



# EXTENDING CLOUD INFRASTRUCTURE TO THE **MOBILE WORLD**

## Client Overview

Our client, a winner of 'Emerging Technology in Cloud Computing', created an online solution to connect to a private cloud enabling people to access and share their content from anywhere. Our client's solution has a user base of 3 million plus and is growing rapidly. This solution has simplified online content management and accelerated team productivity, besides helping connecting people within and outside the enterprise using a simple yet secure and efficient sharing platform.

Our client's mission is to improve the online and mobile experience of individuals, small businesses and Fortune 1000 companies.

## Engagement Situation & Challenges

Our client faced the common challenges experienced by most successful start-up companies. They wanted to accelerate their growth by being innovative and competitive in cloud computing space. Our client had already established leadership position in file sharing through desktops through the web world and wanted to extend their offering to mobile platforms.

Our client wanted a solution that would allow their users an easy interface to their cloud based content management platform via mobile platforms. The objective was to access and share the content in a consistent way, whether the user is at home, in the office or on the move.. Our client was looking for a partner who will understand the demands of a fast growing successful technology company. The partner company was expected to be agile and innovative and provide competitive offerings for development of Mobile application on Blackberry platform.

Xoriant, with its Mobile Centre of Excellence, multiple successful engagements in the areas of mobile application development, technology leadership in mobile/cloud computing and very effective price performance was selected as a technology partner.

Key engagement objectives were:

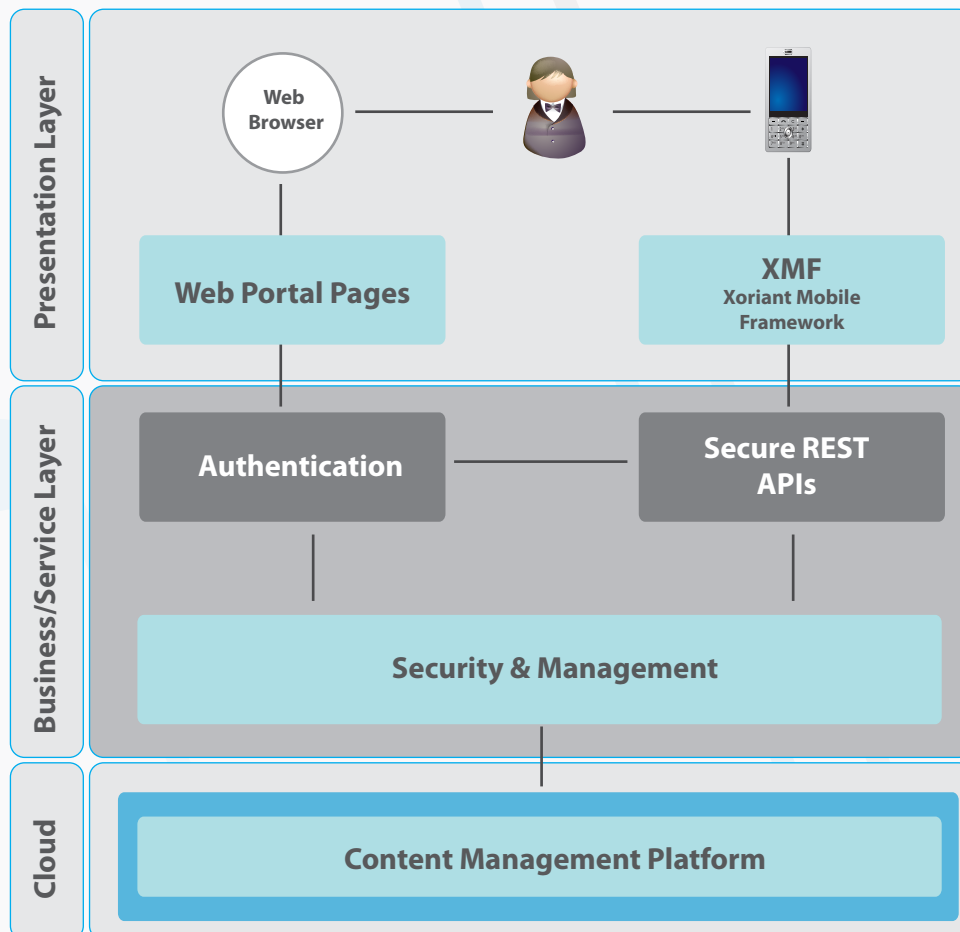
- ♦ Achieving quick time-to-market: Beta launch was expected in 3 months from project kick-off
- ♦ Making application compatible with different Blackberry handsets
- ♦ Porting on different handsets with minimum possible changes to achieve quick time-to-market
- ♦ Achieving user acceptance benchmarks: Acceptance from 1000 external users in first month after beta launch.
- ♦ Testing the application on Blackberry handsets across the globe for various service carriers

## Xoriant's contributions in the engagement

Xoriant's team of mobile application experts had a series of discussions with client's engineering team. Both the teams agreed to a common project charter and agreed to follow Agile development methodology. Certified SCRUM master and well experienced team decided on 4 week sprints. The scope of the engagement was to develop native blackberry application that will support multiple variants of blackberry devices. Sprint planning was done to ensure staggered delivery. It was aligned to the beta launch plan of the client.

As our client's current solution was already being used by 3 million users, it was important for the Xoriant team to come up with scalable, modular and secure architecture for mobile application. Xoriant recommended use of secure API based REST architecture and modular development pattern to easily extend the development to multiple blackberry devices like curve, bold and pearl series. By leveraging Xoriant's proprietary mobile framework (XMF) compatible with multiple mobile devices, the teams came up with a loosely coupled design, allowing the client to fine-tune the features closely to their evolving business requirements.

First sprint led to the release of mobile application on Blackberry Curve devices. It was followed by release of mobile application on Blackberry Bold and Pearl series in subsequent sprints.



Latest RIM APIs were used for achieving the features required by closely working with the RIM engineering team in Canada.

Xoriant also added some tweaks like auto-detection and installation of new product versions on the Blackberry devices.

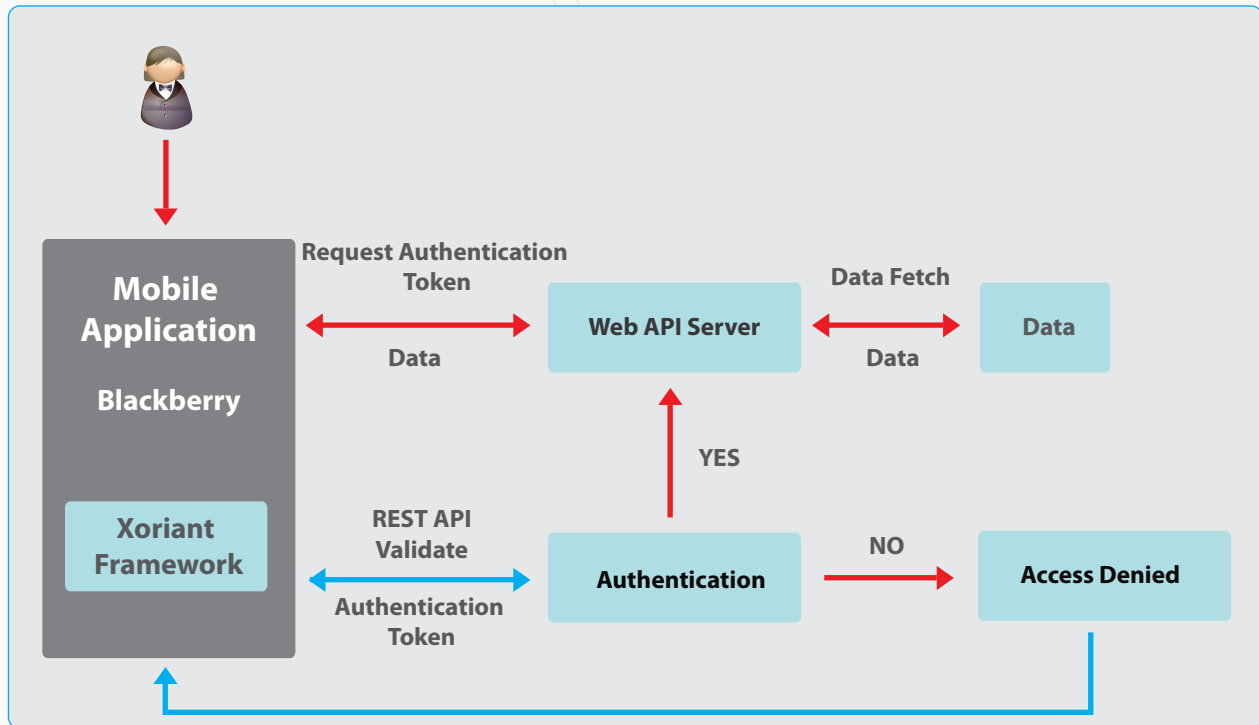
Xoriant's QA lab for mobile platforms helped reduce the overall infrastructure setup time and also enabled the testing team to verify the functioning of the product features on various devices. Additionally Xoriant QA team also verified the product on various device and carrier combinations using a DeviceAnywhere account. The success of these tests paved the way for the client to make a wide-user base release.

Significant contributions of Xoriant included:

- ♦ Design and development of a native BlackBerry application having rich user interface, which leverages online storage functionality on mobile devices. The user interface design was designed in tabular format which gives a user access to all features of the product without navigating away from the main screen. The following features improved the overall usability for the users:
  - Caching based folder tree navigation to improve performance
  - Context sensitive menus for ease of accessibility to the user
  - One click feature access
  - Auto saving of camera images to pre-defined location
- ♦ Provided multiple carrier & device support – Provided a generic code to support different protocols of different carriers. Modular design enabled the code to be ported to any blackberry device and required minimum UI changes which was done by modifying style sheets
- ♦ Verified multiple carrier & device support - Tested the product on DeviceAnywhere for multiple carriers like AT & T, Sprint and T-Mobile
- ♦ Built a native Blackberry email interface with pre-populated subject & content for faster collaboration among users
- ♦ Built a native interface in Blackberry camera to take just-in-time as well as stored pictures/ videos and upload them to server
- ♦ Integrated with “HTTPS” call for getting server side data through device network carrier and Wi-Fi.

### Tools & Technologies

- ♦ Sun Java Development Kit 1.5 or higher. Blackberry JDE 4.5.
- ♦ RIM and client APIs
- ♦ Blackberry Devices: Curve, Bold and Pearl series



## Engagement Results

- The production release on the first device was made available in as soon as 4 weeks time due to agile delivery methodology
- The development time for the second device was 4 weeks, which was reduced to 2.5 weeks for the second and third device due to creation of reusable components
- Xoriant's proprietary mobile framework (XMF) allowed the team to add the basic mobile phone functionalities faster and have more time to focus on innovative features. These Xoriant proprietary frameworks also ensure rapid development of subsequent mobile applications

## Client Testimonial

Xoriant's proficient engineering team has enabled us to deliver a robust product within the aggressive release schedule. Their stringent QA process with committed team ensured an error free release. I would like to acknowledge the remarkable efforts of all Xoriant team members for making this a success.

- Project Director