



"This application conversion was absolutely essential to maintain our level of customer service, and we could not afford any cost or schedule over-runs. This 45 man-year project was accomplished on time and on budget, with no customer-visible hiccups. "

- Gene Reich,
CIO, CalPERS

SoftSol's Modernization Solutions - CalPERS

Background

The **California Public Employee Retirement System (CalPERS)**, is the nation's largest public pension fund with assets totaling more than \$225 billion. The System provides retirement and health benefits to approximately 1.5 million state and local public employees and their families.

SoftSol has assisted CalPERS in modernizing and deploying the new Java-based core of their COMET operational system. The Corporate Online Member Employer Transaction (COMET) system handles transactions on behalf of all CalPERS' 1.5 million subscribers and the system's 2500 employers use the system statewide.

Challenge

The COMET system manages employee registrations, employer contributions, medical / pension benefit calculations and reporting. It has over 250 user screens and performs the supporting calculations and transaction management for user interactions. The CDB application (Corporate Database), the core component of COMET, was one of the largest such applications built on the 4GL managed environment—an environment that no longer provided the technical versatility required by CalPERS. Because the application was vital to CalPERS' core business, it was necessary for CalPERS to migrate it to a modern development platform.

The application re-engineering was a necessary step towards the larger objective of an enterprise wide modernization effort. This was in preparation for platform consolidation and integration initiatives that were time bound. The fact that the sunset platform technology for the CBD was on a limited support from the vendor added to the immediacy of the migration.

SoftSol Solution

The new core application, called CDB (Corporate Data Base), was converted from over 1.4 million lines of legacy 4GL code to over 3 million lines of Java by SoftSol resources. SoftSol's post-conversion architecture complied with the CalPERS strategic direction for custom application development using the J2EE blueprint. The application was configured in three tiers which included a client tier to provide the user interface, a middle-tier to provide client services and business logic, and a data tier for back-end enterprise information systems providing data management. All presentation logic and exception handling resided in the client tier, all business logic and exception handling was in the middle tier, and persistence logic and exception handling was in the data tier. This required some refactoring of the existing code base. For instance, the business logic in the client tier was moved to the middle tier. Similarly, modifications were made to the backbridge and refresh components of the interfaces to legacy applications that were imposed by the new architecture.

Results

The COMET/CDB conversion project was undertaken to leverage open-source technologies like Linux and Java that were expected to provide a more flexible, long-lived and economical system. This objective was successfully met by SoftSol with no overruns in terms of time or budget. The COMET system handles at least 30,000 transactions per hour, and is deployed on multiple open system server clusters to cover batch and on-line workloads.

With this implementation of COMET/CDB, SoftSol helped CalPERS meet its goal of increased systems development productivity from object-oriented code and re-useable components. This also enabled CalPERS to progress towards the creation of a unified consolidated application for all Pension Systems needed by CalPERS and their business partners.

About SoftSol

SoftSol specializes in taking IT to the next level. We are the one-stop source for the tools, people, and processes that multiply the return on your IT investment.

Enterprise technology modernization is SoftSol's core specialty. This service combines automated tools and an innovative methodology to migrate legacy systems from outdated platforms to the latest technologies. In the process, vital business knowledge confined by the limitations of antiquated technology can be renewed for improved compatibility, functionality, and protection against accidental obsolescence.

Because SoftSol is also a premier custom software development shop, we leverage the latest technology innovations to enhance the versatility and efficiency of both individual applications and entire enterprise systems. Web-enablement, SOA, and cloud hosting are some of the ways SoftSol can assist IT organizations in achieving their unique business objectives.

Closely associated with this modernization focus is SoftSol's data service. Enterprise technology modernization initiatives often require data consolidation, cleansing, and migration. SoftSol assists in each of these strategies, laying the right foundation for effective data integration with new systems. The natural accompaniment to such data initiatives is a comprehensive business intelligence solution, providing the analytical and reporting tools to glean strategic insight from the full body of enterprise data.

Because SoftSol offers most of these solutions within a deliverables-based service model, efficient application testing is a constant internal emphasis. For this reason, SoftSol developed a proprietary test automation framework that dramatically improves the depth of coverage, efficiency of test script development, and the speed of executing regression test cycles (up to an 80% effort reduction over manual testing). SoftSol now provides this solution directly to clients as an end-to-end managed test automation service, enabling customers to apply the same rigorous quality standards to their own internal applications that SoftSol delivers for leading IT organizations in both industry and government.



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