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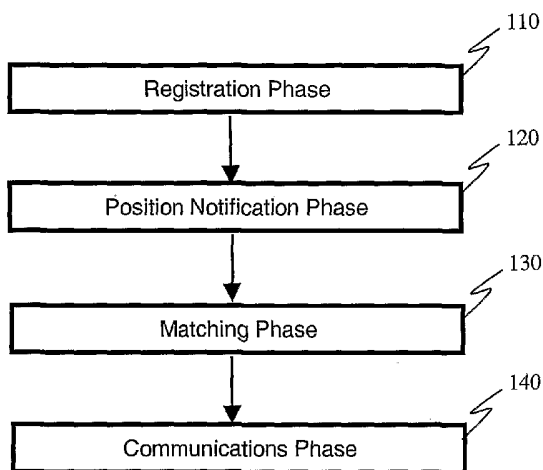
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(54) Title: LOCATION BASED MATCHING AND COMMUNICATIONS SYSTEM

Process Flow 100



(57) Abstract: Computerised methods providing automated matching and introduction of a person to services, products, or other people where these satisfy the conditions of being within a given locality and satisfying various criterion set by the person. Users of the system may activate matching activities by sending an electronic message to the systems via sms text message, email or other messaging technology, such message advising the system of a zone name or number, such zone name or number corresponding to a geographical location, details of which are stored in a database. Users are matched with other users or with product or service providers, who are located in the same zone or in neighbouring zones where the search profile criterion are satisfied. Users may make use of Zone Signs, displayed within Zones, to determine whether they are in an area covered by the system, and to obtain access telephone numbers and zone reference numbers for use in the position notification message. Users may also activate matching activities by telephoning an Interactive Voice Response systems connected to the matching and communication system, and following prompts instructing them into which keys to press to select the correct location zone in which they are located, and controlling other aspects of the

system. Users may also advise the system of their locations by placing their personal RFID tags within range of special RFID readers located at specific locations. Their RFID tag has a unique number associated with their user identification stored, and the RFID reader transmits this number together with the location of the reader unit to the matching and communications system via a telecommunications network. The invention includes methods for allowing anonymous communications between people that have been introduced through automated matching and introduction, wherein a computer system relays electronic messages and telephone conversations, thereby maintaining anonymity of communications.

WO 2006/005122 A1

LOCATION BASED MATCHING AND COMMUNICATIONS SYSTEM

Technical Field

The present invention relates to computerized methods providing automated matching and introduction of a person to services, products, or other people, where these satisfy the conditions of being within a given locality and satisfying various criterion set by the person. Furthermore the present invention relates to methods for allowing anonymous communications between people that have been introduced through automated matching and introduction, wherein personal details are not necessarily revealed to the other party, unless authorized to be released. Furthermore the present invention relates to promotion and advertising of products and services, including but not limited to such promotion and advertising that is targeted at prospective customers who are located within, or have at some time earlier visited a specific local vicinity of interest to the party providing the aforementioned goods or services.

Background Art

The problem of locating people suitable for inter-personal relationships (of various types), and the problem of locating particular products or services are in many respects similar. Both problems involve seeking an object with unique and complex attributes, and in both problems the location of the object in relation to the person seeking it is usually of particular importance. The person seeking the object may physically seek out the object, for example in the case of a product the person may visit a store, or in the case of seeking another person, they may visit a nightclub. The difficulty with this approach is that the person may have difficulty in physically locating the object. Society has developed several mechanisms to assist in the matching and locating process including advertising, directories, and more recently, the internet.

- 2 -

Many people seek relationships, services or products through conventional advertising media such as newspaper advertisements, Internet dating or matching services, video, cinema or television advertisements, radio, local notice board services or other conventional introduction services or media. A common way for a person to locate products or services is for the service or product provider to advertise the availability of the service or product and for the person seeking the service or product to respond to the advertisement. People seeking to be put in contact with other people (due to similar interest or other reason), may use a similar mechanism of advertisement and response. Their intention to find a relationship is advertised and then potential matches may respond to the advertisement. Computer matching and "dating" services currently exist to automate the matching process. The person wishing to be matched creates a profile of their own characteristics and of the characteristics of the person or people that they seek. The profiles of all people wishing to be matched are then stored in database. These services display information over the internet and allow customers to find potential matches by means of a search of the database, satisfying the customer's criterion. These services may also communicate via email communications to the customers. These traditional matching services are limited in that they may lack immediacy and may not be truly local. For example, if a person went to a nightclub and decided on arrival that they wanted to seek a relationship for the night then it may be impractical to run newspaper advertisements or to enlist in an Internet dating service in order to find a match for the night. The traditional services are not designed to match between the people who are actually in the geographical vicinity at the particular time. The person is faced with the potentially difficult task of approaching other people directly and talking to them to determine if a person they have approached is a suitable match. The only information they have before approaching the other person is the physical appearance of the potential match. This lack of information may lead to many unsuccessful approaches before a match is found. This process is slow and may be socially embarrassing. The slow and limited nature of the process may easily lead to the person not finding their desired match in the night. Directly approaching potential matches also relies on the potential match being within sight, thus a potential match nearby may not be noticed. Directly approaching another

- 3 -

person to determine if they are a potential match may be dangerous in that this exposes both the person making the approach and the person being approached to potential harassment if one person determines that the match is not suitable and the other person thinks it is. In the case of products or services, traditional mass-market advertising has several limitations. These methods, such as radio, television and newspaper advertising, are not able to easily target potential consumers whilst they are at particular locations. Companies would like to be able to reach particular types of consumers who may frequent a particular location. For example a restaurant may wish to make special lunch offers to its customers when they are in the shopping centre. Furthermore, companies would like to be able to define a detailed profile of the target market to be reached by the advertising, for example males of age between eighteen and twenty-five who play golf. Traditional methods of advertising do not allow for such tight targeting of audience profile combined with near real-time geographical location data. There is also a need for people to be aware of the location of their friends, family or other acquaintances. In certain instances it is helpful to be able to determine if certain people are within the same local vicinity, so that arrangements can be made to meet.

Several methods exist for tracking individuals, and methods exist to use these tracking methods in combination with matching methods to provide locality based matching services. These existing methods usually rely on the user having a communications device with tracking capabilities, and an infrastructure existing to allow for tracking of the individual. A disadvantage of such an application is that customers perceive the continual tracking of their movements as a threat to their privacy. Other disadvantages include complexity and costs associated with the various tracking technologies. Another existing method for matching individuals consists of customers wearing electronic badges which have personal information stored on them. These badges transmit a radio signal over a short range, and if two users of such badges are within range of one another, the badges will advise of common interests shared by the two users. Disadvantages with this technology include cost and complexity of the

- 4 -

badges, and the fact that users must remember to wear the badge and complexity of programming the badges.

A need exists to provide apparatuses and systems for local introductions, communications and advertising that overcome or at least ameliorate deficiencies in existing arrangements.

Disclosure of the Invention

An aspect of the present invention provides systems, methods and apparatus for “person to person”, “person to product” and “person to service” matching and introductions within a localized vicinity of the person being matched, which
10 comprises of a combination of several existing technologies which may include but are not limited to mobile phone, regular telephone, Short Message Service (SMS), Interactive Voice Response (IVR), Voice over IP (VOIP), General Packet Radio Service (GPRS), Computer Database and Internet technologies. The invention allows the person being matched to remain anonymous and to communicate anonymously
15 with potential matches until the suitability of the match is determined. In the case of a “person to person” match, the person may then choose to make a more direct approach in person, or alternatively discontinue communication without revealing personal identity. The invention is truly local in that it creates matches based on near real-time geographic proximity. The invention therefore matches the person being matched to
20 people, products or services that are relevant to the local vicinity at the time of the match.

The invention will be referred to in this document as The Introduction Game System (“The Game” or “The System”). The complete invention includes systems, methods and apparatus, which operate together in concert to perform a matching, introduction,
25 communications and advertising *process*. This process can be viewed as a game since it has a number of attributes in common with a game. These include a registration process, similar to entering into a game or competition, users of the system can be considered to be “users”, and most users of the system would perceive usage of the

- 5 -

system to be a “fun experience”, as they would be expected to feel about playing in a game. The system process (or “game process”) of the current invention is comprised of four distinct phases. These are the Registration Phase, the Position Notification Phase, the Matching Phase and the Communications Phase. There are many possible technical embodiments of the various phases, however the presence of these four phases characterizes the structure of the invention.

The Registration Phase allows people wishing to use the system (users) to register on the system. Users must formally register before they can use the system. The process of Registration tells the system about the users characteristics and about the characteristics of the person, product or service that they are seeking to be matched with and introduced to. Such information may be stored in one or more computer databases or other computer memory storage system, data of which may be searched and retrieved.

The Position Notification Phase allows users to notify the system of their location, either automatically or manually depending upon the particular embodiment. The system is based on matching people, products and services when they are within the local vicinity of the user. In order to achieve this, users must notify the system of their location, or the system must automatically establish the location of the users. Such notification is typically, but not necessarily, sent via SMS, GPRS, email, mobile phone or regular telephone, Interactive Voice Response (IVR). The notification may be triggered manually by the user, or may be automatically triggered by apparatus detecting the presence of the user in the vicinity. Certain embodiments may make use of automatic position determining technologies to determine the position of the user, for example Ericsson’s Mobile Positioning System (MPS), or Global Positioning System (GPS) based technologies. This information may then be sent manually or automatically to The System.

The Matching Phase provides users with an automated matching service, which matches the user to the desired profile of person, product or service, as specified

- 6 -

during the Registration Phase. The System finds Matches and communicates these to users.

The Communications Phase allows users to communicate anonymously with the other party they have been matched with. Anonymity is provided through interfacing with the Matching computer system. Such communications is typically, but not necessarily, via SMS, GPRS, email, immediate messaging (IM), video conferencing, interactive website or Interactive Voice Response (IVR) systems.

Brief Description of the Drawings

A small number of embodiments are described hereinafter, by way of example only, with reference to the accompanying drawings in which:

Fig. 1 is a block diagram illustrating the Process Phase Flow of an embodiment of the present invention;

Fig. 2 is a block diagram of the methods and apparatus associated with the Registration System, according to an embodiment of the present invention;

Fig. 3 is a block diagram of the methods and apparatus associated with the Arrival Notification, Matching and Communication System, according to an embodiment of the present invention;

Fig. 4 is a block diagram of the apparatus associated with the RFID Tag Reader Arrival Notification System, according to an embodiment of the present invention;

Fig. 5 is a perspective view of a panel or sign for use in the RFID Tag Reader Arrival Notification System, according to an embodiment of the present invention;

Fig. 6 is a schematic representation of a computer system that can be used to practice embodiments of the present invention.

- 7 -

Modes for Carrying Out the Invention

Embodiments of apparatuses, methods and systems are described herein for automated matching and introduction of people to other people, people to services and people to products, anonymous communications between people that have been introduced, and promotion and advertising of products and services to users of the invention. The
5 embodiments are generally described with reference to the application of matching people to people, and in particular people who are seeking relationships. However, it is not intended that the invention be limited to such application. For example, the invention has application to numerous other applications where two or more entities
10 seek to be matched based upon a defined user profile and geographic location of the two or more entities.

Fig. 1 shows the Process Flow 100 of an embodiment of the present invention. The Process Flow 100 is comprised of a Registration Phase 110, which is followed by a Position Notification Phase 120, which is followed by a Matching Phase 130, which is
15 followed by a Communications Phase 140. This Process Flow 100 importantly illustrates the necessary process through which users must progress. It also illustrates the essential Process Flow, which characterizes the system. In another embodiment of the present invention, the Process Flow may be substantially similar to Process Flow
20 100, but may allow the Position Notification Phase to persist continuously during the Matching Phase 130 and Communications Phase 140. Such an embodiment would make use of combinations of various technologies, which allow the presence of the user in the vicinity of interest to be periodically determined and confirmed, so that the system would be aware if the user was still in the vicinity of interest or had departed. Possible technologies that would support such an embodiment include Radio
25 Frequency Identification (RFID) tag and reader technology, Global Positioning Satellite (GPS) technology, Mobile Positioning Systems (such as Ericsson's MPS), Immediate Messaging (IM) technology and General Packet Radio Service (GPRS) mobile internet technologies.

- 8 -

Fig. 2 shows Registration System 200 for use in the Registration Process 110 of The Introduction Game System according to an embodiment of the present invention. The figure is used for illustrative purposes. Other configurations or types of computer systems can be equally well used to practice the methods and computer program products described herein, as would be readily understood by persons skilled in the art. While the figure shows one element of each of the block devices, it should be noted that embodiments may contain a plurality of these devices, for example there may be a plurality of IVR Server 240 or Web Server 220 in order to extend capacity of the system. Furthermore some embodiments of the present invention may not include some of the features demonstrated in Fig. 2. Furthermore the various elements such as Web Server 220, Library database 210, IVR Server 240 and Phone Gateway 250 may be connected using any available networking medium, including but not limited to, Ethernet, wireless 802.11, GPRS, broadband internet, ADSL, Virtual Private Networks (VPN). The various system elements may be connected locally or geographically distributed via network connections. All users must formally register before they can use or participate in the personalized matching service of the system, so that user data can be entered into a database for later searching, access and data-mining. Limited features may be available to unregistered users, such as the ability to access free content and services provided by advertisers. Fig. 2 shows a computer database 210, described as "Library Database" on the figure. This is a primary database for the system and stores data relating to the particulars of the users. Certain fields of the database contain data generated by the system internally, while other fields contain data that must be obtained through the user. Each user of the system is assigned a unique membership identification number ("membership number"). This membership number uniquely identifies each and every user of the system. The user may also be issued with a password to allow secure access to their account information and other services. To Register on the system, each user must provide a profile of themselves and of the person, service or product they are seeking. For example, in the case of a person seeking another person, such profile information may include, but is not limited to, information relating to the users sex, height, age, appearance, hobbies, interests etc. and will also similar information relating to person

- 9 -

being sought. The user may also modify data fields in the profile such that system settings are altered to suite the user. These data fields may collectively be referred to as "personal settings". Personal settings may include, but are not limited to, number of matches per time period, parameters relating to the closeness (or "quality") of match required before an announcement of a match is communicated to the user, parameters relating to the search area to be searched for potential matches and privacy settings. Users may also define a private list of other users (also described as "subscribers" to that list), or subscribe to a system feature that keeps such a private list of other users. Special permissions and/or passwords may be required in order to add users to your list, or have your membership number added to other user's lists. Special privileges or features may be made available to subscribers of such a list. Such a feature may include, but is not limited to, allowing other subscribers on the list to be made aware of the current location of the user in the case of the user being in the vicinity of the system and currently registered on the system ("on-line"). Such a feature may allow, as an example, friends to be made aware of each others presence in a public area so that they may communicate, or even for example, organize an impromptu meeting. The fields of the Library Database may include, but are not limited to, membership number, profile data, personal settings, private lists and subscriptions to various system features. There are many ways to receive profile and settings data from the population of subscribers 260. In one embodiment of the present invention, users in the Subscriber Population 260 may use a personal computer or any other device which can access the internet, such as Web Browser Client 232, to enter the profile and settings data into their membership account. Web Browser Client 232 is connected to Global Internet 231, which in turn is connected to Firewall 230 of the Registration System 200. The Firewall 230 is connected to a Web Server 220, which serves a website containing internet forms which can be completed by the user operating the Web Browser Client 232. The Web Server 220 has a computer application which is able to connect to Library Database 210, and is able to read and write to records and data fields in the Library Database 210, thus allowing the website served by Web Server 220 to display and allow editing of the users membership profile and settings. Another embodiment of the present invention may

- 10 -

be substantially similar to this aforementioned embodiment, but instead of comprising of Global Internet 231, it may comprise of a local Intranet or Virtual Private Network (VPN) or any other type of network connection. Another embodiment of the present invention may allow a user in the Subscriber Population 260 to use a mobile internet client device 233, for example an internet connected mobile telephone, to connect to the Web Server 220 via a mobile internet service such as GPRS Network 232.

Another embodiment of the present invention may allow users in the Subscriber Population 260 to provide their personal data on printed paper forms, over the telephone, in person, or any other communications channel, to human operators 212 who may then enter the relevant data directly into the system via Data Entry Console 211. In some circumstances, users may be permitted to enter in their data directly onto Data Entry Console 211. In another embodiment of the present invention, users from the Subscriber Population 260 may access their membership account and retrieve data or enter data using either a regular telephone 253 or a mobile telephone 254 or any other such telephone connected to a public telephone system 251, or Mobile network 252, or private telephone system or voice over IP (VOIP) internet telephony system. Such phone networks are connected to Gateway 250 which in turn is connected to Interactive Voice Response (IVR) Server 240. The IVR server 210 allows users to interact with the system using DTMF tones by depressing keys on the telephone in response to questions posed by the system and digital audio sound files played over the telephone. The IVR server 210 may in some cases also be configured to support voice recognition software so that users may speak to the IVR server 210 in order to enter in system commands and data. The IVR Server 210 is in turn connected to the Library Database 210, and the IVR Server 210 has a computer application which is able to read and write data to the Library Database 210 in response to commands and data received via the telephone gateway 250. In one embodiment of the present invention, users are able to telephone the IVR system 240 and make a personalized recording and save it on the system. The user does this by calling a designated phone number, and pushing the correct sequence of digits in response to menu options given over the IVR system 240, and speaking the message through the telephone hand-piece microphone at the correct instant in time as prompted by the

- 11 -

IVR System announcement. This recording is assigned a unique message identification number. Users may call into the IVR system 240 using the designated phone number, and may select the correct option from the menu in order to playback messages left by other users. In order to select the correct recorded message, the user must enter the correct unique message identification number when prompted. The system may then reference the database to identify the correct digital audio file required and then proceed to play this message to the user. In such a way, users of the system may leave audio announcements for potential match partners to access, giving further information relating to attributes of the person, product or service available for matching.

The Notifications, Matching and Communications System manages the database system containing the user's profile data, communicates with the users, maintains geographic data on user's locations, performs matching functions between users or between users and product or service providers, maintains game rules and provides communication services between users during the Communications phase. The Notifications, Matching and Communications System may be a centralized computer system or may itself be geographically distributed. Fig. 3 shows a Notifications, Matching and Communications System 300 for use in the Position Notification Phase 120, Matching Phase 130 and Communications Phase 140 of The Introduction Game System, according to an embodiment of the present invention. The figure is used for illustrative purposes. Other configurations or types of computer systems can be equally well used to practice the methods and computer program products described herein, as would be readily understood by persons skilled in the art. While the figure shows one element of each of the block devices, it should be noted that embodiments may contain a plurality of these devices, for example there may be a plurality of IVR Server 332 or Web Server 335 in order to extend capacity of the system. Furthermore some embodiments of the present invention may not include some of the features demonstrated in Fig. 3. Furthermore the various elements such as Web Server 335, Library database 301, IVR Server and Gateway 332 and SMS/MMS Server and Gateway 331 and Zone Processing Systems 310 may be connected using any available

- 12 -

networking medium, including but not limited to, Ethernet, wireless 802.11, GPRS, broadband internet, ADSL, Virtual Private Networks (VPN). The various system elements may be connected locally or geographically distributed via network connections.

5 The present invention is based on matching people, products and services when they are geographically close by to each other, or in the same general vicinity to one another. The methodology of the current invention, the Introduction Game System, includes the process of defining certain geographic regions consisting of a specific general vicinity, and to term these vicinities as zones or "game zones". Figure 3
10 illustrates two game zones, 350 and 360. Any location may become a game zone however game zones are usually places where people gather, meet or socialize. Typically any public game zone venue could join the system and become a game zone, where users may engage with the Introduction Game System. In one embodiment, the owner or operator or other authorized party may apply to register
15 their game zone venue with The Introduction Game System administrators. The game zone venue would then become a game zone and be allocated a unique zone Identification Name or Number. A preferred embodiment of the Introduction Game System may use signs 351 and 361 at game zone venues to advise visitors that the game zone venue is within coverage of a Game Zone of the Introduction Game
20 System. The sign may also display the unique game zone Identification number or name, which would be communicated to the Introduction Game System during the Position Notification Phase. The sign may also include other details relevant to the Introduction Game System, such as access telephone numbers for sending SMS or MMS messages to the SMS/MMS Server 331 or accessing the Interactive Voice
25 Response (IVR) system 332 or 240.

In the preferred embodiment of the present invention, it is a requirement of the system that the user has a communication device capable of communicating with the Matching and Communication processing system 300. This communication device may include, but is not limited to a telephone, a mobile phone, a paging device, a
30 desktop, laptop or handheld computer or other communications device. Users of the

- 13 -

system interact with The Introduction Game System by sending messages to the Notifications, Matching and Communication System 300. These messages are referred to as Notification Messages. Various Notification messages that are received by The System include Position Notification Messages, Command Notification

5 messages and Communications Notification messages. Position Notification Messages advise The System that a user is in a particular local vicinity. Command Notification messages contain system commands issued by users of the system. Communication Notification messages contain communication messages from users, which the system automatically forwards on to the correct recipient as required while

10 maintaining anonymity between users. The various Notification messages may be sent via an appropriate communications channel. Such communication channel may include, but is not limited to, telephone, mobile phone, SMS, MMS, GPRS, email, video conferencing, Immediate Messaging (IM), Interactive Voice Response (IVR) or any other appropriate communications method. Fig. 3 illustrates one embodiment of

15 the present invention, in which users have several available means of sending and Receiving Notification Messages to and from the Notifications, Matching and Communication System 300. These methods include but are not limited to Mobile network 337, Public Phone Network 338, SMS Mobile Phone Gateway 331, Wireless Network 339 and via the Internet 340. Several embodiments are discussed which

20 detail the way users may interact with the system using these various methods of communications. Notification Messages are received by the Notifications, Matching and Communications System 300 via the various Servers and Gateway's including but not limited to SMS/MMS/MPS Gateway 331, IVR Telephone Network Gateway 332, Wireless Network Gateway 333, Email Gateway 334 and Internet Web/XML Web

25 Services Gateway 335. After receiving these Notification Messages, the Servers and Gateway computers send these on to the Message Router 330. The Message Router 330 will parse the messages and determine what the correct action to take with the messages is. It does this through reference to a particular established system syntax, which the Notification Messages must follow in order to be correctly interpreted by

30 the Message Router 330. The Matching and Communications functions for each game zone are performed on computer systems referred collectively as the Zone

- 14 -

Processing Centre 310. The Message Router can determine which computer is responsible for processing which game zones, and upon receiving Notification Messages, it can determine which Game Zone the message relates to, either by referring to the message syntax in the case of a Position Notification Message, or by referring to the Current Online Users Database 320 in the case of certain other types of Notification Messages, such as Communications Notification Messages. Once the Message Router 330 has determined the correct Zone Processing Centre 310 to send the messages to, it can then place the Notification Message in the correct Que of that Zone Processing Centre 310, based on what type of Notification Message is received. For example Position Notifications relating to Zone 1 would be placed in the Zone 1 Positions Que 313, whereas Command Notifications would be placed in the Commands Que 314 and Communications Notifications Received would be placed in Comms In Que 315.

In order to gather the necessary information regarding the location of users, it is necessary for a mechanism to exist whereby the system is advised of the users location. This is the purpose of the Position Notification Phase 120. The Position Notification Phase 120 requires that a user's unique membership identification number and the unique game zone Identification number or name be communicated to the Introduction Game System. This is communicated in the form of a message, termed the Position Notification Message. In one embodiment of the present invention, this is achieved by the user manually advising The System of his location by sending the system the Position Notification Message. In certain embodiments, the Position Notification Message advises the system that a user is positioned within a particular zone, whereas in other embodiments the Position Notification Message may give geographical co-ordinates which the Notifications, Matching and Communication System 300 can process to determine whether or not a user is in a game zone. In other embodiments the Position Notification Message may trigger a process in the Notifications, Matching and Communications system 300 which will establish the location of a user and determine whether or not the user is present in certain game zones. Such embodiments may make use of Mobile Positioning Systems such as

- 15 -

Ericsson MPS, which would allow the Notifications, Matching and Communication System 300 to establish the location of a users Mobile Phone. In most embodiments of the present invention, the Position Notification Message also serves to indicate that the user wishes to partake in the matching process, and be active or "on-line" with the Introduction Game System.

Fig 3. illustrates one possible embodiment of the present invention in which user A, 353, can read the Zone details on Zone Sign 351. The user can then use a mobile phone 356 to send an Position Notification Message, or other types of Notification messages, via SMS message through Mobile Network 337. This SMS message is received by SMS/MMS Server and Gateway 331. The message may contain a particular syntax such that the Message Router 330 can parse the message and determine what type of message is being received and where to route this message to. For example, one possible message syntax would be for the user to send an SMS message in the following format: ZZ[space] [XYZ] Where XYZ is the particular Zone Identifier name or number. The ZZ in this case indicates that the message is a Position Notification Message. Upon receiving the message, the system may make use of the caller Identification number, which in most cases of SMS messages is the mobile phone number of the device originating the message. The Message Router 330 may initially use this Identification number to search the Current Online Users Database 320 to establish whether the user is already on-line. If this number is not present in Database 320 then the Message Router 330 will confirm that the message is a new Position Notification Message and route it to the relevant Zone Arrival Notifications Que 313 of the matching Zone Processing centre 310, as indicated by the Zone Identifier name or number in the Position Notification Message.

Another embodiment is substantially similar to the aforementioned embodiment described above, but rather than using the caller Identification number of the SMS message, the users unique Membership Identification number is used in the Arrival Message syntax. For example the SMS message may be in the following format: ZZ[space] [XXXXXXX] [space][XYZ], Where XXXXXX is the unique Membership Identification number of the user and XYZ is the unique Zone Identifier name or

- 16 -

number. The ZZ in this case indicates that the message is an Position Notification Message. In another embodiment of the present invention, User A 353 has a Mobile Phone 356 which is connected to a Mobile phone network that supports a Mobile Positioning System (MPS), such as Ericsson's MPS. Such an MPS system allows for authorized users to obtain information relating to the position of the mobile handset. This information may be determined through analysis of the signal strengths of various cellular phone repeater towers and other such analysis of the radio signals of the mobile phone network. It may also make use of signals from other Mobile phone networks. Some schemes also make supplementary use of Global Positioning System (GPS) information in order to achieve higher accuracy of the position of the mobile handset. User A 353 may use such a mobile telephone 356 to manually send an Position Notification Message to the Notifications Matching and Communication System 300, via the Mobile Network 337. Such messages may be received and processed by the Mobile Positioning System (MPS) Server 331. Upon the System 300 receiving such a message, the System 300 could generate a request to the Mobile Network's Positioning System asking for the location of Mobile Phone 356, which would return a message indicating the calculated current positional co-ordinates of the Mobile Phone 356. The Notifications, Matching and Communications System 300 is able to convert these co-ordinates into a geographical position relating to proximity to various Game Zones, and determine which (if any) zones are sufficiently close to the user for the user to be considered in that game zone. Such messages to and from the Mobile Network's Positioning System could be communicated via XML or any other suitable protocol, and be sent over any convenient network medium, including but not limited to http, https, internet, Virtual Private Network (VPN), wireless GPRS, wireless 3G, ADSL or any other network.

Another embodiment of the present invention is substantially similar to the aforementioned embodiment utilizing Mobile Positioning Systems, however in this embodiment the User A 353 may give permission to system administrators for the Notifications, Matching and Communication System 300 to periodically send requests to the mobile phone networks for current positional data of the mobile handset. This

- 17 -

arrangement would afford greater convenience to the User A 353, who could visit various Game Zones and have their current Zone position automatically updated. Another benefit would be that if the User left the Game Zone, the Introduction System could automatically stop matching the user to other people, products or services available in the zone or zones where the user was previously located.

Another embodiment of the present invention is substantially similar to the aforementioned embodiment utilizing Mobile Positioning Systems, except that instead of utilizing the Mobile Positioning System, it utilizes a Global Positioning System (GPS) device connected to a mobile communications device, such as a phone or personal digital assistant (PDA) or other such mobile computing device equipped with a communications interface. With such a device the user is able to send Arrival Notifications automatically periodically, or manually, thus updating the Notifications, Matching and Communications System 300 with the users positional co-ordinates. The Notifications, Matching and Communications System 300 is able to convert these co-ordinates into a geographical position relating to proximity to various Game Zones, and determine which (if any) zones are sufficiently close to the user for the user to be considered in that game zone.

Another embodiment of the present invention allows the user to send various types of Notification Messages such as Position Notification Messages to the Notifications, Matching and Communication System 300 via their mobile phone or any other available telephone. Their telephone call is received and processed by the Interactive Voice Response (IVR) Server 332. The IVR system 332 may prompt the user to enter their membership Identification number using DTMF tones by pushing telephone keys, or in some cases the IVR system 332 may be able to use caller Identification to establish the identity of the caller and automatically look up the Identification number on The System database. The IVR system 332 will then prompt the user to enter the game zone unique Identifying Name or number using DTMF tones by pushing the telephone keys. The IVR System 332 communicates with the Message Router 330, which is able to route Notification messages such as Position Notification Messages to the correct Zone Arrivals Notifications Que 313 in the matching Zone Processing

- 18 -

Centre 310, as determined by the zone identification in the message. In another embodiment the IVR system may be enhanced by adding integration with a voice recognition system to offer higher levels of efficiency and convenience. Other embodiments may include input and output devices that aid visually or auditory
5 impaired persons and allow them to interact with the Introduction System.

Operators of the present invention may generate revenue by selling advertising space on both the system generated SMS messages as well as the audio advertisements carried on the Interactive Voice Response system. Benefits to advertisers are that they can reach a targeted audience, of a particular demographic, since the system has a lot
10 of data relating to its users. Furthermore, advertisers are able to reach users based on their real time or near real time location, for example if a user is logging on to a local vicinity zone in "North Sydney", then this may be of interest to a restaurant in "North Sydney" wishing to attract diners with a special offer valid for that evening. This type of targeted marketing is of great interest to a wide variety of companies, and is a
15 rapidly developing advertising market. The possibility of generating advertising with the present invention is a significant benefit, and one not shared by other competing technologies and existing products. The advertising revenue may assist in keeping the cost of the service low, and even allowing certain functions to be provided free of charge in certain embodiments. Such a benefit will allow the rapid adoption of the
20 present invention by large numbers of users. Controlling the system through the IVR system has several significant advantages over control of the system via SMS. It is often more convenient to call the system and interact via telephone keys, or in certain embodiments via voice commands. Typing in SMS messages can be inconvenient and difficult, particularly in certain environments, for example in low light, while
25 driving, while walking. Furthermore, composing and sending SMS messages whilst performing certain activities, such as driving, represents a significant safety hazard. Another key benefit of the present IVR based embodiment of the invention, is that the IVR system is interactive, providing direct feedback to the user relating to success of a particular command, as well as assistance and online help, and intelligent menu
30 choices which do not require the user memorising large amounts of information, for

- 19 -

example zone numbers. With SMS control of the system, users must remember zone numbers or names, and other commands etc. and receive no direct immediate feedback or assistance during the process. In one embodiment of the present invention, the position notification phase may be implemented using the IVR system in the following manner: The user all calls a local access number for the system. Different geographic areas may have different local access numbers, for example consider central metropolitan Sydney has one particular access number. Users in this area call the number when they are going "out" to a particular area and wish to be active in the system. Upon calling, they are prompted to enter their unique user pin number, or in certain embodiments they may be required to enter a user number and a pin number. In other embodiments, the system may be able to establish the identity of the caller using a Caller ID (CID) message, and therefore reduce the amount of authentication entries required. Once the user is authenticated, they receive a greeting, confirming they are logged into the system. They then receive a main menu prompt. In one embodiment of the present invention, this menu choice may be similar to the following: "Press 1 to log onto a zone, Press 2 to enter a match number, Press 3 to record a profile". If the user pushes 1, they are given the opportunity of entering in a "zone number". A "zone number" will correspond to a particular local vicinity where the user will be visiting. In certain embodiments the zone number may respond to a particular suburb or group of suburbs. In other embodiments there may be zone numbers which represent particular public areas or establishments such as bars and restaurants. Certain embodiments will read out a list of zone numbers to guide the user through the position notification phase or the system. One embodiment of the present invention may include an audio prompt similar to the following: "Please enter the 2 digit zone number followed by the has key. Following is a list of popular Sydney zones: Bondi Beach, push One Zero Hash, Oxford Street, push One One Hash, Darling Harbour, push One Two Hash, For a list of other zones push Two Zero Hash". In the above embodiment, the system may be configured to consult a database for current zones, and read out the relevant audio file, for example "North Sydney, push One Four Hash". This arrangement will allow further zones to be added and others removed, dynamically without the need to reprogramme the system. There are

- 20 -

opportunities to play audio advertisements to users over the IVR system at various stages in the process. For example, after the user selects the zone they wish to log on, and prior to receiving a request for confirmation, the user may hear an advertisement from a company wishing to advertise to users in that particular zone. This way the user is forced to listen to the advertisement before hanging up, since the confirmation is only given after the advertisement has completed. For example, in one embodiment of the present invention, the system may play an advertisement following the entry of the zone number, followed by a message similar to: "Press 1 to confirm your log in to North Sydney Zone for 2 hours, Press 2 to change the log in to a different zone" Following confirmation, the system may play a thank you message, which may be similar to: "Thanks for logging on. Have a good time". Certain embodiments may also include further advertisements. Certain embodiments may feature public service announcements and warnings, for example: "Drink responsibly" or "Don't Drink and Drive" etc. Another embodiment of the system would allow users to phone a human operator [not shown on figure 3] who has access to the Matching and Communication System 300 central system and advise this operator of their membership identification number and Zone Identification Name or Number, thus allowing Arrival Notification to take place manually.

Another embodiment of the present invention would allow a User 355 to utilize a Mobile Internet Device 352 to communicate with the Matching and Communication System 300. Notification messages including Position Notification Messages and other messages or communications may be sent or received using Mobile Internet Device 352. This Mobile Internet Device 352 may be connected to a Wireless mobile internet network 339, for example a GPRS or 3G network. Messages sent over Network 339 are received by Wireless Server and Gateway 333 and sent to the Message Router, where they are handled in the same fashion as other messages received, and parsed and routed according to the type of message and unique zone number or name. Another embodiment may provide a program or applet within the mobile communications device which automatically performs the Arrival Notification for the user. The program may make use one of the Immediate Messaging (IM)

- 21 -

protocols in order to communicate in near real time with the Matching and Communication System 300. Many mobile communications devices may include an inbuilt or inter-connected global positioning system (GPS), which would allow the mobile device to report the user's geographic position in near real time to the
5 Matching and Communication System 300.

Another embodiment of the present invention allows communication of notification messages such as Position Notification Messages to the Matching and Communication System 300 via Web page access. User 365 may read the zone information from Zone Sign 361, and transmit the Position Notification Message via a Web Browser terminal
10 362. User 365 may log onto the Matching and Communication System 300 web page, and with the relevant passwords and permissions satisfied, be able to lodge the Arrival Notification and other messages and communications via this web page through the Global Internet 340 or alternatively via any other available private or public network (not shown). Web Server 335 is able to serve this web page to Web Browser 362 via
15 Firewall 336, which protects against malicious activities such as hacking. Another embodiment substantially similar to the aforementioned embodiment above would allow the client machine to communicate with the Matching and Communications System 300 using an organized scheme for connecting computers to other computers, such as XML Web Services. Instead of a Web Browser 362 as a client, any computer
20 system would be able to communicate with the Matching and Communications System 300 utilizing a standard protocol such as XML Web Services or Macromedias Flash Remoting action message format (AMF) format, or similar standard protocols. This would allow other organizations to seamlessly integrate the Introduction Game System into their existing or new computer systems, and may facilitate other
25 companies being able to offer and resell the introduction services under their own brand names and customize the "look and feel" of the user interface. Such a scheme would also make it easier to integrate specific computer systems located at the actual game zones, to allow Arrival Notification, system commands and communications.

In one embodiment of the present invention, communications terminals may be
30 incorporated into seating, tables or other furniture at the game zone, which would

- 22 -

allow users to send Notification messages to the system including Position Notification Messages, Command Notification Messages and Communication Notification Messages. The communication terminals may be incorporated into the menu system or accounting system of the game zone venue such that normal operation of the game zone venue's menu or account payment system may result in automatic or semi-automated Position Notification Messages.

Another embodiment of the present invention allows communication of notification messages such as Position Notification Messages to the Matching and Communication System 300 via email access. User 365 may read the zone information from Zone Sign 361, and transmit the Position Notification Message via an email client on the Internet access Web Browser terminal 362. The email message would be in a specific format as determined by the message syntax. For example the zone number or name may be in the subject field and the first line may be the user membership number. Email Server and Gateway 334 would receive the messages and pass these on to the Message Router for parsing and routing to the correct message que in the correct zone processing centre.

Certain embodiments of the present invention will allow the Matching and Communications System 300 to know when a user has left a game zone. These embodiments are discussed in detail in the following sections. However many embodiments of the present invention do not provide this information to the System 300, and only provide the Position Notification Message once upon the user arriving. In order to determine when a user is actually at a game zone, a session expiry time, or zone session time-out may be incorporated into the profile for the particular game zone. The zone session time-out may be defined as the time period within which a user is still considered present, measured from the instant the System 300 receives the Position Notification Message. The zone session time-out would typically be set to be equal to a period of time that an average person would spend when they visit the game zone venue. For example, the zone session time-out in a restaurant might be set to the average time that people spend dining at that restaurant. In the example of a game zone within a cinema theatre complex, the zone session time-out may be set to the

- 23 -

average duration of the movie pictures being screened. If a user leaves a game zone before the zone session time-out has expired then the game system may still see the user as being at that zone unless the user notifies arrival at another zone or otherwise manually notifies departure.

5 An alternative embodiment may make use of apparatus that can automatically establish the presence of a user in a particular game zone. In this embodiment the Position Notification Message may be received automatically at periodic intervals on a device local to the Game Zone. In the event of the user leaving the Game Zone, the device would cease receiving the Position Notification Messages and would then be
10 able to advise the main Matching and Communication System that the user is no longer in the zone. Possible technologies that would support such an embodiment include Radio Frequency Identification (RFID) tag and reader technology, Global Positioning Satellite (GPS) technology, Immediate Messaging (IM) technology and General Packet Radio Service (GPRS) mobile internet technologies.

15 Fig. 4 shows one embodiment of the present invention, where RFID Tag Reader Position Notification System 400 is located in a particular game zone. A plurality of RFID Tag Readers may be deployed to offer the required RFID coverage area. RFID Tag Reader System 400 is able to detect and read data from RFID tags located within its read and/or read/write coverage area. RFID antennae 441, 442 and 443 are shown
20 in Fig. 4. Although three antennae are illustrated, this is for illustration only, and any number of actual antennae may be utilized. Upon entering a game zone, RFID Antenna or Antennae 441 – 443 detects the RF transmission from the RFID Tag of the user. Each RFID tag has a unique tag identifier number. RFID Tag Reader 440 is able to read this number. The Processor 410 has a software program which allows it
25 to communicate this number in the correct format to the Matching and Communication System 300, via the Communications Interface 430. Communications can take place via any suitable networking medium, including but not limited to Wireless GPRS 450, ADSL internet connection 460, Wireless 802.11 (not shown) or any other networking medium or protocol connected to
30 Communications Interface 430. The RFID Tag Reader System 400 may be designed

- 24 -

to either continuously read all the users RFID tags within the game zone coverage area, or alternatively to “scan” each user when they arrive at the game zone venue, thus automating the Position Notification Phase. Continuous reading of the tags has the advantage that when users leave the game zone, the system can automatically
5 detect this, and conversely the user is kept in the matching process for as long as they are in the zone, without relying on an automatic time out mechanism for removing the user from the zone. There are also several disadvantages with the continuous tag detection scheme. These include more complex and expensive RFID tags and/or readers in order to cover a greater coverage zone. There are also privacy issues
10 surrounding the fact that people’s locations are being continuously monitored.

Embodiments of the present invention may use Radio Frequency Identification (RFID) readers and tags to monitor location of users and generate Position Notification Messages. ISO 15693 and ISO 14443 are evolving international standards administered by the International Standards Organisation (ISO), which RFID readers
15 and tags may be required to comply with in certain regions or jurisdictions. ISO 15693, in particular, is an evolving global open standard for ‘vicinity’ RFID or ‘smartlabel’ applications in the 13.56MHz frequency range. Philips Semiconductors and Texas Instruments produce the ‘ICODE’ and ‘Tag-it’ range of RFID products, respectively, which conform to ISO 15693, and may be used to practice embodiments
20 of the present invention. The ‘ICODE’ product has a reading range of approximately 1m and includes anti-collision measures that enable multiple RFID tags to be read substantially simultaneously. It should be noted, however, that RFID devices that operate in other frequency bands and that meet other standards or no standards at all may also be used to practice embodiments of the present invention. The RFID tags
25 may be read-only or read/write. Both types of tags typically provide a substantially unique identification number when read that can be associated with a particular user.

Certain embodiments may use passive tags. Benefits of passive tags include lower cost and the existence of anti-collision protocols that allow many passive tags to be read simultaneously within the field of a reader. Passive tags or transponders obtain
30 energy to operate from a reader, via one or more energising field antennae. Provision

- 25 -

of an energising field somewhat complicates the design of the reader or antennae and two design options are generally possible. The first option, known as a bistatic reader, utilises two antennae for a particular coverage area, one to receive the signal and the other provide the energising field. The second option, known as a monostatic reader,
5 uses the same antenna to receive the signal and provide an energising field for a particular coverage area.

Certain embodiments may use a monostatic type of reader, with one antenna to cover a particular coverage area within the game zone. The benefits of this arrangement include a more compact antenna arrangement and more uniform coverage at ranges
10 close to the antenna. Several antennae may be used to provide a coverage pattern within the game zone to ensure that all users are within read and/or read/write coverage of the reader. A switching circuit may be employed to switch the various antennae synchronously so that the reader progressively reads tags located in various sections of the game zone. Alternatively, several antennae may be electrically
15 connected to provide simultaneous coverage of all areas within the game zone. Other embodiments may use bistatic RFID readers that employ two separate antennae to cover a particular coverage area within a game zone. This arrangement simplifies the reader design since the two antennae may be physically arranged in such a way as to keep the energising signal away from the sensitive receiver antenna which is required
20 to pick up an RFID tag signal that may be in the order of magnitude of 1 million times weaker than the energising signal at the same frequency and at the same instant in time. Certain embodiments may use active RFID tags that may be read and written to by an RFID reader. Advances in microelectronic fabrication and associated
25 technologies as well as increased demand and economies of scale could see active RFID tag pricing rapidly reduced which would make embodiments using them more viable. The benefits of active RFID tags include simplified reader design, reduced reader cost and less possibility of poor coverage areas within a game zone, on account of the tags having their own power source and thus not having insufficient power when placed in an area of insufficient energising field. In one embodiment of the
30 present invention, the antenna or antennae of RFID Tag Reader System 400 are

- 26 -

incorporated into the zone sign 351 and 361 of Fig. 3. Fig. 5, RFID Panel 500, illustrates one embodiment of the present invention in which the RFID antenna 520 is integrated into the actual sign panel 510, for example using plastic moulding, or attached to an external surface of the sign. Another embodiment substantially similar to the aforementioned embodiment illustrated in Fig. 5 may utilise the RFID Panel 500 as a floor panel or floor covering such that users RFID tags will be detected and read when users pass over a particular section of the floor, for example at an entry to the game zone venue. RFID Tags are distributed to users of The Introduction System. These Tags may be incorporated into products such as key ring tags/fobs or incorporated into jewelry, credit cards, or any other such products as may be convenient for users to carry around with them. One embodiment may incorporate the RFID Tag into a mobile communication device such as a mobile phone. Another embodiment may integrate the RFID Tag into a plastic card shaped and having appearance of a credit card such that the card held the membership number, both visually printed on the card and/or printed on a barcode on the card, as well as being stored in the internal RFID tag. Upon entering a game zone, users are able to approach the sign and have their RFID Tag detected. The system 400 may then automatically transmit the Position Notification Message to Matching Communication System 300 via a suitable communications channel. Such channels and communications protocols include but are not limited to GPRS wireless, 802.11 wireless, 3G wireless, ADSL internet, email and XML web services. Rather than send each arrival notification separately, the System 400 may save several Tag Reading events to its memory 420, and send a single message consisting of several concatenated tag reads. This may result in efficiencies in bandwidth and cost. In one embodiment it may be possible to turn off or disable the users tags via a switch on the RFID tag so as to protect the privacy of users who do not wish their tags to be detected or be "on-line" with the Introduction System at that time. In an alternative embodiment, this function of disabling the RFID Tag may be provided through provision of an object made out of a Radio Frequency (RF) screening material which can be attached to the RFID tag in order to shield it from the Reader and thus prevent detection or reading of the RFID Tag. The screening device may take various forms,

- 27 -

including a cover or sheath, made out of RF screening material, and may be attached to the RFID Tag by way of clip, mechanical sliding mechanism, By elasticity of the Sheath material (similar to how a glove stays attached to a human hand), adhesive or Velcro type material, or any other method of fixing.

5 In another embodiment of the present invention, an optical Tag or Barcode system is used instead or in addition to an RFID tag system. An optical reader detects an optical tag or barcode carried by the user, and reads the unique number from that tag or barcode. The detection of this optical tag or barcode and the unique number read will be used by the system to complete the Arrival Notification process. Other
10 embodiments of the present invention may use biometric technologies in order to identify the user at the game zone. These technologies may include, but are not limited to retinal scanning, hand geometry, fingerprint scanning and facial recognition. These technologies may be used to establish the identity of the user and thereafter initiate automatic transmission of the Position Notification Message to the
15 Matching and Communication System 300 using any of the aforementioned communication methods and protocols.

The Matching Process is the process of comparing the geographic and search profile criteria to identify if a suitable match is possible. In the case of multiple suitable matches, the Matching process aims to identify the best possible match. In a
20 preferred embodiment of the present invention, the Matching process is undertaken by the Zone Processing Computer 312 of the Notifications, Matching and Communication System 300. Certain embodiments of the present invention may implement The Matching Process as an event driven process. That is, it may be initiated by the arrival of an Arrival Notification at the Notifications, Matching and
25 Communications System 300. An alternative to having an event driven process would be to have the Notifications, Matching and Communications System continuously or periodically searching the various zone databases 311 for Matches. The advantage of the event driven model is that the System only has to consider each potential match once. In an event driven mode, the Notifications, Matching and Communications
30 System 300 initiates a Matching Process every time a user sends a Position

- 28 -

Notification Message to the System. The Matching Process starts by constructing a database query that searches the database 311 for matches that are geographically close and meet the essential requirements as contained within the user's search profile. The Zone Processing computer 312 may increase the search area by searching other nearby zone databases in Other Zones 340. Allowable Other Zones 340 may be
5 determined by looking up a field in the Zones own Zone Database 311 which would list which zones are sufficiently close by to be included in the search. For example, a male user may be seeking a female mate. The user would state the female requirement as an essential matching criteria during the Registration Phase. When the male user
10 performs Position Notification on arriving at a game zone then the database 311 and possibly other databases in nearby zones must be searched for geographically close users who are within their Zone session time-out and are female. The requirement that the mate must be female becomes an essential search criterion. We define matches that meet the essential criteria as Essential Matches. When the database is searched
15 using the essential criteria then it returns a list of Essential Matches. Other search criteria may not be as definitive and therefore a second level of Matching Process must be applied when the criteria being considered is more of a preference. We define this second level of Match Processing as the Preferential Matching Process. The Preferential Matching Process takes in the list of Essential Matches and then considers
20 the preferences stated in the user's profile to order the Essential Matches and ultimately select the Match with the highest correlation to the user's search profile. For example, preferential search criteria might be that the female mate likes sport. The Preferential Matching Process would then analyse the list of Essential Matches and award merit to females who have expressed a high interest in sport. In one
25 embodiment of the present invention, a computer program is used to compare various potential match partners and find the optimum match partner using advanced mathematical techniques to perform the matching algorithm. Techniques used may include Fuzzy logic inference systems and adaptive neuro-fuzzy inference systems. Users may be allowed to assign various degrees to their particular attributes and
30 requirements, rather than be forced to assign a simple yes or no, or 1 to 5, or similar coarsely granular measure as found on other existing matching systems. For example,

- 29 -

users may be able to select the importance of their mate having blonde hair by assigning a value of between one and a hundred for that attribute. This would allow a more complex decision surface between two potential match specimens and allow for a potentially higher quality of match results. The use of artificial intelligence techniques would allow for matching systems that better model human decisions, and could result in higher quality matches. The Introduction Game System could find potential matches based on simple matching, and thereafter submit several matches for more detailed analysis by the artificial intelligence matching system. The artificial intelligence matching system could then provide as output a factor, possibly a percentage, indicating the quality of the match, with 100% representing the perfect match and 0% representing the worst possible match between match partners. The user could then be supplied with this measurement of match quality in the message advising the user of the match. In some embodiments of the present invention, this could be offered as an additional enhanced service to users. To determine geographic proximity, the Zone Processing Computer 312 compiles a database query that searches only game zones which are geographically close to the game zone venue from which the Arrival Notification data was received. In one embodiment of the present invention, the game system may use two game parameters defined here as the inner radius distance and an outer radius distance to determine whether a game zone should be included in the database query. All games zones closer than the inner radius distance to the game zone from which the Arrival Notification was received are automatically included in the database query. For example, if the inner radius distance is set to one kilometer then all game zones within 1 kilometer of the game zone from which the Arrival Notification was received will be included in the database query. In one embodiment of the present invention, owners or other Authorised parties of the game zone venues may increase their matching distance by manually including other game zones which are outside the inner radius distance, but inside the outer radius distance, in the search for a match. This creates a virtual search area which is larger than the inner radius and is confined by the preferences of the game zone owners. To be included in the search area for a game zone which is further away than the inner radius distance both game zone venues involved may have to

- 30 -

agree. In such an embodiment, a game zone venue owner fills out a form naming the game zone venue that they wish to have included in all match queries originating from their game zone venue. The form is submitted to the Notifications, Matching and Communications System. The Notifications, Matching and Communications System then contacts the game zone venue to be included and asks permission to include them. If permission is received and the game zone venue is within the outer radius distance then the game zone venue is added to the list of game zone venues to be used in the database queries. For example, assume that the inner radius distance is one kilometer and the outer radius distance is two kilometers. Assume that a game zone owner "A" wants to have people at their game zone venue matched to people at a game zone "B" 1.5 kilometers away. The game zone venue owner "A" submits a request to the Notifications, Matching and Communications System asking that the game Zone "B" be included in the search area. If owner "B" agrees to the invitation then whenever a user plays at game zone venue "A" then they will be matched to users playing at game zone venue "B" and if a user plays at game zone venue "B" then they will be matched to users playing at game zone venue "A". In such an embodiment, the limitation of the inner radius distance and the outer radius distance are key game system rules which keep the game as a localised introduction game. These distances may however be set to any desired distance. If the inner radius distance is set to zero then database queries will only search within the game zone venue from which the ID Tag data originated. If the inner radius distance were set to one million kilometers then all game zones globally would be searched. On receipt of the Position Notification Message from a user, the Notifications, Matching and Communications System retrieves the user's profile data from the library database 301. The System then retrieves the list of game zone venues within the inner radius distance and the game zone venues that are within the outer radius distance and have joined the matching group. The Center then searches the database for users who are seen as currently playing at these game zone venues and who match the user's Matching criteria. Depending on the nature of the match being sought, it is possible that each match between individual people or between an individual and a particular service or product should occur only once. For example, if the system attempted to match two people and

- 31 -

the match was terminated by one of the users because the match was unsuitable then the system should not attempt to match these two people again. This is a unique feature of the game however it may be optionally applied dependant on the nature of the match being performed. To ensure that matches are not duplicated, the system
5 then searches the database to retrieve a list of historical matches for the user and uses this list to eliminate any duplicate matches from the list of potential matches.

The system then takes the most suitable potential match and starts the Communications Phase. In the preferred embodiment of the present invention, users must have a communication device such as a mobile phone, pager, wireless laptop,
10 handheld wireless PDA or other mobile telecommunications device. The contact details for this device are stored in the database at the Notifications, Matching and Communications System. A preferred application of the system would see users have a mobile communications device such as a mobile phone. The Notifications, Matching and Communications System has the ability to send and receive messages to
15 and from users in the field. These messages may be sent or received using any communications channel supported by the user's communication device. The messages may be sent using any protocol supported by the mobile telecommunications device such as voice transmission, MMS text messaging, SMS messaging, email, GPRS, interactive voice response or other automated messaging
20 system. The message may also be relayed from the Notifications, Matching and Communications System 300 by a human at a telephone call center (not shown). The Notifications, Matching and Communications System 300 then sends a message to the person being matched. If the person being matched is being matched to another person, both people are sent the same message. If the user is being matched to a
25 product or service then the message may give details of the product or service, details on special offers for the product or service or may give details about where to find the product or service or other useful information. If the user is being matched to another person then the message to the users being matched tells them that a potential match has been found and asks if they would like to communicate with the other person in
30 the match. The users then communicate their intention to communicate by sending

- 32 -

the Notifications, Matching and Communications System 300 a message which contains key words which the Message Router 330 parses to determine the desired action. Once a potential match has been identified between two users in the field and both users agree to communicate then the game enters the Communications Phase.

- 5 The users may then send messages to the Notifications, Matching and Communications System 300, which are to be relayed to the potential match. By relaying each user's messages through the Notifications, Matching and Communications System 300, the anonymity of each user is protected until the suitability of the match has been assessed.
- 10 One possible embodiment of the present invention may be illustrated by reference to Fig. 3. In the Communications Phase the users may communicate to each other through the Notifications, Matching and Communications System 300. The Notifications, Matching and Communications System 300 receives the Communication Notification Message, which includes a header which conforms to a
- 15 particular syntax, followed by a text string which makes up the actual personal message to be relayed to the other party that makes up the match. The Message Router 330 parses the Notification Message and places it in the correct Communications In Que 315 for the particular Zone Processing Centre 310. The Zone Processing Computer 312 then processes the incoming communications notification
- 20 message. It addresses the message to the correct match partner and sends the message to the Communications Out Que 316. The Message Router 330 then re-sends the message to be relayed out through the correct communications channel, thus maintaining the anonymity for both match parties. By acting as a communication relay in the early phases of the introduction game, the Notifications, Matching and
- 25 Communications System 300 protects the anonymity of the users until such time as sufficient communication has taken place between the users to determine that the match is suitable. If both users determine that the match is suitable then they may pass their direct contact details to their potential match and start directly communicating. The game ends when either the users agree that the match is suitable and they decide
- 30 to make direct contact or when either user terminates the match. The game may also

- 33 -

be terminated by a time out where no messages have been sent between users for the time out period. The messages relayed between users may use any communications standard supported by both user's communications devices and by the Notifications, Matching and Communications System. This may include voice, video conferencing, SMS, MMS, email, GPRS and any other communications standards supported by mobile telecommunications devices. The Message Router 330 of the Notifications, Matching and Communications System 300 scans incoming messages from users looking for key words that tell The System to take a predefined action. For example, the key words "End Match", when included in a message to the Notifications, Matching and Communications System 300 might tell The System to terminate a particular match conversation. Once a match conversation is terminated, all communication between the users in the match is terminated. As long as neither user has given any personal details in the communications prior to the match being terminated, their anonymity is preserved through having their messages routed through the Notifications, Matching and Communications System 300.

The users may also store packets of information along with their profile and use key words to tell the Notifications, Matching and Communications System 300 to deliver this data to a potential match. For example, a user may store a picture of themselves along with their profile and when the Zone Processing Computer 312 of the Notifications, Matching and Communications System 300 receives the command "Send PIC" from their Command Notification Message sent to the system, the picture is emailed or MMS messaged to the potential match. Another example might involve the transmission of a mobile phone ring-tone or an electronic greeting card to the other person in the match. This could again be transmitted on request through the use of key words in Command Notification Messages.

The user may also use their mobile communication device to retrieve data or pre-recorded messages via a Telephone Interactive Voice Response System. This may involve the user ringing a nominated phone number which connects them to the IVR Server 332 of the Notifications, Matching and Communications System 300. The user is then prompted by the IVR Server 332 to give their membership number and the

- 34 -

system accesses the database to access the current match details for that user. The user may then listen to prerecorded data about the match. For example the user may listen to a pre-recorded resume or speech from their potential match. This would allow them to hear the voice and nature of the match without committing to talk to the potential
5 match directly.

In one embodiment of the present invention, once the system has generated a match between two users in the same zone, or neighbouring zones, as determined by the search settings in the system, this match will be communicated to both parties via a SMS message to the user's mobile phones. The message may in certain embodiments
10 contain an SMS message similar to "You have a match!" In certain embodiments the SMS message may also contain an indication of the quality of the match, either through a match quality number, which indicates the closeness of the match through analysis of the two "profiles" set up during the registration phase. Alternatively, in another embodiment, the indication of quality of match may be a simple indicator of
15 the number of things in common. For example if both matches list "music" and "football" as interests, and "long term relationship" as a goal, then the SMS message may contain a message similar to "You have 3 things in Common". In certain embodiments of the present invention, the SMS message may feature a telephone number that the users should ring to access the system, as well as a unique Match
20 Number to quote to the service to receive details of the match. In other embodiments of the present invention, the match advice and match number is delivered to the users using a different method, namely, each user is telephoned in a special way, causing the telephone to ring in a particular pattern. For example, this may be a pattern of ringing a single ring, then hanging up before answered, then sending a second single
25 ring. In certain embodiments, the caller ID could be set to indicate the main system access number, so that users could recognise that it is the system of the current invention attempting to signal to them that a matching or friend location event has occurred. The users may then call in to the system and follow the procedure for retrieving the match information as detailed below. The benefit of this method is that
30 there is little or no cost attached to signalling the users, who then ring in at their

- 35 -

expense to retrieve the information. Another benefit is that in a noisy environment many users may not hear that an SMS has been received, and due to the timely nature of a match or friend location message, by the time they receive the message it may be too late to be of any benefit. Another possible embodiment uses a different way of
5 advising the Match notification, namely, simply calling both parties directly via the IVR system, and advising of the match. In certain embodiments, the system may call both users and launch the phone call in the match details section, detailed in the next section. In certain embodiments, the users may ring the number supplied(for example
10 via an on an SMS, or in other embodiments advised via a particular ring pattern signal), or store the number in their phone's memory, and thereafter hear the main menu, which may be similar to: "Press 1 to log onto a zone, Press 2 to enter a match number, Press 3 to record a profile". They then press 2, and thereafter enter the unique match number given to them previously. They then enter the "match details" section. The match details section provides details of the match partners to both users.
15 In certain embodiments, the users will be presented with an IVR menu similar to the following: "Congratulations, you have a match. Press 1 to listen to the audio profile of your match partner, Press 2 to attempt a voice connection to your match partner". In certain embodiments, the service may include an additional message similar to: "Press 3 to receive an MMS picture if available and authorised by your match partner -
20 charges apply, press 9 for cost details". If the user presses one, they may hear a pre-recorded audio profile recorded by their match partner. This audio profile is pre-recorded at an earlier time. In certain embodiments, this may be pre-recorded through the main menu, by selecting a menu option which may be similar to: "Press 3 to record your audio profile". Having listened to the audio profile, in certain
25 embodiments the user may then be played a menu option similar to: "Press 1 to listen to the profile again. Press 2 to attempt a live voice connection with your match , Press 3 to cancel the match. You will never be matched with this person again". In certain embodiments, the menu may also include an option similar to: "Press 4 to receive an MMS picture if available and authorised by your match partner - charges apply, press
30 9 for cost details" If the cancel match option is selected by either parties, the match is cancelled and any future match between the two users is forbidden and prevented by

- 36 -

the system. The other user is advised that the match has been cancelled. The system allows an option of canceling the match by either party at any time during the process. If the voice connection option is chosen, the system will attempt to connect the two users by telephone, without revealing the personal identity or telephone number of either party. Certain embodiments of the present invention will provide real time
5 feedback to both users regarding whether their match partner is currently connected by phone call to the system, i.e. also connected to the system, listening to the users audio profile etc. You may elect to see the status of your match partner, whether they have called in to listen to your profile, whether they have downloaded your MMS picture
10 (if you have authorised that function), and whether they have selected to try to contact you. In a particular embodiment of the present invention, if both parties are connected to the IVR system, and either elects to attempt a voice connection, the system will advise the other match partner, and if the other match partner accepts then the two parties may commence talking with one another. At any time users may push a
15 particular digit to hang-up and cancel the match. If this is done, the system will prevent the two users from ever being matched again. If one party attempts a voice connection, but the other match party is not currently connected by phone to the IVR system, then the requesting user is placed on hold, and the system will attempt to contact the other user. In certain embodiments, the other user will receive an SMS
20 message asking them to call a particular number, and possibly enter a particular match number, in order to activate the waiting call. If there is no response by the other user after a pre-determined period of time, the other user placed on hold is advised that a live connection is not possible at this time. Certain embodiments may make attempts to arrange a call at a later time. Another embodiment will actually call the other user
25 instead of sending an SMS, using a characteristic ring pattern as described earlier, to indicate to the other user that they should call and log on to the system. Another embodiment of the current invention will simply call the other user directly, and ask the other user if they would accept a phone call from their match. If they accept, the two parties will be connected. Advertising revenue may be generated by playing
30 audio advertisements prior to connecting the two users, and also as background on-hold messages to the user on hold. In certain embodiments, this "on-hold" advertising

- 37 -

revenue may offset call costs in the case of the system ringing out to initiate the call connections. Certain embodiments of the present invention will allow users to join lists of users (termed "The Group"). Certain embodiments will have private lists where users need to receive an invitation by the list administrator in order to join The Group. In certain embodiments, subscribers in The Group will receive "friend location" messages indicating that current members of the list are present in the same locality zone as the user. In certain embodiments they may receive further details such as the "Nicknames" of people present, and the total number of members present. In certain embodiments they may be able to receive data indicating where member of The Group are currently logged in (i.e. Which zones have members, and other details). They may then call in to the system via phone, and select to enter the Live Chat Room for the group, for the particular Zone. Once connected to the Live Chat Room, they can hear all other users connected, and can communicate with anyone else on the line. The system may be configured to limit the number of simultaneous users in a certain room to a manageable number, and may even split rooms into sub-rooms, allowing smaller groups if the first room gets too many users. The effect will be similar to Citizen Band (CB) radio systems, except that in certain embodiments, membership will be restricted to people that are in The Group. In certain embodiments, members of The Group will be members of an existing social network, for example friends, work mates etc. In such a case, the Chat Room will provide a useful and entertaining feature, for example a user can log in when they go out to a Zone, for example North Sydney, and log onto their friend chat room and chat with other friends out in the area. Members of a particular large organisation, for example a school, can all join the same chat room, thus increasing the probability of someone being in a Chat Room at a particular time. Certain embodiments will allow users to log on to live Chat Rooms via Voice over IP (VOIP) connections, for example via software of a Personal Computer, or via a WiFi (wireless 802.11) phone, or other VOIP technology. The success of the IVR live conversations aspects of the Introductions, Communications and Matching system may be largely determined by how well the users respond to messages generated by the system, for example match notification messages. If both users receiving the match notifications respond quickly,

- 38 -

then the system works efficiently, and if both users are interested, a live phone connection can be easily established. If one of the users takes a long time to respond, then the experience for the other user is severely degraded. Certain embodiments of the present invention may incorporate an incentive scheme to encourage users to

5 "play" the system efficiently, i.e. reply quickly and diligently to match offers etc. One such embodiment may include a system Match points, and/or a User Rating score. The response times to replying to match messages may be measured for all users. The quicker the user replies to the match message, the more points they may receive. Slow or Non existent responses may in certain cases lead to loss of points and rating

10 levels (e.g. a user may go from Silver rating to White Rating through bad performance). The more successful matches the user has, the more points they may earn, where a successful match may be described as a situation whereby a match message has resulted in a live phone connection. In certain embodiments, if a match cancellation occurs, then the cancelled user may loose points. In addition, no points

15 may possibly be earned for the match by both users. Users may elect to enter into city wide, zone wide, state wide, nation wide, or international competitions amongst all users of the system, for various categories, such as "most friends" where the user has the most number of successful friend location matches. Other categories may include "Most Matches" , Fastest average response times, etc. Prizes and special offers may

20 be awarded to winners or runner ups. Users with good ratings or high points may be invited to promotional and social events such as parties. Users may receive a class grading based on positive performance, for example gold class user, silver class user etc. Users will not wish to drop to a lower class, so they will tend to abuse or misuse the system less often. Certain embodiments may allow users to select their profile to

25 only match them with users in a higher class, thereby ensuring that they have a higher quality of match player. The incentive scheme also affords the possibility of generating advertising revenue and sponsorships by corporations wishing to promote their products and services. There are many innovative marketing opportunities available through the competition and incentive features of such an embodiment.

- 39 -

Another embodiment demonstrates another possible application for the matching system of the current invention. This embodiment is significantly similar to the dating and friend location embodiment, but in this case the system allows users to be matched with suitable goods or services that they are seeking. The methods, apparatus and methods are substantially similar to the earlier embodiment, with the exception that the registration phase is different. Users are requested to enter information relating to the goods or services that they are seeking, and other particulars relevant to their search criterion. For example, users may log on to the IVR system, and select the zone they are in, and then select "Taxi service required", and thereafter be automatically linked with a suitable taxi service. In certain embodiments, the system may directly connect the users phone call to a phone number answered by the goods or service provider, for example the taxi company.

Another embodiment is significantly similar to the earlier IVR dating and friend location embodiment, but in this case the system allows users to be matched with suitable employment prospects that they are seeking. For example, a user that is travelling interstate and seeking a casual waiter position may enter in their Curriculum Vitae (CV) details in the registration section, and also indicate the type of work they are looking for. Employers may register on the system and enter the particulars that they are looking for. When there is a potential match, the employer may be sent the CV particulars. The job seeker may also receive notifications. The system may generate interview opportunities quickly, and the system would be useful for both employers and potential employees. It may be possible for employees to fill certain positions dynamically and urgently, for example in cases of staff absence and "short-staff" periods.

Another embodiment of the present invention is substantially similar to the dating and friend location embodiments, but in this case the system allows users to be matched in cases of large scale emergencies, natural disasters and similar events. For example, people skilled in particular areas, for example including but not limited to doctors, surgeons, paramedics, volunteer rescue and firefighters, may register on the system. Access numbers may be promoted through the local media to encourage users to log

- 40 -

in, advising their availability in the local area. In times of crisis, if they are in the general vicinity of a disaster, they may log on to the particular zone. Responding command and control authorities may also register. These organisations may have access to a special website, which gives real time feedback as to the number of users responding and logging on, or already present in the affected zone. Response co-ordinators may, for example have a laptop or similar computer present in the operations command and control centre, and be able to establish, for example, that there are 3 doctors, 2 off duty paramedics and six volunteer State emergency service personnel that happen to be in the zone and can respond rapidly. The co-ordinators may then generate SMS messages advising the users that they should assemble at a certain meeting point. In certain embodiments, the SMS message may advise that they will receive an automated IVR telephone call shortly. This phone call may include content similar to the following: "This is central emergency command and control. System is at Level 3 mobilisation - a Major Emergency event has occurred in your Zone. You are being requested to join an emergency response team meeting at Town Hall Main Entrance in 15 minutes. Are you able to respond? Push 1 for yes, Push 2 for no, but remain on call for other emergencies. Push 3 to indicate that you will not be available for response during this Major emergency event." If the user pushes 1 to affirm response, they may receive a message content similar to: "Your membership to the response team has been confirmed. Team leader is John Boss, Team mobile phone number is 0412 999 376. " Using such methods, apparatus and systems, it would be possible for emergency authorities to organise large groups of emergency response teams quickly, efficiently and dynamically. Such a system could also be used to advise users that are not currently logged in, in order to warn them of impending events, for example Tsunamis warnings, severe weather warnings, bush fires etc, and to mobilise response teams ahead of such events. Response teams may be dynamically, automatically and rapidly assembled, consisting of teams of users, matched together.

Another embodiment of the present invention may have the possibility for users to join friendship groups or societies. One method to create a friendship group would be

- 41 -

for one member of the group to nominate themselves as the administrator of the group by submitting a form to the Data Processing Center. This creates a structure within the database that is ready to accept members to the friendship group. Once a friendship group is created and an administrator appointed, people may join the group. Users
5 may request to join a friendship group or the administrator may invite users to join their friendship group. Depending on the rules of the friendship group, it may be necessary for both an administrator and the new user to agree before the user is added to the friendship group. Once a friendship group is created and the required users have joined the group, the system can provide the group with special functionality.
10 For example, this might include messaging services such as the ability to send messages to everyone in the group simultaneously. It might include the ability to hold telephone or SMS conferences within the group. It might include the ability to pre-record voice messages that all members of the group can recall. The system can also notify anyone in the friendship group if another user who is a member of their
15 friendship group enters a game zone and performs Arrival Notification within the matching area for their current game zone venue. For example, if members of a person's friendship group went to a restaurant a street away and performed Position Notification then the system might open a match between the person and their friends to allow them to communicate. The system may propagate interaction between people
20 in a friendship group when they are within the game zone area and choose to go "on-line" with the Introduction Game System. A feature of the Introduction Game System architecture is that it protects the personal information and privacy of the users at all times. At no time does the system let any personal information leave the Notifications, Matching and Communications System 300. The Notifications, Matching and
25 Communications System 300 may be a secured facility. If a membership Tag scheme is used (for example utilizing RFID tags), the tags may not contain any personal information except the game membership number or other unique identifier hence no personal data need be stored on membership tags.

The Introduction Game System may be used to form the basis of a business system by
30 charging for the services provided by the Introduction Game System. In one

- 42 -

embodiment of the present invention, a business system may charge for membership fees to the introduction game or for the delivery of messages or other services. This may be charged per match, per Position Notification Message, per message sent or received or for other services the system may provide on a user pays basis. The
5 business system may also sell advertising attached to the ID Tags or other promotional materials. The business may sell, lease or hire the ID Tag reader systems. Advertising space on the signs used to tell users that the game zone venue is a game zone may be sold to generate income. In another embodiment of the present invention, RFID Tag or other type of Identification Tag readers may be used to detect the users in a
10 particular game zone, and these Tag readers may be incorporated into a sign that may be engineered to light up, make a noise or move whenever an RFID Tag or other type of Tag is read. This gives feedback to the user to let them know that the reader has successfully scanned their ID Tag. In one embodiment of the present invention, a service may be provided by the Introduction Game System to allow users to enter
15 competitions by using their Position Notification Messages as a form of competition entry. For example, a game zone venue owner may offer a prize to be raffled. They may make it a condition of entry into the competition that a person be Registered Introduction Game System user and that in order to enter the competition, the person must send a Position Notification Message at the owner's game zone venue during the
20 period in which the competition is running. The winner is selected randomly from all the users that performed Arrival Notification during the competition. The Notifications, Matching and Communications System 300 may collect the required data and may provide the game zone venue owner with a list of users that entered the competition. An alternative would be for the Notifications, Matching and
25 Communications System 300 to randomly select the winner and notify the winner and/or the game zone venue owner of the result. This may better protect the personal information of the users. More advanced competitions may use a combination of Position Notification Messages at selected game zones in order to redeem a prize or become eligible to win a prize. For example a user may have to visit three game zone
30 venues and perform Position Notification in order to meet the competition entry requirements. Another embodiment of the present invention may allow a user to

- 43 -

receive messages from the Notifications, Matching and Communications System 300 relating to a series of game zones which need to be visited in order to qualify for certain prizes or benefits. The user may in some cases only receive the message on which game zone to visit next after sending Position Notification at the previous

5 venue on a predetermined list of game zones kept secret from users. The first user to complete Position Notification for all target zones may win certain prizes or benefits. For example, a series of game zone venue owners who have established game zones within their game zone venues might create a "treasure hunt" type game. In order to win or become eligible to win a prize, a user may have to visit multiple game zones in

10 the correct order and within a given timeframe. The user may only be told the absolute location of the first game zone that they have to visit. When they perform Arrival Notification at the first game zone venue the Notifications, Matching and Communications System sends a message to the user with a non-descript clue as to the location of the next game zone that must be visited. If the user manages to determine

15 the location of the second game zone and performs Position Notification at that zone then they are given a clue as to the location of the third game zone etc. This process continues until the user reaches the last game zone in the sequences. If the user fails to determine the location of a game zone from the clue given then the Notifications, Matching and Communications System 300 may be configured to provide additional

20 clues after predetermined periods of time. These clues may increase in clarity as to the location of the next game zone in the sequence and may ultimately disclose the absolute location should the user fail to work it out from the clues supplied. The game may apply a points scheme based on the time taken by a user to get between zones. A user may receive more points for locating and performing Position Notification at the

25 next zone in the sequence in the reduced time. Another embodiment of the present invention may allow businesses to make special offers available to users of the Introduction Game System when they are within their game zone. For example, users of the System may join common Friendship clubs or private lists as described earlier. By adding other users to their private lists on their user profiles, or seeking permission

30 from other users to be added to other users lists, private communities of users may be formed. For example a small social network of 12 friends may define their own user

- 44 -

community. Businesses may use this feature to prepare special offers targeted at users visiting their game zone. For example a restaurant may make an offer that if 4 or more users in the same private membership community all send Position Notification from their restaurant game zone, then they receive one free main course as a special offer. This would encourage users to attend the restaurant in larger groups which would be good for the business concerned. Many types of various businesses could utilise such a marketing mechanism.

Apparatuses, Methods and systems have been described hereinbefore for automated matching and introduction of people to other people, people to services and people to products, anonymous communications between people that have been introduced, and promotion and advertising of products and services to users of the invention.

However, the foregoing description provides exemplary embodiments only, and is not intended to limit the scope, applicability or configurations of the invention. Rather, the description of the exemplary embodiments provides those skilled in the art with enabling descriptions for implementing an embodiment of the invention. Various changes may be made in the function and arrangement of elements without departing from the spirit and scope of the invention as set forth in the claims hereinafter.

(Australia Only) In the context of this specification, the word "comprising" means "including principally but not necessarily solely" or "having" or "including", and not "consisting only of". Variations of the word "comprising", such as "comprise" and "comprises" have correspondingly varied meanings.

25

- 45 -

We claim:

1. A method of initiating contact between a person (hereinafter defined as "user") and another person, or between a person and an entity providing products or services, the method comprising the steps of: a process of registration,
5 whereby details relating to characteristics of said user, as well as characteristics of the person, product or service being sought, are entered and stored in a computer-implemented system used for carrying out said method (hereinafter referred to as "the matching and communications system");
10 whereby said user's information (hereinafter defined as the user's "profile") is stored in a database belonging to the matching and communications system;

a process of position notification, whereby a position notification message containing information relating to the position of said user is transmitted to the matching and communications system; whereby this system keeps a record of the user's reported location, together with the reported locations of other users;
15 whereby the said position notification process does not require a communications network with location capability.

a process of matching, whereby the said user is matched to other persons or product/service providers, the match being made based on the presence of persons or product/service providers in the nearby vicinity of the users, where
20 the required characteristics of the person, product or service being sought are satisfied. In the case of multiple suitable matches, the Matching process seeks to identify the best possible match;

a process of anonymous communications, whereby the user is advised of the match and given the opportunity of accessing information relating to the match
25 (hereinafter defined as "match information"); whereby the users are also given the opportunity to conduct communications with the person or product/service provider they are matched with, without the need of revealing their identity (hereinafter defined as "anonymous communications"); whereby all anonymous communications, including but not limited to voice, data, sms and mms

- 46 -

messages, are relayed between the two matched users by the matching and communications system, in order to preserve the user's anonymity.

2. The method of initiating contact recited in claim 1, wherein

5 said information relating to the position of the user is determined by the reception of radio frequency signals transmitted from a Radio Frequency Identification (RFID) tag with a unique tag identifier number stored on it. RFID tags are carried by the users. An RFID reader unit reads this tag identifier number and any other data stored on the RFID tag. The RFID tag reader unit communicates this data, together with location information of the 10 RFID tag reader, to the matching and communications system, which stores information relating to the positions of users. This information is communicated from the said RFID reader unit to the said matching and communications system via a wired or wireless communications network. The matching and communications system has a database containing the users 15 particulars, including the RFID tag identifier number for the user, and is therefore able to determine which user has sent the RFID determined location information.

3. The method recited in claim 2, wherein the antenna or antennae for the said RFID reader is incorporated into a display sign, such that users who are in the 20 vicinity of the display sign may have their said RFID tags read by such antennae.

4. The method recited in claim 2, wherein the antenna or antennae for the said RFID reader is incorporated into a building, vessel or aircraft's floor, floor panel or floor covering, such that users will have their said RFID tags read by 25 such antennae, and have their position data transmitted to the said matching and communications system.

- 47 -

5. The method recited in claim 2, wherein said RFID tags are incorporated into a mobile communications device such as a cell phone or other mobile communications unit.
6. the method recited in claim 2, wherein said RFID tags are incorporated into a keyring tag or key fob.
7. the method recited in claim 2, wherein said RFID tags are incorporated into an item of clothing.
8. the method recited in claim 2, wherein said RFID tags are incorporated into a product that is convenient for a user to carry around with them. Examples of such products may include a hand bag , a case for sunglasses, a mobile phone holder or a wallet.
9. the method recited in claim 2, wherein said RFID tags are incorporated into an item of jewelry.
10. the method recited in claim 2, wherein said RFID tags are incorporated into a credit card.
11. the method recited in claim 2, wherein said RFID tags are incorporated into a plastic or cardboard card.
12. the method recited in claim 11, wherein card is of similar dimensions and appearance as a credit card, and with such a card having membership numbers and or advertising printed on its surface.
13. the method recited in claim 2, wherein said RFID reader antennae are positioned in such a way as to allow for the reading of user's RFID tags as they enter or leave public areas, such as for example, the entrance to bars, night clubs or stadiums.

- 48 -

14. the method recited in claim 2, wherein said RFID reader units automatically transmit the said position data to the said matching and communications system, via a suitable wired or wireless communications network.
15. the method recited in claim 2, wherein said RFID reader units store the data from a selectable number of RFID tag reads, and once the prescribed number of tag reads has occurred, sends a single message to the matching and communications system, consisting of all the data read from all the tags. This arrangement may result in efficiencies of bandwidth and cost. The message may be transmitted via any suitable wired or wireless communications network.
16. the method recited in claim 2, wherein the said RFID tags have a feature allowing the user to de-activate the RFID tags. This may allow the added benefit of protecting the privacy of users who do not wish their tags to be detected at a particular time. In cases where active RFID tags are used, this feature may also serve to extend battery life.
17. the method recited in claim 16, wherein the said de-activation feature is implemented on a passive RFID tag through provision of an object made out of a Radio Frequency (RF) screening material which can be attached to the RFID tag in order to shield it from the RFID reader unit and thus prevent reading of the RFID tag.
18. the method recited in claim 17, wherein the said RF screening material is in the form of a cover or sheath, and may be fixed or attached to the RFID tag in some way.
19. the method recited in claim 18, wherein the said cover or sheath is attached to the RFID tag by way of one of the following methods: a mechanical clip, a mechanical sliding mechanism, by elasticity of the sheath material (i.e. in a similar fashion to how a glove stays attached to a human hand), by adhesive or velcro type material.

- 49 -

20. the method recited in claim 2, wherein the said RFID tags used are passive RFID tags.
21. the method recited in claim 2, wherein the said RFID tags used are active RFID tags.
- 5 22. the method recited in claim 2, wherein the RFID reader unit used is a monostatic RFID reader, thus having a single antenna to cover a particular coverage area.
23. the method recited in claim 2, wherein the RFID reader unit used is a bistatic RFID reader, thus having two separate antennae to cover a particular coverage area.
- 10 24. the method recited in claim 2, wherein several RFID reader units are used to provide coverage of a particular area
25. the method recited in claim 2, wherein said RFID reader units are configured to repeatedly attempt to read all user's RFID tags within a particular coverage area. While the user's are within a coverage zone, they are detected. Once 15 detection of the user's RFID tag ceases, the matching and communications system will determine that the user is no longer present and will cease the said matching process for the user.
26. the method recited in claim 2, wherein said RFID reader units are configured to read a single RFID tag at a time, with the user placing the tag nearby to the 20 reader in order to trigger the position notification data. The said matching and communications system will in this case set a session expiry time, with the timer commencing from the time that the user's RFID tag was read. Once the session expiry time has passed the matching and communications system will 25 cease the said matching process for the user.

- 50 -

27. the method recited in claim 26, wherein the user is able to present their RFID tag to the said RFID tag reader and is thereafter able to perform the following functions by interacting with the RFID reader unit:

5 log on to the system, thereby notifying the matching and communications system of the users location and commencing matching and communications processes for the user

extend the session time, the session time being defined as the time during which the matching and communications system will consider the user in the particular coverage zone and perform matching processes for the user.

10 log off the system, thereby ceasing all matching and communications processes for the user.

28. The method of initiating contact recited in claim 1, wherein

15 said information relating to the position of the user is determined by the use of biometric technologies. Such biometric technologies are used to identify which user is at a particular location, and thereafter initiate automatic transmission of the said position notification data (namely, which user is present, and at which location), to the said matching and communications system via a wired or wireless communications network.

20 29. The method recited in claim 28, wherein the said biometric technology employed is fingerprint scanning.

30. The method recited in claim 28, wherein the said biometric technology employed is retinal scanning.

25 31. The method recited in claim 28, wherein the said biometric technology employed is a device capable of determining the unique hand geometry of various users, and thereby determine which user is present at the location.

- 51 -

32. The method recited in claim 28, wherein the said biometric technology employed is a device capable of performing facial recognition in order to determine which user is present at the location.
33. The method of initiating contact recited in claim 1, wherein
- 5 said information relating to the position of the user is determined through a process whereby the user telephones and interacts with an interactive voice response (IVR) system, which is connected via a suitable computer network, to the matching and communication system. The IVR system gives audio prompts and instructions relating to determining the correct position data for the user,
- 10 and obtains the necessary responses from the user to determine this information.
34. The method recited in claim 33, wherein the user interacts with the said IVR system by listening to the audio prompts and instructions, and responding at the appropriate times by pressing the correct keys on the telephone corresponding to the menu choices that are selected by the user.
- 15 35. The method recited in claim 33, wherein the user interacts with the said IVR system by listening to the audio prompts and instructions, and responding by speaking to the IVR system, with the said IVR system making use of voice recognition software to decipher the words being spoken by the user and taking the appropriate actions as requested by the user.
- 20 36. The method recited in claim 33, wherein the user is prompted to enter their membership identification number, and a personal identification number using the keys on their telephone.
37. The method recited in claim 33, wherein the IVR system uses caller Identification technology to automatically establish which user is calling.
- 25 38. The method recited in claim 33, wherein input/output devices for visually or auditory impaired persons are used to allow them to interact with said IVR system.

- 52 -

- 5 39. The method of initiating contact recited in claim 1, wherein certain geographic regions are defined (hereinafter defined as "zones"), with each zone assigned unique identification names and/or numbers. Each zone may correspond with either a state, city, suburb, street, local urban area, building, or a particular establishment such as a particular bar or night club.
- 10 40. The method recited in claim 39, wherein a specially manufactured display sign, banner or printed floor covering is positioned within the zone, the purpose of the sign being to advise people that the area is in a zone covered by the matching and communication system, and displaying the said unique zone identification name and/or number.
41. The method recited in claim 40, wherein the said sign displays an access telephone number for people to call in order to interact and control the matching and communications system via the said IVR system.
- 15 42. The method recited in claim 40, wherein the said sign displays a telephone number for people to send an SMS in order to interact and control the matching and communications system.
- 20 43. The method of initiating contact recited in claim 1, wherein the process of sending the position notification data and communications data, is performed by the user sending an email to a specific email address, with the matching and communications system automatically receiving such emails and automatically parsing such messages and determining which user is registering in which said zone.
- 25 44. The method of initiating contact recited in claim 1, wherein the process of sending the position notification data is performed by the user sending a SMS text message, with a particular format, from their cellular telephone to a specific telephone number, with the matching and communications system automatically receiving such SMS messages and automatically parsing such messages and determining which user is registering in which said zone.

- 53 -

45. The method of initiating contact recited in claim 1, wherein the process of sending the position notification data is performed by the user who visits a specific website and enters their unique user identification number to "log" in, and subsequently selects or enters a zone name or number, or selects a specific geographic locality from a list. The matching and communications system will commence matching the user to other users or services located within the specified location.
46. The method of initiating contact recited in claim 1, wherein the process of registration is carried out by users accessing a web site and entering and retrieving information from a web form, such information relating to their user account settings, personal information, as well as the characteristics of the person, product or service being sought, with such information being recorded in a database.
47. The method of initiating contact recited in claim 1, wherein the process of registration is carried out by users telephoning an Interactive Voice Response (IVR) system connected to the said matching and communications system. Users respond to prompts and instructions given by pressing telephone keys, and thereby enter and retrieve information relating to themselves as well as the characteristics of the person, product or service being sought, with such information being recorded in a database.
48. The method recited in claim 47, wherein the said IVR system has voice recognition capabilities and the user is able to speak to the system, and thereby enter and retrieve the required information by speaking in addition to pressing the telephone keys.
49. The method of initiating contact recited in claim 1, wherein the user may telephone a phone number, which connects to an IVR system, which is in turn connected to the matching and communications system. The user may follow the verbal instructions and respond by pushing the correct keys in order to make a personalized recording and save it on the system.

- 54 -

50. The method of initiating contact recited in claim 1, wherein the process of sending the said position notification data, said anonymous communications data and other data to the matching and communication system is performed by users using communications terminals incorporated into seating, tables or other furniture present at the user's location.
51. The method recited in Claim 39, wherein following reception of said position notification data message from a user, the said matching and communications system will assume that a user will remain at a particular said zone for a set amount of time, this amount of time being defined hereinafter as the zone session expiry time. The matching and communications system retrieves the value of the zone session expiry time for each particular zone from a database. In the event that no further position notification data messages are received for an amount of time exceeding than the zone session expiry time, the matching and communications system will cease the matching process for that user at that zone. In the event of a further position notification data message being received from the user prior to the expiry of the zone session expiry time, the timer for the user is reset and starts again from zero.
52. The method of initiating contact recited in claim 39, wherein said matching and communications system initiates a matching process every time the said system receives said position notification data message from a user, said position data indicating the user is currently in a particular zone.
53. The method recited in claim 52, wherein the said matching process searches the said zone that the user is present in for suitable people, products or services, as selected in the users said profile. If no suitable matches are found in the said zone, the matching process will use an algorithm to determine the closest neighbouring zones to search for potential matches. Said algorithm will continue to increase the search area until either a suitable match is found, or the size of the search area reaches a predefined maximum geographical area.

- 55 -

54. The method recited in claim 53,

wherein the particulars of each zone, for example zone number, zone name and zone location, are recorded in a database table (hereinafter referred to as the "zone table"), and wherein each zone has stored in its record a list of other zones which are sufficiently close to be included in matching process relating to that particular zone.

wherein the matching process increases its search area progressively, by including the neighbouring zones listed in the zone table, until it finds a match.

55. The method of initiating contact recited in claim 1, wherein

the said profile allows users to select characteristics relating to the person they are seeking, with said characteristics being divided into two categories, one category for characteristics which are considered essential, and other characteristics which are considered non-essential.

the said matching process begins with a search to find users that satisfy the essential characteristics being sought. The results of this process are hereinafter referred to as "Essential Matches".

the said matching process then does a further matching process on the list of "Essential Matches", by applying the non-essential characteristics to the matching algorithm, thereby obtaining the matching user with the highest correlation to the user's search profile.

56. The method of initiating contact recited in claim 1, wherein the matching process uses a matching engine making use of one or more matching algorithms to find the closest correlation between pairs of user profiles stored on said database.

- 56 -

57. The method recited in claim 56, wherein the said matching algorithm makes use of fuzzy logic algorithms or adaptive neuro-fuzzy algorithms to find the closest correlation.

58. The method recited in claim 56, wherein users are able to assign various degrees to their particular attributes and required characteristics in their matching profiles.

59. The method recited in claim 58, wherein users are able to adjust the degree of importance of said attributes and characteristics through a web site.

60. The method recited in claim 59, wherein such adjustment is possible on the web site by way of a graphical slider element, or knob, similar in appearance to a volume control adjustment.

61. The method of initiating contact recited in claim 1, wherein the matching process keeps a database record of historical matches. In certain cases it is not desirable to have users matched to other people, goods or service providers more than once. In these cases the matching and communication system checks the historical match database to ensure that duplicate matches do not occur.

62. The method of initiating contact recited in claim 1,

wherein users are equipped with a mobile communications device, such as a cellular telephone.

wherein the matching and communications system has the ability to send and receive messages from said mobile communications device using various protocols as supported by the particular mobile communications device. These protocols may include SMS text messaging, MMS messaging or email.

wherein the matching and communications system has the ability to receive telephone calls from the said mobile communications device, whereby the user

- 57 -

interacts with the system through the systems Interactive Voice Response (IVR) capabilities.

- 5 63. The method recited in claim 62, wherein The matching and communications system is able to make outgoing telephone calls to the user's mobile communications device, and interact with the user through an Interactive Voice Response (IVR) system.
- 10 64. The method of initiating contact recited in claim 1, wherein the matching and communications system advises users of a new match details by sending the user an SMS text message and/or MMS message to the users mobile telecommunications device.
65. The method of initiating contact recited in claim 1, wherein the matching and communications system advises users of new match details by sending the user an email message.
- 15 66. The method of initiating contact recited in claim 1, wherein the matching and communications system advises users of new match details by telephoning the user's mobile telecommunications device and interacting with the user via the system's Interactive Voice Response (IVR) capability.
- 20 67. The method of initiating contact recited in claim 1, wherein the matching and communications system advises users of a new match by ringing the telephone of the user's mobile telecommunications device briefly in a characteristic fashion, thus indicating to the user that a new match has occurred, and signaling to the user to telephone the matching and communications system in order to retrieve the match details via the system's Interactive Voice Response (IVR) capability.
- 25 68. The method of initiating contact recited in claim 1,

- 58 -

wherein after receipt of a message notifying them of a new match, users telephone the matching and communications system and interact with the systems Interactive Voice Response (IVR) capability;

5 wherein the IVR system either prompts the user to enter in their unique customer identification number or determines the identity of the caller through the telephone networks Caller Identification feature;

wherein the IVR system may be configured to prompt the user to enter their security PIN number;

10 wherein the IVR system accesses the database to determine the current match details for the user

wherein the IVR system communicates information to the user relating to the match and gives an option for the user to listen to a pre-recorded message from the match.

15 wherein the IVR system gives the user the option of canceling the match, which will have the effect of ceasing all further communications with the match partner and preventing any future matching activity with that particular user.

69. The method recited in claim 68,

20 wherein the IVR system gives the user the option to attempt a live voice connection with the match partner;

25 wherein if the user selects the live voice connection option, the IVR system places the user on hold while attempting to contact the other match partner, either by connecting them if they are also currently dialed into the IVR system, or telephoning the other match partner on their mobile telecommunications device, or sending an SMS text message to the other match partner advising them to call into the IVR system;

- 59 -

wherein the resulting connection and conversation between the two users is kept anonymous by using the IVR system to relay the conversation without revealing the telephone numbers or other personal information relating to the match partner.

5 70. The method recited in claim 62 and claim 63, wherein the said IVR system is programmed to play advertisements during key periods during the interaction with the user, including during on-hold periods and between specific parts of the telephone call cycle.

10 71. The method recited in claim 62, wherein the matching and communications system is programmed to insert advertising material into SMS and MMS messages being sent to users, including messages advising of new matches, as well as messages relayed by the system between users during the said anonymous communications process.

15 72. The method recited in claim 62,
wherein the matching and communications system determines from which users said received messages originate by examining the Caller Identification information from said messages

20 wherein the matching and communications system, upon determining from which user such messages originate, retrieves information relating to said users from the system's database, including details about the user and details regarding the current status and matches of said user;

wherein such said messages contain words which are system messages, as defined by the matching and communications system;

25 wherein such messages may be analysed by the matching and communications system such that any system command words present in the message may be deciphered and acted on by the system, such system command words including but not limited to commands resulting in the following actions:

- 60 -

ceasing all matching activity with the current match; sending an MMS picture to the current match partners mobile telecommunications device; position notification messages advising the system that the user is currently to be considered as located in a particular zone name or zone number, such zone names or numbers corresponding to various geographical areas, these areas
5 being defined in a database table of the matching and communications system, wherein received messages intended for receipt by the match partner, may be automatically relayed by the matching and communications system to the current match partner, without the telephone number or other personal details
10 regarding the match being revealed, thus preserving the anonymity of communications between the users;

73. The method recited in claim 62

wherein the user is able to store digital information in said user's profile, through access to a website or other means of accessing the communications
15 and matching systems database records;

wherein said user is able to, at a later time, deliver said information to another user, to which they have been matched by the matching and communications system;

wherein said information may include, but is not limited to, MMS pictures,
20 mobile phone ring-tones, electronic greeting cards, audio or video files, email messages or other type of computer data;

wherein the user may control the sending of said information to the match partner by any means available to the user to issue system commands to the matching and communications system, including but not limited to sending a
25 specific SMS message, or telephoning a number connecting to and interacting with the said IVR system.

74. The method of initiating contact recited in claim 1,

- 61 -

wherein groups of users may be established, such groups hereinafter defined as "friendship groups";

5 wherein a user is able to create a new friendship group or request to join an existing friendship group by accessing a web site or an Interactive Voice Response (IVR) system which allows interaction with the matching and communications system, and following and entering instructions in said web site or IVR system;

10 wherein the member creating a particular friendship, or another nominated member, may be appointed the administrator of the group, having administrator privilege. Such privileges including giving authorisation for admission of new members where this is required, inviting new members to join said group, removing particular members from said group and changing settings relating to the way the group functions;

wherein particular services are available to members of said friendship group.

15 75. The method recited in claim 74 wherein said particular services available to said friendship group includes a service to send messages to everyone in the group simultaneously;

20 76. The method recited in claim 74 wherein said particular services available to said friendship group includes a service to hold telephone conferences within members of the groups, allowing group conversations;

77. The method recited in claim 74 wherein said particular services available to said friendship group includes a service to allow an SMS chat room, wherein all group members are able to post SMS messages, and read SMS messages posted by other members of the said group;

25 78. The method recited in claim 74 wherein said particular services available to said friendship group includes a service to pre-record voice messages that all members of the group can recall;

- 62 -

79. The method recited in claim 74

5 wherein said particular services available to said friendship group includes a service to provide notification when the said system receives a position notification data message advising that another group member is within the same location zone as the user, or within a nearby neighbouring location zone as the user;

10 wherein such notification includes a nick name, alias or user name of the other group member, and such notification message is sent via telephone IVR system or any available electronic messaging format, including SMS message, MMS message or email;

80. The method of incorporating an RFID reader into a sign panel, recited in claim 3, wherein the sign may be engineered to perform certain actions upon reading a users RFID tag, such actions including any combination of the following: lighting up, making a noise, physically moving in some way.

15 81. The method of initiating contact recited in claim 1,

wherein users may enter into competitions by means of submitting a position notification data message to the matching and communications system;

20 wherein said matching and communications system may be configured to run a competition process, whereby users who submit position notification data messages fulfilling certain requirements, are considered to be entered into such a competition, Such requirements may relate to the time period during which the position notification messages are received, and the geographical location indicated by such messages.

25 82. The method recited in claim 81, wherein the winner of said competition is selected by the matching and communications system randomly from a list of users who have satisfied the criterion of the competition.

- 63 -

83. The method recited in claim 81, wherein the winner of said competition is selected by virtue of being the first user to fulfill a certain requirement.

84. The method recited in claim 83, wherein said requirement is that users send a series of messages proving that the user has visited a series of locations. The requirement may further require that the message includes a particular word or number, which would only be known to the user once the user had visited that location.

85. The method recited in claim 83,

wherein said requirement is that users complete a series of visits to various locations, in a correct order, sending the position notification data message from each location, and only receiving information relating to the next location to be visited after sending such position notification data message.

wherein the information relating to the next location will be either in the form of a clue, or the location itself, or the information may be given as a series of intermittent messages to the user, with the first message being a cryptic clue as to the location, and the final message being a statement of the actual location, giving users who are able to guess the first message clue a time advantage in travelling to the location.

wherein the winner or winners may be determined by at least one of the following methods: all users completing the required tasks within a predetermined time are entered into a group eligible for prizes, users completing the tasks in the fastest times win, on a points basis, by awarding varying amount of points for being the first to visit various locations, and determining winners based on the highest number of points accumulated;

86. The method recited in claim 81, wherein an organisation may receive a list of users who have entered the said competition and may decide a winner using methods determined by said organisation;

- 64 -

87. The method of establishing friendship groups recited in claim 74,
wherein the said matching and communications system is programmed to offer promotional special offers and/or prizes on behalf of businesses seeking to promote their goods or services, to members of friendship groups;
- 5 88. The method recited in claim 87, wherein members of said friendship group are only eligible for said special offers and/or prizes when a particular number (as determined by the said business), of members of the same friendship group have sent position notification data messages from a particular location within a specific time period;
- 10 89. The method recited in claim 71, wherein the IVR system is configured to look up a list of current available zones, and read out the relevant audio files to determine what zones are offered for the user to select for the process of position notification. This allow further zones to be added and others removed without the need to reprogramme the IVR system.
- 15 90. The method recited in claim 71, wherein users are played an advertisement after entering in the zone they wish to be registered in, but before being allowed to confirm their request for matching to commence, thus ensuring the users attention to the advertisement and ensuring the advert will be heard in full before the hangup of the phone occurs.
- 20 91. The method of initiating contact recited in claim 1, wherein the users are advised in the match notification message of the number of factors that the user has in common with the match partner
- 25 92. The method recited in claim 71, wherein users have the option of requesting an MMS picture of the match partner to be downloaded to the users mobile telecommunications device
93. The method recited in claim 71, wherein users have the opportunity of telephoning into the IVR system, and joining an open line where they can

- 65 -

communicate with other members of their friendship group, or alternatively join a public user group that any member may join without restriction.

94. The method recited in claim 93, wherein the IVR system automatically controls the total number of users on any particular open voice channel, and where necessary will split the channel into 2 or more channels, ensuring that audible communication occurs.

95. The method of initiating contact recited in claim 1, wherein there exists an incentive scheme and/or competition structure to encourage users to actively participate in the matching process; wherein such scheme rewards users who have many successful matches with points, and rewards those users who respond to messages quickly additional points. Users may in certain cases have points deducted for poor performance or behaviour;

wherein users may be categorised into various levels, according to how many points they have earned over a certain period of time;

96. The method of initiating contact recited in claim 1, wherein the matching process of the invention is used to match users seeking employment with businesses seeking staff

97. The method of initiating contact recited in claim 1, wherein the matching process of the invention is used during times of emergency to match users having required emergency skills, including volunteer rescue persons and doctors, with emergency co-ordinators seeking such qualified individuals;

98. The method recited in claim 97, wherein a special emergency website is used which may be promoted by media, and whereby people may register as new users and respond to the emergency situation;

- 66 -

99. The method recited in claim 98, wherein emergency coordinators may access said site and access a secure management area where they can examine lists of users logged into the system, and determine what qualifications the users have

100. The method recited in claim 99,

5 wherein emergency coordinators may form lists on a special website, using the available users

wherein the matching and communications system thereafter automatically communicates by way of electronic message to the users mobile telecommunication device and/or by means of telephoning the user's telecommunication device and interacting via the IVR system

10

whereby through such interaction, the system is able to notify users of meeting points and other information, and receive confirmation from users of their ability to respond to the emergency.

15

20

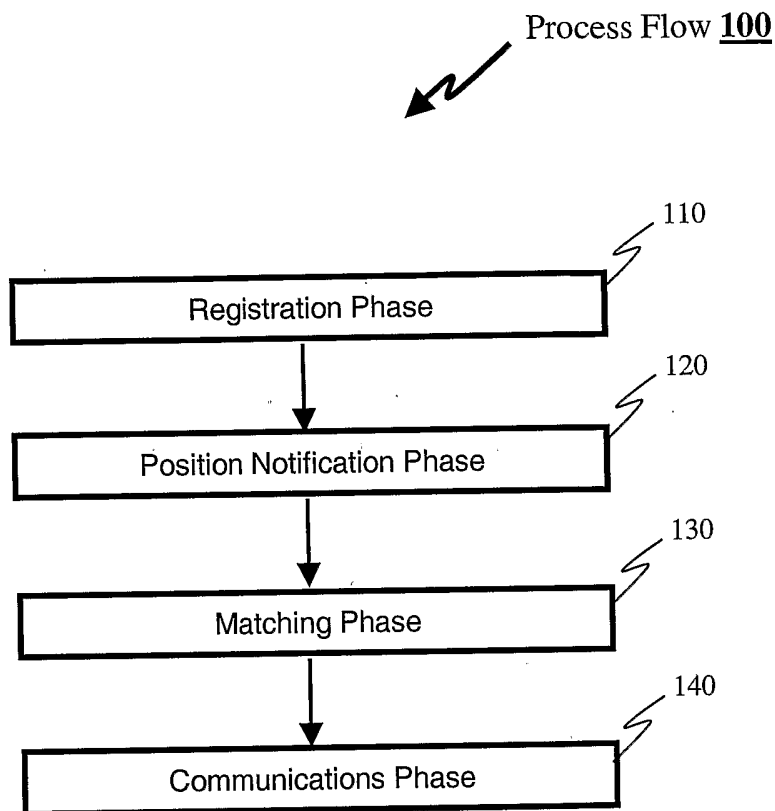


Fig. 1

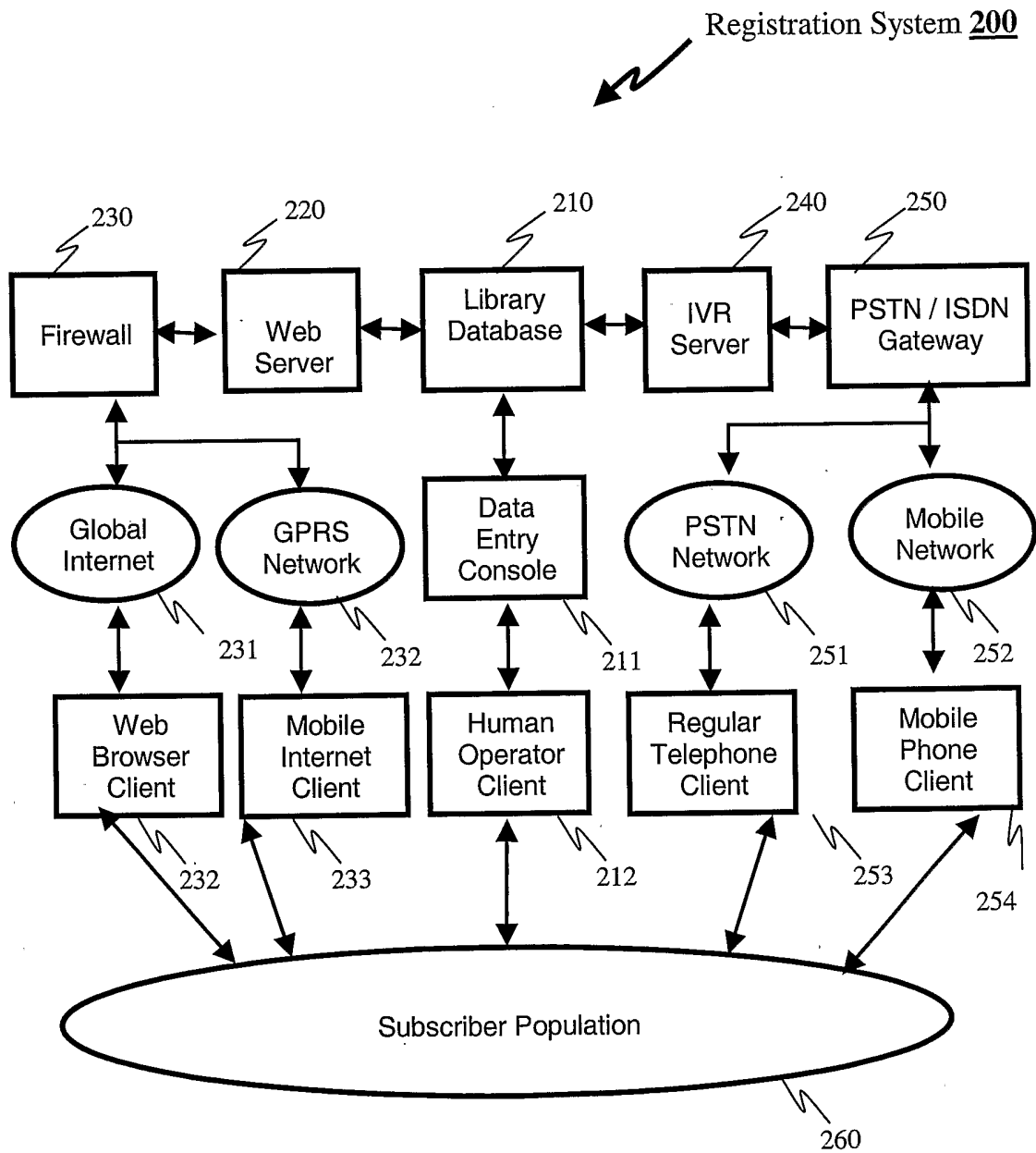


Fig. 2

3/5

Notifications, Matching and Communication System 300

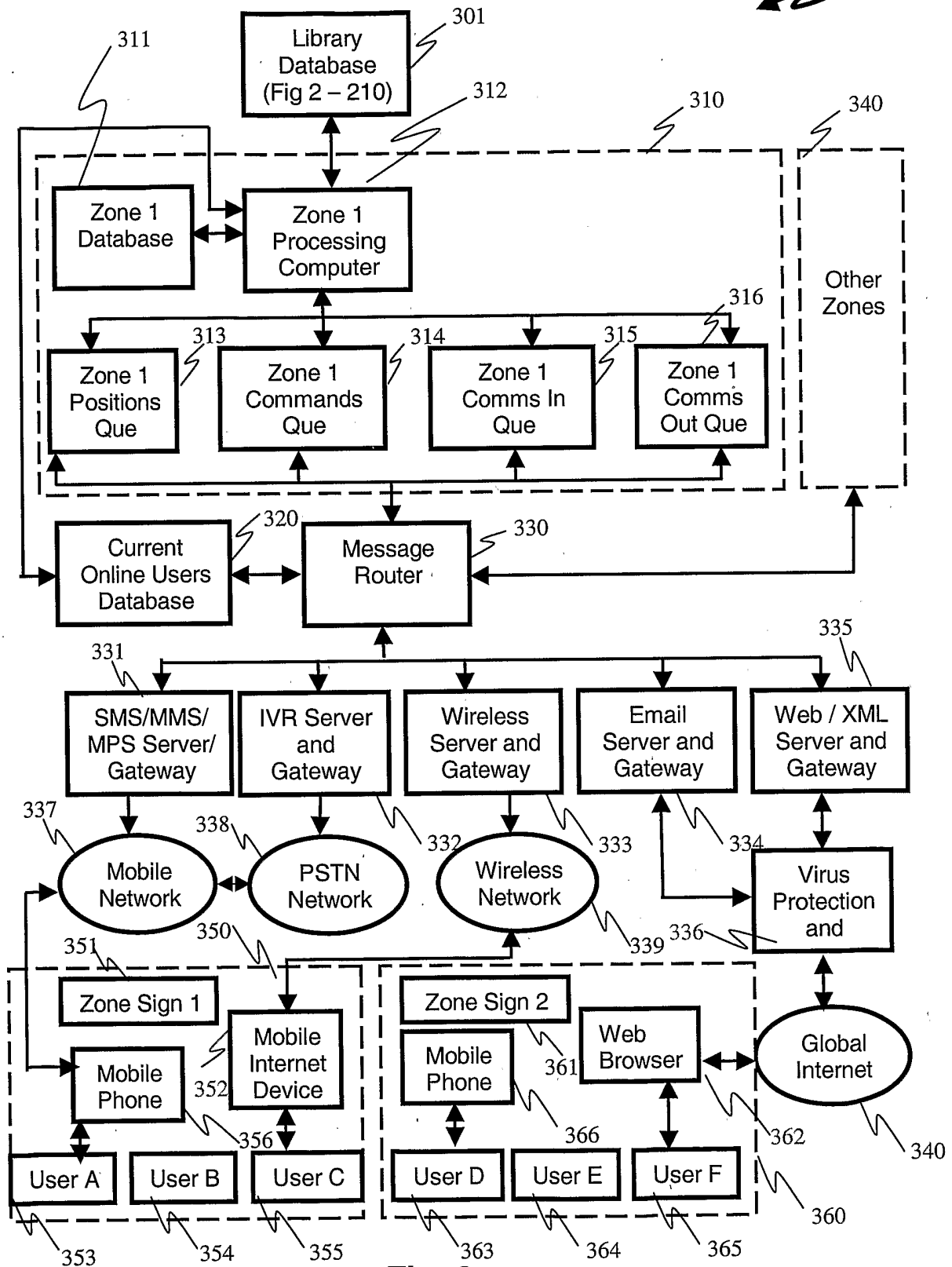


Fig. 3

RFID Tag Reader Position Notification System 400

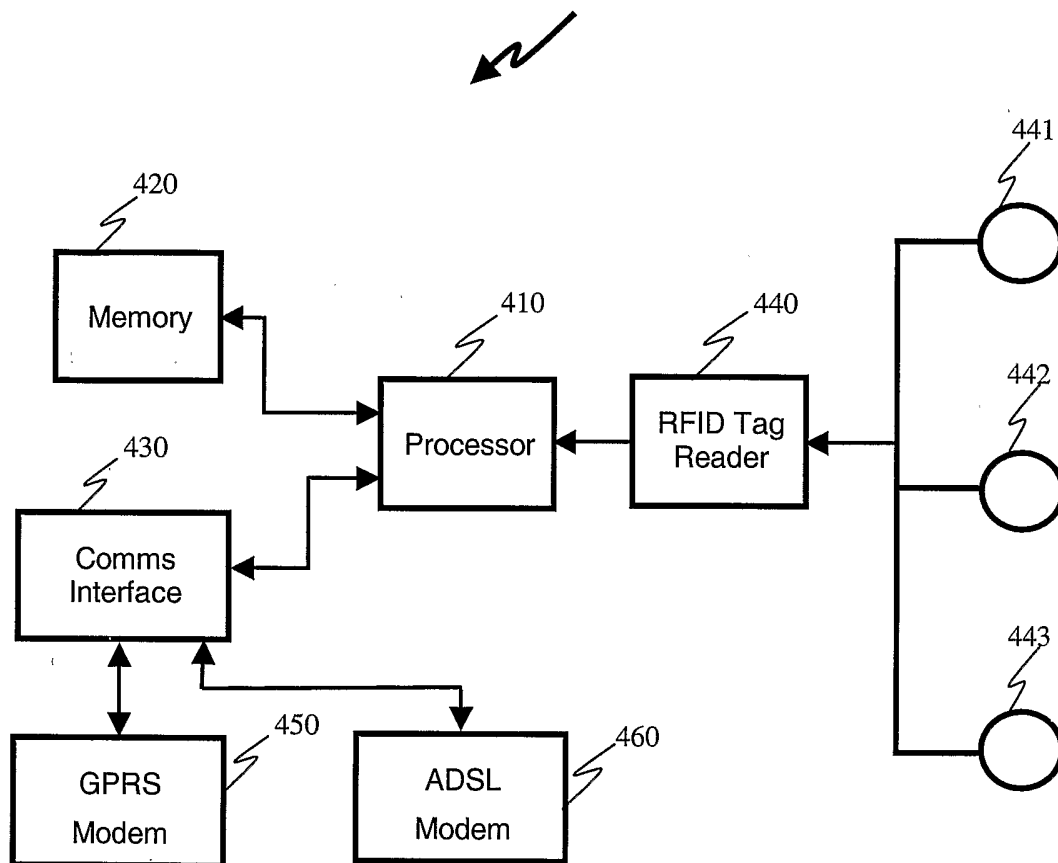


Fig. 4

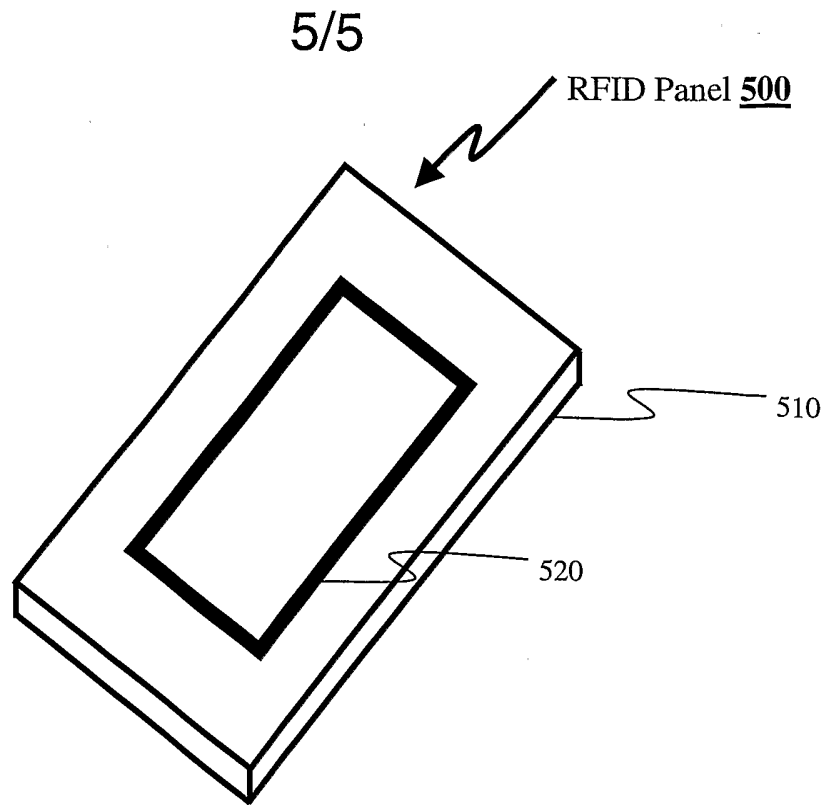


Fig. 5

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2005/001012

A. CLASSIFICATION OF SUBJECT MATTER		
Int. Cl. ⁷ : G06F 17/60		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI, USPTO & PatentScope: "dating service", "marriage partner", fiancé, boyfriend, girlfriend, husband, wife, locat+, position+, geograph+, vicinity, proximat+		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2001/015480 A (Nokia Corporation), 1 March 2001 See whole document eg pages 4-10 etc	1, 39-42, 52-73, 90-94
X	WO 2001/033429 A (Gravitate, Inc), 10 May 2001 See whole document	1-32,43-80, 97-100
X	WO 2001/086997 A (Varland), 15 November 2001 See whole document	1-100
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex		
* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family	
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		
Date of the actual completion of the international search 21 October 2005	Date of mailing of the international search report - 4 NOV 2005	
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized officer J. W. THOMSON Telephone No : (02) 6283	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2005/001012

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 20020165919 A (Pietila), 7 November 2002 See whole document, eg paragraphs 9-29, 32-33, figures etc	1-32, 39-42, 46-50, 52-61, 74-79
X	US 6618593 B (Drutman et al), 9 September 2003 See whole document, eg columns 5-14, figures etc	1-32, 39-42, 46-79, 90-94, 97-100
X	US 6731940 B (Nagendran), 4 May 2004 See whole document, eg columns 2-3, figures etc	1, 46-73, 90- 94, 97-100

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU2005/001012

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report	Patent Family Member		
WO 0115480	AU 67791/00	EP 1212910	EP 1434459
	US 6549768	US 2004002348	
WO 0133429	AU 13458/01	US 6731928	US 6819919
WO 0186997	AU 62819/01		
US 2002165919	US 6934739		
US 6618593	AU 88911/01	EP 1323318	WO 0221864
US 6731940			

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

END OF ANNEX