



# Cross-Media Software Suite Development

Virtual product-development team – excellent experience & talent at reduced costs

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## Executive Summary

The client firm had never contracted work to any firm locally or globally. Contracting work to another firm and that too in another country was a double-challenge for the client firm. Mindfire's immense experience in publishing software development, Apple Mac OSX development, and Adobe/Quark technologies helped establish the initial trust level with the client firm, subsequently supported by the different business engagement models proposed by Mindfire. A fixed resource arrangement for 6 months on a test-basis started what later became a long and healthy relationship amounting to a full-scale virtual team setup on the cross-media software suite development, crucial to the success of the client firm. Mindfire delivered a full scale, extensible virtual team setup, with experienced resources involved in multiple technologies for client and server applications. Having had years of experience providing virtual teams to numerous clients, Mindfire continues to use its unique remote development methodology based on critical success factors, with a strong understanding of the subtleties of distributed & synchronous/asynchronous collaborative efforts.

## About our Client

Client	<i>A Leading Developer of Software Solutions dedicated to Cross-Media Publishing: Print Editorial Systems, Web Content Management, and E-commerce</i>
Location	<i>Paris, France</i>
Industry	<i>Publishing Software Solutions – Cross-Media Publishing</i>

## Business Situation

The client firm was facing resource and cost issues and had never tried outsourced/contracted development. Mindfire offered its services and claimed client's confidence showing expertise in related domain and technical areas, as well as the remote work protocol. Initial discussions included shared development, establishing point of contacts, communication and collaboration plans or arrangements, prior experience and success commitments/guarantees - integrated change management with risk aversion and mitigation plans. We made a plan to:

- Interview and assess the proposed resource – a lead software engineer,
- Engage the engineer an onsite visit – to be placed in Paris for a month long knowledge transfer activity,
- Establish the same engineer as a single-person virtual team in India, and the primary contact to the client firm,
- Assign preliminary work to the engineer allowing him some time to understand the system, and
- Assess progress and appropriately time the extension of the virtual team to 4-8 resources, also extending the lead software engineer's responsibility as a project manager for the client firm at Mindfire's end. This meant extending project management responsibilities to the lead engineer, allowing for greater authority on decision-making, essential to the project(s) development at Mindfire.

## Solution Details

### The Mindfire Solution

The virtual team resources continue to work on multiple different versions of the frontline cross-media software suite, which is an integrated collaborative cross-media content management and publishing platform, designed for marketing, communications departments, and press/media. This system allows users to manage, repurpose, script and add value to content on multiple media (paper/web/mobile/e-paper). Primarily, the team has been working out the print publishing

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solution, which is a native combination with Quark Xpress 7/8 and Adobe InDesign CS3/4 (involving schedule and editorial calendar, profile) based decentralized work effort and planning/follow-ups of publication production items/issues.

### Achievements

Mindfire became the first and sole software service provider, quickly moving the virtual team from 1 to 4 development resources within a few months, doing both client side and server side development; continuing the good work in the 3<sup>rd</sup> year of excellent relationship.

### Technologies

C/C++, Java, XML, Quark Xpress 7/8 client and server, Adobe InDesign CS3/CS4 client and server, HTTP, TCP, SOAP, POJO C++, Boost C++, gSOAP, Eclipse, RCP, JWS, AWT, SWT, SVN, Trac on Windows, Mac OSX etc.

### Final Results

#### Software system

A key aspect is the development of a generic gateway between the third-party publishing software solutions and the rest of the cross-channel publishing solution (integrated with a CMS). This multi-tier architecture gateway has a 3-layer design, depicted as follows:

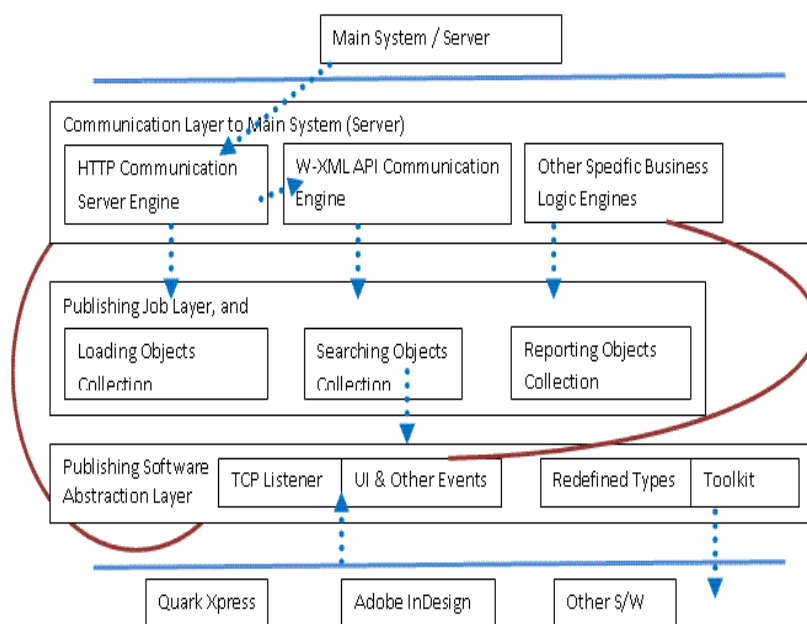


Figure 1 - Multi-layer architecture

#### Customer benefits

The client firm continues to benefit from Mindfire's prior experience in similar product/project development, the excellent talent, and reduced costs in extending the teams for its core software suite development.

#### Future relationship

Mindfire has already had a strong relationship with the client, having been involved in three different SDLCs. There are defined plans to extend both client and server side virtual teams in near future as the client firm strengthens and expands the implementation of its crucial software suite.