imaginea

EASY-TO-INTEGRATE RAILS SAAS FOR EHR

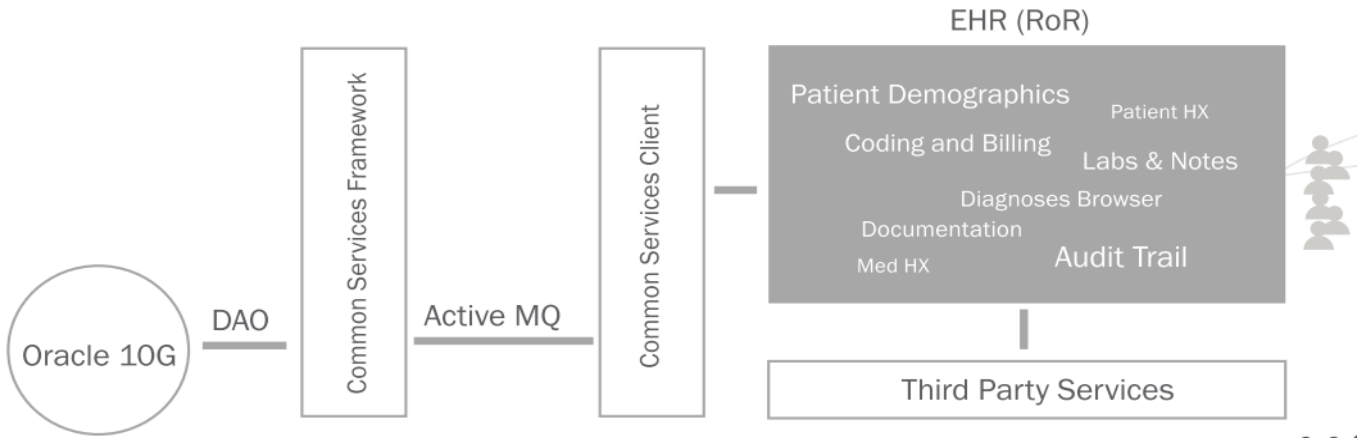
KEYWORDS: JRuby, Rails, JQuery, HAML, SASS, ActiveMQ, Spring Framework

Solo and small group physician practices require easy-to-use mobile and web-based EHR solutions that feature gold-standard drug and safety content. Imaginea implemented, tested and deployed key EHR solution modules for a leading provider of clinical solutions and medical reference tools for healthcare professionals.

Entering the EHR (electronic health records) market early was crucial to ensure early adoption of the solution. But it wasn't just a race against time; once the solution was adopted by medical practitioners, it had to pass the test of robustness, usability and scalability as well. Customer product managers decided on implementing the EHR solution in Ruby on Rails over a Java-based Common Services Framework. The goal was to rely on Ruby on RAILs to quickly build a sturdy system that can get to market first and thrive there. Once matured, the goal was to move the Ruby systems to more robust and stable Java.

The Work. Imaginea built and tested a robust and highly scalable EHR application for medical enterprises with multiple integration points to sync with enterprise systems and third-party vendor systems. VPN tunnels were used to avoid latency of accessing client's network, as engineers worked with services deployed on beta testing servers. The EHR modules were implemented in JRuby on RAILS, with front-end scripted in jQuery, HAML and SASS. The RoR system was fully migrated to the J2EE stack. Plug-ins like Formtastic, Shoulda, Jammit, Factory-Girl were used for productive development and testing and common services were run on Active MQ.

On the mobile side, Imaginea handled the EHR, collaboration network and SSO framework development. iPhone and iPad compatibility issues were also identified



Software Implementation of the EHR solutions

and fixed. Imaginea developers who needed access to confidential healthcare information for testing acquired HIPAA certificates.

Data Consistency. The client has a good mobile and web presence, so it was required that the EHR solution should be available on both platforms. To achieve data consistency across platforms and manage application issues, a Common Services Framework (as mentioned above) was designed and implemented by RESTifying the backend services (APIs). This allowed consumers to post requests and receive appropriate responses.

Full Text Search using SOLR. The EHR's application requirements mandated support for full text search, but implementing this on persisting data in RDBMS tables was challenging. After exploring various algorithms and patterns, Imaginea found an optimal solution with SOLR integration.

ABOUT IMAGINEA. Imaginea, erstwhile professional services division of Pramati Technologies, provides software engineering services to independent software vendors, Internet companies, and enterprises who are looking for reliable technology partners. Services stretch end to end, from interaction design to development, testing and cloud management. Imaginea is also a solution partner to emerging platforms such as Wavemaker™. For more information on Imaginea, visit www.imaginea.com.