



# **The Mobile Music Revolution**

## **A Review of Today's Dynamic Market**

RealNetworks White Paper Series



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In 1906, a famous composer decried a technology he warned would bankrupt creative artists and spell catastrophe for American music. The man was John Philip Sousa, and the invention he feared was the player piano. Ever since recorded music became available to a mass market, musicians, technologists, and the public have been engaged in a free-for-all of innovation.

Today, the mobile phone has merged with the jukebox and the record store to become the latest music delivery method. The multi-billion dollar mobile music market remains remarkably fluid, though the biggest names in the computing and communications industries are rushing out new products and partnerships. Consumers can download individual tracks and complete albums straight to their phone over the air. They can pay per-download or through a subscription, and they are presented with a dizzying array of handsets and service plans designed for mobile music.

The next chapters in the music story will likely include the same cast of characters as the last one hundred years: music fans, innovators and lawyers. Through all the changes, enjoying music has remained one of the most passionate human endeavors. That's not lost on the telecommunications industry, which is increasingly focused on providing new services for existing customers to recoup massive investments in technology.

In the modern age, mobile music got its start in 1979 with the Sony Walkman, a portable cassette player. Twenty years later, Sony had sold 186 million units, and the Walkman became one of the first consumer electronics phenomena. But the reign of the tape player didn't last long, and by 1984 Sony released the Discman to meet demand for CD's. The market for personal listening devices quieted until Apple released the iPod in 2001. By 2005, Apple had sold 10 million of the players, and the iPod's tell-tale white earbud cords became an iconic accessory. Yet Apple's sales are dwarfed when you consider that 1.4 billion people worldwide own a mobile phone.

*Fact: In the second quarter of 2006, Nokia alone sold 15 million music-enabled handsets, almost twice the number of iPods that Apple sold in the same period.*



## Music Goes Mobile

The mobile music market didn't start with a song, but with a jingle. Ringtones - snippets of music tracks played instead of a ring - proved enormously popular with consumers, and in 2005 ringtones supplanted the traditional ring for the first time, jumping from only \$30 million to \$225 million in just one year. Ringtones have been described as a honey pot for the music industry, which can earn about \$1.50 in royalties for a \$3.00 ringtone that lasts 15 seconds. Big name acts such as Madonna and Coldplay have launched new singles as ringtones weeks before the global release of their albums. Analysts expect ringtones to constitute 93 percent of mobile music spending in 2010.

With an increasing number of music-enabled phones on the market, mobile-carriers are seeking the best model for selling and delivering full-track music over their networks. While most subscribers with music-enabled phones still sideload tracks from their PCs using USB cables, most observers agree that the future of the market lies in over the air (OTA) purchases. CIBC World Markets predicts the proliferation of music-enabled phones and the growth of subscribers with next-generation download speeds (3G) will boost worldwide revenues of full-track OTA downloads to \$3.7 billion by 2010, a compounded annual growth rate of 60 percent from 2006.

Today, delivery options for mobile music include:

- **Dual Delivery**

Subscribers use handsets to browse, sample and order songs OTA from the carrier's music store. The purchase amount is charged to the subscriber's monthly wireless bill and the song is delivered twice: one copy arriving OTA into the handset and the second delivered to the PC.

- **Delivery to PC**

Some mobile carriers without the 3G coverage needed for efficient full-track downloading offer a service that enables customers to browse, sample, and purchase songs OTA on handsets, however the songs are delivered to an Internet account and must be sideloaded from the PC to the mobile device.



- **Delivery OTA**

Subscribers pay for only one copy of each track to play exclusively on their mobile device. Users can back up their songs on a PC, but electronic protection known as digital rights management (DRM) prevents the tracks from being played on a PC or anything else.

- **Subscription Service**

For a monthly fee of \$14.99, Rhapsody subscribers are able to download a portfolio of 4 million-plus songs to their PC and select handsets. DRM disables songs within 30 days if the subscription is cancelled. For an additional fee, subscribers can purchase perpetual licenses.

- **Sideload**

Subscribers sideload music from the PC with a USB cable. The mobile carriers' role is relegated to subsidizing the handset and selecting the media player (Windows Media Player, iTunes). Mobile carriers do not receive any incremental revenue from a sideloaded song.

Last year, digital album sales rocketed 53 percent to 50 million units. The trend provides a "sensational foundation as the business shifts more digitally," Nielsen Music president Rob Sisco told USA Today. "Music consumption has never been higher."

## Trial and Error for Music Plans

Most music services require an unlimited data plan, which account for only single digit percentages for most carriers. But there are positive signs in the ongoing evolution of this market. While the mobile music model has not settled on the most effective delivery or payment plan for music, an exciting variety of methods are being tried and tested around the world.

In the global marketplace, South Korea deserves special attention. Three-quarters of the population of 48 million are mobile-phone users and the country has the highest adoption of 3G in the world with nearly 10 million users. In November 2004, SK Telecom launched a music portal service called MelOn that provided music streaming and limitless downloads and play through mobile and fixed-line networks



for 5,000 won per month (\$4.60). After the service expires, digital rights management restricts the access.

Nikki Han, director of international business at SM Entertainment, one of Korea's largest labels, told Billboard that mobile phone music was changing the tastes of Korean consumers. "Songs featured on local TV dramas have the strongest revenue on mobiles," said Han.

SK Telecom was also the first carrier to get directly into the content side of the business, purchasing one of Korea's leading independent labels, YBM Seoul Records. Asia has the largest mobile market in the world, and it's expected to stay that way, at least in the near term. Japan, with 97 million wireless subscribers, many of them belonging to a 3G network, is particularly apt to grow. Within its first four days in 2005, Japan's iTunes Music Store sold one million tracks priced between \*150 and \*200 (\$1.36 to \$1.82). The same success was repeated in Australia, the second largest market in the region after Japan.

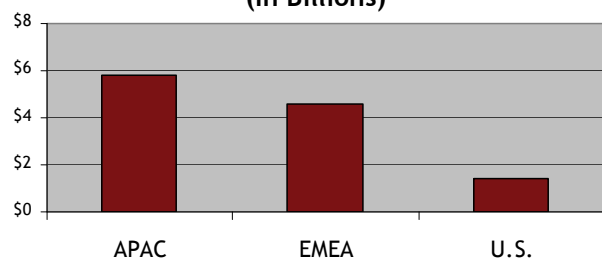
Analysts with PriceWaterhouseCoopers expect the market for mobile music in the Asia Pacific region to total about \$5.8 billion in 2010. By comparison, the financial firm predicted the European, Middle East and Africa markets would post sales of \$4.6 billion in 2010, with

the mobile music subscriber base increasing from 75 million in 2005 to 204 million by 2010. The United Kingdom represents the largest market,

followed by Germany and France. With wireless penetration in Western Europe at 95 percent, carriers have focused their efforts on boosting average revenue per user, and earning back a return on their investment in 3G networks.

In November 2004, Vodafone launched a full-track download service in Great Britain and in its first 2 to 3 months it sold one million tracks. Since then Vodafone has launched music services in several countries around the world where it has launched its WCDMA 3G networks. They have learned European markets vary widely in their

2010 Mobile Music Revenue Forecast  
(In Billions)



2006 PriceWaterhouseCoopers LLP



musical tastes. For example users in the United Kingdom prefer international music, while others in Sweden prefer a mix of local and international music. As an extreme example, 85% of songs purchased by its Japanese customers are produced domestically.

## Is Over the Air the Key?

In the United States, PriceWaterhouseCoopers predicts the mobile music market to top \$1.4 billion in 2010. While significant opportunities exist, public opinion surveys suggest that the OTA download market remains a difficult nut to crack. Roughly 63 percent of online users are "not at all interested" in OTA downloads for \$0.99 per song, according to JupiterResearch. However some consumers like the instant gratification of OTA purchases, along with the instant portability without having to tap into a PC. But that's balanced against a simple fact: many consumers already own an MP3 player. Still, OTA's future may hinge on impulse purchases, which are especially strong in the 18-24 age group, influenced by radio air play, friends recommendations, and new song releases.

Many analysts expect the attraction of personal music players to fade as carriers more aggressively tout OTA music delivery and handset manufacturers market the music capability of their wares.

*"The phone will become as important, if not more so, than the iPod within a matter of months," said Paul Rees, editor of Q, the UK's biggest selling music magazine. "More and more, people want to have everything delivered via, and available as, a one-stop shop that they can use on the go and with the minimum effort. I'd imagine that sending a new track to the phone will become as routine for labels as delivering singles to a shop once was."*

Juniper Research's recent report, "Striking the Right Chord," also notes that as the capabilities of music and multimedia optimized handsets approaches those of iPods and MP3 players in terms of audio quality, storage capacity and music management, the market will turn in favor of the single device.



To capture the attention and loyalty of their customers, mobile carriers must bundle and cross-promote various music-related services, according to an IDC report. Silo-type music services that are not particularly differentiated or compelling will likely prove frustrating for carriers. But fusing full tracks with community features or ringtones, wallpaper, and other features would create something novel and help find the “sweet spot” for mobile music.

While various mobile devices have been labeled “iPod killers,” the iPod has proven difficult to kill, even for Apple. Last year, the story had one central character: the iPhone, Apple's first mobile offering. Whether its success goes beyond garnering newspaper headlines remains to be seen. Just 70 days after putting it on the market for \$600, Apple slashed the price by \$200, to the howls of consumers, some of whom camped out to be the first to buy the device.

The competition is unrelenting. In December 2007, Nokia announced a deal with Universal Music Group, a recording company, to offer unlimited free downloads of Universal songs to buyers of certain Nokia phones. Under the agreement, Universal will let users download its entire catalog at no cost for a year, and keep the songs at the end of that time, a striking departure from subscription services, which end consumer access to music if the subscription lapses. For its part, Universal would receive a portion of revenue from sales of the phones.

Moves by Apple and Nokia underscore the extent to which handset manufacturers are seeking to corner the mobile music market, threatening carriers. Reviewing 2007 in an interview with Fierce Mobile Content, RealNetworks chief executive Rob Glaser said:

*“If carriers don't want to be a passive pipe they need to get more active in this area. Otherwise, they are relinquishing control to the handset guys.”*

The mobile carriers didn't sit still, however. In 2007, AT&T joined competitors Sprint and Verizon Wireless by launching its own full song download services. After purchasing MTV's Urge, RealNetworks' Rhapsody struck a deal with Verizon Wireless that made it the exclusive platform to deliver tracks purchased from the VCast Music



service. In the months ahead, Verizon Wireless will roll out features that will send the duplicate copy of songs purchased over the air directly to a customer's Rhapsody account. The service will also allow transfer of subscription music from a Rhapsody account to a mobile phone. "Verizon's alignment with these two great companies - MTV Networks' music and youth marketing expertise with RealNetworks' acclaimed service and technology - promises to propel digital music into an exciting new future," said John Stratton, executive vice president and chief marketing officer of Verizon at a press conference announcing the deal.

The union between Real Networks, MTV and Verizon represented a "genuine challenge" to Apple's place in the market, noted Rethink Research, a London-based publishing and consulting firm. When kids watch MTV, they will be pointed towards it, and when people subscribe to cellular handsets through Verizon they will be reminded of it. That's quite a marketing punch, observed Rethink Research.

But RealNetworks' advantages go beyond promotions. RealNetworks has global experience enabling carriers to efficiently deliver a compelling, end-to-end mobile music service to their subscribers. Real provides an industry proven solution that manages all steps of the music ecosystem from content ingestion and delivery to service operations and maintenance.

## The Riddle of Digital Rights

Before we get too wrapped up in technology and business relationships, let's go back to Sousa and the player piano. Sousa was concerned that people wouldn't pay musicians if they could hear the same music created by a machine for free. The same principle holds true for digital rights management. These secret codes prevent unlawful sharing of music. Piracy means the recording industry is cut out of the deal, and if the recording industry suffers, so do the people who created the music. The British band Radiohead, which released its seventh album through its own website after leaving its record label, is the exception, with band members calling it an "experiment."

But there are growing calls to abolish DRM entirely. In an open memo last year, Apple chief executive Steve Jobs noted that music companies sold more than 20



billion songs on unprotected CD's in 2006. No DRM system was ever developed for the CD, so they can be uploaded to the Internet and then illegally downloaded on any computer or player. Jobs said Apple would embrace a scenario where "any player can play music purchased from any store, and any store can sell music which is playable on all players."

Glaser has also advocated that the music industry move away from digital rights management. "In early 2007, we recommended that the music industry move away from DRM toward MP3," said Glaser in December. "We knew that the music industry was thinking about it but wasn't ready. Now, two of the four major record labels are doing it and the rest are thinking about it. We said, if you don't use DRM, you can get to a much larger base."

Since Glaser spoke, Warner Music Group said it would sell DRM-free songs through the Amazon.com digital music store, and, in early January 2008, Sony BMG announced that it, too, would be offering its entire catalog without anti-piracy protections. How the end of DRM will impact the OTA market remains to be seen, but observers suggest that the flexibility of a DRM-free world will make buying music on impulse even more prevalent.

Some artists wonder whether the music industry will suffer in this new age. But it should be remembered that Sousa lost his fight against the player piano, which slipped into oblivion by the late 1920s, replaced by the gramophone. The music industry, as we all know, never looked back.

That's something for carriers to remember as they consider their strategies in this period of technological and legal uncertainties. To be sure, the sands are ever-shifting, but one thing is clear: the mobile music market will continue to grow. All signs point to a future where consumers will own a single device for phone, text, music and other features. RealNetworks has the experience and flexibility to usher in this new era and offer a steady hand as carriers make music a key offering to their mobile customers.