

The Mobile Application Store Ecosystem

SurfKitchen's CTO, Dave Evans reviews the latest phenomenon in the mobile Internet era; the Mobile Application Store

The first generation of the mobile Internet started about 10 years ago, centred around providing mobile browsers and a particular protocol, WAP (Wireless Access Protocol), which quickly became shorthand for mobile Internet. In that era, mobile operators were firmly in the center of the value chain, controlling access and what services were offered to mobile consumers – subscribers – as well as the pricing of those services.

In July 2008, Apple turned this established order on its head with the introduction of the iPhone, bypassing the operator and directly connecting Apple and its subscribers. Today many device manufacturers are looking to replicate and strengthen this value chain. In this new world, how can mobile operators re-establish a strong position in the mobile value chain and continue to maximize their share of revenue streams?

The WAP era consisted of two key ecosystems. The 'onDeck' WAP portal provided by the subscriber's operator and the 'offDeck' WAP portals provided by third-party content aggregators. The onDeck experience was usually directly accessible from the phone's home screen, and the browsers' home page was the operator portal. Billing was typically integrated into subscriber phone bills and they could then navigate the portal, acquiring content and services for their device.

Correspondingly, the offDeck experience required the subscriber to manually key a URL into the browser to redirect to the 3rd party portal, and billing was typically through premium SMS or credit card. Operators extracted a high toll from the content providers for being included in the onDeck portal, typically with revenue shares as high as 80%/20% in favor of the operator. A number of operators extended these onDeck Portals to the device using On-Device Portals to improve the overall subscriber experience driving increased discoverability, usage, and for the operator, all important data ARPU.

The Apple iPhone represented a game change to this established order. Apple provided a store for both digital content (iTunes) and applications (App Store) which completely bypassed the operator, whilst providing the end user with the typical benefits of an onDeck experience – easy access from the home screen and integrated billing (in this case to Apple's iTunes account).

Apple also changed the game for the developers, with a revenue share available of 70%/30% in the favor of the developer. This triggered a virtuous circle and has created a huge increase in supply and demand by providing a compelling, easy-to-use marketplace for end users to discover, acquire and use applications, and an easy-to-use marketplace for developers; with a single device API/screen size and a good, incentivised revenue share model to develop a broad range of applications – 50k and growing.

Apple not only created a new marketplace but also an alternative to the browser for consuming services while mobile – the application. iPhone application download numbers show that subscribers are more comfortable downloading and installing an application than navigating a mobile browser to interact with services. This is due to a number of key factors including ease of discovery, ease of use, and integration to device features like location and the phone's camera etc., providing a richer experience.

Other device manufacturers have seen the success of Apple and are now rushing to provide their own application marketplaces – Nokia, RIM, Google Android, Palm Pre, Microsoft, Samsung and Sony Ericsson have all either announced or launched their own application stores, and are currently actively focussed on building up their developer ecosystems to populate their markets with interesting and compelling applications to tempt subscribers.

So where does this leave the operators in the mobile value chain?

In the short term, mobile operators benefit from the device manufacturers' stores, as subscribers need to purchase a data plan along with their voice plan to make use of these marketplaces and applications. However, this is an undifferentiated and unsustainable strategy resulting in operators rushing to tie up device exclusives and pushing down the price of data plans, while driving up infrastructure costs to service the increasing data demand. Unwilling to be relegated to the role of "bit pipes" operators are focusing on providing their own marketplaces and developer ecosystems, looking at how they can leverage their core unique selling propositions ('USPs') to provide a differentiated offer to subscribers. These USPs include:

- **Distribution of Handsets to Subscribers:** This is fulfilled by most large Tier1 operators and gives them the power to specify certain technical requirements on these devices, including the removal of the device OEMs marketplace. Subsequently the use of handset subsidies can drive demand into the handsets that are most beneficial for the operator.
- **Integrated Billing:** Operators have both the ability to securely identify the subscriber and to efficiently make secure billing transactions to the post or pre pay balances of the subscriber- without further identification.
- **Existing Network Services:** Operators can integrate these 'other' services into applications adding value to the subscriber – location, presence, permissions, contacts, etc. can all be exposed to applications enabling

developers to make operator specific applications.

- Existing Developer Communities: Some operators have built up developer communities and can leverage these existing communities to populate their marketplace

Operators are supported in their ability to build competing marketplaces to the device manufacturers' as developers are loyal to the device platform, not the distribution mechanism. Once a developer has built a Symbian or Java application, it can – at low cost – be distributed through the Nokia Ovi Store, the Symbian Foundation Store and a number of operators' marketplaces to achieve maximum distribution (and maximum ROI for them).

The emergence of operators building their own marketplace has also driven another phenomenon, cross platform applications. A device manufacturer can build an application store focused on a single platform – for example, Apple's App Store only supports the iPhone. Similarly, the Google Marketplace only supports Android devices. However, an operator supports and distributes many devices and, as a result, identifies the need to create a single marketplace for developers where they can develop once, and deploy across a broad range of mobile device platforms.

This need has driven the emergence of cross platform 'mobile widget' engines, enabling developers to build applications and have these run across a broad range of devices, leveraging internet technologies such as XML and JavaScript. At this early stage, most of these mobile widget engines are proprietary, but emerging standards such as JIL (Joint initiative Lab by Vodafone/ China Mobile/ Soft Labs/ Verizon) and Bondi (OMTP) are aimed at providing the largest possible marketplace for developers to build compelling applications, and for operators to provide differentiated markets to their subscribers.

A further development in the market will be the emergence of 'white label' cross platform storefront providers supplying brand-able storefronts to the Tier 2 and 3 operators, enabling them to also compete with the device manufacturers' solutions. This will be a renewed area of investment by operators as they ensure they can remain relevant and compete in the application value chain, and the next few years will see an explosion in variety of technology and business models to meet this need.

SurfKitchen has built the market leading mobile Internet platform to meet this strategic need for operators'. It provides operators with a sophisticated applications storefront, an application launcher and a service creation environment – a widget runtime engine – to enable operators to compete today with the device manufacturers' stores, providing a consistent experience across an unrivalled range of Smartphones and mass market Feature phones. A number of Tier 1 operators are currently rolling out this technology.

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