

Mobile Development Capability

11th January 2015

Overview

Mobile Development

With Crystal Delta you can have your own custom mobile applications developed to enhance your workforce or to better serve your customers. There are many ways to deliver mobile applications and there are many functions that can go into a modern mobile app such as social media and marketing, social networking, location services, messaging, and sometimes it can be simply making your website look and work better on a mobile device.

Crystal Delta's team of application architects and developers have many years of experience in designing, developing, and deploying mobile applications for small and large enterprises. Crystal Delta's mobile application expertise is centred around business applications; Be they B2B or B2C, we excel at development of business process facilitation applications and data driven decision support applications. Our architects have experience with designing media and marketing rich applications, retail and sales support applications, and have UX and Gamification specialisations.

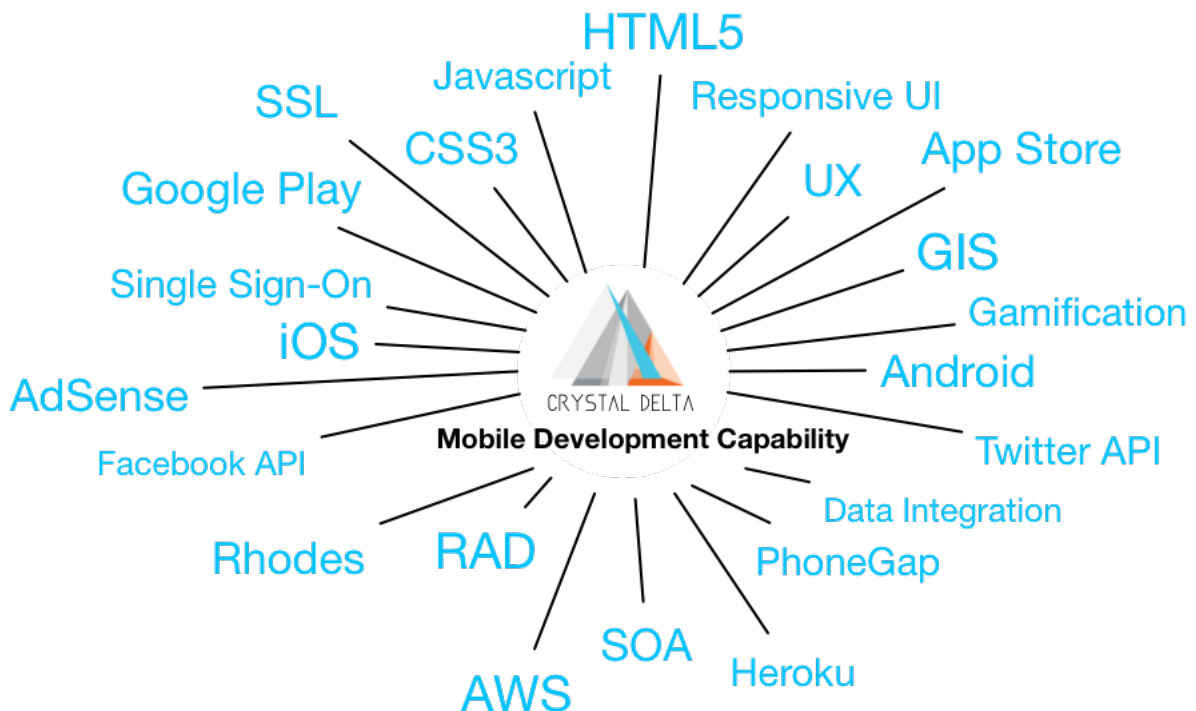


Figure 1 - Mobile Application Development Capability Overview

Mobile Web Applications

The type of mobile application that is the quickest to develop and deploy, and the one that is most compatible with the wide variety of mobile devices is the Mobile Web Application.

The mobile web application is a standard web application that is specially formatted to operate on mobile web browsers found on today's smart phones and tablets. The web application utilises industry standard HTML5/CSS3 and Javascript libraries to build an application that can adapt to the smaller screen sizes and touch interfaces of mobile devices.

Ideally, Crystal Delta would update your existing web applications deployed for full-fledged desktop/laptop computer browsers to the latest standards and implement a responsive UI so that the same web application works optimally on desktops and on mobile devices. This isn't always possible in which case Crystal Delta would develop a separate mobile web application that connects to the same backend and most commonly has a separate CSS and URL e.g. <http://m.mobile.webapp/>

Platform Native Mobile Applications

Web applications are all fine and good but could pose some user experience problems just as with desktop browsers; It becomes challenging to test the web application with the many possible browsers available to the users.

Native Mobile Applications require some additional rigour and testing but the final product provides a more predictable and unified user experience across users and mobile platforms.

Crystal Delta developers employ Rapid Application Development (RAD) methodologies and develop mobile applications utilising modern development frameworks such as Rhodes, PhoneGap, and Appcelerator. Leveraging these frameworks allows Crystal Delta to turn application around much quicker and further benefits are achieved as the apps are developed once and compiled for multiple mobile applications platforms (iOS, Android, Windows Phone, Blackberry).

Whether it is a public mobile app or a private enterprise application, a team of Crystal Delta architects and developers can assist you in taking the application from concept to completely published deployment.

Enterprise Integration and Hybrid Mobile Applications

When there is a need for a mobile application that works within a complex enterprise integrated environment Crystal Delta can deploy a hybrid mobile application solution.

Here Crystal Delta combines its enterprise application experience with its web application and mobile application development capabilities to deliver a solution that offers the best fit for the enterprise's integrated environment and its business. Where there are often a collection of disparate business applications and data sources Crystal Delta would build and deploy a mobile application hub. The hub acts as the integration point for the relevant data and functions that are required for the mobile application.

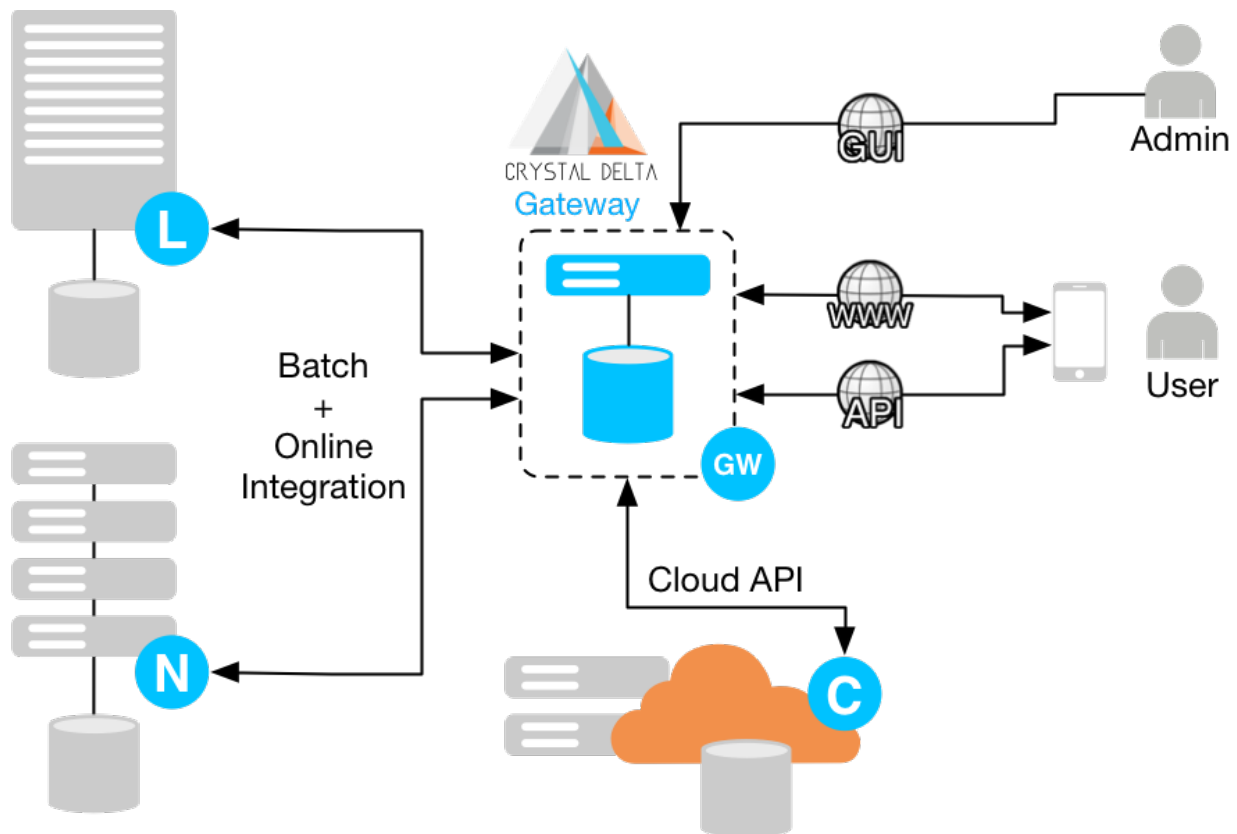


Figure 2 - Hybrid Mobile Application with Enterprise Integration Overview

In summary

- we **Extend** or **Transform** your applications to mobile
- we **Build** mobile applications and **Connect** to your back end systems
- we **Manage** the mobile applications and **Secure** them

References

- Several Crystal Delta architects were involved in the NAB Kiss mobile payments program in 2013, http://www.itnews.com.au/News/336362_nab-blows-kiss-to-mobile-payments-competitors.aspx ;This successful mobile payments program was delivered to the public as Nab Flik <http://www.nab.com.au/static/mobile/flik/fbapp.html>
- One of Crystal Delta's architects worked on the early iterations of Australia Post's mobile web application and iPhone app in 2009/2010 <http://auspost.com.au/about-us/mobile-site-and-apps.html>
- Crystal Delta architects have provided insights for small app and mobile web applications for the following:
 - Picoogle <https://itunes.apple.com/us/app/picoogle/id925716618?mt=8>
 - Kaleidoscope Camera <https://itunes.apple.com/us/app/kaleidoscope-camera/id503556200?mt=8>
 - Mobile CSS for MissBCS <http://missbcs.com.au>
 - And are currently involved with some customers working on upcoming applications and games that are not ready for release.