



Major Service Provider Ad Hoc Reporting System

Solving severe performance challenges in a web-based ad hoc reporting environment

Case Study

Challenge

As a business differentiator, the client provides its clients (approximately 2000 users) the ability to create and modify ad hoc reports against their company's data. This service provides the client with a unique competitive advantage in the market place, and has been well received with the exception of application performance problems. Users were frustrated by the constant slow response times. It could take as many as 4 minutes to list a user's reports, over 60 seconds to open a single report and a simple series of tasks could take a user over 10 minutes to perform.

The client had made several attempts over the previous two years to address the performance issues even engaging the product vendor (Crystal Decisions/Business Objects) to investigate the problem. Unfortunately, those efforts did not improve performance significantly.

It was very important for the client to solve this problem in order to:

- Improve client satisfaction, maintaining their competitive advantage
- Reduce support efforts of client staff and allow staff to work on other initiatives

Solution

Echelon performed an extensive review of the application to determine the cause of the performance problems and determined that the fundamental issue with the original application was excessive communication between the user's browser and the server. The decision was made to minimize communication between the browser and the server and to move user interface processing from the application server to the web server. Since significant time-to-market issues made the option of a total application rewrite impractical, a comprehensive proof of concept was completed which reused as much of the original application as possible. While closely collaborating with the client to enhance usability, Echelon staff rewrote the user interface using Microsoft .Net technology and delivered the solution on budget and ahead of schedule.

Results

The rewritten application typically provides response times that are virtually immediate. A series of tasks that previously took 10 minutes can now be done in about one minute. In addition, non-functional improvements introduced by Echelon have enhanced application maintainability, supportability and should lower the total cost of ownership for the application.

Client users as well as client users are thrilled with the performance improvements as well as the improved usability of the application. One manager remarked that the new application "rocks".