

Cases

DATASUS

Building A Robust Architecture



Company

DATASUS is the Health Informatics Department of the Brazilian Ministry of Health. It is the coordinator of the National Health Information System and the guardian of the National Health Information databases.

Challenge

The Brazilian Ministry of Health maintains about 300 health domain reference tables and vocabularies. These tables are used on information systems throughout the entire country and include important vocabularies, such as medical procedures, genders, cities, admission types and discharge types. In order to properly process their data and send it to the government for reimbursement, health providers need to have these tables up-to-date. Each time one of the tables or vocabularies changed, the government published the information in an official newspaper. The health providers had to read the official newspaper everyday in order to find out what information changed, and then had to type the new information into their database. Also, there was little information available about the tables, which made the task of assessing and controlling the tables extremely difficult.



DATASUS was also in the beginning stages of a technology shift – moving its applications to the J2EE technology. They needed help learning this new technology and defining a scalable and robust architecture.

Summa's Solution

Summa was hired to help DATASUS define a robust architecture and build the Ministry of Health Vocabularies Repository. With this new system, when a particular table or vocabulary changes, health providers receive the new information automatically, via email, JMS message or dedicated Swing application. Users have one place to find a complete version of all national vocabularies and tables. Summa also had the important role of educating the DATASUS team on the new technologies that were used. Summa explained how to design ordinary J2EE applications and how to build well-designed, robust and high-performance distributed applications.

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Key Summa Services

Defined and built application architecture Trained and mentored client resources

Value Delivered

With the Ministry of Health Vocabularies Repository, DATASUS now has a powerful tool to manage and distribute their information throughout the country. The application has been praised by the users – from health providers to government agencies.

The architecture and design patterns applied by Summa on the project are being used by DATASUS as a reference for other upcoming projects.

With the mentoring work developed by Summa, DATASUS now has a team that can build new applications using the best practices, design patterns and architecture that were applied on this project.

Technologies Used

Borland Application Server, JBoss, Oracle, Interbase, MS-SQL Server, MVC, J2EE, JMS, JBossMQ, XML, XPath