

Helping a  
**consumer-driven travel**  
planning portal scale  
development

## Client Overview

Founded in 2007 by avid travelers, our client provides an online travel planning portal, which combines planning tools with travel related content, so that travel enthusiasts could find inspiration, plan trips and book travel. Our client wanted to improve the online travel-planning experience for the customers of their portal. Our client also wanted to combine the features of an information repository, decision support tool, and a platform for travel related social networking, comparison shopping and booking; thereby making it an all encompassing experience for the customers.

## Challenges

Our client's success was dependent on its ability to deliver a unique travel site that would help users find the best destinations for their unique needs. Our client wanted to be the first company that provides end-to-end travel solution right from the choice of the appropriate destination by screening a user's budget, age, maximum travel distance and preferred vacation activities to quickly identify best-fit destinations, to actually booking the whole itinerary.

To be able to capture the market, our client wanted to build a fully functional travel portal within a very aggressive time frame, but lacked resources experienced in UI technologies, scalability and, quality assurance. Our client was also looking to integrate with various third party providers and wanted a team with extensive experience in integration. The team was also required to have experience in working on short releases while handling dynamically changing product requirements and change requests.

Some of the challenges which our client faced were:

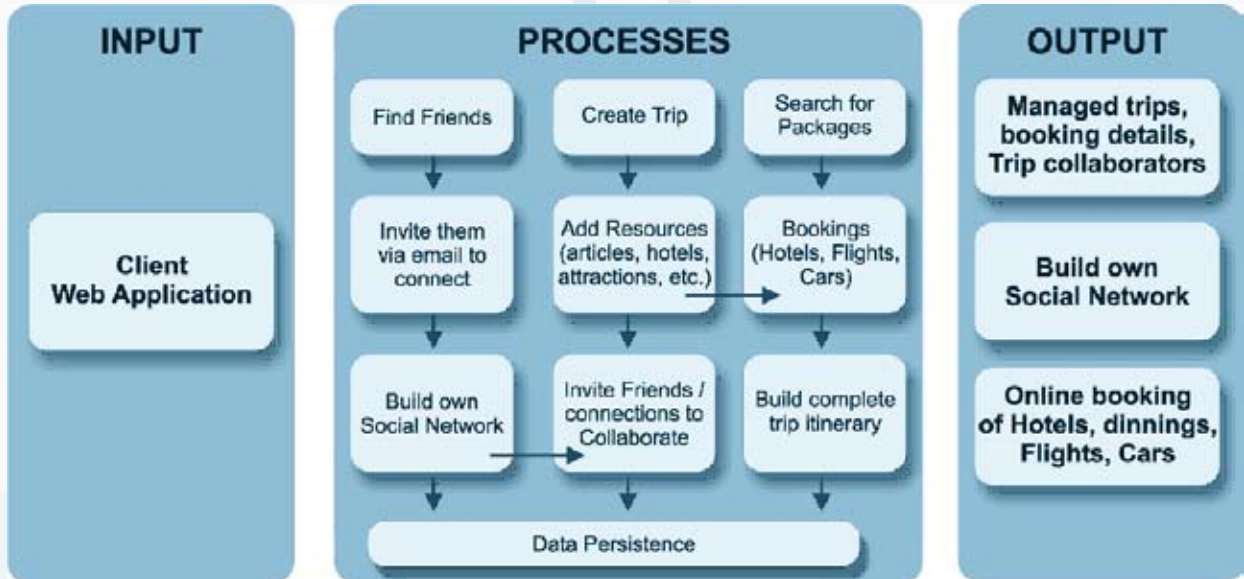
- Achievement high performance benchmark: At least 1000 concurrent users and scalable up to 100,000 users within 12 months of commercial launch
- Achievement user acceptance benchmarks: Acceptance from 200 friendly and 1,000 external users in 2-3 months after beta launch
- Integration with numerous third party service providers – booking engine, review sites, hotelbooking with leading providers in Europe & US for fetching real time information
- Achievement quick time-to-market: beta launch was expected in 5 months from project kickoff
- Building a product for multiple browsers as well as legacy browsers (Safari, Mac, IE)
- High usability, which would keep users from going to competitive sites
- Ability to quickly retrieve CMS content without affecting the website performance was important, especially since the portal is content intensive
- Being a startup our client could not obtain review data, which is not readily available through conventional means. Data scraping from 4-5 travel sites to get the user review data was a challenge

## Solution

Our client was looking for a development partner who had deep and broad experience in the full software engineering lifecycle of complex enterprise class applications products. Xoriant with the right kind of resources having expertise on UI technologies like advanced JavaScript, UI frameworks like JSF, automated testing of web portals and prior experience of using Content Management Systems proved to be the right fit. Xoriant project lead acted as the single point of contact for project scoping, task assignment, and tracking.

Xoriant proposed building of the entire product using current web tools like Ajax, so that the user experience could be improved significantly and the features matched those of the Web 2.0 style of deployment. Xoriant contributed towards the overall design to make the portal scalable and user friendly. The average release period was 6-8 weeks.

Xoriant recommended and fully implemented search using Apache Lucene for content search. The advantage of Apache Lucene is that it is a high-performance, full-featured text search engine library suitable that can be used for nearly any application that requires full-text search, especially cross-platform. This enabled fast retrieval across this content intensive portal.



Some key aspects of the design and implementation phase were:

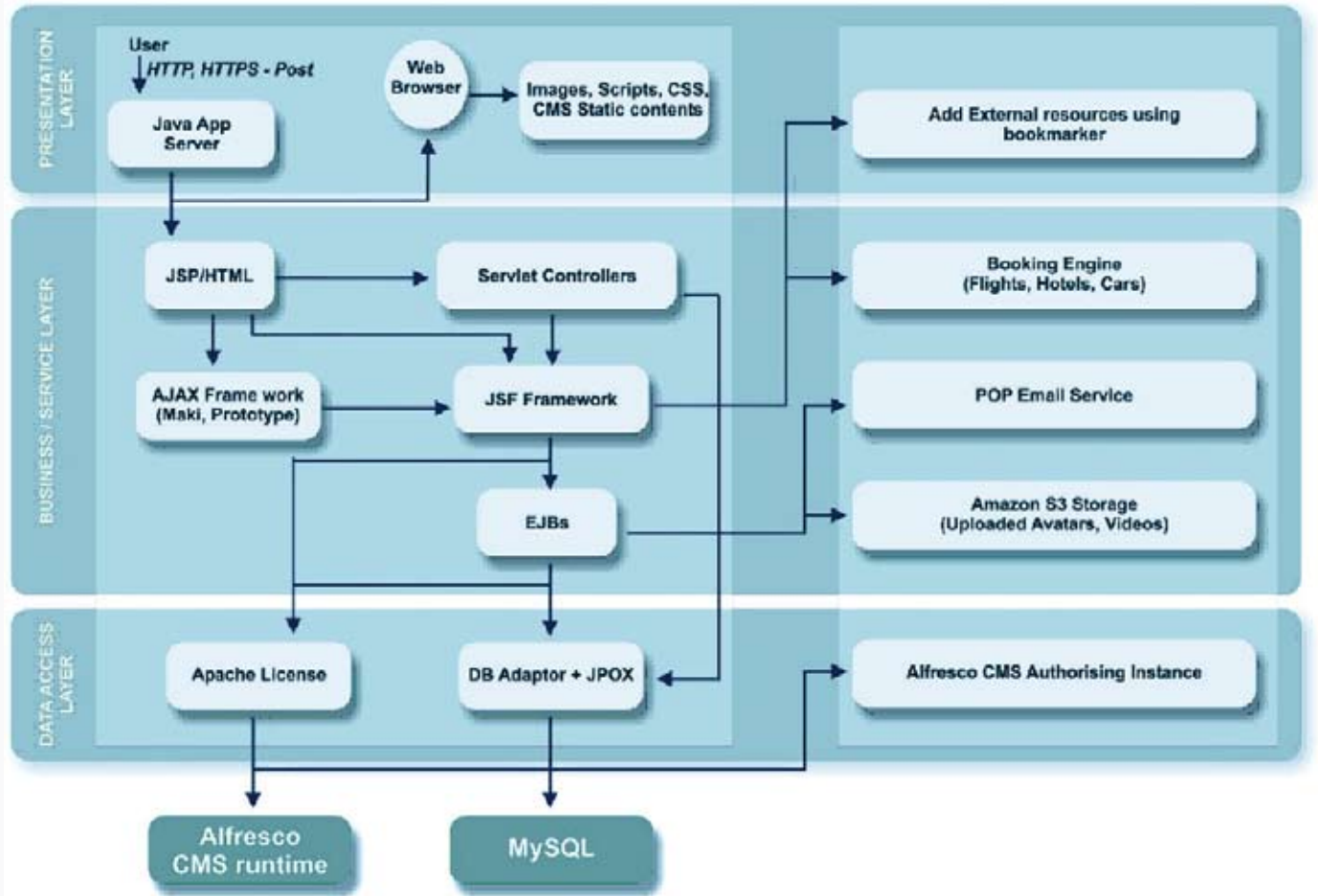
- For building a rich user interface for the website, Xoriant contributed towards developing jMaki widgets using Ajax to improve user experience. Xoriant recommended the use of Java Script library to provide rapid development of rich interface applications and custom

widgets. These trip widgets allow one to display the trip plan on the site, blog or any social networking pages.

- Xoriant suggested the use of JSF that enables modular & component based design which not only helps to reuse the code but also helps creating components that are customizable improving overall user experience.
- Client wanted to integrate with third party service providers like AMAZON S3, Booking engine, Social Bookmarking. Xoriant recommended Secure API based REST architecture to achieve this. This architecture allowed our client to achieve seamless integration with other websites, partner sites (using widgets) and social media tools
- QA process on multiple testing environment was owned by Xoriant
- Open Source – Xoriant decided to use open source technology that would work best for its implementation and provide short release times & faster time-to-market
- Xoriant assigned a team specialized in perl scripting and dedicated multiple machines particularly to achieve clients requirement to scrap review comments and ratings data from various travel sites

## Significant contributions of Xoriant included:

- Design and development of the framework around Alfresco API to be used in the various modules. Destination specific contents were maintained in the form of XML and managed using Alfresco CMS
- Generation of PDF with personalization information on the fly. This was fully designed and developed with the help of third party library. Xoriant development team implemented the mechanism to create custom PDF as per the required look and layout
- Development of a tool called as 'Inspiration Finder' which uses strong business intelligence to provide a one-stop service that eliminates the amount of research and planning users have to do to find their ideal vacation spot
- Development of a Bookmarker feature to save images, web pages, text and comments from throughout the web to personal trip folder. This was further revamped and rendered more interactive with maps and organizational tools
- Design and implementation of wizard based trip creation module which also allows user collaboration
- Development of drag-drop planner widget which simplifies the organization and scheduling process. This widget became a powerful mapping and scheduling tool to organize and view saved items.



## Technology Stack

JSF, AJAX, jMaki, JSON, MySQL, Lucene, JPOX, Alfresco CMS, 3rd Party: AMAZON S3, Booking engine, Social Bookmarking

## Benefits

- ♦ Aggressive product release dates were achieved through ownership based engagement by Xoriant team that complemented their technical excellence
- ♦ Xoriant's ability to understand start-up business model and delivery of beta helped client secure additional funding.
- ♦ 30% cost saved through design innovation in overall development, QA due to automated testing of few modules, by use of open source technologies.
- ♦ Addition of new functionality/features helped in providing seamless customer experience and increasing customer base

- Xoriant provided simple and highly cost effective solution to our client by incorporating open-source technologies
- Xoriant's "Follow the sun" development model ensured 24x5 development of portal and 24x7 support.
- Xoriant also helped client to scrape the required third party reviews from the web to increase the usable data on the site. 4-5 different travel sites were scraped to collect around 2 million reviews of over 80,000 hotels and point of interests, thus matching the capabilities of established competitors.

## Client Testimonial

Xoriant has extensive development expertise using web tools like Ajax, Alfresco CMS, and Apache Lucene. Putting together an entire enterprise-class software platform from scratch is no easy feat and Xoriant's highly proficient team has delivered an awesome and highly scalable product with some cool trip planning features. The attention to detail in terms of building the Web portal that included Rich Content was extraordinary.

- VP- Engineering