The City of São Paulo Healthcare Information System - A Case Report

Fabiane Bizinella Nardon

ZILICS Inc.

ABSTRACT

In Brazil, every citizen has the right to full healthcare, from primary care to complex procedures as heart transplants, for free, any place in the country. With a population of 180 million people, information is the key to better distribute resources and provide better healthcare.

Taking advantage of the concepts and infrastructure of the Brazilian National Health Card, in 2003 a huge project was started aiming to build an integrated web based application for the City of São Paulo to collect patient encounter information, to regulate complex procedures authorizations and to build an integrated patient scheduling system that would allow to schedule consultations and medical procedures in any health provider. This would reduce the waiting time, organize the flow of patients, and greatly improves the quality of care.

The challenge was to build a quality application in a short time frame for one of the biggest cities in the world with impressive numbers: 22 million inhabitants, 386 primary care units, 158 Polyclinics, 105 hospitals, 40.000 first consultations per day, 75.000 healthcare professionals and 7.000 computers that would access the information system. The information system had to be operated mostly by users with no computer training at all and, as such, should provide an user interface that was intuitive and easy to learn.

This presentation will share the experience of building such a system, showing how it was designed, the challenges, the problems, what changed in the health system once it was deployed and how it was possible to build the system on the proposed time frame. From the time the first use case was specified to the time the information system was deployed, only four months had elapsed and 2.5 million lines of code were produced. After 3 years of production, the information system improved the public system efficiency by about 35%.

INVITED SPEAKER'S CV

Fabiane Bizinella Nardon has an MSc and a PhD in Computer Sciences. She is currently the CTO of ZILICS, a Brazilian Healthcare Information Systems provider, where she is responsible for all technical aspects of large distributed projects deployed in countries like Brazil and Angola/Africa. She was the architect of the Sao Paulo City Health Care Information System, a Duke's Choice Award winner in 2005. This project currently handles healthcare information of more than 14 million people in the public health system. Before joining ZILICS, she worked for several consulting companies and for the United Nations in the National Healthcare Information System Project of the Brazilian Ministry of Health, where she was responsible for designing information systems based on the JavaEE Platform. With extensive experience in standardization processes in Brazil and abroad, Fabiane was the chair of the Latin American Chapter of OMG Healthcare Domain Task Force and two times one of the directors of the Brazilian Healthcare Informatics Association. She is the java.net JavaTools Community Leader, was chosen a Java Champion by Sun Microsystems and currently is member of the Governance Board of the OpenJDK, the open source version of the Java platform.