as per the plan and met the requirements. Also maintained a separate folder for each and every build received.

Challenge: Impact of defects being fixed.

Many defects in the application that were being raised and fixed added new bugs in the application. These defects were recognized at a later period which consequently affected the time constraints.

Solution:

Regression testing was carried out for every build that was received. Kept a track of the defects being raised and fixed in an excel sheet corresponding to the respective build.

Business Benefits:

The benefits of this approach included development of all the required test sets, high maintainability and flexibility of accommodating changes and enhancements in the application. Due to the clear and transparent understanding of the application the testing team also prepared a user manual which helped the end users understand the application.

Tools and Technologies:

Platform   : Windows XP
Technology   : ASP
Script   : Java, VB.
Database   : SQL Server
Tool   : TestDirector 8.0