

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
15 November 2007 (15.11.2007)

PCT

(10) International Publication Number
WO 2007/129081 A1

(51) **International Patent Classification:**
G06F 17/30 (2006.01)

(21) **International Application Number:**
PCT/GB2007/001675

(22) **International Filing Date:** 8 May 2007 (08.05.2007)

(25) **Filing Language:** English

(26) **Publication Language:** English

(30) **Priority Data:**
0608936.1 5 May 2006 (05.05.2006) GB
0608935.3 5 May 2006 (05.05.2006) GB
0608934.6 5 May 2006 (05.05.2006) GB
0608933.8 5 May 2006 (05.05.2006) GB
0608932.0 5 May 2006 (05.05.2006) GB
0702596.8 9 February 2007 (09.02.2007) GB

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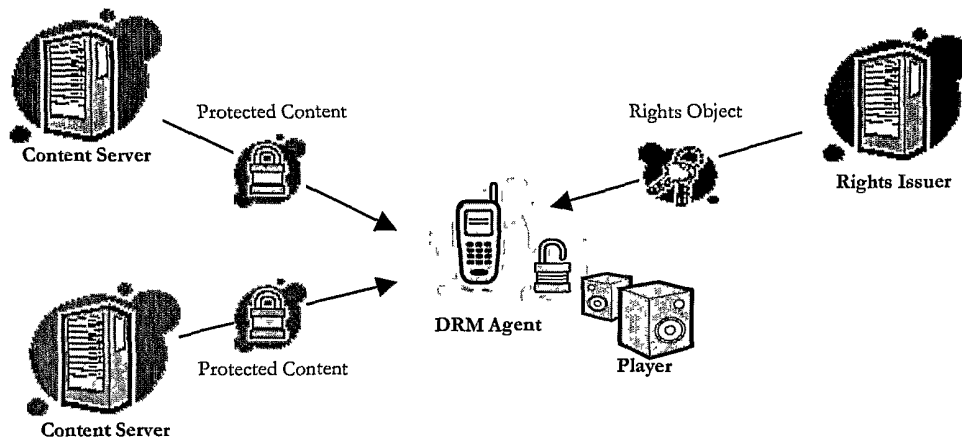
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(81) **Designated States** (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, IP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

(84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

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(54) **Title:** A METHOD OF PROVIDING DIGITAL RIGHTS MANAGEMENT FOR MUSIC CONTENT BY MEANS OF A FLAT-RATE SUBSCRIPTION



(57) **Abstract:** The invention enables digital music content to be downloaded to and used on a portable wireless computing device. An application running on the wireless device has been automatically adapted to parameters associated with the wireless device without end-user input (e.g. the application has been configured in dependence on the device OS and firmware, related bugs, screen size, pixel number, security models, connection handling, memory etc.). This application enables an end-user to browse and search music content on a remote server using a wireless network; to download music content from that remote server using the wireless network and to playback and manage that downloaded music content. The application also includes a digital rights management system that enables unlimited legal downloads of different music tracks to the device and also enables -any of those tracks stored on the device to be played so long as a subscription service has not terminated.

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FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,
PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— *before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments*

Published:

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

A METHOD OF ENABLING DIGITAL MUSIC CONTENT TO BE DOWNLOADED TO AND USED ON A PORTABLE WIRELESS COMPUTING DEVICE

5 BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a method of enabling digital music content to be downloaded to and used on a portable wireless computing device. The term 'portable wireless computing device'
10 used in this patent specification should be expansively construed to cover any kind of portable device with two way wireless communication capabilities and includes without limitation radio telephones, mobile telephones, smart phones, communicators, personal computers, computers and application specific devices. It includes devices able to communicate in any manner over any kind of network, such as GSM or UMTS, CDMA and WCDMA mobile radio, Bluetooth, IrDA
15 etc.

2. Description of the Prior Art

The past few years have seen enormous changes in the way music is distributed and consumed. The traditional method, where the consumer buys a physical product in a shop and listens to it
20 at home, has declined, and total worldwide revenue for the music industry has dropped from a little under \$40bn in 2000 to \$31bn in 2005. Meanwhile there has been an enormous upsurge in the distribution of digital music over the internet, initially in the form of illegal file sharing, but latterly more and more as paid for downloads. Portable digital audio players (DAPs),
25 exemplified by the Apple iPod™, have had a dramatic effect on the global music marketplace. Just five years after the introduction of the first portable digital audio player, digital music sales global have already grown to well over \$5bn in 2005.

To reverse these trends, the music labels are now turning their attentions to pursuing the
30 mobile market, where music is sold via mobile phones (or other kinds of portable wireless device) and distributed over the cellular wireless network. The potential value is already clear from the explosive growth of the ringtone market, and both the music labels and mobile

network operators MNOs believe that mobile full-track music could provide more revenue, better security and improved pricing compared to digital music on a PC.

5 The mobile phone has some distinct advantages over the iPod and other DAPs. As well as playing music, mobile phones are connected to an increasingly fast, secure wireless network where users can locate and share music on the move and pay for content using the MNO's inbuilt and convenient billing facilities. Increasing innovation from the mobile handset manufacturers is helping to move the market forward.

10 There are still significant challenges ahead, however. The reliance on mobile internet technology WAP (Wireless Application Protocol) as the primary means of selling full music content is limiting. The technology is unfriendly, slow and cumbersome for users. Indeed, the world's largest mobile phone group, Vodafone Global, has avoided selling full music downloads on anything but top-of-the-range 3G phones because of the end-user difficulties associated with WAP. Many other operators have been forced to take a similar approach. This
15 has limited the take-up of full music download services - only a small minority of mobile phone subscribers can use or have access to 3G. In the relatively mature 2005 UK market, less than half a million of Vodafone's 14.4 million customers have 3G - a market penetration of around 3%. Many other operators have no or only very limited 3G penetration.

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MNOs are also concerned about the poor music play experience available, even on current top-of-the-range 3G handsets. Even when devices are marketed as top-of-the-range music phones they generally fail to deliver a user experience akin to a run-of-the-mill MP3 player.

25 Two alternatives to WAP based acquisition of full music content are currently favoured:

- Streamed services, which offer users a personalised radio service streamed to their handset.
- Music shop applications, running locally on a mobile telephone, and which offer users the ability to purchase music tracks and albums directly from the mobile telephone

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Streaming radio solutions are however a niche marketplace. The requirement for a constant data-connection and the lack of full user control of what a user listens to means the consumer proposition and appeal is limited. Streaming solutions also suffer limited handset reach and a

requirement for high speed (usually 3G) data connection. Operators implementing such services must also plan and invest for a significant network burden - all music tracks must be redownloaded every time they are played.

- 5 Music shop applications offer a more compelling user proposition but also suffer limited handset reach, with a focus on 3G and niche Symbian handsets. The user experience on such devices is also limited currently with competitor products offering only limited pay per track services and with limited functionality that fails to approach the richness of a high quality DAP. This limited functionality, combined with relatively small music catalogues, has severely limited
- 10 the appeal of these solutions to date.

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