

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
18 September 2008 (18.09.2008)

PCT

(10) International Publication Number
WO 2008/111081 A2

(51) International Patent Classification:
H04Q 5/02 (2006.01)

(21) International Application Number:
PCT/IL2008/000359

(22) International Filing Date: 13 March 2008 (13.03.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/906,805 14 March 2007 (14.03.2007) US

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

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

(54) Title: SYSTEM AND METHOD FOR PROPAGATING PERSONAL IDENTIFICATION INFORMATION TO COMMUNICATION DEVICES

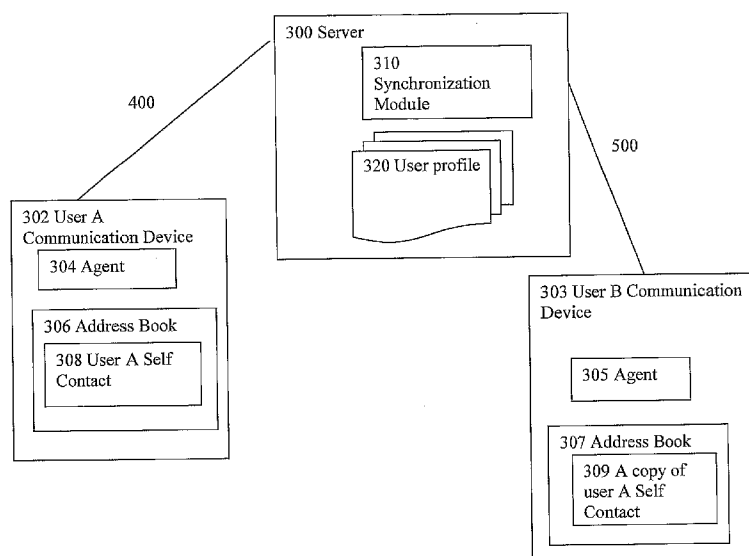


Figure 3

(57) Abstract: A system and method for propagating identification information among a communication device and a server, through an agent installed on the device. Such process optionally and preferably comprises synchronization between the server and the device, through the agent, such that one or both of the agent and the server may optionally "push" or "pull" information.

WO 2008/111081 A2

SYSTEM AND METHOD FOR PROPAGATING PERSONAL IDENTIFICATION INFORMATION TO COMMUNICATION DEVICES.

FIELD OF THE INVENTION

The present invention relates to personal identification information saved in communication devices, and particularly for propagating such information among other users.

BACKGROUND OF THE INVENTION

Digitally enabled telephones, including cellular telephones, so called “smart phones”, Java enabled phones and VoIP telephones (telephones which communicate through the “Voice over IP” protocol, also known as Internet telephones) are all able to communicate with a server. Unlike simple analog telephones, this ability to communicate with a server increases the variety and type of services which may be offered through such communication devices.

One type of service that may be offered through digital telephones is the ability to receive updated personal identification information, such as contact information from a server. For example, if a plurality of users wishes to receive information about changed contact details, such as a new telephone number for a subscriber, such users may receive such information through communication devices connected to a server, which can update their “address books” or stored information about telephone numbers and the subscribers associated therewith. Optionally other types of contact information may also be updated, including email and postal addresses, type of position held, photographs and the like. Such a service is useful for members of an organization, such as a company, for example, and for consumers who are interested for maintaining up-to-date contact

information for their contacts. Current data synchronization services that are offered by network operators through protocols as SyncML (Synchronization Markup Language), synchronizes contact information and other Personal Information Management (PIM) data (e.g., calendar, notes), between a subscriber and a server. Synchronization between multiple subscribers is not provided by standardized systems.

Unfortunately, although the above service is useful for backup and restore in case of data loss, it can only redistribute information between telephones in the context of a single user account. Therefore, it has limited capacity for installing updated information and/or for distributing such information between different users across the system. Two-way communication between the telephone and the server is also limited, as the majority, if not all, communication is initiated by the telephone only (“pull”).

SUMMARY OF THE INVENTION

There is thus an unmet need for, and it would be highly useful to have, a system and method for propagating personal identification information between a telephones or any other communication devices, using a central server.

The present invention overcomes the disadvantages of the background art by providing a system and method for propagating personal identification information between a communication device, through an agent installed on the communication device and utilization of the regular interfaces of the device (such as phonebook, gallery and SMS composition functions) and a central server. Such communication optionally and preferably comprises two-way synchronization between the server and the communication device, through the agent, such that each of the agent and the server may optionally “push” or “pull” information. The server optionally serves as a central unit through which the information is optionally propagated from one agent to the other agents.

Upon synchronization, the agent and server preferably exchange information, such as for example updated personal identification information. As part of the synchronization process the agent provides information to the server, such as for example a change in certain identification information. For example, if the user of the communication device enters a change to the identification information in the communication device, whether the user's contact information and/or contact information of another person, the agent preferably propagates such a change to the server. The server then optionally distributes the change to a plurality of subscribers or even to all subscribers.

According to preferred embodiments of the present invention, the first time that synchronization occurs between the agent and the server, the server preferably creates a special contact in the address book of each user, more preferably through the agent. This contact is a "Self Contact" which represents the actual user of the communication device and preferably contains the owner's personal contact data, which is saved at the server (optionally in an associated storage and/or computer for example) and is preferably then propagated to other communication devices. This contact can be edited through the embedded address book (contact information) application of the communication device, such as a telephone for example, just like any other contact. However, changes in the Self Contact are optionally and preferably reflected at the data stored and/or controlled by the server, and propagated, by the server, to other users in the system who have that individual user as contact in their address books and who are members in the service, more preferably through synchronization with the server as described in greater detail below.

Synchronization between the agent and the server may optionally occur periodically, for example according to a pre-determined cycle, or alternatively synchronization may optionally occur upon detection of an event, for example upon changing identification information, or alternatively triggered by the server through a Communication Initiation Request (CIR).

According to preferred embodiments of the present invention, various types of information may optionally be exchanged through the synchronization process. For example, a user may optionally provide a picture through the telephone, of the user or of someone else, which may then optionally and preferably be associated with the contact details of that person. As a result the picture is associated with the incoming telephone call of that person, and automatically displayed by the phone. The agent may then preferably provide the picture to the server as part of the synchronization process. The server may then optionally distribute the picture to other users, for example through agents, again as part of the synchronization process.

According to other embodiments of the present innovation, the server transfers to the communication device or application only data that is capable of being handled by this device or application. For example, if user A inserts video data into the personal identification information (i.e. the Self Contact) of user A and user B uses a cellular telephone which does not support video, then the server does not transfer the video data to the cellular telephone of user B. Thus, preferably only information of a type and/or format which is supported by the capabilities of the receiving communication device and/or application is transferred upon updating of the Self Contact information. Optionally, the data is re-formatted and/or otherwise adjusted in order to match the capabilities of the receiving device or application.

Of course, text, sound (for example optionally with regard to a "ringtone"), photograph or other image, avatar, video, other visual information or indeed any other type of information may optionally be exchanged between the agent and the server as part of the Self Contact, such that the user may optionally indicate that such information is to be associated with the personal information of the user, and then optionally propagated to the communication devices of other users. In the case of certain types of information, such as music for example, there may optionally be added one or more safeguards to the information, for example to

limit distribution to only one user and/or only to a certain group of users, and/or users having certain rights or other characteristics. These safeguards may optionally be installed through the server such that only agents possessing a certain key or other characteristics may access it.

Unless otherwise defined, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs. The materials, methods, and examples provided herein are illustrative only and not intended to be limiting.

Implementation of the method and system of the present invention involves performing or completing certain selected tasks or stages manually, automatically, or a combination thereof. Moreover, according to actual instrumentation and equipment of preferred embodiments of the method and system of the present invention, several selected stages could be implemented by hardware or by software on any operating system of any firmware or a combination thereof. For example, as hardware, selected stages of the invention could be implemented as a chip or a circuit. As software, selected stages of the invention could be implemented as a plurality of software instructions being executed by a computer using any suitable operating system. In any case, selected stages of the method and system of the invention could be described as being performed by a data processor, such as a computing platform for executing a plurality of instructions.

Although the present invention is described with regard to telephones and other communication devices, it should be noted that any device featuring a data processor and featuring some kind of local storage, including but not limited to a flash memory, memory card, SIM card or a hard disk with the ability to support at least voice communication may be described as a telephone. For example a communication device may optionally be described as any application and/or device that manages an address book, phonebook, contacts, "buddy list" by IM (instant messaging) applications and/or the like; preferably voice and/or video communication is enabled. The device preferably comprises an agent which

communicates with a synchronization server on a server through a wireless network, a computer network or a combination thereof, for example (and without limitation), cellular networks (GSM, GPRS, UMTS, CDMA, etc.), wireless networks (WiFi, WiMax, etc.) and the Internet. The agent and the synchronization server preferably communicate according to a proprietary protocol for synchronizing one or more data items, whether automatically or manually.

The agent according to the present invention is preferably operative over a wide variety of platforms and more preferably is “device agnostic”. The agent may optionally be provided by the device manufacturer, using standard protocols such as OMA DS (SyncML). Optionally, the agent may be implemented using platforms including but are not limited to Java Micro Edition (J2ME), Symbian, Windows Mobile, BREW, STK, Windows (PC Client), Mobile Linux (Android, LiPS, LiMo, etc.), or Apple iPhone® or the like.

Optionally the agent is implemented as a J2ME MIDlet. The J2ME runtime environment is based on a virtual machine that runs on top of the phone’s operating system and provides restricted access to some of the resources of the phone. The basic J2ME profile for mobile phones is the Mobile Information Device Profile (MIDP), but there are additional optional libraries that are available for accessing PIM data and the file system.

Optionally, implementation of the agent also uses the SIM Toolkit (STK), which enables the development of JavaCard applets that run on the SIM card. The STK environment is very limited in terms of functionality and space, but it provides essential access data that is stored on the SIM card, including the address book.

A “server” as termed herein optionally and preferably comprises any computer that is connected to a fixed-line IP network. It should be noted that optionally any device featuring a data processor and/or the ability to execute one or more instructions may be described as a computer, including but not limited to

a PC (personal computer), a server, or a minicomputer. Any two or more of such devices in communication with each other, and/or any computer in communication with any other computer, may optionally comprise a "computer network".

BRIEF DESCRIPTION OF THE DRAWINGS

The invention is herein described, by way of example only, with reference to the accompanying drawings. With specific reference now to the drawings in detail, it is stressed that the particulars shown are by way of example and for purposes of illustrative discussion of the preferred embodiments of the present invention only, and are presented in order to provide what is believed to be the most useful and readily understood description of the principles and conceptual aspects of the invention. In this regard, no attempt is made to show structural details of the invention in more detail than is necessary for a fundamental understanding of the invention, the description taken with the drawings making apparent to those skilled in the art how the several forms of the invention may be embodied in practice.

In the drawings:

FIG. 1 is a schematic block diagram of an exemplary system according to the present invention; and

FIG. 2 is a schematic block diagram showing an exemplary, illustrative agent of Figure 1 according to the present invention in greater detail.

Figure 3 is a schematic drawing of an exemplary system of the present invention for performing the self contact updating process.

FIG.4 is a flow diagram showing propagating the self-contact information from the owner of the telephone to another user.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention is of a system and method for propagating identification information between users, preferably through communication devices, and optionally and more preferably through an agent installed on the communication device and a server. Such process optionally and preferably comprises two-way synchronization between the server and the communication device, through the agent, such that each of the agent and the server may optionally “push” or “pull” information. Alternatively only one of the agent and/or the server optionally initiates synchronization; optionally the user initiates synchronization through manual activation of the communication device, for example through manual activation of the agent at the communication device.

Upon synchronization, the server preferably exchanges information with the agent, such as for example updated personal identification information. Optionally and preferably the agent may also push information to the server, such as for example a change in certain contact information. For example, if the user enters a change to the contact information in the telephone, whether the user’s contact information and/or contact information of another person, the agent preferably pushes such a change to the server. The server then optionally distributes the change to a plurality of other subscribers to the system or even to all subscribers.

According to preferred embodiments of the present invention, the agent which is installed on the telephone is a “thin client”, such that the business logic, data adaptation and formatting are preferably performed in the server. Alternatively, the agent may optionally perform one or more of the above tasks in synchronization with the server.

Synchronization between the agent and the server may optionally occur periodically, for example according to a pre-determined cycle, or alternatively synchronization may optionally occur upon detection of an event, for example upon changing contact information, or alternatively triggered by the server through a Communication Initiation Request (CIR). A CIR can be sent as an SMS

message, UDP packet, SIP message or any other mobile terminated (MT) protocol. On the device, the CIR is either handled by a built-in Push Registry mechanism (as implemented in J2ME), or by a proprietary listener.

According to preferred embodiments of the present invention, synchronization also includes backing up information from the telephone to the server, including but not limited to one or more of user determined telephone settings, contact information, software installed on the telephone and the like. If required, for example upon by a request by the user or alternatively as automatically determined by the agent, the backed up information is preferably restored through an interaction of the server and the agent. Preferably, the data may be restored on a telephone which is different from the one from which back-up was originally performed, for example if the user changes handsets.

According to preferred embodiments of the present invention, various types of information may optionally be exchanged through the synchronization process. For example, a user may optionally provide a picture through the telephone, of the user or of someone else, which may then optionally and preferably be associated with the contact details of that person. As a result, the picture is associated with the incoming telephone call of that person, and automatically displayed by the phone. The agent may then preferably provide the picture to the server as part of the synchronization process. The server may then preferably provide the picture to other agents, again as part of the synchronization process. Preferably the user providing the picture is able to determine whether this picture will be provided to other users when calling; more preferably, this user is also able to determine the ring tone which will be heard by that other user.

According to preferred embodiments of the present invention, at least the first time that synchronization occurs between the agent and the server, preferably for a particular user (such that if the telephone becomes identified with a different user, this process preferably occurs again), the system preferably creates a special contact in the address book of each user, more preferably through the agent. This

contact is a “Self Contact” which represents the actual user of the telephone and preferably contains the telephone owner personal data which is saved at the server (for example optionally at an associated storage and/or other computer or device) and is copied to the telephone. This contact can be edited through the embedded address book (contact information) application of the telephone, just like any other contact. However, changes in the Self Contact are optionally and preferably reflected in the server and propagated, by the server, to other users in the system who have that individual user as contact in their address books and who are interested in the service, more preferably through synchronization with the server as described in greater detail below.

For example, assume that User A appears as contact in the address books of Users B and C. When User A updates his “self contact” with a new telephone number through the embedded Address book of his telephone, the agent which is installed on User A's phone preferably identifies this change and updates the server. The server in turn preferably distributes this update to Users B and C through the agents on their phones. As a result, Users B and C automatically and transparently receive the updated contact information of User A in their phones' address books.

The above scenario is applicable not only to contact information (such as telephone numbers, email and postal addresses), but also to the audible and visual representation of each user which may be associated to the Self Contact through the telephone book (contact list) of the telephone. A user can optionally determine which picture, sound (“ringtone”) and/or video other users will see/hear when he/she calls them. This is done in a similar method as updating contact information – through the Self Contact. Most modern digital telephones allow the user to associate a ringtone, photo and video with any contact in his/her address book (automatically displayed/played when this contact calls in). Specifically, it can optionally and preferably be done with the Self Contact. When the agent identifies such an association, it preferably sends the information to the server along with the

relevant media (picture, audio, and/or video). The server optionally and preferably distributes the information and media to all the users that have that individual user in their address books. As a result, when the first user calls another user (who is also using the system), the other user will see/hear the picture/audio/video that was determined by the first user.

The Self Contact may optionally include any type of PIM (personal information management) information for managing personal information, which may optionally include but is not limited to one or more of: name, address, title, company, personal notes; contact information (e.g., telephone numbers, e-mail address, instant messaging (IM) identification or address, physical address and/or any other type of contact detail or information); significant calendar dates such as birthday and one or more anniversaries; reminders; image, ringtone, video, audio, avatar and the like.

The principles and operation of the present invention may be better understood with reference to the drawings and the accompanying description. Although the below description is provided with regard to the operation of a telephone, whether a cellular or fixed line telephone, it is understood that it optionally applies to any type of communication device and/or application.

Referring now to the drawings, Figure 1 is a schematic block diagram of an exemplary system according to the present invention. As shown, a system **100** features an agent **102** and a server **104**. Agent **102** is shown as preferably being installed in telephone **106**, while server **104** is optionally and preferably installed in the IP network of the operator or in a hosting site (ASP), shown as a host **108**.

Server **104** is responsible for synchronizing and storing the personal data of users as obtained from agent **102**, optionally and preferably through a server module **120** as shown. Data is preferably stored in its original format, allowing server **104** to adapt the data to the capabilities of each device (not shown).

Agent **102** preferably synchronizes various types of data (including but not limited to contact information, calendar, pictures, video, audio, messages, etc.)

between telephone **106** and server **104**. Agent **102** preferably operates periodically, checking for updated PIM items and media files; alternatively, agent **102** may be activated in response to a triggering event, such as a change to contact information for example. Once activated, agent **102** optionally and preferably connects to server **104**, more preferably through server module **120**, exchanges the new or modified data, and receives updates from server **104**. Such an exchange may optionally occur through push or pull, or combination thereof, by either or both of agent **102** and server **104**. Agent **102** preferably does not require any interaction with the user, such that the synchronization process is preferably fully automatic. Agent **102** may optionally not provide a user interface or alternatively may preferably provide a simple configuration screen. Agent **102** can optionally be started by the user or initiated by server **104**. Upon initiation for the first time, agent **102** preferably creates a “self contact” for the user in the contact information of telephone **106** (not shown). This self contact contains the user’s own contact information; should the user change this information, agent **102** is preferably activated and sends this change to server **104**, which then preferably propagates the changed contact information to other agents (and hence other telephones) in system **100** which have the user as a contact (not shown).

Communication between agent **102** and server **104** is performed through a communication channel **110**, which may optionally be wired or wireless, and which also optionally may comprise a plurality of different “hops” (rather than a single direct connection). For example, communication channel **110** may optionally comprise a wireless packet-data network such as GPRS, EDGE, UMTS (WCDMA), EVDO, WiFi, etc. Preferably communication between agent **102** and server **104** is based upon IP (Internet Protocol) and thus is network-agnostic. Agent **102** and server **104** preferably communicate according to XML over HTTP/HTTPS. Triggers (signals or messages for initiating an event) are optionally and preferably sent over SMS, WAP Push or TCP/UDP.

Server **104** also preferably provides a Web interface (not shown) through a Web server **112**, which allows users to edit their data, preferably with regard to the Self Contact (personal information) and initiate various operations of agent **102**, including but not limited to Synchronization, Backup, Restore and Wipe-Out (for removing all information of a particular type or even all information on the telephone).

Figure 2 is a schematic block diagram showing an exemplary, illustrative agent of Figure 1 according to the present invention in greater detail with regard to wireless communication.

Agent **102** is optionally and preferably implemented according to one of the following technologies: Mobile Java (J2ME or Java 2 platform, Micro Edition), open operating systems for telephones such as Symbian and Windows Mobile (not shown), Binary Runtime Environment for Wireless (BREW, Qualcomm's technology, applicable mostly for CDMA phones; not shown), or embedded applications (pre-integrated with the telephone's firmware; not shown).

With regard to Java based implementations of agent **102**, which is the exemplary implementation described with regard to Figure 2, preferably implementation is performed according to JSR (Java Specification Request) 185 and J2ME CLDC (Connected Limited Device Configuration) and MIDP (Mobile Information Device Profile) are used. CLDC is based on a virtual machine originally intended for use on telephones with limited functionality and/or computing power, such as mobile telephones for example. It is suitable for devices that have 16- to 32-bit RISC/CISC microprocessors/controllers and at least 160 KB of total memory available for the implementation of the virtual machine. CLDC provides the Java platform runtime and libraries, which in turn are used as the basis for MIDP. A CLDC interface **200** is shown for interacting with agent **102**.

Mobile Information Device Profile (MIDP) is a specification published for the use of Java on embedded devices such as mobile phones and PDAs. Other

profiles of J2ME are suitable for other types of devices. MIDP in turn provides the user interface for the telephone, network connectivity, local data storage, and application management through a standardized set of Java APIs. Agent **102** preferably uses the PIM API of JSR-75, in order to obtain such information as contact information, pictures and so forth.

Agent **102** preferably accesses PIM (Personal Information Management) data (contact information, calendar, notes and the like) **204** and a File System **206** through a JSR 75 interface **208**.

The server (not shown, see Figure 1) is preferably able to initiate communication with agent **102** through a JSR 120 interface **210**, which provides a wireless messaging API (application programming interface) for SMS (Short Message Service) messages. JSR 180 API (not shown) provides access to communication over SIP (Session Initiation Protocol), as another non-limiting example for communication. JSR 120 interface **120** provides access to network specific SMS messaging on GSM (Global System for Mobile Communications) or CDMA (Code Division Multiple Access) networks. JSR 120 interface **120** also supports the ability of a Java program to be launched in response to a SMS message, also known as SMS push, such that for example agent **102** may optionally be activated in response to a SMS message from server **104** (not shown) and/or from another component of the system (not shown).

The telephone is operated according to an operating system shown as OS **122**. OS **122** interacts with a Java Virtual Machine JVM **124** and an Application Management Software (AMS) **126**. The telephone also features a push registry **128**, which allows agent **102** to register for incoming messages, specially for triggering operations by Communication Initiation Requests (CIRs) sent by the server **104** (not shown).

Agent **102** may also, optionally or alternatively, communicate with various components of the telephone (not shown) through Synchronization Markup Language (SyncML, officially called OMA Data Synchronization), a standard

technology to synchronize contact and calendar information between some type of mobile device and a computer (personal or network-based service). SyncML also provides support for push e-mail, thereby allowing e-mail messages to be “pushed” from server **104 (not shown)** to agent **102**. SyncML may optionally be used by agent **102** if for example the above types of communication technologies are not suitable for communicating with the telephone.

Agent **102** may also, optionally or alternatively, communicate with various components of the telephone (not shown) through the SIM Toolkit (STK), which for example provides access to contacts that are stored on the SIM card (not shown).

Agent **102** may also optionally or alternatively be implemented according to Binary Runtime Environment for Wireless (BREW, Qualcomm's technology). BREW features libraries and software frameworks for supporting programs such as agent **102**, and also provides support for interactions between agent **102** and other components of the telephone. BREW also includes functionality for event handling.

Agent **102** may optionally be implemented on various types of “smart phones” implemented according to different types of open and/or otherwise accessible operating systems and/or devices accessible through different SDKs, including but not limited to such as the Windows Mobile OS (operating system) of Microsoft Corp, the Symbian operating system, the iPhone® SDK (Apple Inc) or Android of the Open Handset Alliance (initiated by Google).

Figure 3 is a schematic drawing of an exemplary system according to the present invention for performing the self contact updating process. Server **300** optionally features synchronization module **310** and list of user profiles per each user in the system **320**. A user is optionally a cellular telephone owner and/or user or any owner and/or user of a communication device and/or application that features an address book, contact list, repository of contact information and the like. For the purpose of description only, the users are described herein as the

owner of a communication device, shown as user A communication device 302 and user B communication device 303. The user profile **320** is optionally created and/or configured by the system upon user registration, for example optionally using a web browser (not shown), whenever the user enrolls to the system or optionally copied from an existing data repository. The profile **320** is preferably created and/or configured to include the self contact information for that user. Self contact information preferably includes, at least, the user name (and/or other identifier) and telephone number (and/or other contact address or link) but can optionally include one or more other parameters.

Upon first synchronization between the server 300 and user A communication device 302 for example, self contact information is optionally copied from the user profile 320 in the server 300 and transferred via communication channel 400 to user A communication device 302. Such self contact information may also optionally be provided to the server 300 through a web based interface; in addition, such self contact information may also optionally be updated through such a web based interface. Alternatively or additionally, as described herein, such initial creation and/or updating of the self contact information may optionally be performed through user A communication device 302.

The agent 304 optionally copies this information to the address book 306. The owner and/or user of user A communication device 302 may optionally update the self contact information 308 using the address book 306 interface and/or as previously described through a web based interface. Server 300 optionally and periodically synchronizes with agent 304 for such updating when performed through user A communication device 302; otherwise, the web based interface preferably provides information directly to server 300. When user A of user A communication device 302 adds user B to address book 306, the synchronization process, handled by the agent 304 and the server 300, updates the user self contact information 308 in the user profile 320, using communication

channel 400. The server 300 then optionally checks if user B is enrolled to the service. If so then user A self contact information 308 is preferably transferred to user B communication device 303 of user B via communication channel 500. The agent 305 optionally copies this information to the address book 307 of user B communication device 303 shown as copy of user A self contact information 309. The same process is preferably performed when user A updates self contact information 308.

Figure 4 is a flow diagram showing the propagation of the self-contact information from the owner and/or user of the telephone to another user. First user A updates the self contact of user A with new information, such as a new photo, updated home address, new telephone number etc in the cellular telephone address book of user A (100). Self contact information is optionally updated via the address book interface, for example. Then, the server optionally synchronizes with user A cellular telephone and processes all of the new and relevant data in the address book (200). Next the server detects that user A has updated the contact details of user A, and that user B has user A as a contact in user B's address book (300). The server preferably synchronizes the updated contact details of user A into the address book of user B (400). This process is preferably performed by transferring the data to the agent on the cellular telephone of user B, which copies the data into the address book of the cellular telephone of user B.

While the invention has been described with respect to a limited number of embodiments, it will be appreciated that many variations, modifications and other applications of the invention may be made.

What is claimed is:

1. A system for propagating personal identification information between a plurality of communication devices through a server, comprising:
An agent for being operated by each of the plurality of the communication devices;
A server module operated by the server for communicating with said agent;
Wherein said server module and said agent communicate according to at least one of push or pull for synchronizing the personal identification information data between the pluralities of communication devices.
2. The system of claim 1, wherein the personal identification information comprises one or more of contact information text, sound, image, avatar, video, or other visual information.
3. The system of claim 2, wherein the server and the plurality of communication devices communicate through a network.
4. The system of claim 3, wherein said network comprises a plurality of networks, wherein at least one network is a wireless network.
5. The system of claim 4, wherein the communication device is a telephone.
6. The system of claim 5, wherein the communication device is a cellular telephone.
7. The system of claim 4, wherein the communication device is a mobile communication device.

8. The system of claim 7, wherein said mobile communication device comprises voice and/or video communication capability.

9. The system of any of claims 1-8, wherein said agent triggers said synchronizing.

10. The system of any of claims 1-9, wherein said server module triggers said synchronizing.

11. The system of any of claims 1-10, wherein the communication device further comprises an address book and the personal identification information is added to said address book by said agent.

12. A method for synchronizing data between a plurality of communication devices and a server, comprising:

Providing an agent for being operated by each communication device;

Providing a self contact comprising personal information for a user of a communication device, wherein said self contact is managed through said agent;

Synchronizing said self contact between said agent and the server; and

Propagating at least one alteration, if any, from said self contact to at least one other of the plurality of communication devices.

13. The method of claim 12 wherein said change is sent by the server to one or more of the plurality of communication devices if the user is listed as a contact.

14. The method of claim 12, wherein said communicating is initiated by the server.

15. The method of claim 12, wherein said communicating is initiated by said agent.

16. The method of claim 15, wherein said agent initiates said communicating according to alteration of data on the telephone.

17. The method of any of claims 12-16, wherein the data comprises at least one or more of contact information text, sound, image, avatar, video, other visual information.

18. The method of claim 17, wherein said sound comprises a ringtone.

19. The method of any of claims 12-18, further comprising:

Creating said self contact for the user of a communication device upon first synchronization between said communication device and said server, said self contact including information about the user.

20. The method of any of claims 12-19, wherein said propagating said at least one alteration comprises:

Determining a type of data of said at least one alteration;

Determining whether said at least one other communication device is capable of operating with said type of data; and

If so, propagating said at least one alteration to said at least one other communication device.

21. The method of any of claims 12-19, wherein said at least one alteration is propagated to a plurality of other communication devices.

22. The method of claim 21, wherein said at least one alteration is propagated to all other communication devices.

23. The method of any of claims 12-22, wherein said communication device comprises a telephone.

24. The method of claim 23, wherein said communication device comprises a cellular telephone.

25. The method of any of claims 12-22, wherein said communication device is a mobile communication device.

26. The method of claim 25, wherein said mobile communication device comprises voice communication capability.

27. The method of any of claims 12-26, further comprising altering at least one detail of said self contact by the user whose personal identification information is in said self contact.

28. The method of claim 27, wherein said altering said at least one detail is performed through a web based interface.

29. The method of claim 27, wherein said altering said at least one detail is performed through said communication device.

30. The method of any of claims 12-29, wherein said providing said self contact further comprises creating said self contact by a user with personal identification information of said user.

31. The method of claim 30, wherein said altering said at least one detail is performed through a web based interface.

32. The method of claim 31, wherein said altering said at least one detail is performed through said communication device.

33. A method for synchronizing data between a plurality of communication devices, comprising:

Providing a self contact comprising personal information for a first user of a first communication device;

Detecting at least one alteration to said self contact; and

Propagating said at least one alteration, if any, from said self contact to at least one other of the plurality of communication devices.

34. The method of claim 33, wherein said propagating said at least one alteration comprises:

Determining a type of data of said at least one alteration;

Determining whether said at least one other communication device is capable of operating with said type of data; and

If so, propagating said at least one alteration to said at least one other communication device.

35. The method of claims 33 or 34, wherein said at least one alteration is propagated to at least one of said plurality of communication devices, apart from said first communication device, if said first user is listed as a contact at said at least one of the other communication devices.

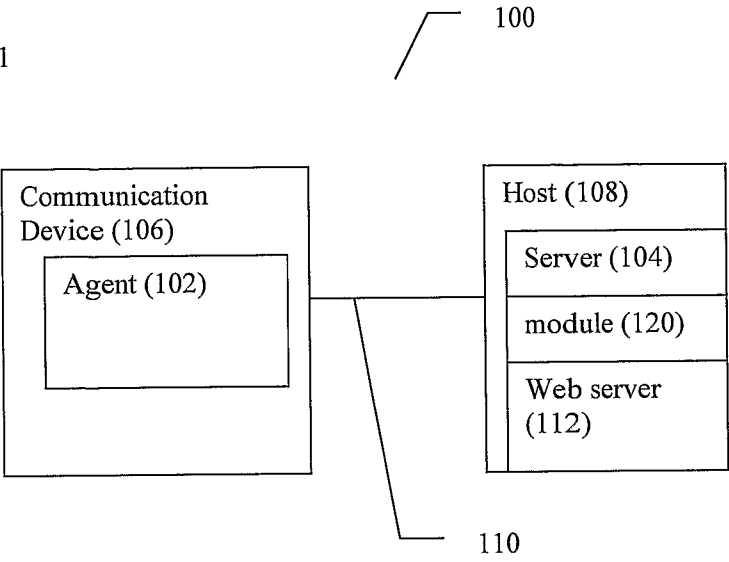
36. The method of any of claims 33-35, further comprising altering at least one detail of said self contact by the user whose personal information is in said self contact.

37. The method of claim 36, wherein said altering said at least one detail is performed through a web based interface.

38. The method of claim 37, wherein said altering said at least one detail is performed through said communication device.

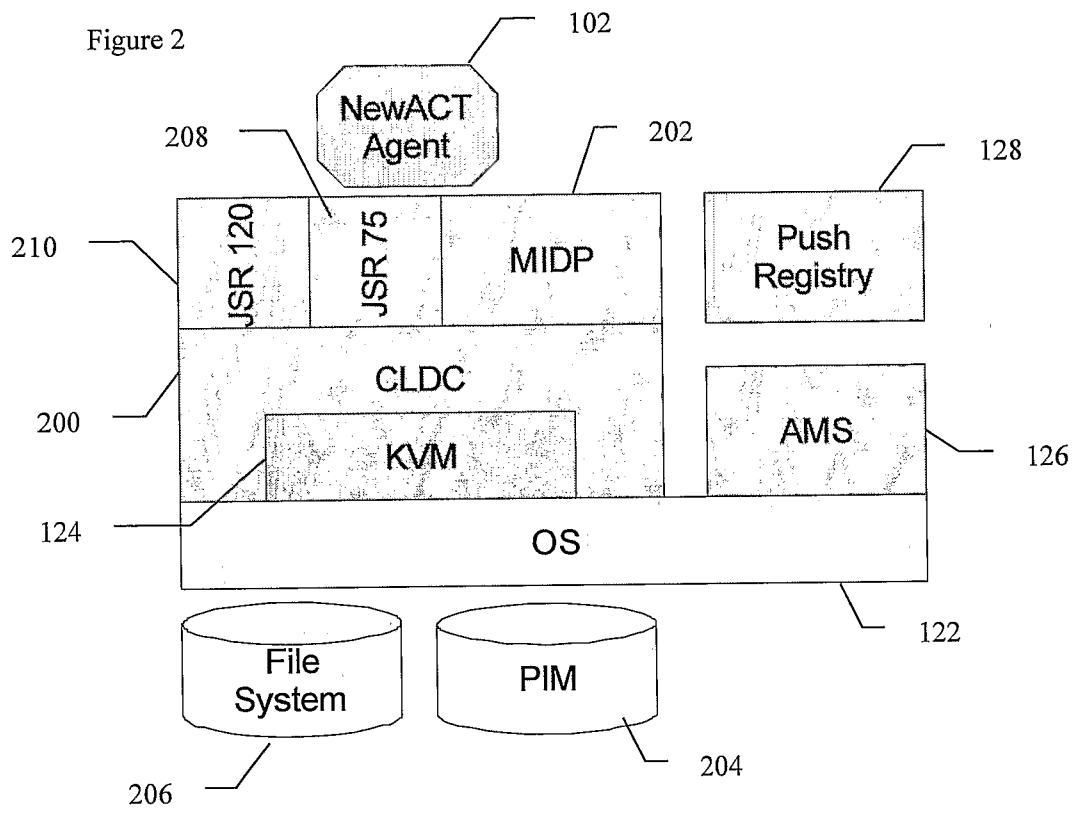
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Figure 1



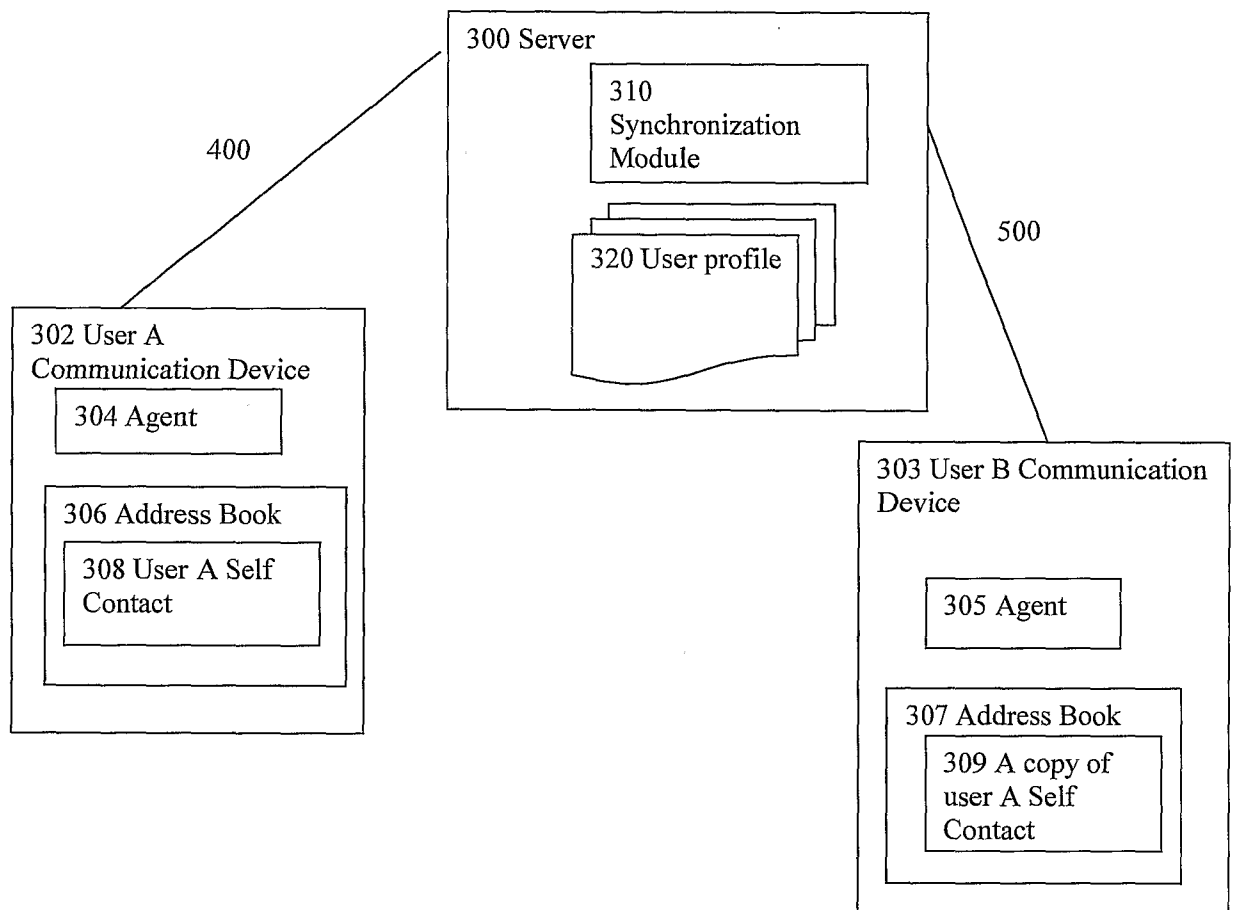
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Figure 2



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Figure 3



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Figure 4

