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Mobile App Stores for  
Telecom Operators  
*The Next Battlefield*



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## EXECUTIVE SUMMARY

*The mobile applications business has grown exponentially in just the past three years. On the back of the hugely popular iPhone, Apple's App Store has quickly come to dominate the market, but rivals such as Google, Microsoft, Nokia, and Research in Motion Ltd. (RIM) are betting billions that they can catch up. So far, telecom operators have been late to the game. If they want to avoid the fate of becoming mere pipes for the ever more popular app stores, they must devise and implement strategies that take advantage of the very real assets they possess.*

Because of their limited customer bases relative to the massive numbers being put up by Apple and other operating system vendors, operators playing alone lack the inherent ability to attract large numbers of application developers to their own stores, and they lack experience in managing open ecosystems of developer communities. What they do have are powerful brands, a strong relationship with their subscribers, and the ability to monetize that relationship. For operators, the key is not to try to reap the direct revenues from app sales, but rather to develop a strong apps offering that can help them increase average revenue per user (ARPU), improve customer acquisition, and reduce churn.

To capture these benefits, operators have three options in building their own app stores: "closed" storefronts offering only apps that they develop or source themselves; "open" storefronts that offer access to third-party apps and app stores, with which they share revenue; and app stores for phones other than smart phones, primarily in developing markets through SIM services. Operators are by no means limited to any of these options; rather, they should pick and choose, depending on the OS and device providers they partner with, and on geography. What is critical is to ensure they play a key role as a retailer of apps by devising strategies—and executing them—now, before it's too late.

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## TELECOM'S OPPORTUNITY

Here are some numbers sure to impress every corporate executive looking for sources of new growth. Within 10 months of its launch in the summer of 2008, Apple's App Store had reached 1 billion downloads. The next billion took five more months; then, just three months later, in January 2010, customers had downloaded yet another billion apps. Apple doesn't break out revenues for its App Store, but observers estimate that it could generate as much as US\$3 billion in sales for Apple and its developers in 2010.

The success of Apple's App Store has been driven largely by the global popularity of its iPhone. With more than 35 million units sold since its inception in 2007, the iPhone is the linchpin of an entire ecosystem of products—from the OS X operating system to Macintosh hardware to consumer-friendly applications to Internet services like iTunes. Numbers like these are certain to attract competitors, and indeed, the App Store's numbers have. We expect that more than 1 billion smart phones of all kinds will be in use by 2013, driving increased usage of data services, with end-users spending as much as \$22 billion on mobile apps, not including additional revenues to be gained from mobile advertising in apps and games.

So far, however, telecom operators have not benefited from the popularity of mobile apps, other than through

the increased use of their data services. While many mobile operators have tried to jump on the mobile apps bandwagon by opening their own app stores, they have not yet gained much traction in the market. Are mobile operators doomed to serve as little more than bit pipes for ever-more-powerful manufacturers of smart phones and their operating systems? Mobile operators do indeed face real challenges in their efforts to participate in the fast-growing apps business, but we believe they can compete successfully if they can determine how best to position themselves within the mobile apps ecosystem, develop the right strategies, and execute them carefully. The best strategies must focus on capturing the customer's attention by becoming the entry point into the world of applications, not on capturing revenues from application sales.

# SUCCESS FACTORS

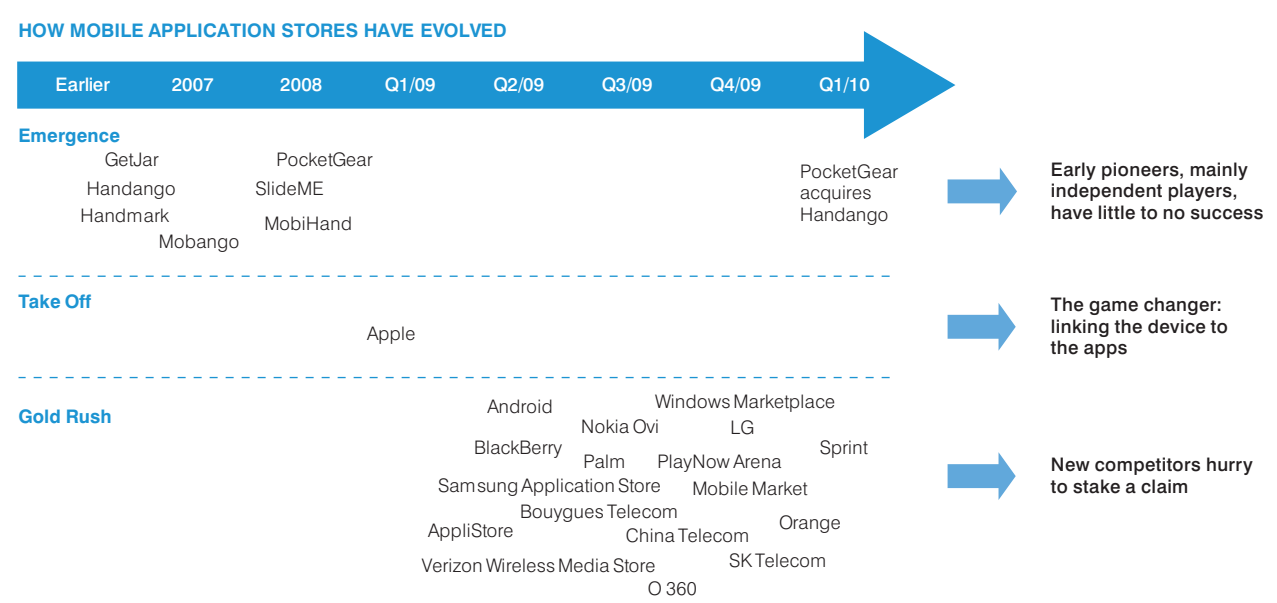
Apple's success in the mobile apps market was by no means predestined. After the first mobile apps were introduced by independent players in the late 1990s, any number of smaller players quickly entered the market. But it wasn't until Apple entered the mobile app business, a year after the introduction of the iPhone, that the world came to understand its value as a driver of both revenue and smartphone sales (see Exhibit 1).

What made Apple's App Store take off? First of all, the company had a head start—a powerful brand whose customers had a strong emotional attachment to its Macintosh computers and its iPod and iTunes ecosystem. That degree of loyalty was only deepened with the introduction of the iPhone, thanks to its revolutionary design and interface. Attracting developers to the App Store proved easy with a generous revenue-sharing agreement and easy-to-use development tools and technical assistance; the result was an explosion of rich content, more than 140,000 apps in less than two years. Finally, by selling apps through its popular iTunes store, with a readily available billing system, and then in turn using the apps' popularity to help make advanta-

geous deals with telecom carriers to offer iPhones, Apple found a way to monetize its iPhone ecosystem with impressive efficiency. The result: a retail powerhouse based on key success factors that competitors are finding very difficult to replicate.

Since Apple introduced the App Store, lots of competitors have appeared on the scene—other makers of mobile devices, vendors of mobile operating systems, telecom operators, and independent app stores—with varying degrees of success. No one has yet come close to rivaling Apple, in part because every competitor has to attract two audiences—not just customers but also developers—and few rivals to Apple's App Store have succeeded in doing so.

**Exhibit 1**  
*The Evolution of Mobile Apps*



Source: Booz & Company

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## THE OPERATOR ADVANTAGE

Telecom operators looking to benefit from the popularity of mobile apps cannot expect to rival Apple in the revenue it generates from the App Store. Nor should that be where operators aim to participate, since the potential incremental revenues are so small. We expect that in 2013, all application store providers worldwide will capture just a 30 percent share of overall apps revenues, or about \$7 billion, with the remaining 70 percent going to developers. This is a drop in the bucket compared with the telecom industry's projected overall 2013 revenues of \$1.6 trillion.

The real economic value for operators lies in the increased revenues to be captured through the rising use of data services linked to mobile apps and the customer loyalty that app usage has the potential to generate. Users of iPhones use their phones more than other mobile phone users do, and most of that extra time is devoted to

downloading data. As smart phones become more and more popular, data usage will only increase—and that, in turn, will be the source of real revenue increases for mobile operators.

But those added revenues will appear only if operators can acquire and retain the customers most likely to use their phones to download mobile apps. Here is where the value proposition for operators can be found—along with the risk. And operators that do succeed in offering customers attractive ways to access mobile apps will benefit in three ways.

*Customer acquisition:* Easy access to attractive app stores can attract new customers, as can customizing mobile devices to get customers to app stores more directly, through exclusive deals linking specific devices to app stores, much like Apple's deal with AT&T for the iPhone.

*Higher ARPUs:* Customers with smart phones that can easily access attractive app stores are significantly more valuable to operators. In the U.S., iPhone users generate 1.63 times the ARPU of the average customer; in western Europe they generate 2.45 times the average. The difference lies in varying

consumption patterns—though iPhone users are typically high-value customers, much of the higher ARPU can be attributed to their higher data usage.

*Reduced churn:* As mobile apps become more popular, easy access to attractive app stores will likely help retain customers, especially as they become more dependent on their device interfaces. If an operator with 25 million subscribers and an ARPU of €35 (US\$47.40) can reduce churn by just 1 percentage point, it can retain 250,000 subscribers who generate about €100 million in revenue annually.

The key for operators is to maintain and strengthen their relationships with customers, more and more of whom will view access to mobile apps as a critical component in choosing and staying with their operator. Thus, every operator must devise a strategy for incorporating mobile apps into its offerings; those that do not come up with a winning strategy risk losing customers to rivals that do. Worse yet is the possibility of losing the end-customer relationship to third-party app stores, which would have potentially dire consequences for operators' core business.

# ATTRACTING THE RIGHT AUDIENCES

As we have seen, every player, including operators, looking to build a successful mobile app store needs to attract two audiences: customers, of course, but also the developers willing to create the critical mass of applications needed to attract those customers and keep them coming back for more (see Exhibit 2). In addition to the sheer number of applications available, successful app stores need both a constant source of popular new apps and a long tail of less popular applications to maintain consumer interest. The most popular category of apps

at Apple's App Store, for instance, is gaming, but it still constitutes just 17 percent of all available apps.

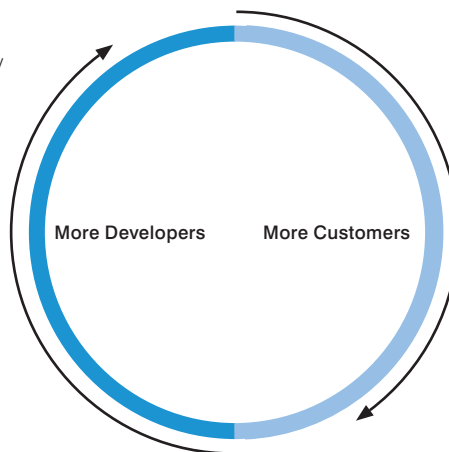
Operators are limited in their ability to generate the capabilities needed to attract and keep a strong developer community. Although there is nothing holding them back from offering developers attractive business terms—most app stores allow developers to keep 70 percent or more of the revenue brought in by their apps—other factors are more challenging. Managing a thriving developer

**Exhibit 2**  
*The Virtuous Circle in App Stores: A Strong Customer Base Attracts More Developers, and More Apps from Developers Attract More Customers*

### Operators' Strengths and Challenges in Attracting Developers and Sourcing Apps

- ▲ Quality Technical Support
  - Managing a developer community is a high-cost business
  - Operators are not used to the software business
- ▲ High Reach & Exposure
  - Most operators have relatively small subscriber bases, compared to the global installed bases of many OEMs
- Generous Business Model
  - Operators can implement revenue-sharing model similar to the market standard

- ▲ Natural Challenge
- Natural Strength
- Neutral



### Operators' Strengths and Challenges in Making Use of Customer Assets

- Powerful Brand & Marketing
  - Operators can benefit from their strong brand in their local markets
- ▲ Broad & Diverse Offerings
  - The limited number of developers, fragmented across several platforms, limits the breadth of offerings
  - But in some markets, operators can leverage local content
- Quality Storefront
  - By managing their networks, operators can improve the quality of their data traffic
  - Knowing customers' needs and behavior, operators can develop friendly, locally relevant app stores
  - But other app stores could also analyze customer behavior
- Easy Monetization Engine
  - Operators can use subscriber accounts for payment, making the process easy for customers

Source: Booz & Company

community and offering the high-quality technical support developers need is an expensive operation, and few operators have experience in the software business. And compared with makers of mobile devices or mobile operating systems, few operators have the huge global installed base needed to provide enough customers to attract developers, unless they partner with other operators.

In contrast to their difficulties in attracting strong developer communities, telecom operators do have the strengths necessary to attract a critical mass of customers.

*Powerful brands and marketing expertise:* Operators could benefit

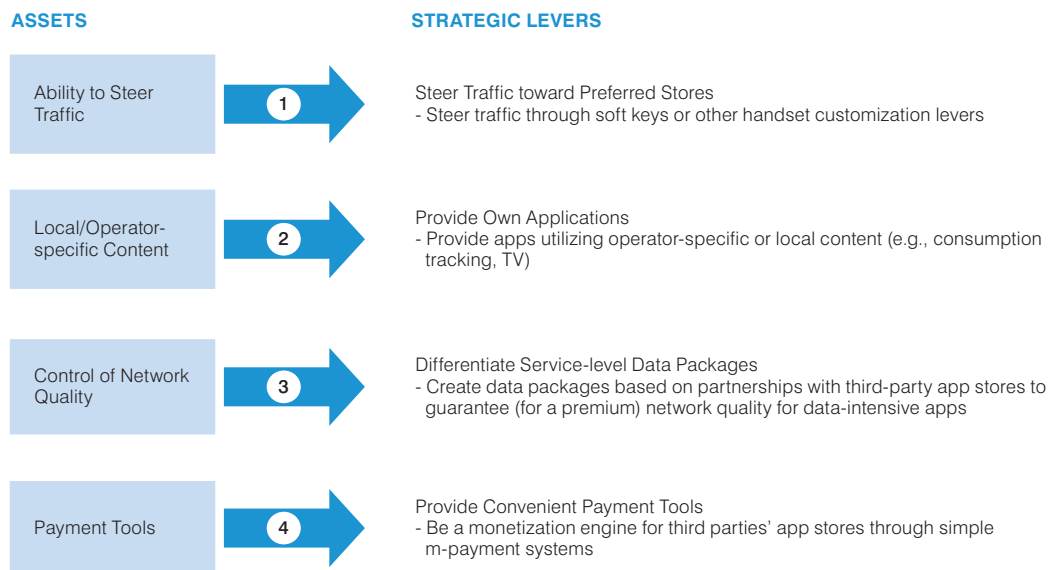
from their strong brands in their local markets and their ability to steer traffic to their app stores by customizing devices to send users there directly.

*Quality of storefront:* Because operators have control over their networks, they can provide customers with differentiated offerings based on quality of service. High data users could be given the option of paying more for reliable connections and downloads. By the same token, operators could leverage their local and operator-specific capabilities to provide content such as mobile TV or telecom-specific apps for uses such as consumption tracking and service control.

*Monetization:* Operators' close relationship with their customers will allow them to develop simple payment tools, including direct debiting of subscriber accounts and mobile payment (m-payment) systems. Such tools would promote access to app stores and smooth the buying process—a particularly attractive solution in emerging markets, where few subscribers have their own bank accounts.

Based on these strengths, mobile operators have several levers they can pull in devising a strategy to build an app store (see Exhibit 3). Operators' use of these levers will determine their strategic direction for the future.

**Exhibit 3**  
*Assets and Potential Levers for Operators in the Mobile Apps Market*



Source: Booz & Company

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### **An App Store Consortium**

One solution to the problem of attracting developers might be for operators to band together, and two separate initiatives are intended to do just that. A group of four mobile operators—China Mobile, SoftBank, Verizon Wireless, and Vodafone—has made plans to create the Joint Innovation Lab (JIL). By bundling all of its customers into one large audience, the JIL hopes to persuade developers to create rich content of all kinds.

The second effort involves a consortium of 24 mobile operators, called the Wholesale Applications Community (WAC), to allow developers to distribute applications across a number of delivery platforms through a single point of entry. As with any consortium, the challenge will be to coordinate the WAC's numerous partners and their many, sometimes competing initiatives; if the WAC can overcome that, it will have created a very substantial audience with which to attract developers.

Both initiatives are supported by a number of handset manufacturers, including LG Electronics, RIM, Samsung Electronics, and Sony Ericsson.

*Telecom operators have the strengths necessary to attract a critical mass of customers.*

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## WORKING WITH THE OS

Despite the many considerable assets operators possess in their efforts to compete in the mobile apps markets, perhaps the most serious challenge they face is their lack of control over the many mobile operating systems running on the vast number of different devices available to consumers. No matter what app store strategy they devise, operators must take this diversity—and the different market dynamics of each OS—into account, pulling different levers depending on the OS.

*iPhones:* Despite accounting for 11 percent of the mobile device market in 2009, the iPhone accounted for two-thirds of the mobile apps downloaded. Given its tight

integration with Apple's own App Store and controlling stake in the market, the iPhone offers little in the way of opportunities for operators to benefit. Operators that have made deals with Apple to offer the iPhone have certainly seen increases in subscribers. Other possibilities, however, may be limited to developing iPhone-specific applications that are close to operators' core business, such as mobile TV for subscribers, or devising differentiated service-level plans for iPhone users who consume lots of data.

*BlackBerrys:* The popular BlackBerry offers more opportunities for operators. As with the iPhone, operators could develop their

*No matter what app store strategy operators devise, they must take into account the vast number of different devices available to consumers.*

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own subscriber-specific apps, and differentiate traffic from applications or subscribers by service levels. They could also offer their monetization engines to the BlackBerry store, although we believe it could be more appropriate for them to include BlackBerry apps in their own app stores in order to retain customer ownership.

*Other operating systems:* The app stores landscape in other operating systems, including Android, Symbian, and Windows Mobile, is more fragmented, with many players—equipment manufacturers, operators, and independents—having their own app stores, although the OS owners have the richest ones at the moment. This fragmentation potentially gives operators more freedom of movement in the mobile apps space. In this case, operators could potentially have a right to win by building their own app storefront, provided they can feed it with apps from developers. This storefront could take several

forms. The simplest form would provide subscribers with access to the thousands of apps offered at other stores, perhaps including tools to smooth the purchasing process.

Operators could also build their own stores, offering apps developed for a variety of systems, as well as subscriber-specific apps for local content or data consumption management. Ambitious operators could also build a niche for themselves by providing differentiated content through customized apps targeted to specific customer segments.

The most complex option would involve an integrated strategy, in which an operator would offer its own smart phone, and partner with the maker of the phone's OS to develop its own app store, and the apps to go with it. The success of this option would depend on generating the critical mass of apps needed to attract more developers and, in turn, more customers. For instance, China

Mobile, with more than 500 million subscribers, is planning to launch its own smart phone equipped with a customized OS to be supplemented by the operator's own app store.

*Non-smart phones:* Mobile devices that don't offer the latest Web-surfing and apps capabilities of smart phones provide a further opportunity for operators, especially in emerging markets, where their use is most common. Smart phones make up no more than 10 percent of all mobile devices in these markets. In addition, end-users may see little need to pay for entertainment apps, given the prevalence of piracy. However, users do see the high value that certain practical apps—such as e-government (perhaps funded by local governments themselves), health, and education services—can bring to them. Operators could also leverage the increasing development and spread of m-payment services in these markets to monetize their applications.

## THREE STRATEGIES

Setting the iPhone juggernaut aside, the world of mobile apps is highly fragmented, with no app store yet owning a significant share of the market. That presents a real opportunity for mobile operators looking to get into the business. Operators can leverage their relationships with subscribers by following one of several strategies, all of which are designed to aggregate, to varying degrees, the quickly growing number of third-party apps already available. Each of these strategies depends on one or more of the assets that operators can leverage in pursuit of an app store play, and they can be tailored to the device and operating system under consideration. It is conceivable that all of them could be carried out simultaneously, depending on device and geography.

In every case, the key for operators is to maintain the relationship with end-users if they want to avoid being relegated to a mere bit pipe.

*Closed storefront:* The first possibility is to build a closed storefront that offers only applications developed or sourced by the operator, and competes head-on with third-party app stores; examples include Orange and Telefónica. These storefronts could be integrated with a specific device, like the iTunes App Store with the iPhone. In this case they would depend on the creation of a mobile device in combination with dedicated apps; both Vodafone and China Mobile have taken this approach. The storefronts could also be tailored to niche markets, dedicated to a specific handset, OS, or customer segment, such as teenagers.

Closed storefronts might also contain special areas featuring apps for which developers pay a premium for greater visibility or apps being promoted to particular user segments, as identified through customer intelligence. And they would also offer convenient purchase models via customer accounts or instant m-payment solutions.

*Open storefront:* An open storefront would offer access to third-party app stores, in addition to the features and components of a closed storefront. An easy interface would facilitate access to third-party stores through soft

keys and other links, and revenues would be shared with the third-party partners. An open arrangement would allow operators to provide their subscribers with access to the large and diverse catalogs of apps available on a variety of OS and device platforms, while avoiding the challenge of building a developer community on their own.

*SIM app store:* Finally, operators could build a SIM app store for phones other than smart phones. This strategy is especially attractive for operators that want to gain a competitive edge in emerging markets by offering attractive apps along with workable m-payment solutions. An added bonus: These markets are not yet on the radar screen of the large independent app stores, since more than 80 percent of the world's smart phones are located in developed markets.

No matter which strategy an operator chooses, the key is to offer subscribers a quality storefront they will be happy to return to, and to build into the storefront the features that will help the operator maintain its relationship with subscribers and generate incremental revenue at the same time (see “*Components of a Successful App Storefront*”).

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## Components of a Successful App Storefront

*Local content:* Apps and other services designed for subscribers in particular geographies served by the operator. Examples include mobile TV, news, and information. Local content may be especially successful as part of SIM-based app stores in developing markets.

*Operator-specific apps:* Apps intended to help subscribers manage their relationship with the operator, including account management; billing; and voice, message, and data consumption, as well as services such as mobile TV.

*Premium apps:* Apps that are given premium placement on the storefront in exchange for payment by their owners.

*Apps catalog:* A collection of apps sourced through partnerships with developers and companies promoting apps, which could be paid for through revenue-sharing agreements.

*Payment:* Tools that allow users to pay for apps and services through convenient m-payment solutions or through their mobile accounts.

*Mobile advertising:* Space on app storefronts or within apps themselves, sold by operators to advertisers, with content often keyed to the current interests and browsing habits of subscribers.

*Gateways to third parties:* Links to other app stores owned by third-party apps developers, OS owners, device makers, and independents—redirecting traffic to cobranded spaces in third-party stores, for example.

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## CONCLUSION

As the competition to provide consumers with more and better mobile apps heats up, telecom operators run the risk of becoming mere conduits to the successful app stores of others. To avoid that fate, operators must play the game, building storefronts attractive enough to maintain the critical relationship with their subscribers. The real upside for operators, beyond targeting additional revenues from selling apps, is churn reduction, increased

ARPU, and improved subscriber acquisition. Succeeding in this arena requires operators to master the business of retailing mobile apps and getting access to a large network of developers or partners, in order to feed their subscribers with large, regularly renewable catalogs of apps.

The mobile apps business is moving and evolving quickly. Operators that act now stand to reap significant advantage.

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