Title: A SYSTEM AND METHOD FOR PROVIDING CONTENT TO MOBILE DEVICES

Abstract: Systems and methods for transmitting content to one or more mobile devices, involving querying and detecting characteristics of mobile devices, selecting or identifying a mobile device from the detected mobile devices, and transmitting content to the mobile device over a short range data network.
A system and method for providing content to mobile devices

FIELD OF THE INVENTION

This invention broadly relates to systems methods for providing content, for example multimedia flies, to mobile devices such as mobile telephones.

BACKGROUND OF THE INVENTION

It is now common in developed countries for people to carry with them portable devices which can play content such as audio, video or graphic content. In many cases, the portable device is a mobile telephone, but it could also be a portable music player, a personal digital assistant, a handheld gaming machine, an ultra-mobile personal computer and the like.

Conventionally, content for the portable devices is purchased by the owner of the portable device either using a personal computer or using the portable device itself. In the case where the content is purchased using a personal computer, the content is then typically transported to the mobile device by way of a data cable. Where the content is purchased using the portable device itself, the content is typically delivered to the device using the mobile telephone network.

SUMMARY OF THE INVENTION

In a first aspect, the present invention provides a method for transmitting content to a mobile device, the method comprising the steps of:

- detecting characteristics of the mobile device; and
- selecting or modifying content to be sent to the mobile device based on the detected characteristics.

Preferably the step of detecting characteristics of the mobile device includes the step of detecting characteristics using a short-range wireless network. More preferably, the short-range wireless network uses a packet-based, frequency hopping radio link. Even more preferably, the radio link is a Bluetooth link.

The step of detecting characteristics of the mobile device preferably includes the step of transmitting a query message to one or more mobile devices. The method also preferably includes the steps of

- displaying to a user Information identifying each of the mobile devices which respond to the query message and which are capable of receiving the content; and
- receiving from the user an indication of the mobile device to which the content is to be transmitted.
The step of detecting characteristics of the mobile device preferably includes the further steps of

- generating an index key from information received from the mobile device in response to the transmission of the query message; and

- using the index key to determine the characteristics of the mobile device.

Preferably, the step of using the index key to determine the characteristics of the mobile device includes
the step of using the index key to query a database storing information describing the characteristics of
the mobile device.

Alternatively, the step of using the index key to determine the characteristics of the mobile device
includes the step of using the index key to query a table storing information describing the
characteristics of the mobile device.

The content preferably comprises a media object and a rights object. In these circumstances, it is
preferable that

- the step of detecting characteristics of the mobile device includes the step of detecting the
  media formats playable by the mobile device, and

- the step of selecting or modifying content includes the step of selecting or modifying the format
  of the media object in accordance with the detected media formats.

It is also preferable that

- the step of detecting characteristics of the mobile device includes the step of detecting the
  rights management system enforceable by the mobile device, and

- the step of selecting or modifying content includes the step of selecting or modifying the format
  of the rights object in accordance with the detected rights management system.

The method preferably further includes the steps of

- displaying to the possessor of a mobile device information representing one or more discrete
  content items; and

- receiving an indication from the person identifying the content to be transmitted to the mobile
device.

The method also preferably includes the step of receiving funds prior to transmitting the content to the
mobile device. The step of receiving funds preferably includes receiving funds at a location near the
mobile device. More preferably, the step of receiving funds further includes the step of receiving funds
in cash. Alternatively, the step of receiving funds further includes the step of receiving funds by way of
electronic funds transfer.
In a second aspect, the present invention provides a method for transmitting content to a mobile device, the content comprising a media object and a rights object, the method comprising the steps of

- receiving an indication from a user identifying the content;
- detecting the presence of the mobile device within the communication range of a short-range wireless data network;
- presenting to the user details identifying the mobile device;
- receiving the selection of the mobile device from the user;
- detecting characteristics of the mobile device including the media formats playable by the device and the nature of the rights objects that can be used by the device to enforce usage restrictions;
- selecting or modifying stored content to generate the media object and rights object in accordance with the detected characteristics; and
- sending to the mobile device the media object and rights object using the short-range wireless data network.

In a third aspect, the present invention provides a system for transmitting content to a mobile device, the system comprising

- a radio transceiver for
  - querying a mobile device for device characteristics;
  - receiving information identifying device characteristics from the mobile device; and
  - transmitting content to the mobile device over a short range data network;
- a processing means in communication with the radio transceiver for sending and receiving information using the radio transceiver;
- a presentation device in communication with the processing means for presenting to a user information identifying the content to be sent to the mobile device and information identifying the mobile device;
- an input receiving means in communication with the processing means for receiving indications of selections made by the user;
a content selection means in communication with the radio transceiver for selecting content to make it suitable for transmission to the mobile device; and,

a content store in communication with the content selection means for storing content.

The radio transceiver preferably communicates over a packet-based, frequency-hopping radio link, which preferably involves communicating using the Bluetooth communications standard.

The presentation device may be the same as the input receiving means, and is preferably a touch-sensitive visual display.

In a fourth aspect, the present invention provides a method for transmitting content to a mobile device, the method comprising the steps of

accepting payment from a user for content at a time immediately prior to transmission of the content to the mobile device, and at a location spatially proximate to the mobile device; and

transmitting the content to the mobile device

wherein the payment tender is cash.

The step of accepting payment from a user preferably includes the step of accepting cash using a note or coin acceptor connected to a content transmission device for transmitting the content to the mobile device.

The content preferably comprises a media object and rights object, the media object preferably being one of

an audio file;

a video file; and

an image file.

Preferably, the content is transmitted to the mobile device using a short-range wireless network, which may use the Bluetooth protocol.

The mobile device is preferably a mobile telephone.

In a fifth aspect, the present invention provides a method for transmitting content to a mobile device, the method comprising the steps of

accepting payment from a user for content at a time immediately prior to transmission of the content to the mobile device, and at a location spatially proximate to the mobile device; and

transmitting the content to the mobile device
wherein the payment is effected using electronic funds transfer.

The step of accepting payment from a user preferably includes the step of retrieving information from an object possessed by the user, the information including information identifying the account from which the funds are intended to be transferred.

The content preferably comprises a media object and rights object, the media object preferably being one of

- an audio file;
- a video file; and
- an image file.

Preferably, the content is transmitted to the mobile device using a short-range wireless network, which may use the Bluetooth protocol.

The mobile device is preferably a mobile telephone.

BRIEF DESCRIPTION OF THE FIGURES

In order that the nature of the present invention may be more clearly understood, a preferred embodiment thereof will now be described with reference to the accompanying drawings in which;

Figure 1 is a flowchart showing the steps undertaken to effect device discovery and determine the characteristics of the device is the method of the preferred embodiment of the present invention.

Figure 2 is an illustration of an example of information that may be displayed to the user during the device discovery step of the preferred embodiment of the present Invention.

Figure 3 is an illustration of an example of information that may be displayed to the user during after the device discovery step of the preferred embodiment of the present invention.

Figure 4 is an illustration of an example of information that may be displayed to the user during content selection by the user.

Figure 5 is an illustration of an example of information that may be displayed to the user when purchasing content using a shopping cart model and before any payment is made.

Figure 5 is an illustration of an example of information that may be displayed to the user when purchasing content using a shopping cart model and before any payment is made.

Figure 6 is an illustration of an example of information that may be displayed to the user when purchasing content using a shopping cart model and after payment is made.
DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

In a first aspect, the preferred embodiment of the present invention provides a method for transmitting content to a mobile device from a stand-alone kiosk. The kiosk includes a short-range wireless network transceiver, which in the preferred embodiment uses a packet-based, frequency hopping radio link such as a Bluetooth™ link.

The kiosk also includes a display component, in the form of a visual display unit or screen, for presenting information to a user. The wireless network transceiver, the display component, and other parts of the kiosk are connected to a central processing unit (which may be comprised of more than one physical integrated circuit).

Figure 1 illustrates the process undertaken by the kiosk to select a mobile device (for example, a mobile telephone) to which to send content. In step 20, the central processing unit (CPU) controls the wireless network transceiver through driver software, causing it to undertake device discovery. Device discovery using Bluetooth™ involves the transmission of a query message (in the form of inquiry packets including an Inquiry Access Code) to all devices within range of the transceiver. Figure 2 illustrates a screen which may be displayed to the user during device discovery.

Device discovery may be triggered in step 10 by the user interacting with an input receiving means, which is preferably the same as the display device and is a touch-sensitive and touch-activated screen. Device discovery may also be triggered by a proximity detection device (such as an infrared transceiver based proximity detection device) installed in or near the kiosk.

Each discoverable Bluetooth™-enabled device within range of the transceiver will respond to the query message by transmitting Service Description Protocol profile descriptions (SDP profiles) (step 30), which identify the communication functions which are executable by the portable device. In the preferred embodiment of the invention, portable devices which do not respond with profile descriptions indicating that they are capable of executing the required communication functions are subsequently ignored (step 40). Required communication functions may include the OBEX Object Push function and the OBEX File Transfer function. The Bluetooth™ transceiver receives the SDP profiles and provides them to the CPU.

Information identifying each of the mobile devices which respond to the query message and indicate a capability of receiving the content (by providing appropriate SDP profile Information) is displayed to the user using the display device (touch screen) (step 50), under control of the CPU or associated video display hardware. During device discovery Bluetooth™-enabled devices generally provide a text string which identifies the device (and is often user-configurable). These text strings may be displayed to the user. An example of what may be displayed to the user at this stage is shown in Figure 3. The user can then indicate which of the discovered devices is the device to which the content is to be transmitted (step 60). This ensures that any purchased content is sent to the correct portable device, and not a
portable device that happens to be within range of the transceiver but is owned by someone other than the person who has paid for the content.

Once the user has selected his or her device, the CPU generates an index key from the Service Description profiles and other information received from the mobile device (step 70). In the preferred embodiment of the present invention, the information used to create the index key includes:

(a) part of the portable devices Bluetooth™ network address (eg the first three bytes);
(b) the RecHandle information associated with each SDP profile; and
(c) the Listener ID channel associated with the portable devices RFCOMM service.

The generation of an index key in this manner is known as "Blueprinting", and is able to be easily implemented by a skilled person familiar with the Bluetooth™ protocol.

The index key is used to query a table or database which contains device profile information (step 80). The table or database associates the index key with information describing the characteristics of the mobile device, including the media formats playable by the mobile device and the rights management system enforceable by the mobile device. In the preferred embodiment of the present invention, a table is used to store the relevant data. The table associates index keys (which represent device types) with supported Multipurpose Internet Mail Extension (MIME) types (that is, content formats), and Digital Rights Management (DRM) types (in the form of Open Mobile Alliance DRM types such as Digital Rights Management v 1.0 and Digital Rights Management v 2.0).

Content is stored in a content store accessible by the CPU. The content store may be located in the server housing the CPU. Alternatively, the content store may be part of a web server remote from, but accessible by, the CPU. The content store may also be spread across numerous physical locations in a variety of formats. In the preferred embodiment of the present invention, the content store contains files in a variety of formats, each file containing a media object in a specific format (eg MP3) and an associated rights object which complies with Open Mobile Alliance DRM v 1.0. Accordingly, a single piece of content (eg a song) is stored in a number of different formats (eg MP3, WMA), each format being encapsulated in a file along with an associated rights object.

Content which has a media format and rights object which is compatible with the selected handset is displayed to the user through the presentation device (touch-sensitive screen). The user can browse the content available using the presentation device and the input receiving means, and can select content for purchase. Where the content is a music file, the cover-art for the song may be displayed. Similarly, where the content is a video file, a representative still image from the video may be displayed. For image files, a thumbnail representation of the image may be displayed. A user can select the item to be purchased by touching the area of the touchscreen displaying the cover-art, representative still image or thumbnail image corresponding to the desired content. An illustration of what may be shown to the user during content selection is shown in Figure 4.
A variety of purchasing models may be adopted. For example, content may be purchased on an item-by-item basis, or using a virtual shopping cart model.

If items are purchased on an item-by-item basis, when the user has selected content for purchase, the CPU checks to see whether there is any credit in a real or virtual credit meter associated with the kiosk. Preferably the credit meter is a virtual credit meter maintained by the software running on the CPU. If there is sufficient credit in the virtual credit meter, the content is sent to the portable device as soon as it is selected, and the virtual credit meter is decremented. If there is insufficient credit in the virtual credit meter at the time the item is selected, the item is placed in a queue and is sent to the portable device as soon as sufficient credit appears in the virtual credit meter. The amount in the virtual credit meter may be increased by the user inserting cash (in the form of coins or notes) into the note and coin acceptor devices in the kiosk. The note and coin acceptor devices in the kiosk are connected to a content transmission device (comprising the CPU and the Bluetooth™ transceiver) to enable transmission of content to the portable devices.

Alternatively, the amount in the virtual credit meter may be increased by the user providing funds by way of electronic funds transfer. The user presents an object containing information identifying the user's bank account (such as a smart card or magnetic stripe card) to a reader attached or built into, or otherwise associated with the kiosk. The reader retrieves from the object information identifying the user's account, and uses this information to effect an electronic funds transfer from the User's bank account to the virtual credit meter.

Items may also be purchased using a virtual shopping cart model. In this case, selection of the items by the user adds the items to a virtual shopping cart. When the user has finished selecting all of the desired items of content (such as songs, videos, or images), the user can then insert the required funds into the kiosk as described above, and sequentially select the items in the shopping cart to be sent to the portable device. Figure 5 is an example illustration of what may be displayed to a user before the user provides any funds. Each content item only becomes selectable for transmission when there are sufficient funds in the virtual credit meter to pay for the content item. Figure 6 is an example illustration of what may be displayed to a user after the user has provided funds to the kiosk. The illustrated “Buy” button changes colour and flashes when the virtual credit meter has sufficient funds. The content items are sent to the portable device either as they selected, or as a series of concatenated transmissions as a separate step after all of the desired content in the shopping cart has been accepted.

In the example described above, appropriate composite files (each comprising a media object in a specific format and a rights object) are selected using information stored in a table and indexed by an index key which can be generated from a information received during the device discovery process. Alternatively, content and rights objects can be stored in a generic format, and altered to suit the portable device after device discovery. For example, a video file may be stored in an MPEG-2 encoded video file, but the table entry for a discovered device indicates that the only MIME-type that the device can handle is video/quicktime. In such circumstances the kiosk can transcode the stored MPEG-2 video file into a QuickTime™-format video file for transmission to the handheld device.
The process of sending the content will now be described in more detail. When the customer has selected the content, under control of the CPU stored content will either be transformed into an appropriate format, or selected from the content store which stores set of files in a variety of formats. This content (that is, the composite file containing both the media object and the rights object) is then transmitted through the Bluetooth™ transceiver to the portable device under control of the CPU. The selection of content from the content store may be made by the CPU, using information received from the table which stores identification of the MIME-type and DRM-type supported by the portable device.

The present invention, at least in the preferred embodiments, has advantages including:

(a) enabling customers to obtain content for their mobile device using cash or by instantaneous electronic funds transfer, and without the need for a credit card or mobile telephone account;

(b) maintaining content security during short range wireless transmission;

(c) enabling customers to obtain content not provided by a data carriage provider without paying additional data carriage charges.

It will be appreciated by persons skilled in the art that numerous variations and/or modifications may be made to the invention as shown in the specific embodiments without departing from the spirit or scope of the invention as broadly described. For example an alternative wireless network protocol such as wireless USB may be used for communicating with the handheld devices. The present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive.
THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A method for transmitting content to a mobile device, the method comprising the steps of:
   detecting characteristics of the mobile device; and
   selecting or modifying content to be sent to the mobile device based on the detected characteristics.

2. A method as claimed in claim 1 wherein the step of detecting characteristics of the mobile device includes the step of detecting characteristics using a short-range wireless network.

3. A method as claimed in claim 2 wherein the short-range wireless network uses a packet-based, frequency hopping radio link.

4. A method as claimed in claim 3 wherein the radio link is a Bluetooth link.

5. A method as claimed in any one of the preceding claims wherein the step of detecting characteristics of the mobile device includes the step of transmitting a query message to one or more mobile devices.

6. A method as claimed in claim 5 further including the steps of
   displaying to a user information identifying each of the mobile devices which respond to
   the query message and which are capable of receiving the content; and
   receiving from the user an indication of the mobile device to which the content is to be transmitted.

7. A method as claimed in either of claims 5 or 6 wherein the step of detecting characteristics of the mobile device includes the further steps of
   generating an index key from information received from the mobile device in response
   to the transmission of the query message; and
   using the index key to determine the characteristics of the mobile device.

8. A method as claimed in claim 7 wherein the step of using the index key to determine the characteristics of the mobile device includes the step of using the index key to query a database storing information describing the characteristics of the mobile device.

9. A method as claimed in claim 7 wherein the step of using the index key to determine the characteristics of the mobile device includes the step of using the index key to query a table storing information describing the characteristics of the mobile device.

10. A method as claimed in any one of the preceding claims wherein the content comprises a media object and a rights object.

11. A method as claimed in claim 10 wherein
the step of detecting characteristics of the mobile device includes the step of detecting
the media formats playable by the mobile device, and
the step of selecting or modifying content includes the step of selecting or modifying the
format of the media object in accordance with the detected media formats.

12. A method as claimed in either of claims 10 or 11 wherein
the step of detecting characteristics of the mobile device includes the step of detecting
the rights management system enforceable by the mobile device, and
the step of selecting or modifying content includes the step of selecting or modifying the
format of the rights object in accordance with the detected rights management system.

13. A method as claimed in any one of the preceding claims, further including the steps of
displaying to the possessor of a mobile device information representing one or more
discrete content items; and
receiving an indication from the person identifying the content to be transmitted to the
mobile device.

14. A method as claimed in any one of the preceding claims further including the step of receiving
funds prior to transmitting the content to the mobile device.

15. A method as claimed in claim 14 wherein the step of receiving funds includes receiving funds at
a location near the mobile device.

16. A method as claimed in either of claims 14 or 15 wherein the step of receiving funds further
includes the step of receiving funds in cash.

17. A method as claimed in claim 15 wherein the step of receiving funds further includes the step of
receiving funds by way of electronic funds transfer.

18. A method for transmitting content to a mobile device, the content comprising a media object
and a rights object, the method comprising the steps of:
receiving an indication from a user identifying the content;
detecting the presence of the mobile device within the communication range of a short-
range wireless data network;
presenting to the user details identifying the mobile device;
receiving the selection of the mobile device from the user;
detecting characteristics of the mobile device including the media formats playable by
the device and the nature of the rights objects that can be used by the device to enforce usage
restrictions;
selecting or modifying stored content to generate the media object and rights object in
accordance with the detected characteristics; and
sending to the mobile device the media object and rights object using the short-range
wireless data network.
19. A system for transmitting content to a mobile device, the system comprising:
   a radio transceiver for
   querying a mobile device for device characteristics;
   receiving information identifying device characteristics from the
   mobile device; and
   transmitting content to the mobile device
   over a short range data network;
   a processing means in communication with the radio transceiver for sending
   and receiving information using the radio transceiver;
   a presentation device in communication with the processing means for
   presenting to a user information identifying the content to be sent to the mobile device
   and information identifying the mobile device;
   an input receiving means in communication with the processing means for
   receiving indications of selections made by the user;
   a content selection means in communication with the radio transceiver for
   selecting content to make it suitable for transmission to the mobile device; and
   a content store in communication with the content selection means for storing content.

20. A system as claimed in claim 19 wherein the radio transceiver communicates over a packet-
    based, frequency-hopping radio link.

21. A system as claimed in claim 20 wherein the radio transceiver communicates using the
    Bluetooth communications standard.

22. A system as claimed in any one of claims 19 - 21 wherein the presentation device is the same
    as the input receiving means.

23. A system as claimed in claim 22 wherein the presentation device is a touch-sensitive visual
    display.

24. A method for transmitting content to a mobile device, the method comprising the steps of
    accepting payment from a user for content at a time immediately prior to transmission
    of the content to the mobile device, and at a location spatially proximate to the mobile device;
    and
    transmitting the content to the mobile device
    wherein the payment tender is cash.

25. A method as claimed in claim 24 wherein the step of accepting payment from a user includes
    the step of accepting cash using a note or coin acceptor connected to a content transmission
    device for transmitting the content to the mobile device.

26. A method as claimed in 24 or 25 wherein the content comprises a media object and rights
    object.
27. A method as claimed in claim 26 wherein the media object is one of
   an audio file;
   a video file; and
   an image file.

28. A method as claimed in any one of claims 24 to 27 wherein the content is transmitted to the
   mobile device using a short-range wireless network.

29. A method as claimed in claim 28 wherein the short-range wireless network uses a Bluetooth
   protocol.

30. A method as claimed in any one of claims 24 to 29 wherein the mobile device is a mobile
   telephone.

31. A method for transmitting content to a mobile device, the method comprising the steps of
   accepting payment from a user for content at a time immediately prior to transmission
   of the content to the mobile device, and at a location spatially proximate to the mobile
   device; and
   transmitting the content to the mobile device
   wherein the payment is effected using electronic funds transfer.

32. A method as claimed in claim 31 wherein the step of accepting payment from a user includes
   the step of retrieving information from an object possessed by the user, the information
   including information identifying the account from which the funds are intended to be
   transferred.

33. A method as claimed in 31 or 32 wherein the content comprises a media object and rights
   object.

34. A method as claimed in claim 33 wherein the media object is one of
   an audio file;
   a video file; and
   an image file.

35. A method as claimed in any one of claims 31 to 34 wherein the content is transmitted to the
   mobile device using a short-range wireless network.

36. A method as claimed in claim 35 wherein the short-range wireless network uses a Bluetooth
   protocol.
37. A method as claimed in any one of claims 31 to 36 wherein the mobile device is a mobile telephone.
User activates M+ interface

IAC broadcast to all discoverable devices in range

Each discoverable device's Service Description Protocol (SDP) server sends back its unique Bluetooth device address and its set of service profiles.

Is the device a mobile phone and does it support Object Push?

Add device to list of possible phones

Are there any discovered devices not yet considered?

Pass device name list up to display device

User selects their device from list

Use the Bluetooth device address and SDPs to create a unique index key

Look the index key up in a table to ID the device

FIGURE 1
Looking for Bluetooth devices in range.

Touch the name of your phone when it appears.

FIGURE 2
Touch the name of your phone when it appears

☑ Karens-moto

FIGURE 3
Step 2: Choose your music pack

The Great Band:
- 1 wallpaper "The Great Band in LA on Stage"
- 1 videoclip "We are you"
- 1 ringtone "We are you"

FIGURE 4
FIGURE 5
FIGURE 6
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl.

H04W 4/18 (2009.01) G07F 7/00 (2006.01) H04L 29/08 (2006.01)
G06Q 20/00 (2006.01) H04L 12/28 (2006.01) H04W 4/24 (2009.01))

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPDOC, WPI with keywords: transmit, content, mobile, characteristics, modify, bluetooth, database, location, pay, cash and similar words. USPTO, ESP@CENET, IEEE and the Internet searched with similar keywords as above.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tr>
<td>X</td>
<td>US 2002/0022453 A1 (BALOG et al.) 21 February 2002 See abstract; page 1 paragraphs 0005, 0008; page 2 paragraphs 0010, 0023 – 0025; page 3 paragraphs 0029, 0031, 0032, 0033; page 4 paragraph 0034, 0038; claims; and figures</td>
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<td>US 2005/0184679 A1 (BEARDOW) 28 July 2005 See abstract; page 1 paragraphs 0005 – 0008, 0018; figures 1, 2; and claims 13 – 27</td>
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<td>WO 2007/070860 A2 (CORE MOBILITY, INC.) 21 June 2007 See abstract; and claims</td>
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[X] Further documents are listed in the continuation of Box C  [X] See patent family annex

* Special categories of cited documents:
  "A" document defining the general state of the art which is not considered to be of particular relevance
  "E" earlier application or patent but published on or after the international filing date
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Date of the actual completion of the international search 24 June 2009

Date of mailing of the international search report 30 JUN 2009

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<td>US 2005/0245241 A1 (CURAND et al.) 03 November 2005 See abstract; page 1 paragraphs 0011, 0012; page 2 paragraph 0015; page 4 paragraph 0036; page 6 paragraphs 0060 – 0066; page 12 paragraph 0121; and figures 1, 12, 17</td>
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<td>US 6961858 B2 (FRANSDONK) 01 November 2005 See whole document</td>
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###盒号 II 观察

某些权利要求被认定为不可检索

此国际检索报告未在以下权利要求下建立，原因如下：

1. □ 权利要求号：
   因为它们涉及不需要由该机构搜索的主题，具体如下：

2. □ 权利要求号：
   因为它们涉及国际申请的部分，这些部分不符合规定的要件到如此程度以至于无法进行国际检索，具体如下：

3. □ 权利要求号：
   因为它们是依赖性权利要求且未按照第二和第三句《规则6.4(a)》规定的方式制定。

###盒号 III 观察

统一发明的缺乏

此国际检索机构在本国际申请中发现了多个发明，如下所示：

参见补充箱1

1. [X] 如所有额外搜索费用均被及时支付，则此国际检索报告覆盖所有可检索权利要求。
2. [ ] 如所有可检索权利要求均可在不费力的情况下进行搜索而无需额外费用，该机构未要求支付额外费用。
3. [ ] 如仅部分所需的额外搜索费用被及时支付，该国际检索报告仅覆盖已支付费用的权利要求，具体权利要求号如下：

4. [ ] 无需额外搜索费用被及时支付。因此，此国际检索报告仅覆盖权利要求号码为：

###备注

- [ ] 补充搜索费用由申请人随同抗议支付，且，适用时，支付抗议费用。
- [X] 补充搜索费用由申请人随同抗议支付，但适用的抗议费用未在规定的时间限制内支付。
- [ ] 未随同支付额外搜索费用的抗议。
Supplemental Box 1
(To be used when the space in any of Boxes I to IV is not sufficient)

Continuation of Box No: III

This International Application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept.

In assessing whether there is more than one invention claimed, I have given consideration to those features which can be considered to potentially distinguish the claimed combination of features from the prior art. Where different claims have different distinguishing features they define different inventions.

This International Searching Authority has found that there are different inventions as follows:

- Claims 1 - 23 is directed to a method/system for transmitting content to a mobile device, comprising the steps of: detecting characteristics of the mobile device; and selecting or modifying content to be sent to the mobile device based on the detected characteristics which comprises a first set of distinguishing features.

- Claims 24 - 37 is directed to a method for transmitting content to a mobile device, comprising the steps of: accepting payment from a user for content at a time immediately prior to transmission of the content to the mobile device; and at a location spatially proximate to the mobile device; transmitting the content to the mobile device wherein the payment tender is cash or electronic funds transfer which comprises a second set of distinguishing features.

PCT Rule 13.2, first sentence, states that unity of invention is only fulfilled when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding special technical features. PCT Rule 13.2, second sentence, defines a special technical feature as a feature which makes a contribution over the prior art.

Each of the abovementioned groups of claims has different sets of distinguishing features and they do not share any feature which could satisfy the requirement for being a special technical feature. Because there is no common special technical feature it follows that there is no technical relationship between the identified inventions. Therefore the claims do not satisfy the requirement of unity of invention apriori.
This Annex lists the known “A” publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.