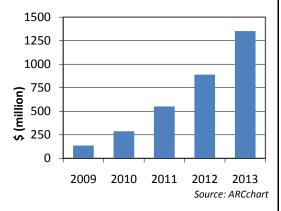
Mobile Widget Platform Market Analysis: Understanding the Business Case and ROI

The mobile widget platform market is expected to grow at an 80% CAGR reaching \$1.3 billion in 2013, according to ARCchart. This growing opportunity is emerging from a changing environment where mobile device users are demanding compelling and functional mobile applications and access to the mobile Internet.

Figure 1 – Widget platform forecast



A mobile widget is a small, specialized mobile application that executes outside the browsers and provides access to the mobile internet. Widgets can provide better user experiences than a browser and are more flexible than mobile applications.

This white paper presents an analysis of the mobile widget platform market, as well as metrics supporting a mobile carrier's

Global Wireless Research

business case for adopting a mobile widget platform. The analysis provides a better understanding of what constitutes a mobile widget platform and identifies who the players are in the market. Vendors profiled include Access, mPortal, Opera, SurfKitchen, Myriad Group, Qualcomm, and Nokia.

Based on metrics gathered for a North American carrier that has deployed a mobile widget solution, this paper also presents a business case and ROI model analysing the benefits a widget platform can deliver to carriers. As part of the business case, ARCchart estimates the expected revenue increase for a hypothetical carrier with a subscriber base of 10 million. Our calculations show a \$125 million increase in the carrier's revenues and cost savings.

Finally, this white paper presents a detailed case study of Cricket Communication's mobile widget platform deployment, providing insight behind the company's decision to embrace a widget solution and an examination of the deployment and associated benefits. March 2010

An independent ARCchart whitepaper sponsored by mPortal

> Peter Crocker Lead Analyst, ARCchart pcrocker@arcchart.com

Matt Lewis, PhD Research Director <u>mlewis@arcchart.com</u>

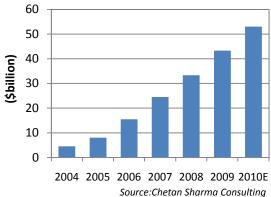
> ARCchart Ltd 78 York Street London W1H 1DP UK <u>www.arcchart.com</u>

Sector Report



A number of underlying market trends are shaping current customer requirements and fuelling mass-market consumption of digital information and media on mobile devices. Data revenues have become vital to the growth of carrier revenues and the iPhone has revolutionized the mobile phone interface and content distribution model. The trend towards cloud computing and Web 2.0 applications and services is allowing users to access their personal data and web content anywhere and at anytime. These trends, along with low storage costs and increasingly popular smartphones, have changed the Internet from a place to view simple web pages to an environment for accessing applications and data anywhere, anytime.

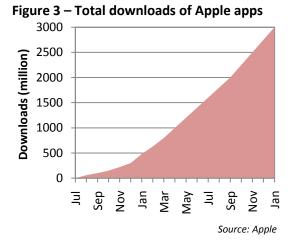




A.1 | Current Market and Solutions

The launch of the iPhone turned the mobile ecosystem on its head. The combination of innovative ergonomics, user interface and distribution model has set a standard to which the rest of the industry now aspires. iPhone users have downloaded over 3 billion applications and carriers and OEMs are racing to establish their own application stores in the hopes of achieving the same success.

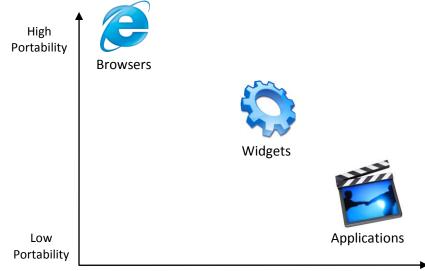
Web 2.0 is changing the mobile Internet. Content creators and consumers of content are becoming indistinguishable from each other. Facebook and YouTube enable everyone to be a producer of content. Users are constantly monitoring and consuming status updates, recommended links and pictures/videos posted by friends. The reduced barriers to media distribution along with an increased volume of content are creating niches that marketers are learning to tap. By leveraging recommendations, app stores, amateur producers and Web 2.0 technologies marketers are finally able to reach the 'long tail' of consumers.



The emergence of mobile applications has highlighted the limitations of the mobile browser. The browser interface requires users to navigate multiple links and screens, making it difficult for users to find new content and this has slowed adoption of the mobile Internet. By contrast, a mobile application dedicated to a particular web service provides one click access to the desired content.

However, while the mobile application has made accessing content on the web much easier, it is not a universal solution. Most applications are deployed on smartphones with fragmented operating systems, requiring mobile developers to maintain multiple sets of code to run their apps on multiple mobile platforms.

Figure 4 – Mobile widgets market position



Low Functionality

Mobile widget platforms can help users of non-smartphones, lower-end devices discover new content and help carriers increase data revenues. Mobile widgets are easier to develop than mobile applications, reducing development costs. Also, the process of porting between platforms is less complicated resulting in a faster time to market and an improved user experience.

A.2 | Widget Solutions

What is a Mobile Widget?

A mobile widget can be defined as a small portable application that executes outside the browser providing easy access to the mobile Internet, network services or device features. Widgets traditionally provide a narrow range of functionality within a single context. For example, a widget may provide the current weather or status updates on social networking sites.

Widgets improve the web experience by providing web data directly through the widget. Users can directly access widgets on the home screen, gaining immediate access to content without having to open a browser and type in a URL. Widget platforms also allow **High Functionality**

users to organize widgets in a panel-like interface creating a level of customization on the device.

What is a Mobile Widget Platform?

A mobile widget platform creates an environment for developers to create and publish mobile widgets, and provides technology for users to easily download widgets, streamlining the discovery of mobile web content. Specifically, a mobile widget platform is made up of three key components: device runtime; distribution and monetization infrastructure; and development tools.

Device Runtime

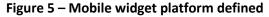
The device runtime is the engine or execution environment that executes the widget code and creates a container for the widget to run in. The runtime is either downloaded by the user or embedded into the phone by carriers or OEMs.

Distribution and Monetization

Distribution and monetization infrastructure provides a means for developers to get their widgets to market and generate revenues, while providing an avenue for users to discover new widgets and content. Content delivery infrastructure can filter web content in order to suggest new content most relevant to each user. These widget libraries, app stores, or content delivery services are hosted by carriers, device OEMs or independent widget vendors. The technology behind the app stores can be developed in house by the app store host or procured from a third party vendor, who may also be providing the client side execution environment.

Development Tools

Development tools help developers or publishers to build widgets. These tools can be complete SDK's or plug-ins to existing development environments. Development tools can also include integration tools and APIs that allow developers to access device level functionality and integrate widgets deeper into the phone's software stack.





A.3 | Benefits and Challenges of Widget Technology

| Improved User Experience Through Better Discoverability

The ability for users to find and consume content has been a barrier to the adoption of the mobile Internet. Browsers and widget players require multiple clicks to find content. By contrast, today's mobile widgets are being integrated directly into the device home screen, providing one click access to the mobile Internet. Modern widget platforms also allow users to customize their home screen by organizing their widgets. The ease of access to the mobile web through widgets on the device, combined with a content delivery or distribution infrastructure makes content discovery easier than a simple web solution. As Apple's iPhone has revealed, a better and more personalized user experience is the key to driving usage of the mobile internet.

Standardization

One of the biggest technical challenges facing widget platforms is the same issue that has plagued the mobile market for years, fragmentation.

In contrast to widgets that require specialized players to run, web widgets are more standardized but less robust. Developers can easily develop web widgets that can run on almost any device, but these widgets have limited functionality. Without access to a device's APIs, web widgets cannot access address books, location, messaging or other device-level services that can make widgets more robust and useful.

The industry is taking steps to remedy the fragmentation of APIs on mobile devices, with both the OMTP (the Open Market Terminal Platform) and the Joint Innovation Lab (JIL) working on standardizing widget APIs. With standardized APIs, developers only need to learn one set of code to securely access device level software and carriers services. This will lead to more innovative and robust widgets that can be deployed across many more devices. JIL and OMTP are taking the lead in building the widget ecosystem through developer support, a vital piece of the widget ecosystem growth.

| More Compelling Content

The emergence of more robust and standardized Web 2.0 technologies such as XHTML and Mobile AJAX, will be a catalyst for widget development. Many developers and publishers are already well-versed in standard web languages and technologies. Widget platform vendors are developing tools to tap this creative talent, helping developers create robust web widgets. This strategy brings talented, creative developers and publishers, with limited mobile experience into the mobile ecosystem leading to production of more compelling widgets for users.

The shift to web-based technologies has also made widgets quick and easy to develop, shortening the time-to-market for individual widgets. Testing an application or concept in the market becomes much more economical for developers, advertisers and publishers by using widgets compared to full blown applications. With low overhead, widgets can also be constantly updated and renewed, keeping users interested and engaged.

A.4 | Mobile Widget Platform Market

ARCchart believes the demand for mobile widget platforms will remain strong through 2013, growing at a compounded annual rate of 80%. The rise of Web 2.0 technologies and new devices such as the Palm Pre, Motorola CLIQ and Samsung's Touch Wiz devices feature widget interfaces and will help drive awareness and demand for mobile widget platforms.

Currently, the largest source of revenue for widget platform vendors is through revenue share of widgets sold via widget platform application stores. The majority of this revenue is from up-selling subscriptions to premium content such as real-time traffic, weather, sports and carrier services. Revenues from advertising, while still in their infancy, will be the largest source of revenues for mobile widget platform vendors in the future.

	2008	2009	2010	2011	2012	2013	CAGR
Widget Advertising	\$2.2	\$5.6	\$41.8	\$180.0	\$348.0	\$627.6	209%
Client Licensing	\$12.7	\$20.7	\$36.3	\$54.3	\$77.9	\$105.4	112%
Revenue Share	\$49.5	\$82.9	\$153.0	\$239.2	\$354.1	\$455.1	56%
Carrier Licenses & Service	\$7.5	\$27.2	\$56.6	\$77.6	\$108.7	\$164.0	86%
Total \$M	\$71.9	\$136.4	\$287.8	\$551.1	\$888.7	\$1,352.1	80%
						Source:	ARCchart

Figure 6 – Mobile widget platform market, 2008-2013

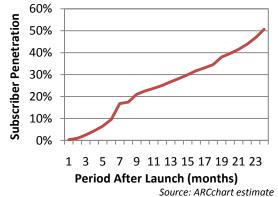
Widget Business Case

The benefits of mobile widgets can be observed and quantified in real world deployments. A mobile operator in North America saw significant increases across a number of KPIs after deploying a widget solution. Specific improvements included:

- 8-12% increase in revenue generating downloads
- 10% increase in subscription services
- 15-20% increases in mobile internet services
- 5-10% decrease in churn
- 5% reduction in customer care costs

Nine months after the first widget enabled handset was launched on the carrier's network, 25% of the subscriber base was a widget platform user. The carrier expects to convert 50% of its customer base two years after launch.





| Increase in Revenue Generating Downloads

After deploying a mobile widget solution, the operator saw an 8-12% increase in downloads. Downloads which were available from within the widget environment included ringtones, graphics and ringback tones, at an average cost per download of \$1.99. One of the primary drivers for this increase was an on-device widget that provided users with direct access to the application store to download content.

| Increased Uptake of Subscription Services

The operator also experienced a 10% increase in customer sign-ups for subscription services. The majority of these new subscriptions were for ringback tone services costing \$5 a month (for the ringback tone subscription and two ringback tones per month).

Increase in Mobile Internet Usage

The operator observed a 15-20% increase in Internet usage. The improved user experience of the widgets compared to the browser lead to an increase in both the number of users as well as the frequency of use.

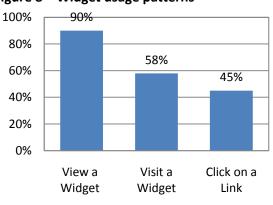


Figure 8 – Widget usage patterns

Source: Carrier feedback

The carrier's partners also benefited from the widget platform deployment. Partner site Mocospace saw a particularly large increase in traffic after deploying a Mocospace widget on the carrier's widget platform. The mobile social networking site experienced a 50-75% increase in registrations and usage from users with the Mocospace widget on their phone compared with users without the widget.

"Our mobile widget has made it much easier for new users to find Mocospace on the mobile web and sign up," said Justin Siegel, CEO of Mocospace.

The increased traffic to the Mocospace site has translated into proportional increases in advertising revenues for both the carrier and Mocospace.

Advertising within the widget platform itself presents additional revenue generating opportunities for the carrier. Since widgets are available on the home screen, they are more visible to the end user and an advertisement can be visible before, during and after the widget is used. Although the carrier has not yet explored this possibility, it plans to in the future.

Decrease in Churn

Many factors contribute to customer churn but the operator found that users of devices with the widget platform preinstalled were 5-10% less likely to cancel their service each month. Presumably the widget platform on a popular device was a significant factor in reducing churn.

Reduction in Customer Acquisition Costs

Decrease in Costs

Reduction in Customer Care Costs

Providing customer care is a major operating cost for wireless carriers. Through a 'Self Care' or 'My Account' widget on the idle screen, the carrier was able to reduce its customer care costs by around 5%. The widgets allowed users to get information on payments, check balances and add minutes to their accounts, reducing the number of basic service calls to the carrier's support centre.

B.2 | Return on Widget Investment

Based on these reported KPI increases and market statistics, ARCchart estimates that a hypothetical carrier with 10 million subscribers could generate \$124.7 million in increased revenues and cost savings in a single year through a widget platform deployment. This is assuming an ARPU of \$50 and 100% of subscribers using the widget platform.

The largest benefit is generated from the reduction in customer care calls. Customer care operations can represent 25% of operating costs for mobile carriers and each customer care call can cost an average of \$7. Eliminating one call per every 1.5 subscriber annually, can lead to an annual saving of \$45 million for a carrier with 10 million subscribers.

\$912,000,000

\$1,363,500,000

-5%

-5%

	, , ,	0	
Revenue Items (Annual)	Before	After	% Change
Mobile Internet Revenues	\$150,000,000	\$176,250,000	18%
Increases in Downloads	\$47,400,000	\$52,140,000	10%
Increases in Subscription Services	\$7,200,000	\$7,920,000	10%
Increase in Revenues	\$204,600,000	\$236,310,000	15%
Cost Items (Annual)	Before	After	% Change
Customer Care Savings	\$900,000,000	\$855,00,000	-5%

\$960,000,000

\$1,410,000,000

Figure 9 – Revenue and cost items impacted by deployment of a widget solution

Base line assumptions: annual churn 24%, average download revenues per user \$1.58, ringback tone penetration rate 4%, mobile internet penetration 25%, CPGA \$400. Assumed annual service costs: Mobile Internet \$60, ringback tone \$18.

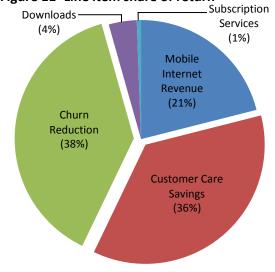
The reduction in customer churn has a direct impact on customer acquisition costs. With fewer customers cancelling their service, fewer new customers are required to maintain the same user base.

Significant increases in mobile internet revenues can also be realized by offering subscribers a widgets solution. The numbers

Figure 10 – Widget platform return

Increase in Revenues and Cost Savings ('000)					
Reduced Customer Acquisition Costs	\$45,000				
Customer Care Savings	\$48,000				
Mobile Internet Revenues	\$26,250				
Increases in Downloads	\$4,740				
Increases in Subscription Services	\$720				
Total	\$124,710				

Base line assumptions: annual churn 24%, avg download revenues per user \$1.58, ringback tone penetration rate 4%, mobile internet penetration 25%, CPGA \$400. Assumed annual service costs: Mobile Internet \$60, ringback tone \$18. represented in our analysis account for increases in Internet subscription revenues only, but increased usage of the Internet can create additional revenue streams including multiple advertising opportunities. For example, carriers can present ads to users when they access the Internet and collect referral fees when users visit an affiliate's web site.



Source: ARCchart estimates



Company Profiles

C.1 | ACCESS

The ACCESS product portfolio includes the NetFront browser, Garnet OS (formally Palm OS) and ACCESS Linux Platform (ALP). The company provides leading technology, software products and platforms for mobile phones, wireless handhelds, other networked devices and cross platform web browsing. The publicly held company reported revenues in 2008 of ¥27.5 billion. Notable clients include NTT DoCoMo and Softbank.

| Products

'ACCESS Widgets' is a widget engine that leverages the NetFront browser as the widget rendering engine. The widget manager is a separate library that manages widgets written in HTML, CSS and JavaScript. ACCESS Widgets was launched in October 2008 and an updated version was released in January 2009. NetFront Widget Player is only available on S60, Windows Mobile, ALP and BREW and in February 2009, ACCESS announced NetFront support for BONDI.

Strategy

ACCESS generates revenues for its widget engine from OEMs and operators on a per unit license basis. The company is looking to move more of its revenue streams to a per user and usage model. ACCESS also generates revenues from NREs.

In March 2009, ACCESS announced an agreement with SanDisk to couple SanDisk Delivery Card with ACCESS NetFront Widgets. The jointly developed platform allows users to access and navigate content easily, whether it is stored on the memory card or online.

C.2 | mPortal, Inc.

Founded in 2000, mPortal is a leading enabler of next generation mobile user experiences. The mPortal solution simplifies and optimizes access to data services for users to make personal and relevant choices about mobile applications and content. The privately held company is based in North America and notable clients include, Verizon Wireless, AOL, Comcast, Cricket, and Time Warner.

Products

mPortal's SPRINGBOARD Portfolio, comprises the SPRINGBOARD Smart Client and the SPRINGBOARD Content Delivery Manager. The Smart Client solution contains three products:

- Widget Platform An open standards platform that can be used by carriers and developers to build widgets connecting to content sources and applications, to increase usage
- Storefront Portal Unified Storefront with cached and preview technology that includes several types of content
- Home Screen Control Allows over the air download of the home screen that can be controlled by the carrier post launch of the device

The widget platform is a W3C compliant open standards product. The widget platform enables service providers to offer subscribers access to dynamic content, which can be placed and personalized to their own preference. The Storefront Portal provides a unified storefront that can be integrated into any BSS system and provides simple access to widgets, applications, and content. Home Screen Control enables simple navigation for easy discovery of services and applications and offers the service provider the ability to utilize valuable real estate on the device. The Content Digital Manager is a backend support system that helps service providers manage the user interface and device processes. mPortal's solution works with feature (low – mid end) phone, as well as smartphones.

mPortal will be launching a developer's portal in Q1 2010 and already provides SDK's for developers. The SPRINGBOARD offering also includes advertising capability on the idle screen, as well as inside the widgets.

| Strategy

mPortal generates revenues by licensing software directly to carriers and service providers. The company also provides their platform to OEM's and distribution channels that can bundle the service and provide value added services to their carrier customers.

The company's client software is device agnostic and can be ported across multiple mobile operating systems including BREW, REX OS, Windows Mobile, Java platforms, Android, and Symbian. In addition to mobile devices the solution can also be deployed on set top boxes, PCs and gaming consoles.

The mPortal Smart client is integrated into the idle screen before the device reaches the user, allowing service provides the ability to update content and synchronize widgets over the air (OTA). OTA synchronization also enables the solution to function without impacting the internal processing of the device. The Smart Client and device are tightly integrated and cannot be removed by the user, helping providers control the on-device experience.

mPortal is also participating in JIL and BONDI, adhering to these requirements to enable

more robust widgets and enhanced functionality.

C.3 | Myriad Group

Myriad is a publicly held company created from the acquisition of Purple Labs by Esmertec and reorganized to create a leading mobile phone software company in Europe. The combined company has approximately \$125 million in revenues. Notable clients include, LG, Samsung, Motorola, Telefonica, Orange, T-Mobile, and Cable & Wireless.

| Products

Myriad's mobile widget platform offerings include the MIDAS Lite Widget Engine and the Dynamic Homescreen. MIDAS Lite is an AJAX based widget engine and is designed to run on a phone's RTOS. The Dynamic Homescreen sits on top of the MIDAS Lite Widget engine and replaces the home screen of the device. The offering can fit up to five widgets on the home screen and available widgets include a clock and a GPS enabled social networking widget called 'Shout out'.

The MIDAS Lite engine operates independently of the browser, unlike widget engines from ACCESS and Opera. This reduces the software size, limiting the memory and processing power required. The MIDAS Lite engine is less than 400kb and is tailor-made to run on ARM7 100MHz processors.

One of the drawbacks of the offering is that it is not available across platforms. With Myriad's depth of developer talent, the company says it can port the widget engine to a new platform in three to four weeks, helping to shorten the time to market for new devices.

Strategy

Myriad is targeting the mid to low-end of the device market and emerging markets. The company is leveraging its large stable of mobile developers to address the fragmented market at the low-end.

Myriad licenses MIDAS Lite to handset OEMs. The Dynamic Homescreen that sits on top the engine can be licensed to OEMs or carriers. Revenue streams beyond royalties, such as advertising, are also possible with the Dynamic Homescreen offering.

Myriad does not make tools available for third party developers.

C.4 | Nokia

Nokia is the world's largest manufacturer of mobile devices and in 2008 the public company shipped 468 million units, translating to a 39% global market share. Revenues for 2009 were €41 billion (\$57.2 billion)

| Products

Until recently, Nokia had essentially had two widget platforms in the market - WidSets and Web Runtime (WRT). With the launch of the OVI store in May 2009, WidSets has been phased out and widgets based on the Widget Run Time are available through the OVI store. The Nokia Web Runtime was launched in April 2007 and is a web application development environment based on standard web technology such as JavaScript, XHTML, CSS and AJAX. With the WRT integrated into the S60 user interface, access to the web is easier for users and provides a more flexible and standardized platform for developers. WRT is also not controlled by a central server, adding additional flexibility. While WRT is only available on the S60 platform, Nokia is expected to incorporate the runtime into S40.

| Strategy

While Nokia will generate revenues through its Internet services offerings, this revenue will pail in comparison to hardware sales which drives the company's strategy. The open sourcing of Symbian provides developers more opportunities to innovate and the OVI store provides a path to market for developers, further strengthening the ecosystem and Nokia's position.

Nokia has pursued a unique strategy to provide support to widget developers. Through its experiences in the widget market, the company has had problems providing adequate tools for widget and web developers. Nokia also had limited success attracting developers to the WRT SDK. Instead, by providing plug-ins to existing popular web development tools, web developers can more easily migrate to the mobile environment and Nokia does not have to allocate resources to maintain its own SDK. As part of WRT, Nokia has also provided proprietary JavaScript APIs.

C.5 | Opera Software

Opera Software was spun out of the Norwegian carrier Telenor in 1994 and today develops and markets the Opera web browser and related products. Opera reported 2008 revenues of NOK 497 million (\$86 million).

Products

Opera's mobile widget runtime is based on the Opera Browser and is device agnostic. Opera widgets are designed to be easily deployed across devices and platforms including phones, PCs, set-top boxes and gaming consoles. Opera's widget offering includes developer SDKs and backend server software, as well as three types of Opera widgets runtimes - Public Opera widget on the PC and mobile, customized version of widgets on the PC, and

12

Mobile Opera Widgets integration SDK for devices (build your own).

In August 2009, Opera released Opera 10 which underpins the widget platform and in December announced a new widget UI framework. The framework is decoupled from the underlying browser technology and is more extensible supporting write-once-runanywhere web applications.

Strategy

Opera's widget strategy is based on its position in the PC and mobile browser market. The Opera desktop browser has 35 million active users equating to roughly 2-3% market share.

Opera uses a combination of business models to generate revenues from its widget platform. Revenues that are generated from operators and OEMs include: server license fee, active user license, development fees, support and maintenance fees, server hosting fees, service level agreement fees, and revenue share agreements.

Opera also provides the Opera Browser free for public download. Revenue is generated in this model through content partners that pay for search listings and similar services. Opera's current focus is on supporting carriers in deploying application store fronts and distribution strategies

Opera provides a number of tools including an emulator and a debugger for JavaScript, CSS and HTML. The tool kit also includes a DOM inspector and an animation library and a library for testing media queries. Opera is making standards an important part of its strategy and has engaged with standards bodies such as BONDI and JIL.

C.6 | Qualcomm

Qualcomm is a publicly held company founded in 1985 and is a global provider of wireless technology and services. In 2009, revenues were \$10.4 billion.

Products

Plaza was introduced in May 2008 and is an end-to-end widget framework. The framework is based on web technologies making it device and platform agnostic.

Since Plaza's initial release the offering has evolved into the Plaza Suite which includes, Plaza Mobile Internet, Plaza Retail and Xiam.

Plaza Mobile Internet is the widget framework and Plaza Retail is designed to help operators present a uniform shopping experience across multiple devices and platforms. Plaza Retail is comprised of three components:

- **Connection** open marketplace with support for multiple device platforms
- Management merchandizing system for managing marketing and delivery
- Storefront multi-platform client storefront

Xiam is a Qualcomm subsidiary that helps users discovers new content through recommendations.

Strategy

Qualcomm's strategy is to provide operators with enabling technology to help them grow data revenues and generate advertising business. The company believes that operators want horizontal solutions and Qualcomm has the expertise to provide such an offering.

Qualcomm is not offering tools to develop widgets on the Plaza framework, instead relying on existing web development tools and ecosystems. Qualcomm is focusing its strategy on distribution. An important piece of this strategy is providing technology to help developers submit widgets directly to operator widget libraries.

Through its partnership with Amobee, Qualcomm is building capability to provide technology to help operators generate revenues through advertising.

C.7 | SurfKitchen

Founded in 1999, SurfKitchen is a privately held UK based company specialising in mobile Internet platforms. Clients include Orange, Smart, Telefonica, Telstra and Aljawal.

| Product

SurfKitchen's Internet platform is available on Symbian, Windows Mobile, Java, Blackberry, BREW and Android and consists of a number of components including: SurfKit Storefront, SurfKit Launcher, SurfKit Home, SurfKit Server, SurfKit Mediation and SurfKit Widget Runtime. The SurfKitchen Runtime is a cross platform widget runtime engine.

| Strategy

SurfKitchen generates revenues by licensing its software to wireless operators. Licenses include server license fees, per unit license fees or monthly active user fees.

The SurfKitchen widget runtime is not available to third party developers. Since SurfKitchen is a small company without the resources to create its own ecosystem, the company is relying on the operator's own developer communities to generate widgets for the runtime. Developers can build widgets in JavaScript and a Surf Engine version of XML. Currently, all widgets built on the SurfKitchen runtime are developed by either operators or SurfKitchen itself.

Cricket Communications Case Study

D.1 | Company Overview

Cricket Communications is the brand under which Leap Wireless provides its cellular services. Leap (LEAP) is a publicly traded company and was spun out of Qualcomm in 1998. Cricket serves 4.6 million subscribers in 35 US states, offering flat rate plans that are billed month to month with no contract. Cricket's tariffs range from basic calling plans to plans that include Internet, voicemail, email and many other features. Plans range from \$25 to \$60 a month and require no long term contracts. Cricket also offers downloads such as ringtones, ringback tones, and wallpaper graphics that can be downloaded from Cricket's application store.

Cricket's strategy is based on cost leadership. The company has strived to manage its costs and optimise capacity of its networks so it can provide unlimited voice and data services at a low cost. The carrier is targeting the underserved mobile market and its customers tend to be in the lower income bracket and from ethnic groups. Fifty percent of the company's user base earns less than \$35,000 a year and 60% are from ethnic groups. While Cricket customers may have limited resources, they are much more reliant on their mobile phones, with 90% using their Cricket phone as their primary phone.

D.2 | The Challenge

Cricket is facing increased competition in the growing "value" segment of the market. As new entrants increase competitive pressures, Cricket needed to reinforce its brand while differentiating its offering and leveraging the investments made in its network. Challenging economic times were also putting pressure on Cricket's ability to move users to higher revenue generating plans that included the mobile web. Discretionary income within Cricket's user base is becoming increasingly scarce and the carrier needs to demonstrate the value of the mobile web to customers. By making it easier for its customers to discover compelling content on the web Cricket believed demand would grow. The mobile operator also needed a way to provide an upgrade path and allow users the ability to sample aspects of the mobile web before upgrading to more expensive plans.

Cricket was also struggling to meet its goal of add-on services and needed a way of making it easier for users to purchase downloads on their device.

The company's focus on the value segment of the market also limited the types of devices it could make available to its subscribers. Cricket does not subsidize handsets, making smartphones with robust application platforms out of the reach of most Crickets customers. The company needed a flexible solution that would work across the carrier's portfolio of feature phones.

D.3 | Mobile Widgets: A Compelling Option

Mobile widgets provided a solution that would solve many of the challenges that Cricket faced:

 Widgets can be integrated into the home screen and branded by Cricket yet customized by users providing a compelling and branded user experience.

- A widget platform can be ported across multiple OEM handsets keeping the experience uniform.
- Widget platforms include distribution strategies or storefronts that help drive downloads.

Once Cricket decided on using a widget solution the company tendered for a vendor with an efficient architecture and extensive background working with OEMs. It was paramount that the solution performed well on the home screen and was easy to integrate with each device's operating system.

D.4 | The Solution

Cricket turned to mPortal for help and in October 2009 announced the availability of MyHomeScreen on the Samsung MyShot 2, Motorola VE456, Cricket TXTM8, Samsung Messager and Cricket A200.

MyHomeScreen provides Cricket customers with a customizable home screen embedded on the handset and features widgets which enable easy access to content on the mobile web. MyHomeScreen users can quickly access widgets through a navigation bar located at the bottom of the phone's home screen.





Users can customize the navigation bar, or carousel, by adding and removing widgets. To add widgets to the carousel, users simply navigate to the widget catalogue via the carousel and select the widget to add. The data presented within each widget can also be customised allowing users to change news feeds and add web links.

Figure 13 - Weblinks widget



An important widget included in MyHomeScreen is the storefront widget. Through this users can purchase additional services from Cricket such as ringtones, ringback tones and wallpapers.

The solution is also easy to manage and does not require the user to download any software. The platform can be updated over the air and Cricket can synchronize content and promote widgets and new content.

Figure 14 - Storefront widget

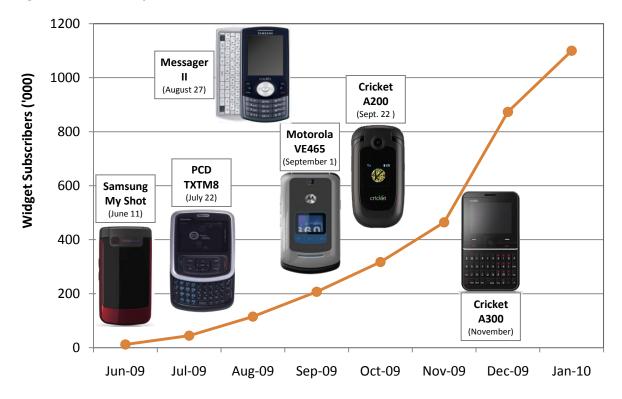


D.5 | Results

The deployment of the mPortal solution took about 6 months and the variability of OEM integration was limited due to mPortal's experience working with device manufactures.

As a result of the mPortal deployment, Cricket and mPortal were named Key Technology Enablers in US Mobile Data Services by Frost & Sullivan. The honour is given to the company that has played a significant role in encouraging participation in a new and dynamic market opportunity.

Six months after the launch, Cricket has launched six devices with the MyHomeScreen service and has seen rapid user adoption.





Conclusion

The changes in mobile technology and Internet computing are creating a prosperous environment for mobile widgets. The iPhone has set standards for user interfaces and mobile application distribution. The way people interact with the Internet has also changed dramatically with the explosion of user-generated content and users demanding access to the Internet anywhere and at anytime. These two converging trends are creating a growth opportunity for mobile widget platforms.

While the market is still nascent, mobile widgets fill a niche that cannot be filled by web browsers and full-blown applications. Mobile browsers cannot provide the rich functionality widgets can and mobile applications are not easily ported across platforms and devices.

Developers and marketers need to become more aware of the capabilities and value of widgets in order to drive widespread adoption. One of the most powerful advantages of widgets is their ease of development, creating a migration path for web developers to move to mobile applications. Vendors and industry consortiums are working to make this migration easier by providing development tools and standardized APIs.

As the hysteria around smartphones and mobile applications grows, market participants should not overlook the opportunity presented by mobile widgets. Due to their web standards, widgets can provide a smartphone like experience on non-smartphones and enhance smartphone experiences. Significant opportunities exist for service providers to drive new revenue streams and provide better services and differentiated experience across their entire portfolio of devices by leveraging a widget deployment. Revenues will be generated through numerous business models and innovative hybrid approaches will emerge. The greatest revenue opportunity will come from advertisers as brands learn to leverage widget technology to reach consumers with diverse tastes. Advertisers who learn to leverage the rapid development capabilities of mobile widgets will be better positioned to reach the long tail of consumers.