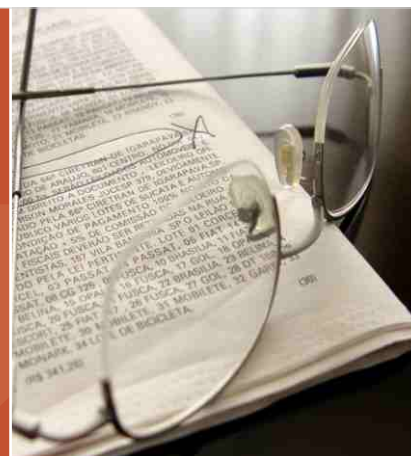


Case Study

Ruby on Rails – Building Dynamic Web Products Faster



➤ THE CUSTOMER

A US-based provider of case management and judicial solutions for over 20 years. Their product suite conforms to business processes followed by US courts and is used in over 40 courts in the US. It reduces paperwork and redundancy while promoting efficiency and accuracy.

➤ THEIR NEED

Migration of their client-server case management software to a web-based product in a very short span of time. The existing software was developed in VC++ and they wanted to modernize it by building an efficient thin client product version to meet their customers' demands.

➤ OUR DEED

Aspire compared industry leading open source tools like PHP, Java and RoR for the development effort and recommended the use of RoR for its development framework for web products. The migration was accomplished in a compressed timeframe, and Aspire also helped reduce the product's maintenance bandwidth from a long-term perspective, by using RoR.

➤ TOOLS & TECHNOLOGIES USED

Language: Ruby 1.8.6

Framework: Rails 1.2.4

IDE: RadRails IDE v0.7.1

Web Servers: Webrick, Mongreal, Lighttpd

Aspire helped reduce the product's maintenance bandwidth from a long-term perspective, by using RoR.

BUILDING DYNAMIC WEB PRODUCTS FASTER

The customer's court management software provided features like docket scheduling, sentencing, warrants and payment records for all types of court cases. It also generated forms and reports as required. A court in the US could initiate and maintain an unlimited number of court cases with this product.

The customer needed to migrate this product from client-server form to a web-based one in a reduced timeframe. Aspire identified Ruby on Rails as the best technology to accomplish this goal due to the following reasons.

RoR is a web application framework that aims to increase the speed and ease with which web products are created and offers skeleton code frameworks (scaffolding) from the outset. It also encompasses all the best practices followed by other technologies.



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RoR scores over competing languages/technologies in the following areas:

- Development Speed
- Maintainability
- Cost (in terms of lower number of resources needed)

In addition, RoR also offers better Web 2.0 support when compared to other technologies. For example, it allows a web page to be updated with only that portion of the display that needs to change, instead of the entire page being re-loaded. As a result, users experience faster page response times.

RoR also comes with an automated test functionality that automatically generates test files which can be used to design test cases. Hence, extensive unit tests can be generated with RoR and functional and integration testing can be performed as per the need. This will increase the overall testing coverage.

Key benefits to the customer:

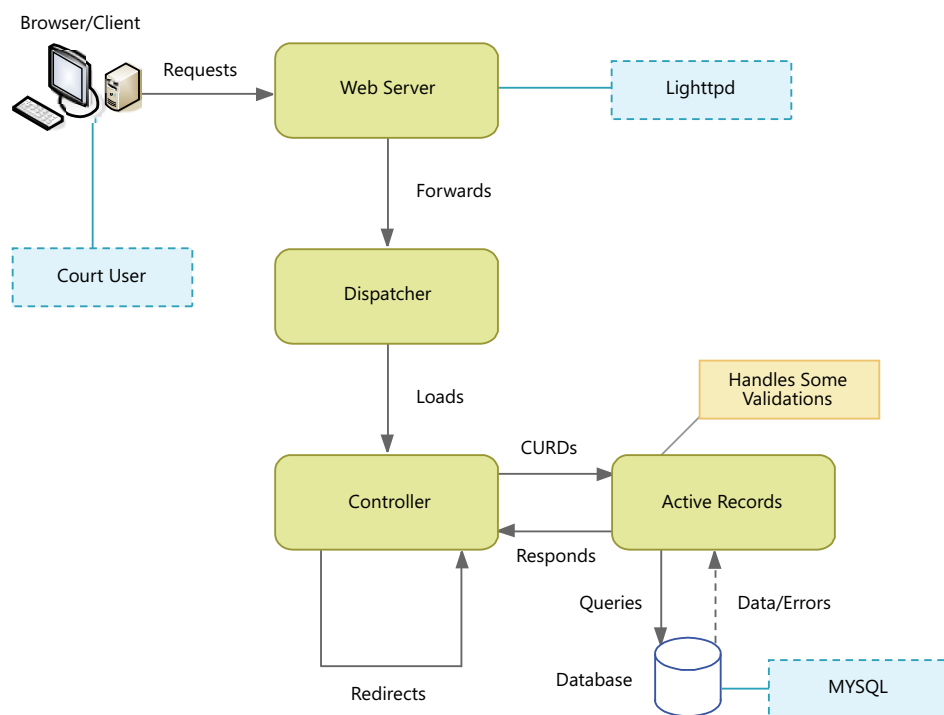
Reduction in development time by

40%

Lower maintenance costs

Product Architecture

The client-server case-management software, written in VC++, was migrated to a web-based product in the Ruby language. The following diagram represents the architecture of the migrated product:



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Transforming Product Development

Ruby on Rails – Building Dynamic Web Products Faster



Highlights

- Usage of Lighttpd web server allows for ease-of-use, lower CPU utilization and better performance.
- Ajax was used extensively towards enhancing usability and performance

Advantages of Rails Solution

- Rails migrations are DRY (Don't Repeat Yourself). With Rails, we specified each column definition exactly once.
- Rails migrations allowed data migration as well as schema migration
- Rails migrations allowed us to use model logic with data migration
- Rails migrations are database independent
- Rails migrations allowed direct SQL for unsupported extensions

Benefits to the customer

- Reduction in development time by 40%
- Web-based product released to the market faster
- Lower maintenance costs

ABOUT ASPIRE SYSTEMS

Aspire Systems is an Outsourced Product Development firm committed to helping our customers build software products better and faster. We work with some of the world's most innovative Independent Software Vendors and software-enabled businesses, ranging from start-ups to established industry leaders, transforming the way software is built.

Aspire provides complete product lifecycle services, ranging from new product development and product advancement to product migration, re-engineering, sustenance and support. Our product development teams are spread between our Global Innovation Center in Chennai, India and offices in the United States.

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