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(54) **A mobile ticket delivery system**

(57) The introduction of so-called NFC devices ("Near Field Communications") into mobile computing devices, such as mobile telephones, smart phones, and PDAs offers potential advantages to those providing a ticketing service, in that the ticket can be provided in an NFC-compatible form allowing easy validation of visitors to an attraction. However, NFC provision is currently at an early stage and is not expected to be universal for a considerable time. In the interim, ticketing systems must be accessible to users who may or may not have knowledge of the NFC capabilities of their devices and who may be dissuaded from transacting if they are unsure of the compatibility of a ticket with their device. Non-NFC-capable devices can display a barcode on the device screen, but this screen may have one of a widely-varying range of capabilities, so the ticket may display adequately on one screen but poorly on another. Thus, a mobile ticket delivery system which is able to detect the technological capabilities of the device to which it is being sent or downloaded is described. The system, in the form of a server/client system and/or a mobile application running on the device recognises the abilities of the mobile device and adapts the ticket accordingly. This can be done transparently without user intervention.

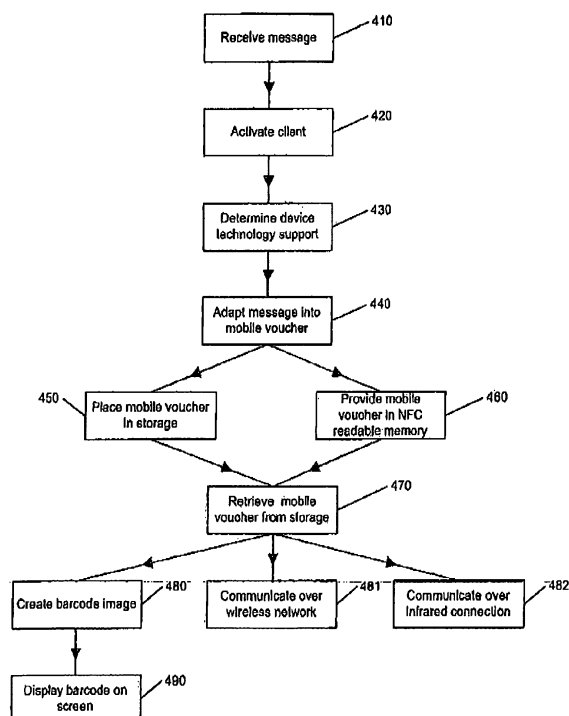


Fig 4

Description

FIELD OF THE INVENTION

[0001] The present invention relates to a mobile ticket delivery system, for delivering a mobile ticket to a mobile device and for dealing with the mobile ticket once it has arrived at the mobile device.

BACKGROUND ART

[0002] By 'mobile device' we include, but are not limited to, any portable telecommunications device such as a mobile phone PDA, laptop computer or tablet or the like.

[0003] By 'ticket' we include, but are not limited to, a barcode or other machine readable code, airline boarding pass, a entry ticket for a gig or cinema or the like, a membership ticket such as may be required for a club or gym or the like, or a coupon such as may be redeemable at a supermarket to obtain a discount on a product or service, or any other voucher as may be delivered to a mobile device.

[0004] Various systems are known for the delivery of tickets to mobile devices. These may function in accordance with a wide range of national and international standards. Some well known systems include simple SMS text messages, picture SMS & MMS messages and Mobile Internet/WAP sites. Where there is suitable support on the mobile device, these systems may display parts of the ticket as a machine readable code such as a barcode. The mobile ticket may therefore be validated by a visual inspection of the message on the device's screen or by scanning the barcode.

[0005] One well known technique is to transmit a navigation URL to a mobile device using a formatted SMS text message. This URL could locate a website which will display the ticket on the mobile device. The ticket could include a visual machine readable code, such as a barcode.

[0006] Other technologies that are available in mobile devices include personal area networking (e.g. Bluetooth and IrDA) and local area networking (e.g. 802.11),

[0007] A new technology is emerging called Near Field Communications (NFC). Mobile devices with the NFC incorporate smart card technology that can be remotely communicated with over short distances using radio frequency readers. NFC is still in its infancy, and as such few mobile devices are NFC capable at this time.

SUMMARY OF THE INVENTION

[0008] As NFC becomes more popular and is manufactured into more mobile devices, a problem arises that mobile ticket delivery systems have to identify which mobile devices can support which technologies, i.e. whether or not the mobile device in question is NFC enabled. It is increasingly desirable to be able to support both technologies in a unified manner without resorting to a com-

plex user registration process, as this will involve asking the mobile device user questions that they may or may not understand. Thus, they may answer incorrectly, or they may be put off from making the transaction.

[0009] According to a first aspect of the Invention there is provided a mobile ticket delivery system for delivering a mobile ticket to a mobile device, the system comprising a ticket generator operative to generate a mobile ticket, a message generator, operative to generate a message containing the mobile ticket, a message delivery system operative to deliver the message to the mobile device via a communications network, the system further comprising a mobile device ticket selection means operative to control the mobile device, the mobile device ticket selection means comprising processing means operative to receive the initially transmitted mobile ticket, to determine the mobile ticket capabilities of the mobile device, to adapt the initially transmitted mobile ticket according to said capabilities, and to store the adapted mobile ticket (s).

[0010] Preferably the system comprises a server on which the mobile ticket is stored and an NFC ticket access means operative to provide an instruction signal to the ticket selection means to instruct the ticket selection means to adapt the mobile ticket to an NFC enabled format.

[0011] Preferably the server comprises a standard ticket access means operative to enable a mobile ticket stored in a standard format to be accessed by the mobile device via the message.

[0012] Thus if the mobile device is NFC enabled, the system preferably automatically transmits information from the server to the ticket selection means to adapt the mobile ticket to a format which can be subsequently scanned by a suitable NFC scanner.

[0013] The initially transmitted mobile ticket may be stored on a database comprising part of the server, or may be stored remotely and accessed via a linking website. Likewise the instructions sent to the ticket selection means to adapt the initially transmitted ticket to an NFC enabled ticket may be stored on a database comprising part of the server, or may be stored remotely and accessed via a linking NFC site,

[0014] Preferably the adapted NFC enabled mobile ticket, is stored on an NFC memory of the mobile device such as for example an NFC memory chip, the NFC compatible ticket may alternatively be stored on any suitable memory means of the mobile device. Preferably the NFC compatible ticket is automatically stored on the mobile device.

[0015] Preferably the ticket selection means comprises a client application stored on the - mobile device operative to control part of the mobile device

[0016] Preferably the ticket selection means is operative to intercept and process the message containing the Initial mobile ticket.

[0017] Preferably the ticket selection means is further operative to prevent the message being received in the

inbox of the mobile device.

[0018] The ticket selection means may process the message by extracting ticket identification information from the message, transmitting that ticket identification information to the server, the server being operative to retrieve an NFC instruction from the NFC database and to transmit the NFC instruction to the ticket selection means.

[0019] It is preferred that the processing, transmitting, retrieving and further transmitting steps are automatic in the sense that no intervention is required by the mobile device user.

[0020] The system is preferably further operative such that if the mobile device is not capable of NFC communications, the user of the mobile device may access the mobile ticket via the message. Thus the ticket itself may be in the form of a bar code or other machine readable code, or may comprise a URI/URL/URN that links to the ticket database. In this case the user may access the ticket by using the internet browser application on the mobile device to access the URI/URL/URN.

[0021] According to a second aspect of the invention there is provided a mobile device ticket selection means for use with a mobile ticket delivery system operative to deliver a mobile ticket to a mobile device, the mobile device ticket selection means comprising processing means operative to receive the mobile ticket, to determine the mobile ticket display capabilities of the mobile device, to adapt the mobile ticket according to said display capabilities, and to store the adapted mobile ticket (s).

[0022] The mobile ticket display capabilities may for example be internet browsing capabilities, NFC capabilities, and/or mobile device screen capabilities.

[0023] The mobile device ticket selection means may comprise interception means to intercept the mobile ticket when received by the mobile device. The intercepted mobile ticket may be prevented from being received in the message inbox of the mobile device.

[0024] The mobile ticket selection means may adapt the mobile ticket such that the mobile ticket is in a form suitable for display on the screen of the device, or may adapt the mobile ticket into an NFC enabled ticket.

[0025] The mobile ticket selection means may comprise means to retrieve/activate an NFC enabled ticket on receipt of a signal indicative of the presence of an NFC reader.

[0026] According to a third aspect of the invention, there is provided a mobile device ticket selection means for use with a mobile ticket delivery system operative to deliver a mobile ticket to a mobile device, the mobile device ticket selection means comprising processing means operative to receive the mobile ticket, to determine the mobile ticket capabilities of the mobile device, to adapt the mobile ticket according to said capabilities, and to store the adapted mobile ticket(s).

[0027] The mobile ticket capabilities may for example be internet browsing capabilities, NFC capabilities,

and/or mobile device screen capabilities.

[0028] The mobile device ticket selection means may comprise interception means to intercept the mobile ticket when received by the mobile device. The intercepted mobile ticket may be prevented from being received in the message inbox of the mobile device.

[0029] The mobile ticket selection means may adapt the mobile ticket such that the mobile ticket is in a form suitable for display on the screen of the device, or may adapt the mobile ticket into an NFC enabled ticket.

[0030] The mobile ticket selection means may comprise means to retrieve/activate an NFC enabled ticket on receipt of a signal indicative of the presence of an NFC reader.

[0031] According to a fourth aspect of the invention there is provided a mobile voucher delivery system (100) comprising a mobile voucher message (145) generated by a message generator (140) the message comprising a mobile voucher (120), a database (130), for storing said mobile voucher (120), a message system (150) for delivery of said message (145) via a communications network (200) to a mobile client application (310), the mobile client application (310) receiving said message (145) and adapting said message (145) into a stored mobile ticket (325) based on a signal indicative of the available technologies of the mobile device (300).

[0032] By available technologies we mean, for example, whether or not the mobile device has NFC capabilities, and Internet capabilities.

[0033] Preferably the mobile device (300) is operative to receive the message (145) and activate client application (310).

[0034] The client application (310) may be operative to determine the technology support of device (300) and adapt message (145) into mobile ticket (325) and place in storage (320) on the mobile device.

[0035] Preferably the client application (310) is adapted to provision adapted mobile ticket (325) directly into NFC readable memory (330).

[0036] Preferably the client application (310) is operative to retrieve mobile ticket (325) from storage (320) and display as a machine readable code on display (340).

[0037] Preferably the client application (310) is operative to retrieve mobile ticket (325) from storage (320) and transmit over wireless network connection (350).

[0038] Preferably the client application (310) is operative to retrieve mobile ticket (325) from storage (320) and transmit over Infrared connection (360).

[0039] Preferably the system further comprises a redemption device (600) operative to acquire mobile ticket (325) from NFC readable memory (330) using NFC reader (400).

[0040] The system may comprise a redemption device (600) operative to acquire mobile ticket (325) from device screen (340) using a code reader (500).

[0041] The redemption device (600) is preferably operative to acquire mobile ticket (325) from mobile connection (350) using mobile connection (610).

[0042] The redemption device (600) is preferably operative to acquire mobile ticket (325) from infrared connection (360) using Infrared connection (620).

[0043] The redemption device (600) may be operative to validate the mobile ticket.

[0044] The redemption device (600) may be operative to validate mobile ticket (325) over network (700) with redemption server (160).

[0045] The redemption device (600) may be operative to validate mobile ticket (325) with redemption server (800).

[0046] According to a fifth aspect of the invention, there is provided a mobile ticket delivery system for delivering a mobile ticket to a mobile device, the system comprising a ticket generator operative to generate a mobile ticket, a message generator, operative to generate a message comprising the mobile ticket, a message delivery system operative to deliver the message to the mobile device via a communications network, the system further comprising a mobile ticket selection means adapted to control the mobile device and operative to generate a signal indicative of the mobile ticket capabilities of the mobile device and to adapt the mobile ticket according to the signal.

[0047] Preferably the mobile ticket selection means is operative to generate a signal indicative of the NFC capabilities of the mobile device, and to adapt the mobile ticket to comprise an NFC enabled ticket.

[0048] Other aspects of the present invention may include any combination of the features or limitations referred to herein.

BRIEF DESCRIPTION OF THE DRAWINGS

[0049] An embodiment of the present invention will now be described by way of example, with reference to the accompanying figures in which;

Figure 1 is a flow diagram of a mobile ticket delivery system in accordance with the present invention when used with a non NFC enabled mobile device;

Figure 2 is a flow diagram of a mobile ticket delivery system in accordance with the present invention when used with an NFC enabled mobile device;

Figure 3 is a flow diagram of a mobile device ticket selection means and mobile ticket delivery system in accordance with the invention;

Figure 4 is a flow diagram of part of the functionality of the mobile device ticket selection means of Figure 1;

Figure 5 is a schematic of the mobile device ticket selection means and mobile ticket delivery system of Figures 3 and 4; and

Figure 6 is a schematic of part of the functionality of

the mobile device ticket selection means of Figures 3 to 5.

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0050] With reference to Figures 1 and 2, a mobile ticket delivery system 1 comprises a service centre 2 that comprises a server that communicates with a mobile device 3 via a telecommunications network 5.

[0051] The server 2 controls a messaging service 7 comprising a ticket generator operative to generate a mobile ticket; a message generator, operative to generate a message relating to the mobile ticket; and a message delivery system operative to deliver the message to the mobile device 3 via a communications network 5.

[0052] The server 2 also controls access by the mobile device to an Internet website on which the mobile ticket is stored and an NFC site on which instructions enabling an initially sent mobile ticket to be adapted to an NFC enabled ticket are stored. The NFC enabled adaptation of the mobile ticket is in a format suitable for near field communications.

[0053] The server 1 further comprises ticket selection means comprising a client application 9 that is pre-stored on, or downloadable to, the mobile device. The application 9 communicates with the server 2 and is operative to generate a signal indicative of the mobile ticket display technology supported by the mobile device and to transmit instructions to the NFC application enabling the application to adapt the initially transmitted mobile ticket to a format supported by the technology present on the mobile device.

[0054] The signal may be indicative of whether or not the mobile device 3 is capable of NFC, and the ticket selection means is then operative to process that signal such that if the mobile device 3 is capable of NFC, the initially transmitted ticket is adapted into an NFC enabled mobile ticket.

[0055] The application 9 also communicates with an NFC memory 11 of the mobile device 3.

[0056] The messaging service 7 generates a single initial message in a format that is recognised by mobile devices that support internet and/or NFC technologies,

[0057] The act of communicating to the NFC memory 11 on a mobile device may be undertaken by the application 9 running on the device 3. This application 9 may be writing in a language such as Java or Symbian for example. The application 9 may be packaged with the mobile device by the device manufacturer or may have been installed later by the device owner.

[0058] The initial message transmitted from the messaging service 7 is formatted in such a way that it is target to the application 9, for example using port addressing. The application 9 is operative to detect Incoming messages to the mobile device 3 and intercept any that it determines are for processing by the application 9.

[0059] The transmitted initial message is also formatted in such a way that if there is no application 9 present

on the mobile device 9 then the message will not be intercepted and will be processed as normal by the mobile device's messaging inbox 13.

[0060] The initial message contains information identifying the mobile ticket and could for example contain a URL to a webpage linked to the ticket.

[0061] With particular reference to Figure 1, if the initial message has been routed to the device's messaging inbox 13 then the user can read the message as normal and the user can open the URL to display the mobile ticket.

[0062] With particular reference to Figure 2, if the message has been processed by the application 9 then the application 9 will parse the message and extract the relevant instructions. The relevant instruction may, in one example, be the URL portion of the message. This instruction (which may be adapted by the application 9 prior to use — for example by changing a URL of a website into a URL of a web service) is then used by the application 9 to retrieve, via the server, the details required to be able to adapt the initially transmitted ticket into a NFC enabled ticket and to save the NFC enabled ticket into the NFC memory 11,

[0063] The NFC Site/Web Service may utilise various responses such as website markup (HTML, XHTML, WML or other equivalents) or return formatted text, XML or binary data as needed by the application 9. This returned data instructs the application 9 what further instructions to perform.

[0064] In an example of the above described system, a standard text message such as: "Use this link to open ticket <http://domain/site/Id=xxxxxxx>" is targeted at a specific port by adapting the UDH of the message.

[0065] If this message is received by a mobile device 3 without an application 9 listening on the specific port then the message will go into the mobile device's inbox 13. The mobile device 3 utilises the URL in the message to open the handset's browser so that the mobile device user can access their ticket.

[0066] If the mobile device 3 does have an application 9 Installed, the message will be intercepted and processed by the application 9. The application 9 parses the message and process the URL. The ID element of the mobile ticket is extracted and then used as a parameter to a web service call to the NFC site. Instructions for adapting the initially transmitted mobile ticket into an NFC enabled mobile ticket are then transmitted via the server to the application 9 which automatically adapts the initially transmitted mobile ticket and automatically stores the NFC enabled ticket on the NFC memory without any intervention by the user of the mobile device 3. The mobile device 3 can then be passed near an NFC scanner which automatically scans the NFC enabled ticket again without any intervention by the user of the mobile device 3,

[0067] The system thus displays, for example, either a barcode for internet enabled mobile devices or provides a value into a radio frequency enabled memory chip or

smart card for Near Field Communications (NFC) enabled mobile devices. For both cases, a single message format can be sent to either device type and it is formatted in such a way that the device will determine whether to display a barcode or provision the NFC memory chip.

[0068] A further embodiment of the invention is shown in figures 3 to 6.

[0069] With reference to Figures 3 and 4, a mobile ticket delivery system comprises an electronic service centre provided with a mobile ticket issuing server 100 for creating, transmitting and redeeming mobile tickets

[0070] A mobile ticket request 100 is received and creates a mobile ticket 120. The mobile ticket 120 is stored in databases 130 and is passed to the message generator 140. The message generator 140 generates a mobile ticket message 145 and passes it to messaging system 150. Messaging system 150 transmits message 145 to a mobile device 300 via a mobile network 200 using a messaging system 210 (eg SMS, MMS).

[0071] The mobile device 300 receives message 145 and activate mobile device ticket selection means comprising a client application 310 that controls part of the mobile device 300. The client 310 may comprise a software application preloaded during manufacture of the mobile device 300 or subsequently downloaded on the mobile device 300.

[0072] Client application 310 saves message 145 in storage 320 as a stored mobile ticket 325. Storage 320 may be local memory disc storage, SIM storage or any other storage medium or device as is well known.

[0073] If the client application 310 determines that the mobile device has NFC capabilities and this is the preferred ticket redemption technology then the client application 310 will provision an NFC chip 330 with stored mobile ticket 325. NFC chip 330 comprises part of mobile device 300 and includes an NFC memory.

[0074] When the stored mobile ticket 325 is required to be redeemed it may be read directly from the NFC chip 330 by a redemption device 600 using NFC reading apparatus 400.

[0075] Alternatively, if the mobile device 300 or the redemption device 600 does not have NFC capabilities, the client 310 display the stored mobile ticket 325 as a barcode on screen 340 of the mobile device 300.

[0076] Redemption device 600 may acquire the stored mobile ticket 325 using, for example, barcode reading apparatus 500.

[0077] When redemption device 600 has acquired the stored mobile ticket 325 from mobile device 300 it may request validation of the ticket 325 from validation server 160 over network 700; from an external validation server 800; or may perform automatic redemption without communicating with any other remote server. If redemption by device 600 requires adaption of the mobile voucher 325 to emulate any existing voucher formats supporter directly by redemption device 600 or external validation server 800 then the client 300 will adapt appropriately the mobile voucher 325 in storage 320.

[0078] An example functionality of the above described system and selection means is described below with reference to the eight sequential method steps identified in Figure 5:

1. The service centre sends a formatted initial SMS message to the mobile device 300.
2. The message 145 is addressed to a specific port and so bypasses the mobile device's message inbox and is delivered to the client application 310. The client application 310 may be automatically activated by receipt of this message 145 if the client application 310 is not already running.
3. The client application 310 processes the SMS message and retrieves ticket identification information additional to that included in the SMS by communication back to the service centre.
4. The client application 310 saves the mobile ticket to a record store database.
5. The client application 310 adapts the initially transmitted mobile ticket into an NFC enabled ticket and saves the NFC enabled mobile ticket to a secure element of the smart card of the NFC module of the mobile device.
6. An NFC enabled redemption device 600A may read the mobile ticket from the NFC module using contactless NFC communications.
7. A barcode reader redemption device 6008 may read the mobile ticket by scanning the barcode from the screen of the mobile device 300.
8. The NFC enabled redemption device 600A may add/delete/update mobile vouchers using contactless NFC communications,

[0079] With reference additionally to Figure 6 part of the functionality of an example client application 310 wherein the mobile ticket comprises an aircraft boarding passes is shown. In this example a mobile ticket comprising a first airline boarding pass BA1234 is received by the client application 310. Client application 310 converts the received boarding pass BA1234 into three stored boarding passes - an NFC enabled boarding pass, a human readable boarding pass, and a barcoded boarding pass. The NFC enabled boarding BA1234 is written to the NFC secure element of the smart card of the NFC module of the mobile device 300. Client application 310 also writes the human readable and barcoded versions of BA1234 to its database.

[0080] Client application 310 then determines, in response to input signals, which version of BA1234 is to be redeemed. For example, if an NFC enabled redemp-

tion device is detected by client application 310, the client application automatically enables the NFC enabled version of BA1234 to be read by the NFC enabled redemption device.

5 **[0081]** If no NFC enabled redemption device is detected by client application 310, the application 310 awaits a control signal from the user of the mobile device, and/or a barcode reader. If a signal is received indicative of the presence of a barcode reader, the client application 310 automatically displays the barcoded version of BA1234 on the mobile device display. The client application may display the barcoded version of BA1234 on receipt of an input signal from the user of the device that the barcoded version of BA1234 is required. Alternatively the client application may display a human readable version of BA1234 on receipt of a suitable signal from the user of the mobile device 300.

10 **[0082]** If multiple boarding passes are received by client application 310, all of these may be displayed as list of flights. The client application 310 may automatically select the appropriate boarding pass or the user of the device can select a flight.

15 **[0083]** Thus, in accordance with the above described system, a single format of mobile ticket is created and initially sent to the mobile device 300. The client application 310 in the mobile device 300 is responsible for determining the optimum method of enabling the mobile ticket to be redeemed and/or validated. The client application 310 interrogates its mobile device for availability of all supported capabilities/technologies, eg NFC, internet. The preference for which of the available technologies to use may be recorded on the mobile device 300 in a configuration file or transferred as part of the mobile ticket. For example it may be preferred to use NFC where available, and this may comprise a default setting of the client application 310. In that instance, once the mobile ticket has been received, the ticket will be automatically adapted, stored and redeemed using NFC without intervention by the user of the device.

20 **[0084]** Where the validation system is designed for a technology that is not supported by the mobile device (eg ITSO) then the next preferred method is used (eg barcode display) emulating the optimum method.

25 **[0085]** It is envisaged that the format of the transmitted message 145 would instruct the receiving mobile device 300 to pass the message to the client application 310 rather than the mobile device's message inbox.

30 **[0086]** The client application 310 receives the message 145 and determines from the message 145 which technology should be used for redemption/validation. If the mobile device 300 supports this preferred technology then the mobile ticket is written into the appropriate storage. This storage could be flat file/database/record store or areas of an embedded NFC smart card such as the internal memory card or an applet running in the secure element.

35 **[0087]** When the mobile voucher is required to be redeemed the client application 310 retrieves the mobile

ticket from the appropriate storage and utilise technologies such as displaying a barcoded version of the mobile ticket to be read by a barcode scanner, or transmitting it to another client/server over a personal area network. Alternatively an NFC enabled version of the mobile ticket may be redeemed using an NFC reader.

[0088] Where the preferred redemption technology incorporates a specific standard (e.g. ITSO & Oyster for NFC, or IATA & RSP for barcodes) but the preferred redemption technology is not available then the client application 310 may modify the mobile ticket such that the alternate redemption technology will emulate the preferred technology.

[0089] An example of emulation would be encapsulating a secure ITSO transaction within a barcode so that it can be read and verified at an ITSO POST.

[0090] Another example of emulation would be transferring IATA M1 barcode data over NFC so that no changes are required to the airline systems.

[0091] Another embodiment is when the mobile voucher is activated all supported technologies are used. For example an IATA boarding pass is simultaneously written to an NFC applet, a barcode is displayed and a NFC peer-to-peer session is started over both NFC and emulated over Bluetooth.

[0092] Benefits of the system and ticket selection means include that they enable:

- Disparate mobile voucher delivery systems and mobile voucher redemption systems to interoperate
- Mobile voucher delivery systems to be agnostic to the mobile voucher redemption technology
- New mobile voucher redemption technology to be phased over a period of time as the new technology becomes more available.

[0093] It will of course be understood that many variations may be made to the above-described embodiment without departing from the scope of the present invention.

Claims

1. A mobile ticket delivery system for delivering a mobile ticket to a mobile device, the system comprising:

a ticket generator operative to generate a mobile ticket;
 a message generator, operative to generate a message containing the mobile ticket;
 a message delivery system operative to deliver the message to the mobile device via a communications network;
 a mobile device ticket selection means operative to control the mobile device, the mobile device ticket selection means comprising processing

means operative to receive the initially transmitted mobile ticket, to determine the mobile ticket capabilities of the mobile device, to adapt the initially transmitted mobile ticket according to said capabilities, and to store the adapted mobile ticket(s).

2. A mobile ticket delivery system according to claim 1, further comprising a server on which the mobile ticket is stored and an NFC ticket access means operative to provide an instruction signal to the ticket selection means to instruct the ticket selection means to adapt the mobile ticket to an NFC enabled format.
3. A mobile ticket delivery system according to claim 2 wherein, if the mobile device is NFC enabled, the system transmits information from the server to the ticket selection means to adapt the mobile ticket to a format which can be subsequently scanned by an NFC scanner.
4. A mobile ticket delivery system according to any one of claims 1 to in which the ticket selection means comprises a client application stored on the mobile device operative to control part of the mobile device.
5. A mobile ticket delivery system according to claim 4 in which the ticket selection means is operative to intercept and process the message containing the initial mobile ticket, prior to the message being received in the inbox of the mobile device.
6. A mobile ticket delivery system according to any one of claims 1 to 5 in which the ticket selection means processes the message by extracting ticket identification information from the message, transmitting that ticket identification information to the server, the server being operative to retrieve an NFC instruction from the NFC database and to transmit the NFC instruction to the ticket selection means.
7. A mobile ticket delivery system according to any one of claims 1 to 6 in which, where the mobile device is not capable of NFC communications, the user of the mobile device may access the mobile ticket via the message.
8. A mobile device ticket selection means for use with a mobile ticket delivery system operative to deliver a mobile ticket to a mobile device, the mobile device ticket selection means comprising processing means operative to receive the mobile ticket, to determine the mobile ticket display capabilities of the mobile device, to adapt the mobile ticket according to said display capabilities, and to store the adapted mobile ticket(s).

9. A mobile device ticket selection means according to claim 8, further comprising interception means to intercept the mobile ticket when received by the mobile device prior to the mobile ticket being received in a message inbox of the mobile device. 5
10. A mobile voucher delivery system (100) comprising:
- a mobile voucher message (145) generated by a message generator (140) the message comprising a mobile voucher (12); 10
 - a database (130), for storing said mobile voucher (120);
 - a message system (15) for delivery of said message (145) via a communications network (200) to a mobile client application (310) running on a mobile device (300); 15
 - the mobile client application (310) receiving said message (145) and adapting said message (145) into a stored mobile ticket (325) based on a signal indicative of the available technologies of the mobile device (300). 20
11. A mobile voucher delivery system according to claim 10 in which the client application (310) is operative to determine the technology support of device (300) and adapt message (145) into mobile ticket (325) and place in storage (320) on the mobile device. 25
12. A mobile voucher delivery system according to claim 10 or claim 11, further comprising a redemption device (600) operative to acquire mobile ticket (325) via at least one of an NFC reader (400) capable of accessing an NFC readable memory (330), a code reader (500) capable of viewing a device screen (340), a mobile data connection (350, 610) and an infrared connection (360, 620). 30 35
13. A mobile voucher delivery system according to claim 12 in which the redemption device (600) is operative to validate the mobile ticket. 40
14. A mobile voucher delivery system according to claim 13 in which the redemption device (600) is operative to validate mobile ticket (325) using a network connection (700) to a redemption server (160). 45
15. A mobile device ticket selection means according to any one of claims 1 to 9 or a mobile voucher delivery system according to any one of claims 10 to 14 in which the mobile ticket capabilities include at least one of internet browsing capabilities, NFC capabilities, and mobile device screen capabilities. 50
16. A mobile ticket delivery system for delivering a mobile ticket to a mobile device, the system comprising: 55
- a ticket generator operative to generate a mobile ticket;
 - a message generator, operative to generate a message comprising the mobile ticket;
 - a message delivery system operative to deliver the message to the mobile device via a communications network;
 - the system further comprising a mobile ticket selection means adapted to control the mobile device and operative to generate a signal indicative of the Mobile ticket capabilities of the mobile device and to adapt the mobile ticket according to the signal.
17. A mobile ticket delivery system according to claim 16 in which the mobile ticket selection means is operative to generate a signal indicative of the NFC capabilities of the mobile device, and to adapt the mobile ticket to comprise an NFC enabled ticket.

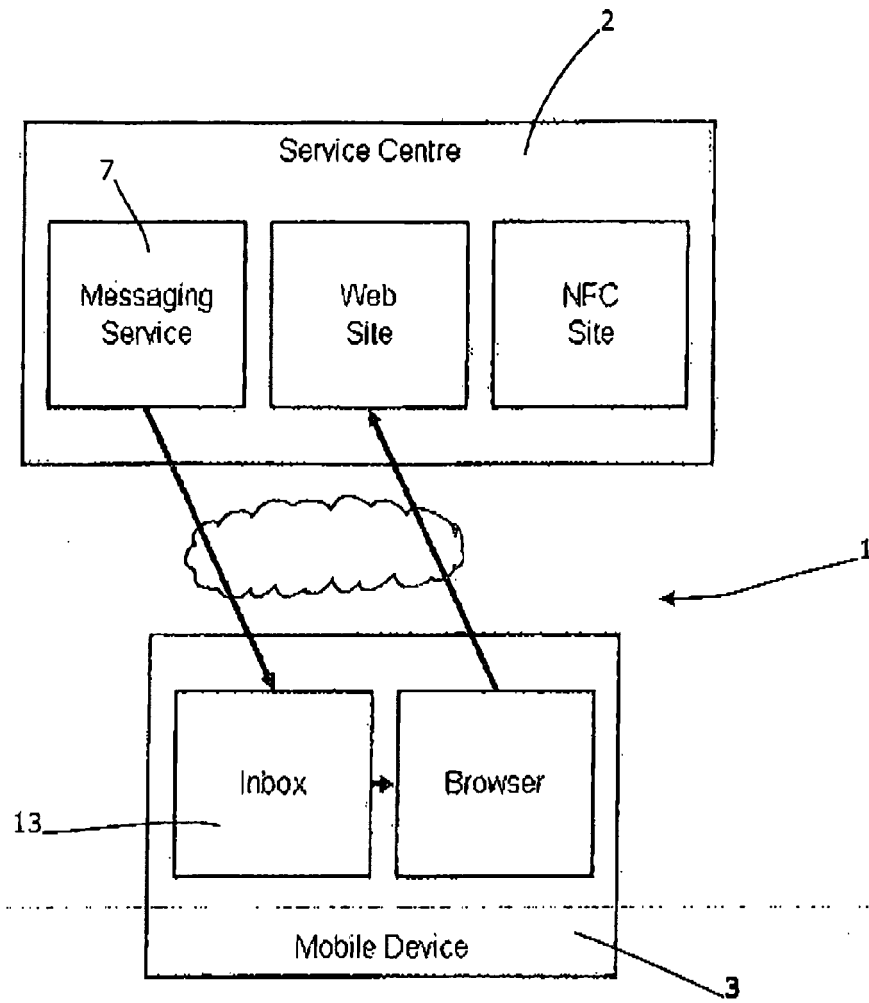


Fig 1

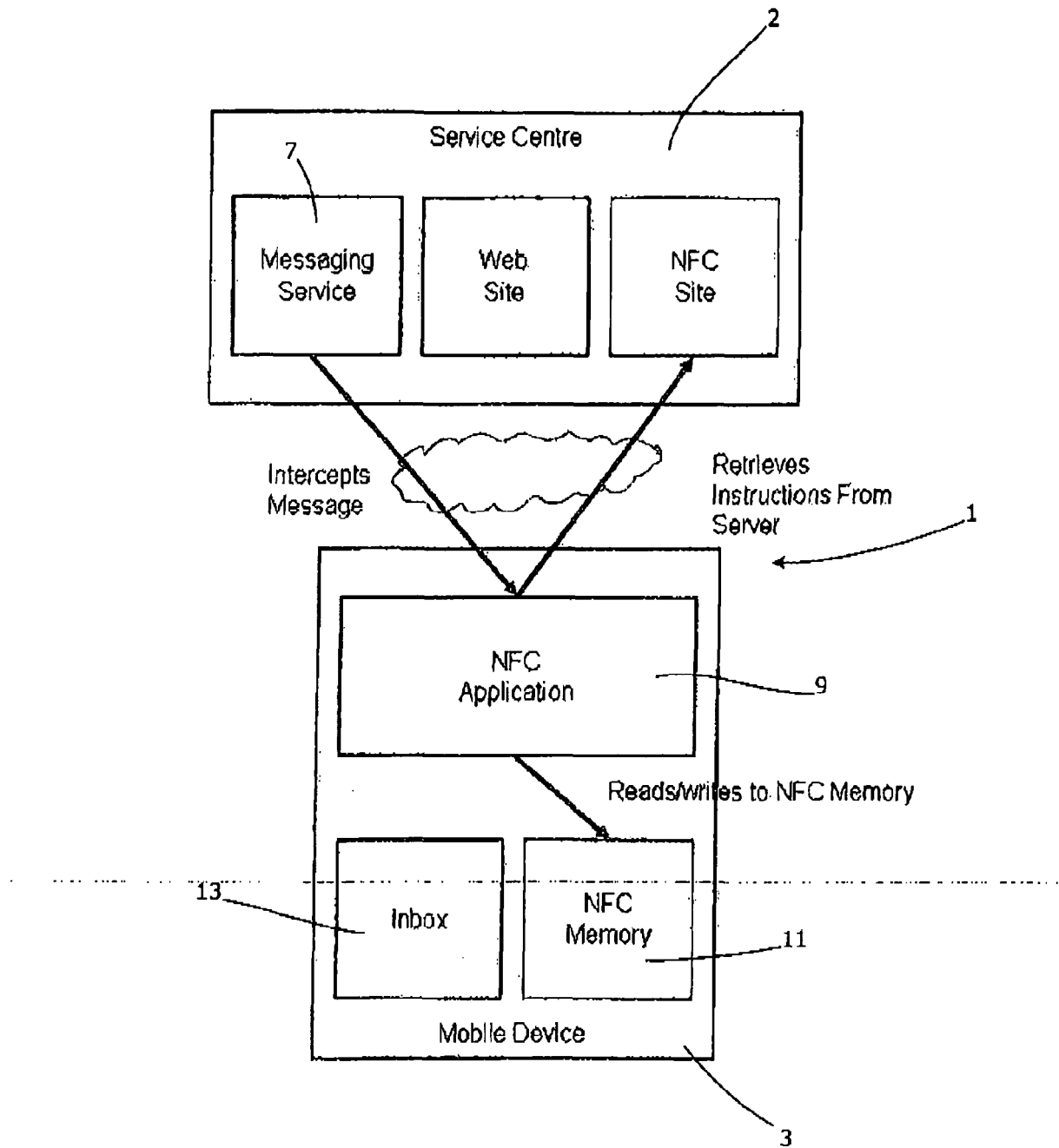
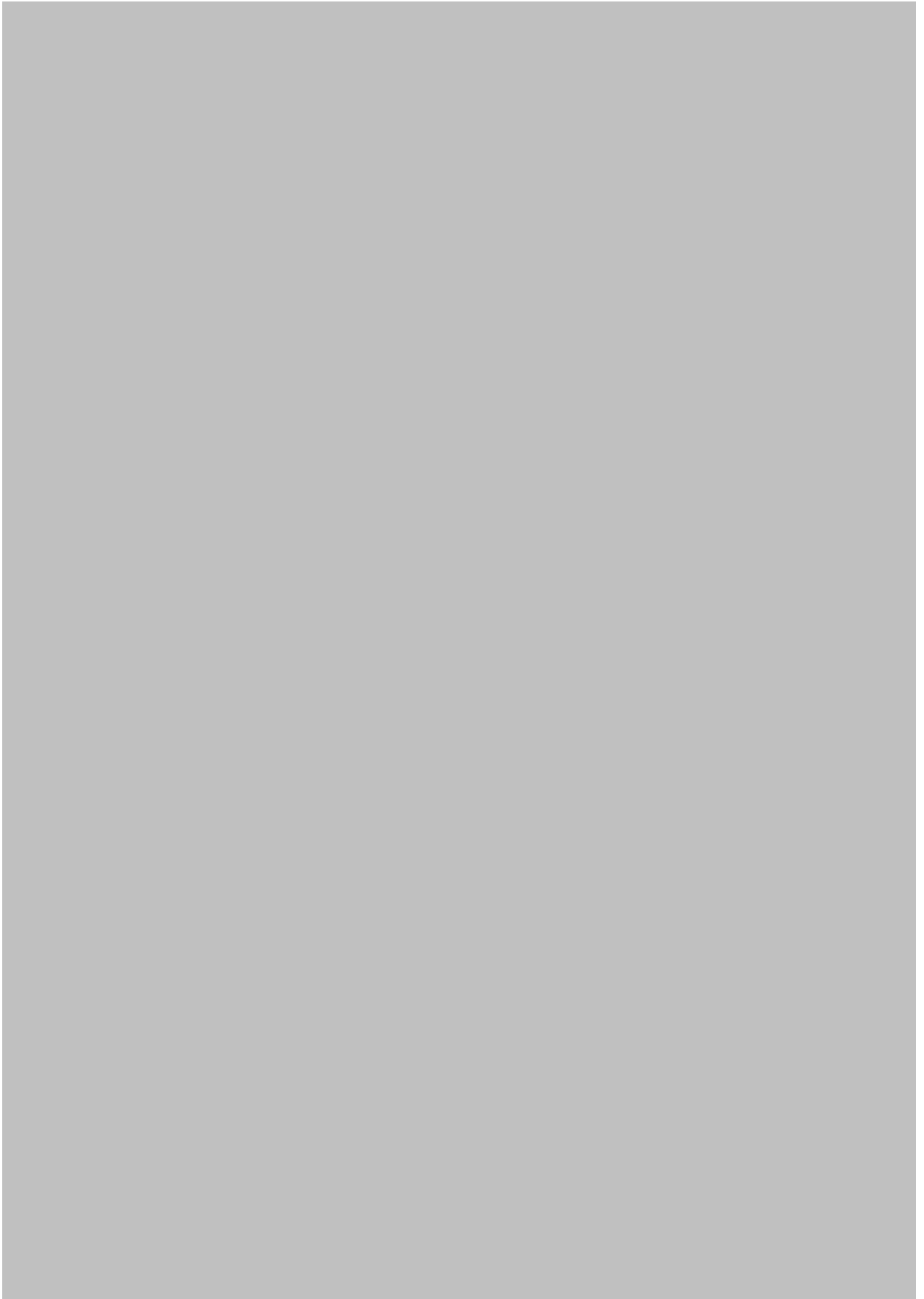


Fig 2



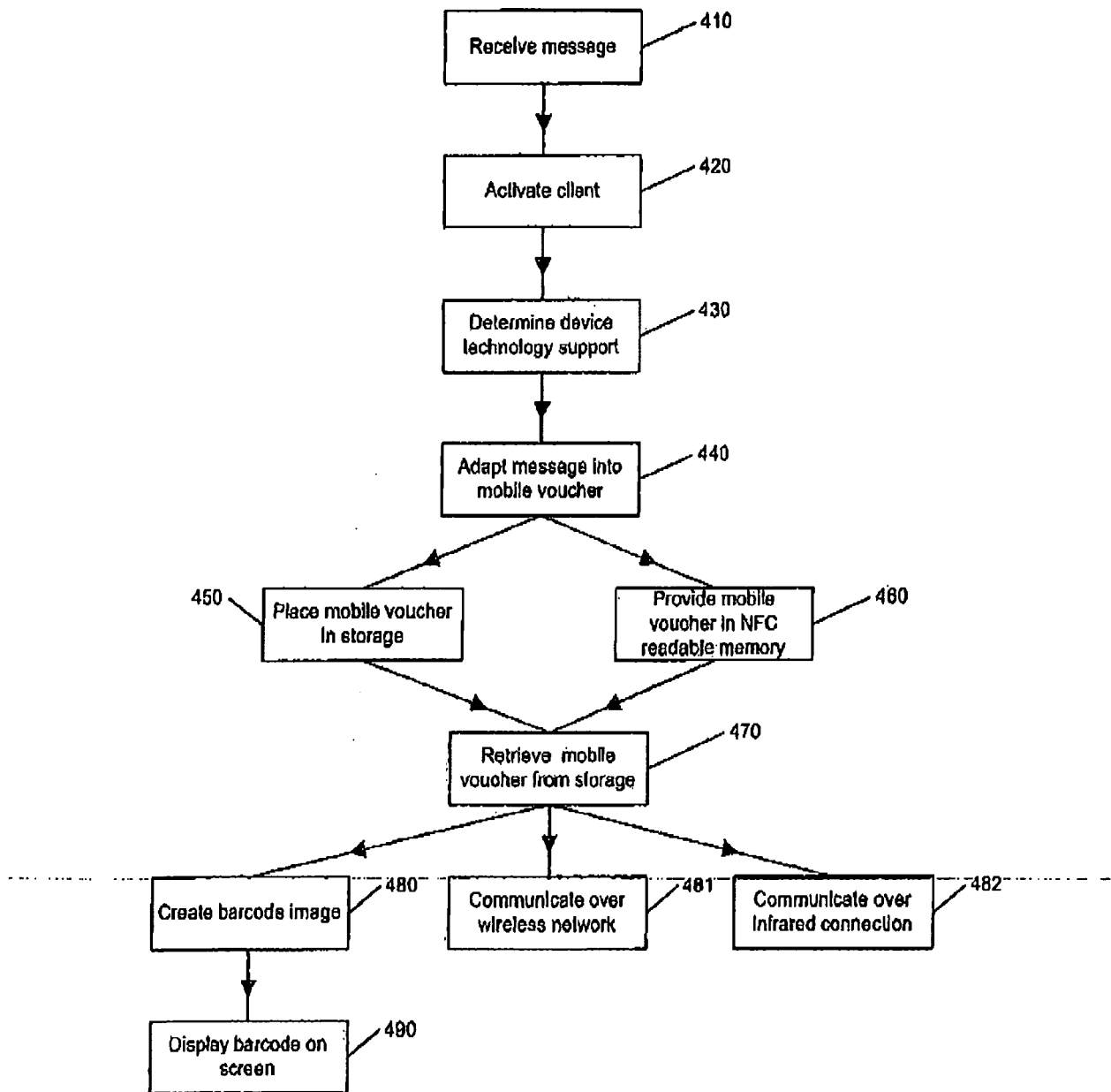


Fig 4

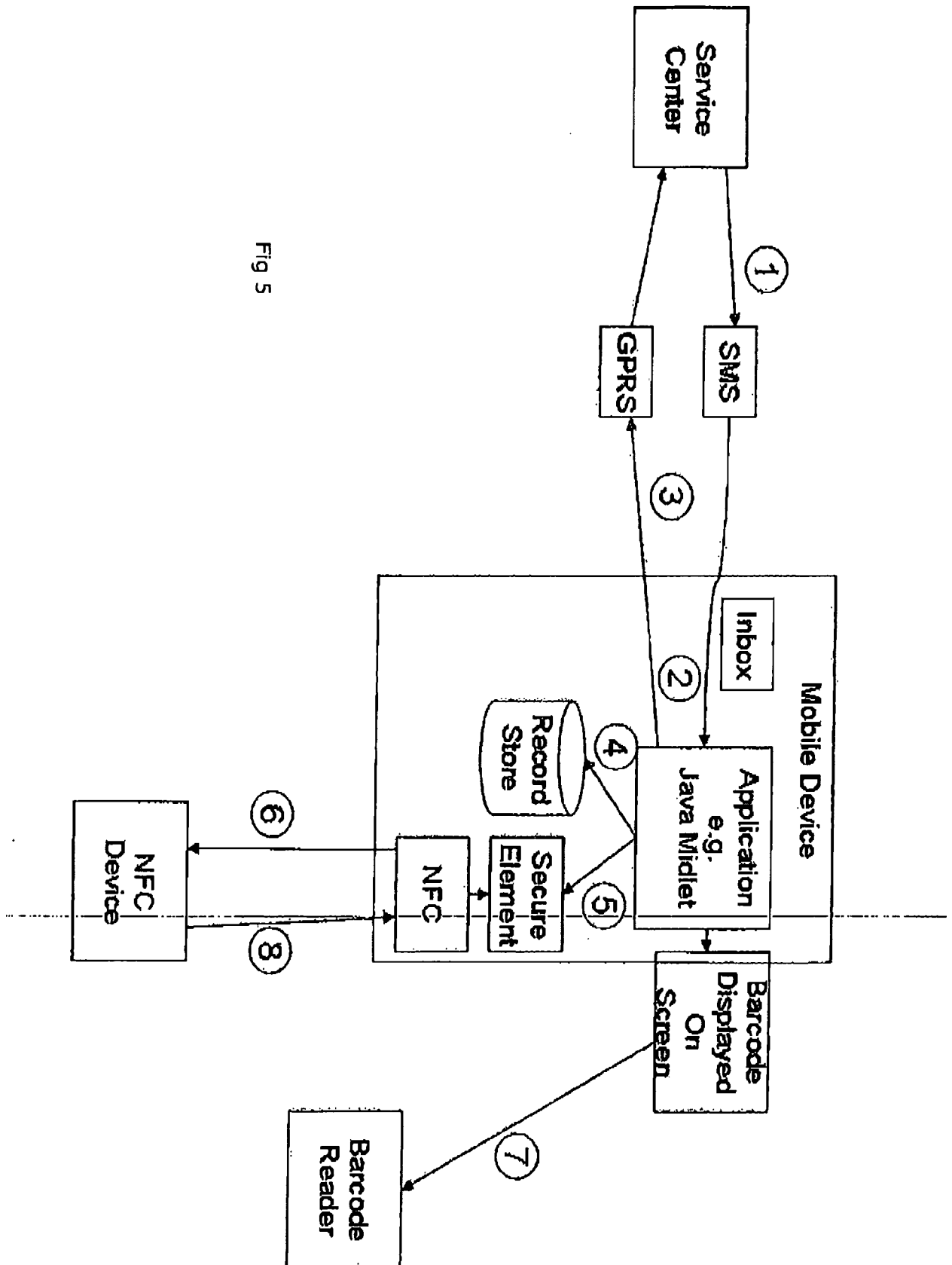


Fig 5

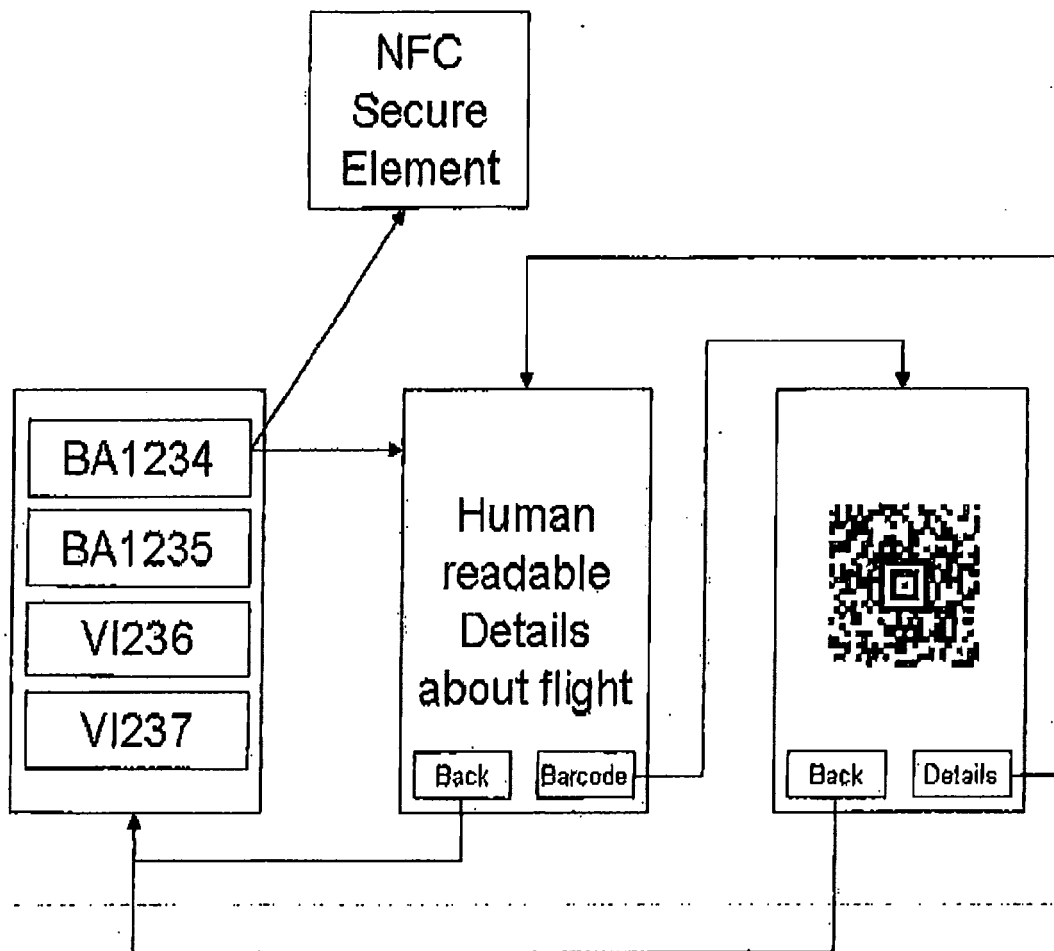


Fig 6