

## FASCICULE DE BREVET D'INVENTION

21 Numéro de dépôt : 1201300408  
(PCT/IB12/000777)

22 Date de dépôt : 30/03/2012

30 Priorité(s) :  
US n° 61/470,347 du 31/03/2011

24 Délivré le : 29/06/2015

45 Publié le : 23.03.2016

73 Titulaire(s) :

ORANGE,  
78, Rue Olivier de Serres,  
75015 PARIS (FR)

72 Inventeur(s) :

VIENNE Pascal (US)

74 Mandataire : Cabinet ALPHINOOR & Co. SARL,  
191, Rue Boué de Lapeyrère,  
B.P. 5072, DOUALA (CM).

54 Titre : A method and device to provide automated connection to a wireless network.

57 Abrégé :

A method for providing media content to a calling device provided with a media player for playing the media content, the media content being one of a plurality of media content identified in a media content database of a telecommunication network by corresponding media call numbers, the method carried out by a media service node of the telecommunication network, and including identifying a request for a media content from the calling party, when intercepting a first call from the calling party placed to a media call number of the media content database, identifying the media content corresponding to the media call number using the media content database, activating a data connection to the calling party, sending a control message for starting the media player provided on the calling device, providing the identified media content to the calling device over the data connection for subsequent playing with the activated media player.

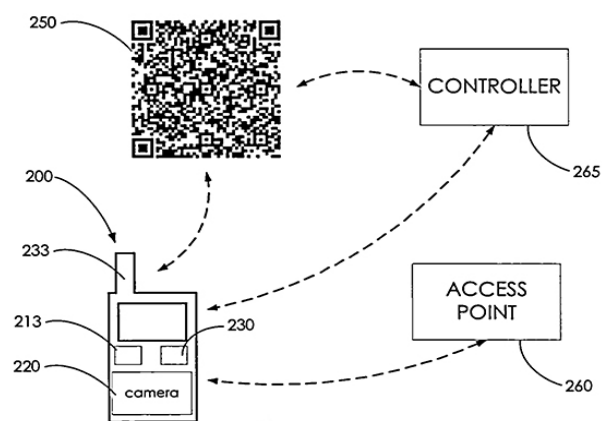


FIGURE 2

**A METHOD AND DEVICE TO PROVIDE AUTOMATED CONNECTION  
TO A WIRELESS NETWORK**

5

**FIELD OF THE PRESENT SYSTEM:**

The present invention generally relates to telecommunication devices in telecommunication networks, and more specifically to wireless enabled devices.

10

**BACKGROUND OF THE PRESENT SYSTEM:**

Telecommunication devices, such as mobile phones, have become important devices in our daily life. Such electronic devices can now provide on top of communication services data connections. These connections may be  
15 enabled either through 3G or now 4G radio telecommunication networks or wireless network such as WiFi or WLAN networks.

A mobile device will automatically connect through a 3G or 4G data connection provided its owner has subscribed to a data plan with his carrier. A wireless connection requires most of the time that a user activates a  
20 connection procedure.

Indeed, with a mobile device like a smartphone, it can be troublesome to connect to a specific wireless network unless it is handled automatically by your carrier (hotspot, etc.): the user might have to open the wireless connection menu of the mobile device, scan for available networks, figure out which one  
25 he wants to connect to (which can be a problem as, in some places, there are dozens of networks available), or he might have to enter the SSID (service set identifier) with the use of the phone keyboard and then eventually enter the password associated to the WiFi network. The password may require the user to enter multiple characters using an impoverished keyboard (as generally  
30 available with mobile devices), increasing the risk of errors.

All these steps can be tedious and finding the right network to connect to may be confusing to any user. The problem is especially noticeable when

using a hot spot offered in a coffee place or shop. These places, if offering free wireless connection, still require the user to enter an access code. The connection parameters are generally available through posting in the store or on a purchase receipt.

5 Existing solutions require the knowledge of the connection parameters from a third party as these parameters are shared through messages. In published patent application WO 2010/038114, connection parameters are shared among mobile devices through SMS. Such a solution transposed to a store would require SMS capabilities from the store IT infrastructure, which is not  
10 always possible in smaller stores.

Today there is still a need for a simple solution that allows a user to easily connect to a wireless network. There is a further need for a solution that can be easily implemented in stores, restaurants and coffee places with limited investments.

15

#### **SUMMARY OF THE PRESENT SYSTEM AND METHOD:**

It is an object of the present system, processor and method to overcome disadvantages and/or make improvements in the prior art.

To that extent, the present method proposes a method to connect an  
20 electronic device to a wireless network, the electronic device comprising a processor, a camera and an antenna operatively coupled to said processor, the method being carried out by the processor and comprising:

capturing an image of a machine readable code using the camera,  
processing the captured image to decode the machine readable code  
25 into a wireless network ID and connection parameters,

selecting a wireless network matching the decoded wireless network ID among wireless networks detected by the antenna,

sending a connection request to the selected wireless network using the connection parameters.

30 Thanks to the present method, all the user needs to do is to capture a machine readable code like a 2D bar code available in a store or a public place. Once he has taken a picture of the machine readable code with the

electronic device camera, the processor of said device will scan the image and gather all required information for connection to a wireless network accessible to the electronic device antenna. Configuration of the connection is automated and the user no longer needs to enter manually the connection  
5 parameters after selection of the network. He no longer needs to know what network to select when a lot of wireless networks are within range of the device.

The present system also relates to an electronic device to connect to a wireless network, the device comprising:

- 10 an antenna to detect wireless networks,
- a connection manager to connect to a detected wireless network,
- a camera,
- a control circuit configured to:
  - capture an image of a machine readable code using the camera,
  - 15 process the captured image to decode the machine readable code into a wireless network ID and connection parameters,
  - select a wireless network matching the decoded wireless network ID among wireless networks detected by the antenna,
  - present the decoded connection parameters to the connection  
20 manager for subsequent connection to the selected wireless network using said connection parameters.

The present system also relates to a system comprising:

- a wireless network enabled by an access point,
- a controller for generating a machine readable code comprising a  
25 network ID and connection parameter for a wireless network,
- an electronic device to connect to a wireless network, the device comprising:
  - an antenna to detect wireless networks,
  - a connection manager to present the connection parameters to a  
30 detected wireless network,
  - a camera,
  - a control circuit configured to:

capture an image of a machine readable code using the camera,  
process the captured image to decode the machine readable code into a wireless network ID and connection parameters,  
5 select a wireless network matching the decoded wireless network ID among wireless networks detected by the antenna,  
present the decoded connection parameters to the connection manager for subsequent connection to the selected wireless network using said connection parameters.  
10

The present system also relates to an application embodied on a computer readable medium and arranged to configure a processor to provide  
15 a method to connect an electronic device to a wireless network, the electronic device comprising said processor, a camera and an antenna operatively coupled to said processor, the application comprising instructions for:

capturing an image of a machine readable code using the camera,  
processing the captured image to decode the machine readable code  
20 into a wireless network ID and connection parameters,  
selecting a wireless network matching the decoded wireless network ID among wireless networks detected by the antenna,  
sending a connection request to the selected wireless network using the connection parameters.

25

**BRIEF DESCRIPTION OF THE DRAWINGS:**

The present system, call management node and method are explained in further detail, and by way of example, with reference to the accompanying drawings wherein:

30 FIG. 1 shows an illustrative embodiment of the present system;

FIG. 2 is another illustrative embodiment of the present system.

FIG. 3 is a flow chart illustrating an embodiment of the present method, and;

FIGs. 4A and 4B are exemplary GUIs of a camera application according to the present system.

5

**DETAILED DESCRIPTION OF THE PRESENT SYSTEM AND METHOD:**

The following are descriptions of exemplary embodiments that when taken in conjunction with the drawings will demonstrate the above noted features and advantages, and introduce further ones.

10 In the following description, for purposes of explanation rather than limitation, specific details are set forth such as architecture, interfaces, techniques, etc., for illustration. However, it will be apparent to those of ordinary skill in the art that other embodiments that depart from these details would still be understood to be within the scope of the appended claims.

15 Moreover, for the purpose of clarity, detailed descriptions of well-known devices, systems, and methods are omitted so as not to obscure the description of the present system. Furthermore, routers, servers, nodes, base stations, gateways or other entities in a telecommunication network are not detailed as their implementation is beyond the scope of the present system and method.

20 For purposes of simplifying a description of the present system, the terms "operatively coupled", "coupled", and formatives thereof as utilized herein refer to a connection between devices and/or portions thereof that enables operation in accordance with the present system. For example, an operative coupling may include one or more of a wired connection and/or a wireless  
25 connection between two or more devices that enables a one and/or two-way communication path between the devices and/or portions thereof. For example, an operative coupling may include a wired and/or wireless coupling to enable communication between a wireless hot spot of a telecommunication network and one or more user devices.

30 Unless specified otherwise, the exemplary embodiment here after will be described in its application to a mobile device that can connect to a wireless network. The present exemplary embodiment is in no way a limitation of the

scope of the present method and system as other telecommunications devices such tablets, desktop or laptop computers, or any other electronic device with wireless capacities may be used by the man skilled in the art.

In addition, it should be expressly understood that the drawings are  
5 included for illustrative purposes and do not represent the scope of the present system.

The term rendering and formatives thereof as utilized herein refer to providing content, such as digital media or a graphical user interface (GUI), such that it may be perceived by at least one user sense, such as a sense of sight  
10 and/or a sense of hearing. For example, the present system may render a user interface on a display device so that it may be seen and interacted with by a user. The term rendering may also comprise all the actions required to generate a GUI prior to the display, like e.g. a map representation generated on a server side for a browser application on a user device.

15 A GUI is a type of user interface which allows a user to interact with electronic devices such as computers, hand-held devices such as smartphones of tablets, household appliances, office equipment and the likes. GUIs are typically used to render visual and textual images which describe various visual metaphors of an operating system, an application, etc., and implemented on a  
20 processor/computer including rendering on a display device. Furthermore, GUIs can represent programs, files and operational functions with graphical images, objects, or vector representations. The graphical images can include windows, fields, dialog boxes, menus, icons, buttons, cursors, scroll bars, maps, etc. Such images can be arranged in predefined layouts, or can be created dynamically  
25 (by the device itself or by a web-based server) to serve the specific actions being taken by a user. In general, the user can select and/or activate various graphical images in order to initiate functions and tasks, i.e. controls, associated therewith. By way of example, a user can select a button that opens, closes, minimizes, or maximizes a window, or an icon that launches a particular  
30 application program. By way of another example, the GUI may present a typical user interface including a windowing environment and as such, may include menu items, pull-down menu items, icons, pop-up windows, etc., that are typical

of those provided in a windowing environment, such as may be represented within a Windows™ Operating System GUI as provided by Microsoft Corporation and/or an OS X™ Operating System GUI, such as provided on an iPhone™, MacBook™, iMac™, etc., as provided by Apple, Inc., and/or another operating  
5 system.

In the description here after, an application program (AP) – or software – may be seen as any tool that functions and is operated by means of a computer, with the purpose of performing one or more functions or tasks for a user or another application program. To interact with and control an AP, a GUI of  
10 the AP may be displayed on the user device display.

FIG. 1 is an illustration of an exemplary user device 100 used in the present system. In the here after description, the user or electronic device is illustrated as a mobile device 100. The mobile device 100 comprises a display device 140, a processor 113, a camera 120, a connection manager 130, an antenna 133 and  
15 an input device 115.

In the present system, the user interaction with and manipulation of the application program rendered on a GUI may be achieved using the display device 140, or screen, which is presently a touch panel operationally coupled to the processor 113 controlling the displayed interface. The input device 115 and  
20 display device 140 are thus merged. Some mobile device 100 today may also present an input device 115 like a keyboard.

Processor 113 may control the rendering and/or the display of the GUI on the display device 140 depending on the type of application program, i.e. resident or web-based. Processor 113 may also handle the user entries according  
25 to the present method. The user entries to interact with an application program may be provided through interactions with the touch panel 140.

The touch panel 140 can be seen as an input device allowing interactions with a finger of a user or other devices such as a stylus. Touch sensor interface or touch panel 140 may include any suitable circuitry to convert analog signals  
30 corresponding to touch input received over its surface into any suitable digital touch input data. Such touch input data can, for example, be used to make selections of portions of the GUI of an AP. The input received from a user's touch



is sent to the processor 110. The touch panel 140 is configured to detect and report the (location of the) touches to the processor 110, which can interpret the touches in accordance with the application program and the currently displayed GUI. For example, the processor 110 can initiate a task, e.g. a control  
5 of the AP like an "easy connect" application according to the present system.

The touch panel 140 can be based on sensing technologies including but not limited to capacitive sensing, resistive sensing, surface acoustic wave sensing, pressure sensing, optical sensing, and/or the likes.

In the present system, a number of different applications may be provided  
10 with the mobile device 100, like an easy connect application 150 and a connection manager 130. Hardware devices like an antenna 133 and a camera 120 are also provided and managed by processor 113.

The connection manager 130 is provided to search for wireless networks in the vicinity of the mobile device 100 using the antenna 133. Connection  
15 manager is also used to handle the connection procedure with any of the found network once they are selected by the user or automatically.

The present method may be enabled through a dedicated application, referred to the easy connect app here after. The application may be either available with the mobile device as purchased by the user, or downloaded from  
20 one application store. Alternatively, the present method may be enabled through a plugin to the existing camera application provided on the mobile device (not shown in FIG. 1) to manage the camera. When available, the application or plugin may be configured to:

- capture a picture of a machine readable code. The machine readable  
25 code may be for instance a 2D bar code as seen in FIG. 2 or FIG. 4A. Any machine coded data may be used to encode the connection parameters to a wireless network. Examples of bar code generation may be found at <http://www.barcode-generator.org/>. Such well known technology allows encoding any combination of ASCII characters,
- 30 - scan the captured picture to identify the machine readable code, i.e. its contours and characteristics.

- decode the machine readable code, based on the encoding technology. Solutions exist today to read a bar code using a camera from a mobile phone. An Android application ZXing (<http://code.google.com/p/zxing/>) is an example of such a technology that allows the scanning of a bar code and the extraction of the information it contains. The process requires the end user to point his/her camera at a barcode: the app then automatically recognizes a barcode and then decodes it to render the information it contains,
- identify the network name NETWORK\_ID and connection parameters NETWORK\_PARAM from the decoding,
- 10 - scan for available wireless network using the connection manager 130 and the antenna 133
  - retrieve the network matching the NETWORK\_ID name,
  - provide the connection parameters to the connection manager 133, so that a connection request may be sent to the hot spot or access point providing
- 15 the wireless network.

FIG. 2 is an illustration of another embodiment of the present system. The mobile device 200 is in the presence of a wireless network enabled by access point or router 260. The mobile device 200 is equipped, like the mobile device 100 of FIG. 1, with an antenna 233, a processor 213, a camera 220 and a

20 connection manager 230.

The wireless network provided by router 260 is characterized by a network name or SSID NETWORK\_ID and connection parameters NETWORK\_PARAM. The connection parameters may comprise the parameters necessary for connection, such as network type, access key, connection configuration ... For instance,

25 Network NETWORK\_ID may require protected access using a WPA or WPA2 (Wi-Fi Protected Access) key comprised in these connection parameters. The connection parameters may further comprise an indication that the WiFi network is a WPA2 based network.

A machine readable code 250 may be issued by a controller 265 of the

30 present system, based on the network name NETWORK\_ID and connection parameters NETWORK\_PARAM. Generation of the machine readable code, here illustrated as a 2D bar code, is based on existing encoding techniques

mentioned before. Such a machine readable code may be posted somewhere in a shop like at the front door or next to the payment booth. It may also be issued on the payment receipt handed out to a customer after purchase of some goods, so as to limit the usage of the wireless network to customers only.

5           FIG. 3 is an exemplary flowchart according to another embodiment of the present method. The present embodiment will be described using the download of a plugin that is used by the camera application of the mobile device 200. In a preliminary or initiation act 300, the user will download an "easy connect" plugin from an application store or an "easy connect server" (not shown in FIG. 2)  
10 offering the easy connect service of the present system.

In a further act 310, the user will start his camera application to capture a 2D bar code that he saw upon entering a shop offering wireless access. He will then take a picture of the 2D bar code in an additional act 320, as seen in FIG. 4A which shows a snapshot 410 of the captured machine readable code 250.  
15 Processor 213 will thus activate the camera to capture the 2D bar code presented in front of the camera optic.

In a further act 330, the processor 213 of the mobile device 200 will process the captured image. This may be triggered for instance through the selection by the user of the icon 420 in FIG. 4A. GUIs of known camera  
20 applications allow different actions on a picture, actions that can be accessed through a "action" or "forward" icon 420 as seen in the exemplary GUI illustration of FIG. 4A. A menu list will further appear as seen in the GUI of FIG. 4B following the selection of the forward icon 420. This menu list may offer known options such as email, MMS, set as wall paper and other known actions. In an additional  
25 embodiment of the present method, the menu list will further comprise an "easy connect" item 430 that the user may select to trigger the connection process. Once item 430 is selected by the user (using a touch input for instance), processor 213 will start processing the captured image and subsequent connection sequence.

30           To do so, it will scan the image to identify the machine readable code, decode it, and extract the wireless network characteristics, namely its name NETWORK\_ID and connection parameters NETWORK\_PARAM. Processor 213 will

further request from the connection manager 230 to browse for available wireless networks in a further act 235. One may note that the scanning of available wireless networks using antenna 233 may be performed at several instances of the present method. It may be for instance triggered upon starting the application, here when the camera application is triggered, it may be part of a recurrent browsing performed by the mobile device independently of the use of the "easy connect" plugin, or when the user request the decoding of the captured machine readable code.

Many apps installed on a smart phone today are allowed to access the settings of the phone from within the app (like GPS for example) directly without user intervention. Here the downloaded plugin can have access to the wireless settings (of the connection manager 230) in order to trigger a wireless network scan as well as provide the connection parameters.

In an additional act 340, the processor 213 will search for the network NETWORK\_ID in the list of scanned wireless network. Once found a wireless network matching the name or SSID NETWORK\_ID, the processor 213 will present the decoded connection parameters NETWORK\_PARAM to the connection manager 213 for selection and subsequent connection to the wireless network NETWORK\_ID (act 350). To do so, the plugin accesses the wireless settings directly in order to enter SSID and password for instance in appropriate fields. A connection request will then be sent to the selected wireless network.

Provided the connection parameters include configuration settings, processor 213 will drive the connection manager 230 to implement a connection process based on these configuration settings (for instance secured network as opposed to free access network, or prepaid access).

In a final act 360, the processor may provide to the user a connection confirmation.

Provided the present method is implemented by an easy connect application, using the illustration of FIG. 3 again, the user will similarly start the application in the act 310. The application will then prompt the user to take a picture of a 2D bar code. The application upon detection of the captured

snapshot of the machine readable code will further proceed with act 330 to 360 as described here before.

The machine readable code generation may be triggered after payment of goods or services in the store offering the present easy connection solution.

5 Payment may be processed using NFC (Near Field Communication) techniques that are becoming more popular. In an additional embodiment of the present method, the initiation act 300 may comprise an NFC transaction between the mobile device 200 and the controller 265, the transaction comprising sending data from the mobile device to the controller, the data comprising a unique

10 identifier for the mobile device, like a phone number.

The generation of the 2D bar code by the controller 265 may include the phone number so that the processor 213 may further check for the presence of the device number in the captured 2D bar code. This can ensure that the 2D bar code is custom made for the mobile device 200 and that no other device can

15 use the information in the generated 2D bar code.

In a further embodiment of the present method, the initial act 300 may also include a request for connection, like a payment transaction, to purchase some connection time. The controller, once the payment transaction is complete, may further include data resulting from the transaction in the 2D bar

20 code so that the mobile device can complete the connection process using these data when processing the captured 2D bar code.

This may for instance comprise a set of network login and password as provided after complete transaction. This may be used e.g. for hotspot with a redirection page. With such networks, a user may purchase online, through the

25 redirection page, temporary access. Once the purchase is complete, the user receives a login/password set or confirmation for the login/password he chose. With the present method, the generated 2D bar code will include such data in the connection parameters. Thus the processor will further decode the 2D bar code into a connection confirmation responsive to the connection request. The

30 connection confirmation may simply be the login/password set. Thanks to the present method, a user may purchase connection time just like he buys other goods, and his receipt will include the connection parameters resulting from his

connection time purchase. Whether he provided the login/password pairs during the purchase of connection time or it is automatically generated by the controller 265, the resulting connection parameters will allow automatic connection to the wireless network without intervention from the user. He no  
5 longer have to manually enter the codes, as in existing solutions.

The present method and system was illustrated using a camera capturing a generated 2D bar code. One may transpose the present teachings with an NFC reader in place of the camera. Indeed the mobile device may be an NFC enabled device, equipped with a NFC or contactless module. The user will have  
10 to present the mobile device in proximity to another NFC point, like an NFC enabled controller 265. The 2D bar code may be replaced by another machine readable code coded based on NFC technology.

Using such contactless technique, the present method will enable to connect an electronic device to a wireless network, the electronic device  
15 comprising a processor, a contactless module and an antenna operatively coupled to said processor, the method being carried out by the processor and comprising:

- reading a machine readable code received by or presented to the contactless module,
- 20 processing the read machine readable code to decode it into a wireless network ID and connection parameters,
- selecting a wireless network matching the decoded wireless network ID among wireless networks detected by the antenna,
- sending a connection request to the selected wireless network using the  
25 decoded connection parameters.

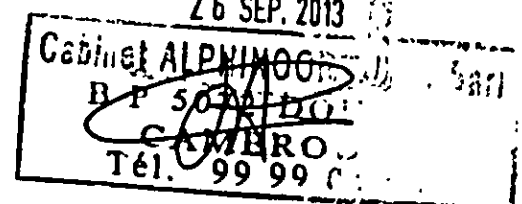
Finally, the above discussion is intended to be merely illustrative of the present system and should not be construed as limiting the appended claims to any particular embodiment or group of embodiments. Thus, while the present system has been described with reference to exemplary embodiment using a  
30 mobile device, it should also be appreciated that numerous modifications and alternative embodiments may be devised by those having ordinary skill in the art without departing from the broader and intended spirit and scope of the present

system as set forth in the claims that follow. Further, while exemplary user interfaces are provided to facilitate an understanding of the present system, other user interfaces may be provided and/or elements of one user interface may be combined with another of the user interfaces in accordance with further  
5 embodiments of the present system.

The section headings included herein are intended to facilitate a review but are not intended to limit the scope of the present system. Accordingly, the specifications and drawings are to be regarded in an illustrative manner and are not intended to limit the scope of the appended claims.

10 In interpreting the appended claims, it should be understood that:

- a) the words "comprising" or "including" do not exclude the presence of other elements or acts than those listed in a given claim;
- b) the word "a" or "an" preceding an element does not exclude the presence of a plurality of such elements;
- 15 c) any reference signs in the claims do not limit their scope;
- d) several "means" may be represented by the same item or hardware or software implemented structure or function;
- e) any of the disclosed elements may be comprised of hardware portions (e.g., including discrete and integrated electronic circuitry), software  
20 portions (e.g., computer programming), and any combination thereof;
- f) hardware portions may be comprised of one or both of analogue and digital portions;
- g) any of the disclosed devices or portions thereof may be combined together or separated into further portions unless specifically stated otherwise;
- 25 h) no specific sequence of acts or steps is intended to be required unless specifically indicated; and
- i) the term "plurality of" an element includes two or more of the claimed element, and does not imply any particular range of number of elements; that is, a plurality of elements may be as few as two elements, and  
30 may include an immeasurable number of elements.



## CLAIMS

What is claimed is:

1. An electronic device to connect to a wireless network, the device  
5 comprising:
  - an antenna to detect wireless networks,
  - a connection manager to connect to a detected wireless network,
  - a camera,
  - a control circuit configured to:
    - 10 capture an image of a machine readable code using the camera,
    - process the captured image to decode the machine readable code into a wireless network ID and connection parameters,
    - select a wireless network matching the decoded wireless network  
15 ID among wireless networks detected by the antenna,
    - present the decoded connection parameters to the connection manager for subsequent connection to the selected wireless network using said connection parameters.
- 20 2. An electronic device according to claim 1, wherein the wireless network is a secured network, the connection parameter comprising a password for said secured network.
3. An electronic device according to claim 1, wherein the machine  
25 readable code is a 2D bar code.
4. An electronic device according to claim 1, wherein the control circuit is further operable to:
  - send a request for connection to a connection controller,
  - 30 further decode the machine readable code into a connection confirmation responsive to said request.



5. A method to connect an electronic device to a wireless network, the electronic device comprising a processor, a camera and an antenna operatively coupled to said processor, the method being carried out by the processor and comprising:
- 5 capturing an image of a machine readable code using the camera,  
processing the captured image to decode the machine readable code into a wireless network ID and connection parameters,  
selecting a wireless network matching the decoded wireless network ID among wireless networks detected by the antenna,
- 10 sending a connection request to the selected wireless network using the connection parameters.
6. A method according to claim 5, wherein the wireless network is a secured network, the connection parameter comprising a password for said
- 15 secured network.
7. A method according to claim 5, wherein the machine readable code is a 2D bar code.
- 20 8. A method according to claim 5, further comprising:  
sending a request for connection to a connection controller,  
further decoding the machine readable code into a connection confirmation responsive to said request.
- 25 9. A telecommunication system comprising:  
a wireless network enabled by an access point,  
a controller for generating a machine readable code comprising a network ID and connection parameter for a wireless network,  
an electronic device to connect to a wireless network, the device
- 30 comprising:  
an antenna to detect wireless networks,  
a connection manager to present connection parameters to a detected wireless network,

a camera,

a control circuit configured to:

capture an image of a machine readable code using the camera,

5 process the captured image to decode the machine readable code into a wireless network ID and connection parameters,

10 select a wireless network matching the decoded wireless network ID among wireless networks detected by the antenna,

present the decoded connection parameters to the connection manager for subsequent connection to the selected wireless network using said connection parameters.

15

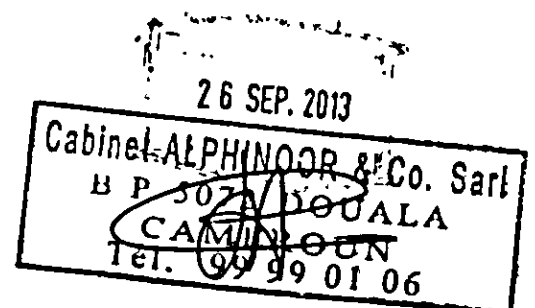
10. An application embodied on a computer readable medium and arranged to configure a processor to implement a method to connect an electronic device to a wireless network, the electronic device comprising said processor, a camera and an antenna operatively coupled to said processor,  
20 the application comprising instructions for:

capturing an image of a machine readable code using the camera,

processing the captured image to decode the machine readable code into a wireless network ID and connection parameters,

25 selecting a wireless network matching the decoded wireless network ID among wireless networks detected by the antenna,

sending a connection request to the selected wireless network using the connection parameters.



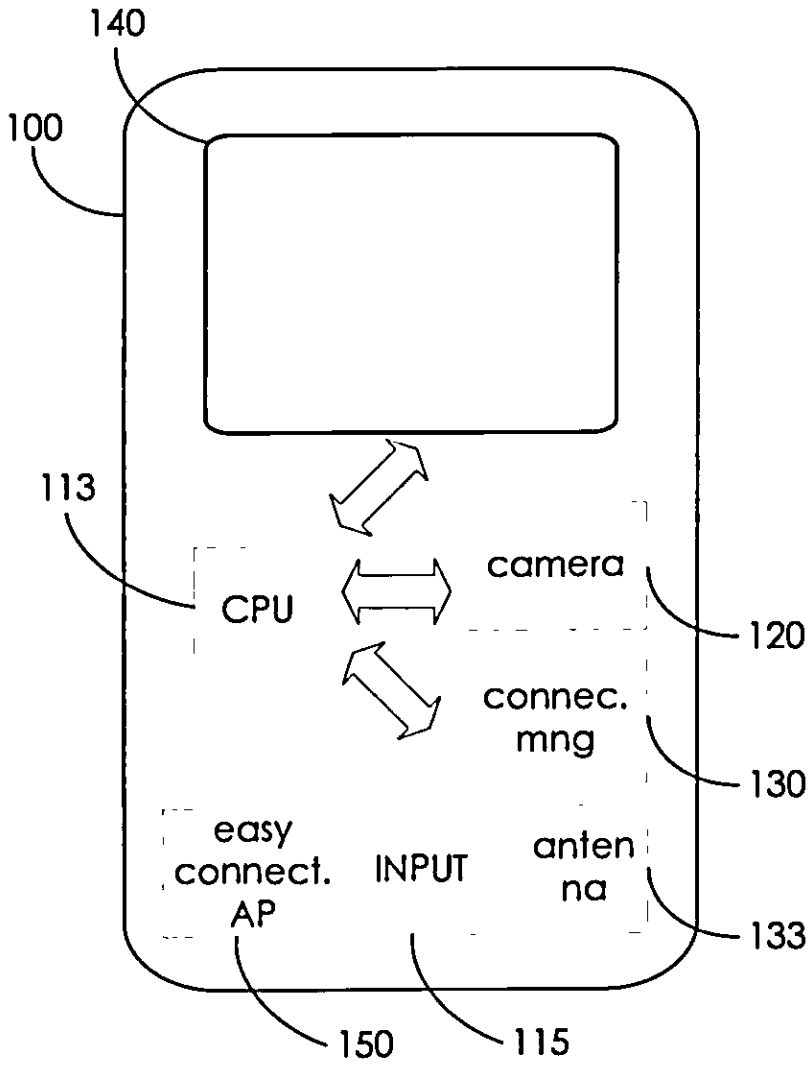


FIGURE 1

2/4

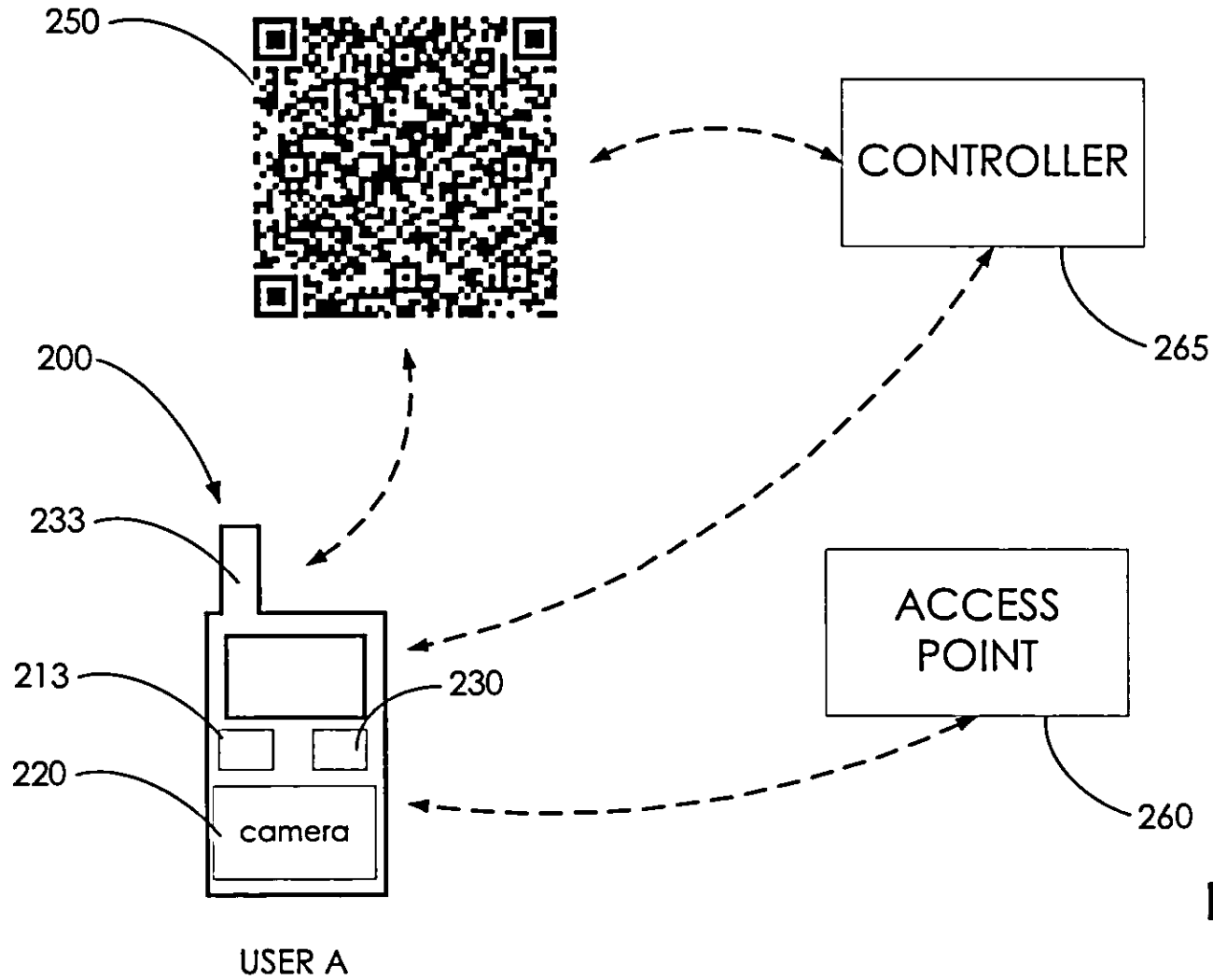


FIGURE 2

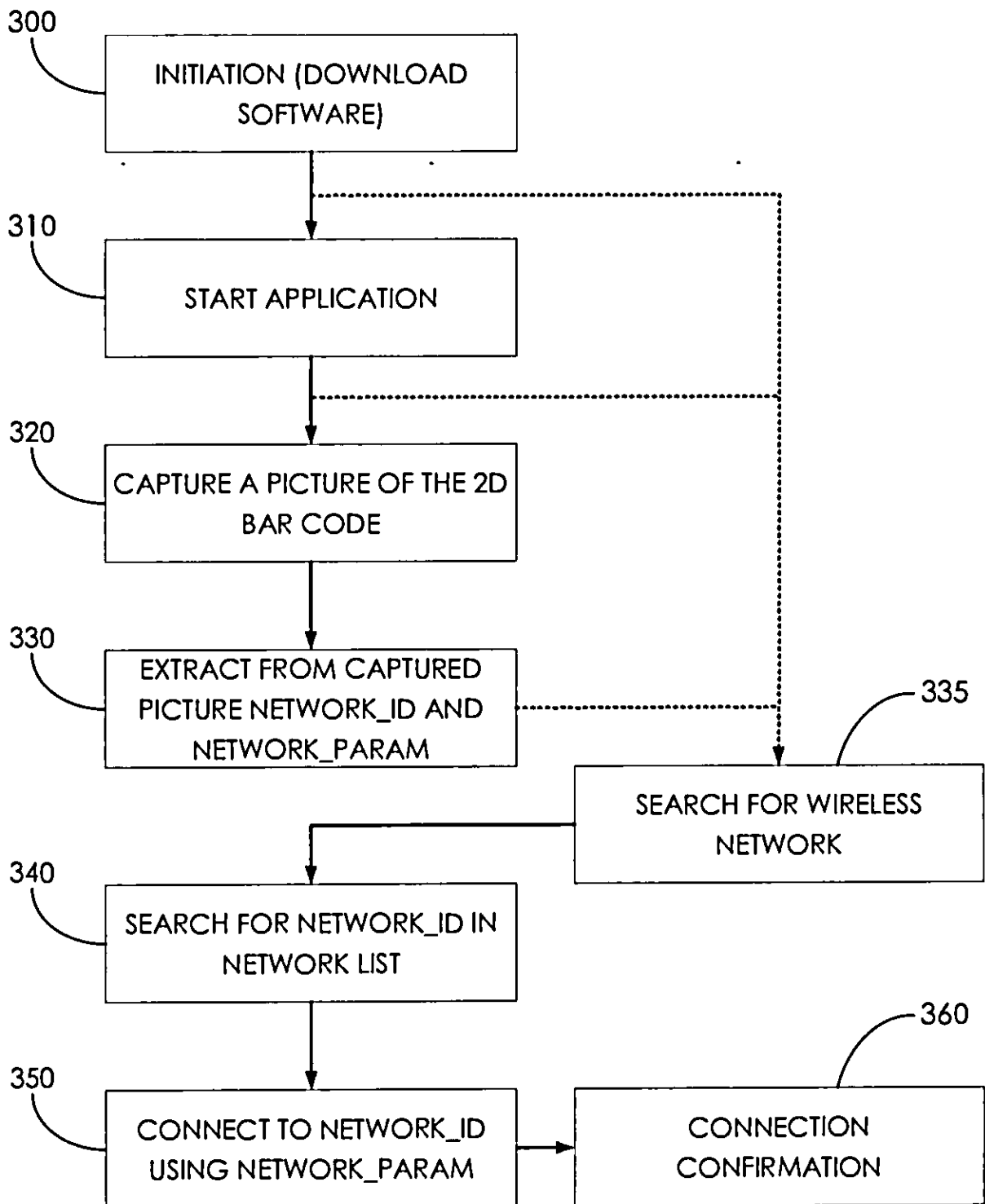


FIGURE 3

4/4

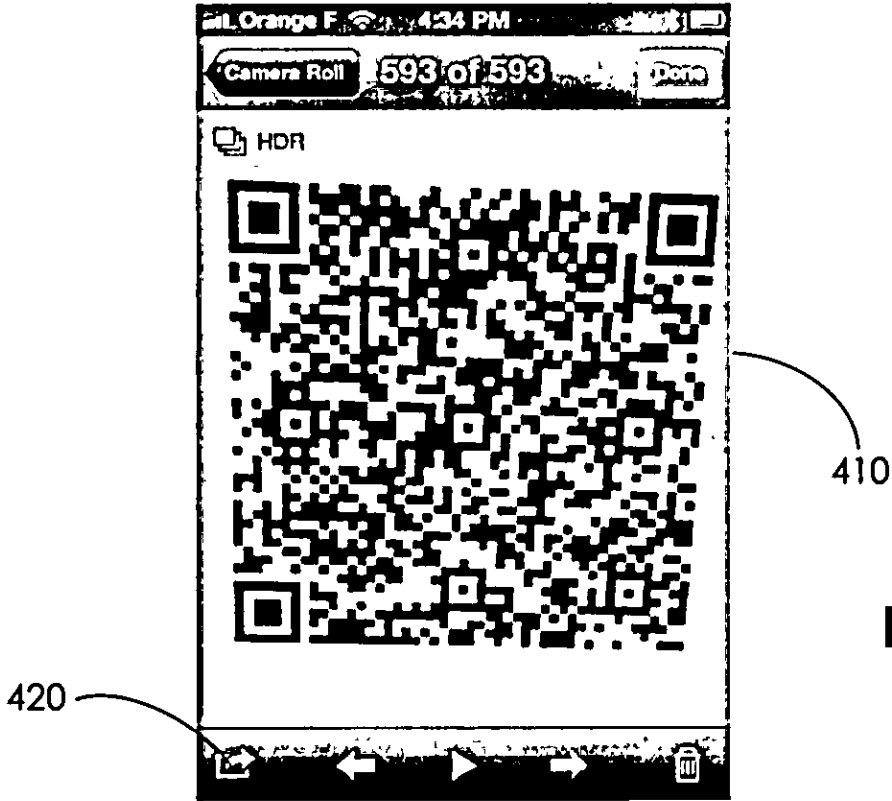


FIGURE 4A

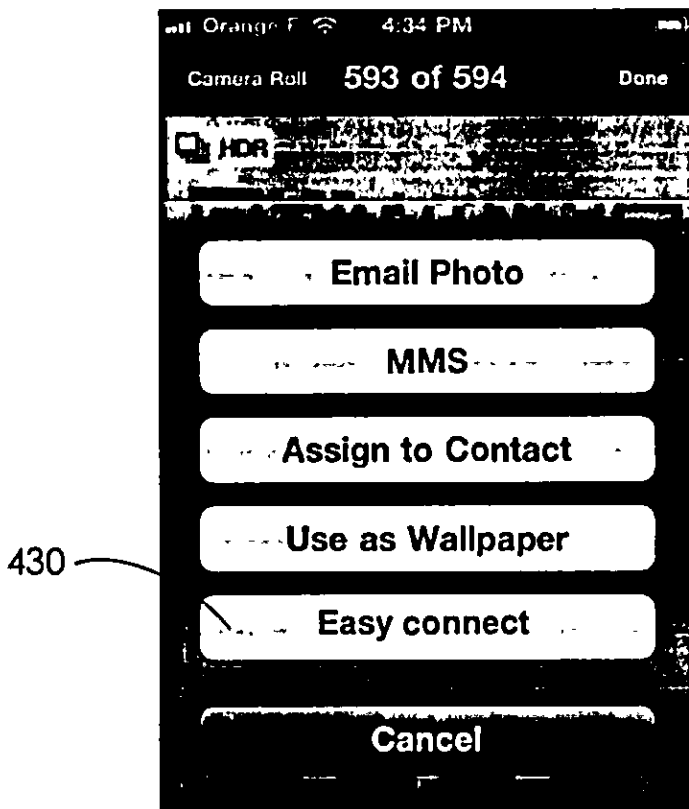


FIGURE 4B