

Siemens Health Services

Migrating 80 million lines of code for the leader in HealthCare management solutions

SHS is a Siemens company and it handles their HealthCare Solutions for the worldwide market. Given the individuality of this market in each country, the organization of SHS and development of solutions are tailored to each country's specific needs.

For the French Market, SHS has developed a complete group of solutions for both the public and private sector.



These solutions, that cover all administrative aspects of a hospital, have been developed up until recently, for the AS/400® platform. SHS strong presence in the French healthcare market, as well as their excellent solutions, has made the company a leader in the healthcare sector.

Difficulties encountered by SHS users, due to the high proprietary costs of the AS/400®, along with the uncertain future of this platform, has triggered the need for Siemens to reach for an alternate solution in the open technology market.

After a detailed search within the available solutions and tools, Siemens has selected TransTOOLS' Caravel™ as their most favourable option.

The complexity of this solution, with more than 80.000.000 lines of code, and SHS' responsibility to remain as a leader in this field, has made this project a model in planning and rigorous quality control.

About the Client

Siemens Medical Solutions of Siemens AG is one of the largest suppliers to the healthcare industry in the world. The company is known for bringing together innovative medical technologies, healthcare information systems, management consulting, and support services, to help customers achieve tangible, sustainable, clinical and financial outcomes. From imaging systems for diagnosis, to therapy equipment for treatment, to patient monitors to hearing instruments and beyond, Siemens innovations contribute to the health and well being of people across the globe, while improving operational efficiencies and optimising work-flow in hospitals, clinics, home health agencies, and doctors' offices.

The French Subsidiary of Siemens Medical Solutions, is the healthcare industry's leading Application Service Provider (ASP) with more than 400 hospital organisations as current customers in France.

Project Background

The client had a large information system for hospital management developed in RPG/400®. The application was built with several modules that covered every issue related to the management (clinical, logistic, interaction with other clinical devices such as radiology). The application was linked to the AS/400® server as the only hardware option for its clients. The general trend of the market was to offer a Web-enabled and platform neutral application. This trend was based on two factors:

- High interaction of the hospital organisations with private clients and external collaborators (independent doctors, insurance companies...) that made absolutely necessary the integration of the application with Internet.
- Pressure of its current customers to have a platform-neutral application. The hospitals wanted to have the possibility to avoid the expensive proprietary costs of the AS/400® systems.

SHS was already facing the need of a Java™ application to substitute the RPG one. The definition of a re-programming effort amounted to excessive cost, which made them give up on that option. Our client had already tested other technical possibilities to support the conversion with no success. The Caravel™ option was taken with a sceptical feeling that we changed into enthusiastic mutual trust.

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Scope of the Project

The project scope includes:

- Convert the entire RPG application to Java™.
- Certify that the new application keeps the same functionality as the original one with no decrease in the original quality.
- Redefinition of the application interfaces to create a more user-friendly look & feel.
- Re-engineering of the application to integrate it in the company Internet portal.

Client Benefits

- Minimising the financial effort of the movement to Java™.
- Obtaining a Java™ application in the shortest period of time making sure that the technological features of its application will not threaten their current leadership in the market.
- Integration of the e-Business strategy in its application.
- Ensuring a solid technological future for its application by integrating with the programming trends.
- Offering its current customer the possibility of choosing among any market standard platform.

Original Platform

- Programming Language: RPG/400®.
- Operating System: OS/400®.
- Number of Objects (RPG, CL, DSPF, etc.): 52.000.
- Hardware: IBM® AS/400®.

Final Platform

- Programming Language: Java™.
- Operating System: OS/400®, Windows™ 2003 Server and Linux®.
- Data Base: DB2®, SQL Server®, Caché™ and Oracle® 9i.
- Hardware: Platform Neutral Application.

More Relevant Technical Topics

- The execution of a large project with pre-established phases and completion dates.
- Integration of the Caravel™ Technology with the interface module previously developed by Siemens called SHS Portal.
- Integration of the new application with the Cache® data base.
- A strong dedication to obtain an excellent performance/equipment costs ratio, that improves SHS' ability to compete with other offerings.

