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(54) Title: MEETINGS COORDINATING SYSTEM AND METHOD

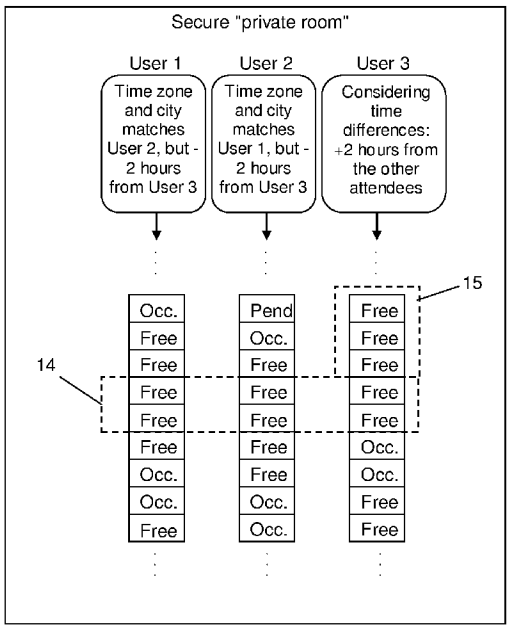


Fig. 3

(57) Abstract: The present invention relates to a method for providing availability services by coordinating between calendars, comprising the steps of: a) dividing each calendar into time cubes such that each calendar is represented as a chronological sequence of uniform time scales (e.g., in a ribbon-like form); b) defining each cube on each specific calendar according to one of the following availability states: free, occupied or pending; c) allowing a user to send data representing an invitation to an event to one or more contacts for approval, and when an invitation of one or more contacts has been approved, opening a secure "private room" and importing to said "private room" the schedule of each approved contact in a confidential manner, such that each schedule of each contact includes data representing only their availability states, wherein all approved contacts including said user are defined as attendees of said event; d) at said secured "private room", searching all imported schedules simultaneously to find at least one option of common available matching time cubes among all attendee that defined as "free" state, or sequence or other combinations of "free" state time cubes between all attendees, and considering all terms as given by said attendees and the data of said event, including time differences between all attendees and approximated traveling time of each attendee; and e) setting the free matching time cubes as occupied, either automatically or after being approved by said attendees, including the proximate traveling time to the meeting / event for each attendee.

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MEETINGS COORDINATING SYSTEM AND METHOD

Field of the Invention

The present invention relates to the field of calendaring system. More particularly, the invention relates to a method and system for calendar management services by synchronizing calendars in a confidential and anonymous manner.

Background of the invention

In today's world, the social networks are very developed and appreciated, but, some how the basic function of meeting was left behind. With all today's technology we find it so hard to set a meeting/ date/appointment, not mentioning group meetings of multi-participants events (such as parties, weddings, birthdays, religious ceremonies and the like).

How many times a day did you found yourself with wasted time out of trying to synchronize your schedule with your work Co-workers / clients / friends / partner/ children etc.? Canceled meetings which create empty windows on your schedule and delaying your home arrival time? How many businessmen do not have secretary services, and even if they do have that privileged what happens when they are at home disconnected with their tomorrow's schedule? How many times a day has you heard or used the sentence "When can we meet?"

As more users are connected to the Internet and conduct their daily activities electronically, the time asset of each user can become much more efficient. Therefore, it is an object of the present invention to provide a system which is capable of connecting between users in order to save and organized user's most expensive asset – time, in a confidential manner.

Other objects and advantages of the invention will become apparent as the description proceeds.

Summary of the Invention

The present invention relates to a method for providing availability services by coordinating between calendars, comprising the steps of: a) dividing each calendar into time cubes such that each calendar is represented as a chronological sequence of uniform time scales (e.g., in a ribbon-like form); b) defining each cube on each specific calendar according to one of the following availability states: free, occupied or pending; c) allowing a user to send data representing an invitation to an event to one or more contacts for approval, and when an invitation of one or more contacts has been approved, opening a secure "private room" and importing to said "private room" the schedule of each approved contact in a confidential manner, such that each schedule of each contact includes data representing only their availability states, wherein all approved

contacts including said user are defined as attendees of said event; d) at said secured "private room", searching all imported schedules simultaneously to find at least one option of common available matching time cubes among all attendee that defined as "free" state, or sequence or other combinations of "free" state time cubes between all attendees, and considering all terms as given by said attendees and the data of said event, including time differences between all attendees and approximated traveling time of each attendee; and e) setting the free matching time cubes as occupied, either automatically or after being approved by said attendees, including the proximate traveling time to the meeting / event for each attendee.

According to an embodiment of the present invention, the method further comprises allowing each user to set a level of importance to each event. Additionally, the method further comprises importing the level of importance given by the calendar's owner to time cubes that are stated as occupied. Moreover, the method further comprises allowing prioritizing events in the calendar according to their level of importance, whenever there is a time conflict between two or more events, by postponing the less important event and rescheduling it to other time.

According to an embodiment of the present invention, the matching considering time zone differences and the required travelling time for each

attendee either from the previous event's location or according to location provided from location services or by the user.

According to an embodiment of the invention, the method further comprises providing means to clear the entire day from meetings/events and optionally have them all reschedule.

According to an embodiment of the invention, the method further comprises providing an option for the user to add remark that occurs at a certain time, but does not affect the user's schedule.

According to an embodiment of the invention, the method further comprises providing an option to send task(s) to one or more contacts of the user, wherein the task can be added (either automatically or upon approval) to the calendar of said contact(s). For example, creating such a send task can be posted as a time based remark to the user's calendar. The method further comprises providing the user with more than one option to handle his tasks, e.g., such as through his scheduled time for the task on his calendar, or via a task list on his inbox. These two exemplary options or any other way to handle the tasks can be simultaneously update each other, either automatically or upon a user approval.

According to an embodiment of the invention, the method further comprises applying with one or more optional meeting time for the event, wherein the optional time sequences will be displayed on the calendar of each user such that the optional time cubes will be marked on the calendar and will allow the user to choose one of the offered matching options. The method may further provide an "earliest choice" button for allowing the user to easily select the earliest time sequence that matches all the information, terms and limitations of the event and its attendees. For example, the optional event's time may appear as marked on the user's calendar without sharing any information of the other attendee's schedule. The user will be able to choose one of the offered optional meeting time or press the "earliest choice" button to set the earliest option as the event's time.

According to an embodiment of the invention, the method further comprises further comprises allowing to display on the calendar of each user a location based notification related to a third party entity. For example, the third party entity can be an advertiser or a commercial content provider.

In another aspect the invention relates to a system for coordinating between users' calendars, comprising: a) a meeting coordinating server adapted for synchronizing between users' calendars in a confidential and

anonymous manner via a secure "private room" without using any calendaring content except the availability status of each user, whether it free, occupied or pending; and b) a dedicated application adapted for running/executing on a user's terminal unit in order to communicate and synchronize with said meeting coordinating server.

According to an embodiment of the invention, the system further comprises an advertising server for allowing one or more third party entities to provide location based content with respect to the user's calendar and current/future scheduled location(s), wherein whenever such location based content exist a notification will be displayed on the user's calendar as an icon or other relevant symbol which only represents or indicates the sector or type of the content.

Brief Description of the Drawings

In the drawings:

- Fig. 1 schematically illustrates meetings coordinator system, according to an embodiment of the invention;
- Fig. 2 schematically illustrates an exemplary representation in a ribbon-like form of a calendar divided into time cubes, according to an embodiment of the present invention;

- Fig. 3 schematically illustrates the matching between available time cubes of several attendees considering time differences and proximate traveling time to the location;
- Fig. 4 schematically illustrates the registration of the meeting's / event's time and the traveling time as occupied on each of the attendee's calendar; and
- Figs. 5-9 schematically illustrate exemplary screen layouts of the meeting coordinator system, according to some embodiments of the present invention.

Detailed Description of the Invention

Embodiments of the present invention are directed to methods, systems and computer products for retrieving real time availability data (free/ occupied/pending data) in a confidential and anonymous manner via an availability service for use by a requesting calendaring application's and/or a dedicated website for scheduling meetings and/or asset use with one or more meeting attendees and/or assets. Throughout this description the term "contacts" is used to indicate entities that are able to interact with the availability service of the present invention. The entities can be private users, third parties, reservation service providers, businesses, professional users, etc. For example, a private user may interact with other contacts whether they appear in his/her own contacts list or not.

Reference will now be made to several embodiments of the present invention(s), examples of which are illustrated in the accompanying figures. Wherever practicable similar or like reference numbers may be used in the figures and may indicate similar or like functionality. The figures depict embodiments of the present invention for purposes of illustration only. One skilled in the art will readily recognize from the following description that alternative embodiments of the structures and methods illustrated herein may be employed without departing from the principles of the invention described herein.

The terms, "for example", "e.g.", "optionally", as used herein, are intended to be used to introduce non-limiting examples. While certain references are made to certain example system components or services, other components and services can be used as well and/or the example components can be combined into fewer components and/or divided into further components.

Fig. 1 and the following discussion are intended to provide a brief, general description of a suitable computing environment in which the invention may be implemented. While the invention will be described in the general context of program modules that execute in conjunction with a dedicated application program that runs on a mobile device (e.g., a smart phone) and can be companied by a dedicated website, those skilled in the art will

recognize that the invention may also be implemented in combination with other program modules. Similarly, while certain examples may refer to a smart phone, other mobile devices or computer based electronic systems can be used as well, such as, without limitation, a tablet, a network-enabled personal digital assistant (PDA), a Personal Computer (PC) system and so on.

Unless otherwise indicated, the functions described herein may be performed by program modules that include executable code and instructions, which are stored in computer readable medium and running on one or more processor-based systems. However, state machines, and/or hardwired electronic circuits can also be utilized. Further, with respect to the example processes described herein, not all the process states need to be reached, nor do the states have to be performed in the illustrated order.

Generally, program modules include routines, programs, components, data structures, and other types of structures that perform particular tasks or implement particular abstract data types. Moreover, those skilled in the art will appreciate that the invention may be practiced with other computer system configurations, including hand-held devices, multiprocessor systems, microprocessor-based or programmable consumer electronics, minicomputers, and the like. The invention may also be practiced in distributed computing environments where tasks are

performed by remote processing devices that are linked through a communications network. In a distributed computing environment, program modules may be located in both local and remote memory storage devices.

In addition, while certain user inputs or gestures are described as being provided via phone key presses, data entry via a keyboard, or by clicking a computer mouse, optionally, user inputs can be provided using other techniques, such as by voice or otherwise. The example screen layouts, appearance, and terminology as depicted and described herein, are intended to be illustrative and exemplary, and in no way limit the scope of the invention as claimed.

With reference to Fig. 1, one exemplary system for implementing the invention includes a meeting coordinator server 1 and plurality of terminal units capable of communicating with meeting coordinator server 1. The terminal units can be any computer based device such as smart phones 2, a Personal Computer (PC) and the like. The communicating with server 1 can be done via a dedicated application or via a dedicated website (or web interface). In a basic configuration, the server 1 includes at least one processing unit and system memory (not shown). The system memory includes one or more dedicated software applications and may include also program data for providing calendar management services by

synchronizing between users' calendars in a confidential and anonymous manner. Optionally, the system may further incorporate with terminal unit(s) of third party services 5 to be discussed in greater details below. The server 1 and the terminal units communicate via a communication network 3, such as the Internet.

According to an embodiment of the invention, each user of the system has its own private calendar that can be managed locally by the dedicated application either on a mobile device such as the smart-phone 2 or simultaneously and in synchronized manner via another computer system 4, such as a PC or a tablet. The server 1 and the dedicated application (e.g., via the user's terminal unit 2) can update each other periodically (e.g., every 15 minutes).

According to an embodiment of the invention, the dedicated application allows each user to set one or more terms in order to automatically manage the user's schedule, such as working hours, location (e.g. in order to take into account traveling time due to different city location and even different time zones between the attendees that are invited to the same event), reminders (e.g., to take a medicine, live sporting event, formal dress code, etc.), and the like. Once the event is scheduled, all the attendees will be defined as a meeting group of that specific event, which provides them with the ability to handle communication between all

attendees with the reference of that specific event (e.g., massages, sharing file / image, voice massage, conference call, send tasks, etc.).

According to an embodiment of the present invention, the dedicated application allows the user to set the level of importance for each scheduled event (i.e., occupied time period in the user's calendar). For example, there can be at least two level of importance, such as "not important" and "very important". Therefore, in case there are two or more event that are scheduled at the same time period, the system will alert the user, and either by the user approval or automatically the system will reschedule the less important event.

According to an embodiment of the invention, the meetings coordinating process within the server 1 involve the following steps:

- dividing each calendar into a plurality of time cubes (e.g., each time cube may represent a time period of 15 minutes) thereby providing calendars in form of a chronological sequence of uniform time scales (e.g., similar to a running ribbon as indicated by numeral 10 in Fig. 2);
- allowing to define each time cube according to one of the following statuses: free (i.e., available, as indicated by numeral 11 in Fig. 2, e.g., can be represented by a green color), occupied (i.e., busy, as indicated by numeral 12 in Fig. 2, e.g., can be represented by a red

color) or pending (as indicated by numeral 13 in Fig. 2, e.g., can be represented by a yellow color). For example, by default all time cubes can be set as "free", unless otherwise defined;

- When an invitation to a specific event is approved by one or more users, opening a secure "private room" that will be used only by the system (and it will be not shared with any user). The system will import to this secure "private room" the schedule of each approved user (i.e., attendee) while the only information on each imported schedule will be the status of each time cube (e.g., as represented by the relevant color: green, red or yellow and as shown with respect to Figs. 3 and Fig 4). Optionally, it will also import the level of importance given by each attendee to time cubes that are defied as occupied;
- Then at this secured "private room", running and searching all schedules simultaneously (considering time zone differences, if relevant) to find the first or other options of available and common time cubes (or sequence or other combinations of common "free" time cubes) between all attendees and considering all terms given by attendees and the invitation/event data (e.g., the terms can be time and time differences, location, travelling time (in case of different time zone for different attendees, etc.). For example, the first available sequence of "free" time cubes for all attendees is indicated by the time cubes within the dotted line 14 in Fig. 3 with

respect to the exemplary ribbon like form of the relevant calendar portion of three attendees (as indicated by the attendees: User 1, User 2 and User 3). For example, in case the travelling time of User 3 to the scheduled event with User 1 and User 2 may take several hours (e.g., due to the distance between the previous event's location of user 3 and the location of the new schedule event. In this case, while the system synchronizes the available sequence of common "free" time cubes between all attendees, it takes into consideration the proximate traveling time needed for each attendee to arrive at the location of the new schedule event. The location information can be obtained as one of the scheduling terms either from previous event of each attendee calendar (if such event was scheduled) or based on location information provided by the user or by location services provided by the user's mobile device, e.g., GPS, cellular, and the like (e.g., as indicated by the three "free" time cubes within the dotted line 15 in Fig. 3). The three "free" time cubes within dotted line 15 represent the proximate traveling time of the attendee (e.g., User 3) to the meeting's location from his previous event's location. and

- Setting the matching time cubes as occupied (as indicated by the time cubes within the dotted line 14 in Fig. 4), either automatically or after being approved by all the relevant attendees, including setting the time period of the travelling time in the calendar of User

3 as occupied (as indicated by the time cubes within the dotted line 15 in Fig. 4)

According to some embodiments of the invention, the system further comprises software means for providing one or more optional meeting time for an event, wherein the optional time sequences will be displayed on the calendar of each user such that the optional time cubes will be marked on the calendar and will allow the user to choose one of the offered matching options. Optionally, the system may further comprise software means for providing an "earliest choice" button for allowing the user to easily select the earliest time sequence that match all the information, terms and limitations of the event and it's attendees.

As will be appreciated by the skilled person the meetings coordinating process described hereinabove results in an availability services for synchronizing calendars in a confidential and anonymous manner. The synchronization is made through secured private room, not allowing anyone (not even the calendar's owners) to see the schedule of the other(s) attendee(s).

The suggested system can be used as a smart secretary that provides secretarial and personal management services to the user. As will be

appreciated by the skilled person, the system is able to automatically manage the user's schedule based on the user's working hours and habits.

According to some embodiments of the present invention, the system further comprises additional features and services. The more information and data the user will share and set with the system the better secretarial service he will gain. The system may offer meeting location according to users' requests and even can provide additional information and on-line reservations from a third party entity such as flights, hotel, car rental, restaurant reservation service or any other booking and prepayment services if needed, e.g., as shown by the third party services 5 in Fig. 1. For example, this can be obtained by using and cooperating with local / global matching search engines and PayPal / credit cards payment service via a secure payment channel.

All the above will be better understood through the following illustrative and non-limitative examples.

According to an embodiment of the invention, the system allows a user to define selected contacts as special roll contacts, and optionally also to mark them in a unique visual manner with respect to the other contacts in the list (as indicated by numerals 52 and 53 in Fig. 8). In general, the special roll contact may represent people that have specific task with

respect to someone's private or professional life, such as a babysitter, a driver, a language translator, a dog walker, etc. This enables the user to set a specific roll for the contact to be used when setting an event. For example, a user can define a specific contact with a special roll such as a babysitter. Accordingly, whenever the user wishes to go to a specific event (e.g., a concert), the user can use the dedicated application to sync with the babysitter's schedule (or alternatively with babysitting services) to order babysitting services in accordance with the desired event (e.g., the concert).

According to some embodiments of the invention, in some events, the user can use the dedicated application to send the relevant meeting/event's attendees special information/request/question regarding the event (e.g., dressing code, "bring a cake" or "would you be needed a vegetarian dish?", and the like). Once the event is scheduled, all the attendees will be defined as a meeting group of that specific event. This provides them with the ability to handle communication between all attendees with the reference of that specific event (e.g., massages, sharing file / image, voice massage, conference call send tasks etc.).

According to an embodiment of the invention, the system allows the user to set limitations to a contact, such as meet intervals (e.g., meeting every two weeks), enable/disable different properties, etc. Those limitations will

be taken under consideration when using the auto mechanism to set up meetings. For example, such enable/disable properties may include:

- Allow send task – will allow the specific contact to send a task to the user's calendar;
- Contact priority – this is a way to know in case there are two meetings at the same time, which to accept, which to reschedule; and
- Meeting gap – this is a roll to set in case the user wants to meet a person in gaps and not every time he wants to.

Clear My Day (CMD)

According to an embodiment of the present invention, the user can use the dedicated application to clear the entire day from meetings/events and have them all reschedule by the system automatically (e.g., in case of emergency).

Clear my day will function as an emergency button, to provide immediate assistance by clearing the entire day from meetings and tasks and will inform all the scheduled meeting's attendees (and tasks senders) about the need to cancel or reschedule the events of that day. The system will apply the user to choose between a default of a general message or a freehanded personal message he can apply.

Clear my day option is clearing the day and deleting all the meetings. Preferably, all the users that are participants in meetings during that day will get a message of canceled meetings. For example, CMD may load an alert with 3 options:

- **Clear my day and reschedule** – using the auto mechanism of the private secretary to reschedule all meetings and send messages to all relevant participants.
- **Clear my Day** – will send a message of cancelation to all participants.
- **Cancel** – close the alert and do nothing.

The dedicated application may send reminders for the user's events/ meetings with all remarks mentioned to the reference.

An additional advantage provided by the invention is that the dedicated application in accordance with meeting coordinator server help the user to organize multi participants events, schedule with all attendees, giving the user number of precipitance how approved and scheduled your event in their calendar. For example, the user can use the dedicated application to receive main dish preference etc.

According to an embodiment of the invention, through the dedicated application a user could choose to send designed invitations (e.g.,

interactive, multimedia, 3D designed invitations, etc.) to selected events and even to add music (e.g. ringtone/ songs/ video clip/ remix music/ play list, etc.) as background music to the invitation. Figs. 7A and 7B schematically illustrate exemplary screen layouts of such an invitation. In this example, the invitation includes a textured/designed background (e.g., an image file type such as JPG, GIF or any other suitable image file type), text, schedule and operation button(s) for the invited user such as "accept" / "deny" and the option to view the event's time sequence on the user's schedule before accepting or denying the invitation. Once the invited user accepts the invitation, the system will set the invitation and the scheduling to the user's calendar and, optionally, those operation buttons will be removed from the invitation. Fig. 7A shows an example of the invitation creation screen where the user may select the preferred background, fonts, etc. Fig. 7B shows the invitation as received by an invited contact of that user.

According to an embodiment of the invention, through the dedicated application a user could choose to hide a meeting's data from the calendar, and the time of the event will appear as busy, but only by applying a password the meeting's data will be exposed.

According to some embodiments of the invention, the system allows the user to choose a specific background color to each contact person or a

group of contacts (e.g., different color for each private group). This color can be used as the background color of all the events related to that contact person / group on the user's calendar.

The dedicated application will help the user to follow open invitation he had sent preapproved, incoming invitations he had received, update or cancel meetings/ events. Moreover, through the dedicated application the user will be able to organize or join a group (e.g., for walking the dog shifts, purchases, school shuttle, book reading, etc.), but with the user's contacts or with other system's users having relevant attributes, e.g., such as users who live in the same city or have other common attributes.

Groups

According to an embodiment of the invention, there are at least two types of main groups: i) private groups that the user creates like family, friends, colleagues; and ii) meeting groups that are created automatically when a meeting or event is set.

Fig. 5 schematically illustrates an exemplary screen layout of private groups, according to an embodiment of the present invention. In the center screen layout there is a dialer 50 that enables the user to navigate between all groups. In this embodiment, turning the dialer 50 left or right enables to navigate between the different groups. For example, tapping on

the center of the dial will provide information regarding the currently selected group screen such as the created date of the group, the number of contacts in this group, the last post sent in this group, etc.

Fig. 6 schematically illustrates an exemplary screen layout of meeting groups, according to an embodiment of the present invention. The meeting groups are created automatically when a meeting is set. In this embodiment, the navigation between these groups is done in a dialer 50 like form, but with a schedule range selection 51 where the user can select the desired date range, such as day, week, month, etc.

Time Based Remark (TBR)

TBR is an option for the user to write down something that occurs at a certain time, but does not affect his scheduled. For example: Mom went to a vacation. According to an embodiment of the invention, the TBRs will appear in the calendar but will show that time as available and will be taken under consideration as available when using the auto meeting set up mechanism.

Send Task

According to some embodiments of the invention, the system comprises an option to send assignment(s) to one or more contacts of the user. The task can be added (either automatically or upon approval) to the calendar of

that contact. Creating such a send task can be posted as a TBR to the user's own calendar. The method further comprises providing the user with two or more options to handle his tasks, e.g., through his scheduled time for the task on his calendar or via the task list on his inbox. Both options will simultaneously update each other.

According to an embodiment of the invention, the system comprises a virtual billboard. The virtual billboard may include several categories/topics, such as places, attractions and business nearby, career opportunities, lost and found, community news, yard sale, group gathering and the like as schematically illustrated in Fig. 9. The billboard content can be either location based information (e.g., by GPS or according to scheduled meeting's locations) or non-location based information. For example, through the dedicated application each category may showcase top/selected messages (e.g., 3-5 messages on each category on each screen). Optionally, the messages can be scrolled sideways to provide unlimited ads. In selected mobile devices, there will be an option to tap and see all in order to view all messages in the specific board. Tap on a message will enlarge the message to full screen view.

Location Based Advertisement

According to an embodiment of the invention, the system comprises a location based content module (e.g., an advertising server), or

alternatively, means to communicate with a third party commercial content server, for allowing one or more third party entities to provide location based content with respect to the user's calendar and its current/future scheduled location(s).

For example, whenever such location based content exist a notification will be displayed on the user's calendar as an icon or other relevant symbol which indicates or represents only the sector or type of the content, such as gastronomy sector (e.g., an icon in form of a cup of coffee that may indicate of a food related benefit such as a happy hour at a local pub or a discount at a specific restaurant), truism sector (e.g., an icon in form of the letter "i" that may represent a discount at a specific nearby hotel), culture and entertainment (e.g., an icon in form of a smiling face that may represent a discount for a sport event, a theater nearby, or movie), purchase culture (e.g., an icon in form of a shopping cart that may represent malls and shopping center nearby), transportation (e.g., an icon in form of a private car that may represent flight deals, available parking lot, car rent), etc. Fig. 10 schematically illustrates an icon 55 in form of a cup of coffee that represents the gastronomy sector as presented in the user's calendar 56.

According to an embodiment of the invention, the advertising are implemented in a manner and placements not just to avoid interference to

the users working environment but even to bring the advertising to the users benefit as well to the advertiser. This is done through the concept that the system's application is an innovative way of connecting between users by considering them not only as private, social or professional individuals but all at once. Combined with the function of secretarial and private management services, the system provides with calendar management services. Through this ability, the system will offer a unique match between the advertiser to the users in the aspect of their device location detection and future event locations of the user, in a unique approach:

In this perspective, the system offers a new kind of advertisement which will, without any doubt, make the users curious and thus, increase their click probability on the ads. No more need to relate to usual terms from the advertising world such as impressions, clicks, conversions, CTR (click through rate: the relation between impressions and clicks). Showing the users geo-located thematic icons all along their way or future scheduled locations, without them to know what advertiser is hiding behind, will make stronger their will to discover what the icon is. And will create a curiosity by the user in the aspect of a “lottery ticket”. For example, by clicking on these "icon" ads, a small and user friendly pop-up will open up and give the user the possibility to win and save a free gift/benefit, a coupon and the like at a nearby located business.

The user gains a benefit with that relates to his current/future scheduled locations. The advertiser gains: a) a target audience per to the location near his business; b) creating curiosity through the ads that will increase the clicking frequencies and by that attract more users to view their ads; c) advertising at the suggested venue screen will be the closest advertising to "close deal". For example, if a user will choose to click on the business's ad as his meeting venue, that business will appear on the user's invitation and will be shown at all event's attendees' schedule.

The system of the present invention allows users to received / send an invitation with all meeting/ event's data, and to easily and efficiently schedule and synchronized with the user's meetings attendees in a secured manner knowing that anyone can't see the other's schedule. Moreover, a user can determine weather to accept the invitation, accept it but through day / dates / hour limitations (without letting other attendees knowing of such) or decline in a gentle way.

All the above description and examples have been given for the purpose of illustration and are not intended to limit the invention in any way. Many different mechanisms, methods of analysis, electronic and logical elements can be employed, all without exceeding the scope of the invention.

CLAIMS

1. A method for coordinating between calendars, comprising the steps of:
    a. dividing each calendar into time cubes such that each calendar is represented as a chronological sequence of uniform time scales;
    b. defining each cube on each specific calendar according to one of the following availability states: free, occupied or pending;
    c. allowing a user to send data representing an invitation to an event to one or more contacts for approval, and when an invitation of one or more contacts has been approved, opening a secure "private room" and importing to said "private room" the schedule of each approved contact in a confidential manner, such that each schedule of each contact includes data representing only their availability states, wherein all approved contacts including said user are defined as attendees of said event;
    d. at said secured "private room", searching all imported schedules simultaneously to find at least one option of common available matching time cubes among all attendee that defined as "free" state, or sequence or other combinations of "free" state time cubes between all attendees,

and considering all terms as given by said attendees and the data of said event, including time differences between all attendees and approximated traveling time of each attendee; and

e. setting the free matching time cubes as occupied, either automatically or after being approved by said attendees, including the proximate traveling time to the meeting / event for each attendee.

2. A method according to claim 1, further comprises allowing each user to set a level of importance to each event.

3. A method according to claim 2, further comprises importing the level of importance given by the calendar's owner to time cubes that are stated as occupied.

4. A method according to claim 2, further comprises allowing to prioritize events in the calendar according to their level of importance, whenever there is a time conflict between two or more events, by postponing the less important event and rescheduling it to other time.

5. A method according to claim 1, wherein the matching considering time zone differences and the required travelling time for each attendee either from the previous event's location or according to location provided from location services or by the user.

6. A method according to claim 1, further comprising providing means to clear the entire day from meetings/events and optionally have them all reschedule.

7. A method according to claim 1, further comprising providing an option for the user to add remark that occurs at a certain time, but does not affect the user's schedule.

8. A method according to claim 1, further comprising providing an option to send task(s) to one or more contacts of the user, wherein the task can be added (either automatically or upon approval) to the calendar of said contact(s).

9. A method according to claim 8, wherein creating such a send task can be posted as a time based remark to the user's calendar.

10. A method according to claim 1, further comprises applying with one or more optional meeting time for the event, wherein the optional

time sequences will be displayed on the calendar of each user such that the optional time cubes will be marked on the calendar and will allow the user to choose one of the offered matching options.

11. A method according to claim 10, further comprises providing an "earliest choice" button for allowing the user to easily select the earliest time sequence that match all the information, terms and limitations of the event and it's attendees.

12. A method according to claim 1, further comprises allowing to display on the calendar of each user a location based notification related to a third party entity.

13. A method according to claim 12, wherein the third party entity is an advertiser or a commercial content provider.

14. A method according to claim 1, further comprises offering meeting location according to a user's request.

15. A method according to claim 14, further comprises providing additional information and on-line reservations from a third party.

16. A method according to claim 1, further comprises allowing defining selected contacts as special roll contacts, and optionally marking

said special roll contacts in a unique visual manner with respect to the other user's contacts.

17. A system for coordinating between users' calendars, comprising:

a) a meeting coordinating server adapted for synchronizing between users' calendars in a secure and anonymous manner via a secure "private room" without using any calendaring content except the availability status of each user, whether it free, occupied or pending; and

b) a dedicated application adapted for running/executing on a user's terminal unit in order to communicate and synchronize with said meeting coordinating server.

18. A system according to claim 17, further comprises an advertising server for allowing one or more third party entities to provide location based content with respect to the user's calendar and current/future scheduled location(s), wherein whenever such location based content exist a notification will be displayed on the user's calendar as an icon or other relevant symbol which only represents or indicates the sector or type of the content.

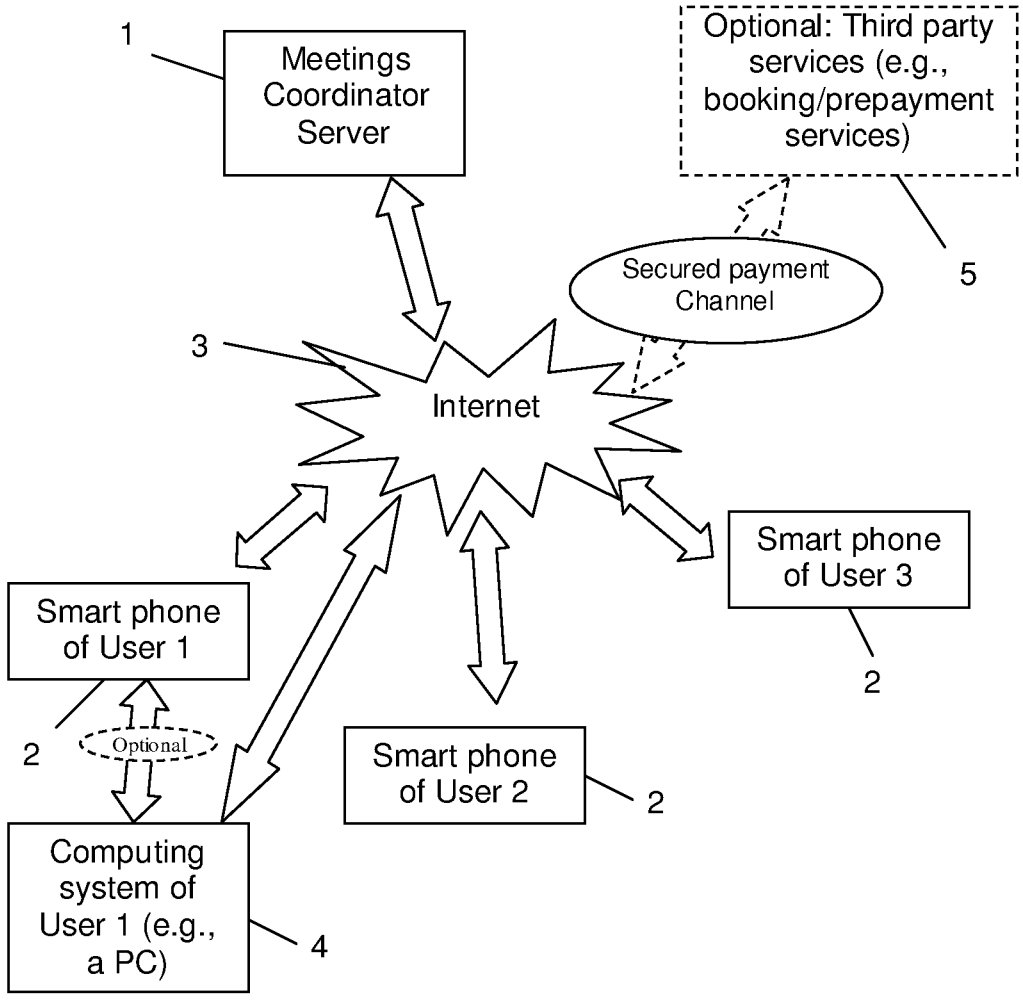

1
Meetings Coordinator Server
Optional: Third party services (e.g., booking/prepayment services)
5
Secured payment Channel
3
Internet
Smart phone of User 3
2
Smart phone of User 1
2
Optional
Smart phone of User 2
2
Computing system of User 1 (e.g., a PC)
4

Fig. 1

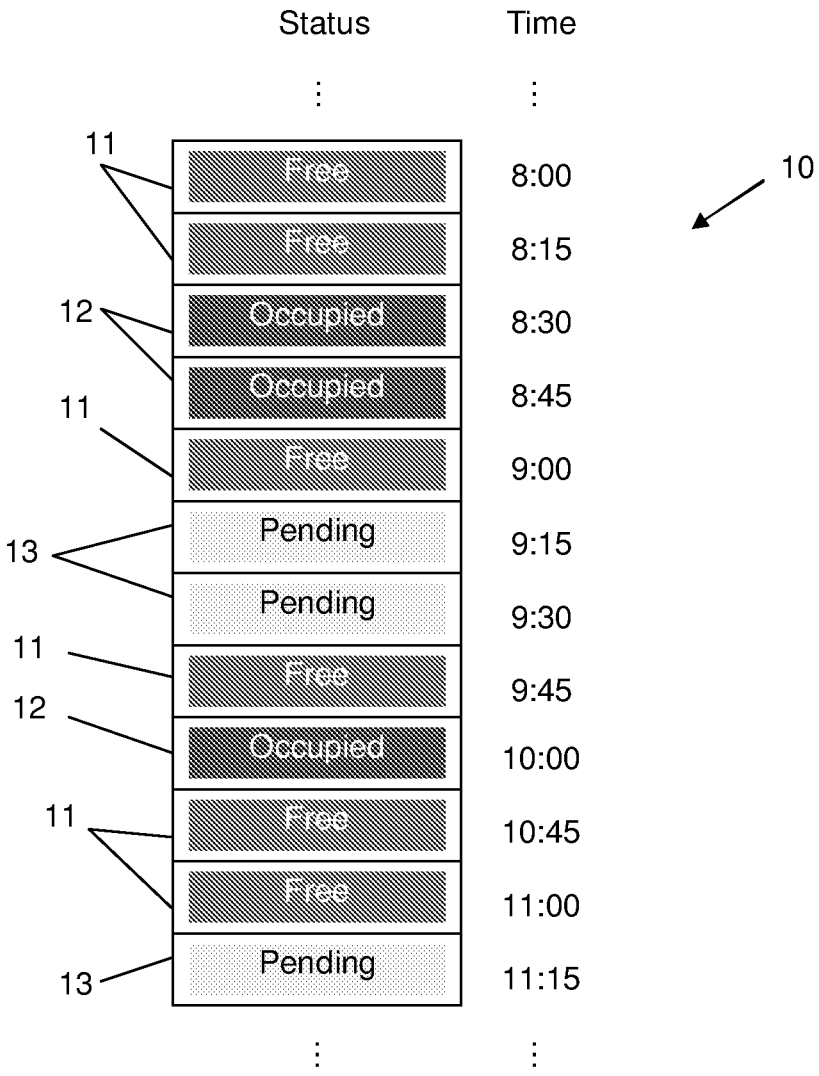

Status
Time
11
Free
8:00
10
Free
8:15
12
Occupied
8:30
Occupied
8:45
11
Free
9:00
Pending
13
9:15
Pending
9:30
11
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Pending
13
11:15

Fig. 2

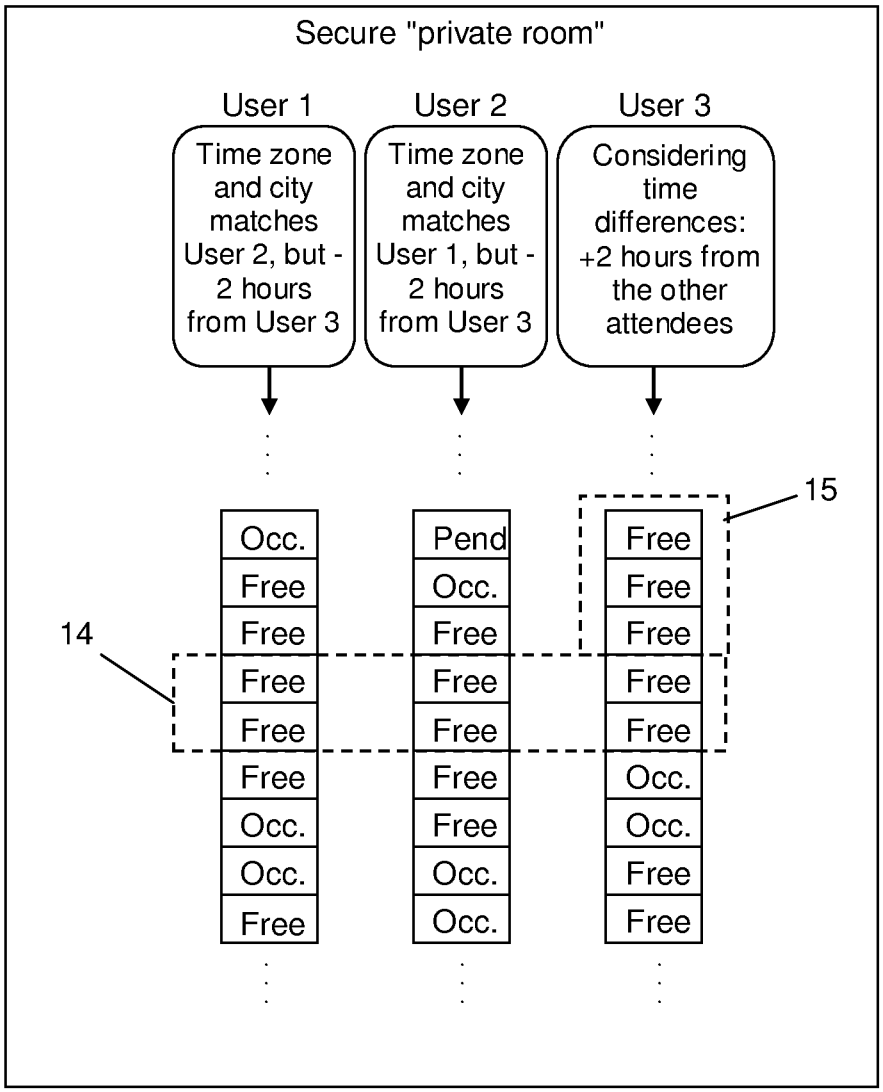

Secure "private room"
User 1
Time zone and city matches User 2, but -2 hours from User 3
User 2
Time zone and city matches User 1, but -2 hours from User 3
User 3
Considering time differences: +2 hours from the other attendees
Occ.
Free
Free
Free
Free
Free
Occ.
Occ.
Free
Pend
Occ.
Free
Free
Free
Free
Free
Free
Free
Occ.
Free
Free
Free
Free
Free
Free
Free
Occ.
Occ.
Free
Free
14
15

Fig. 3

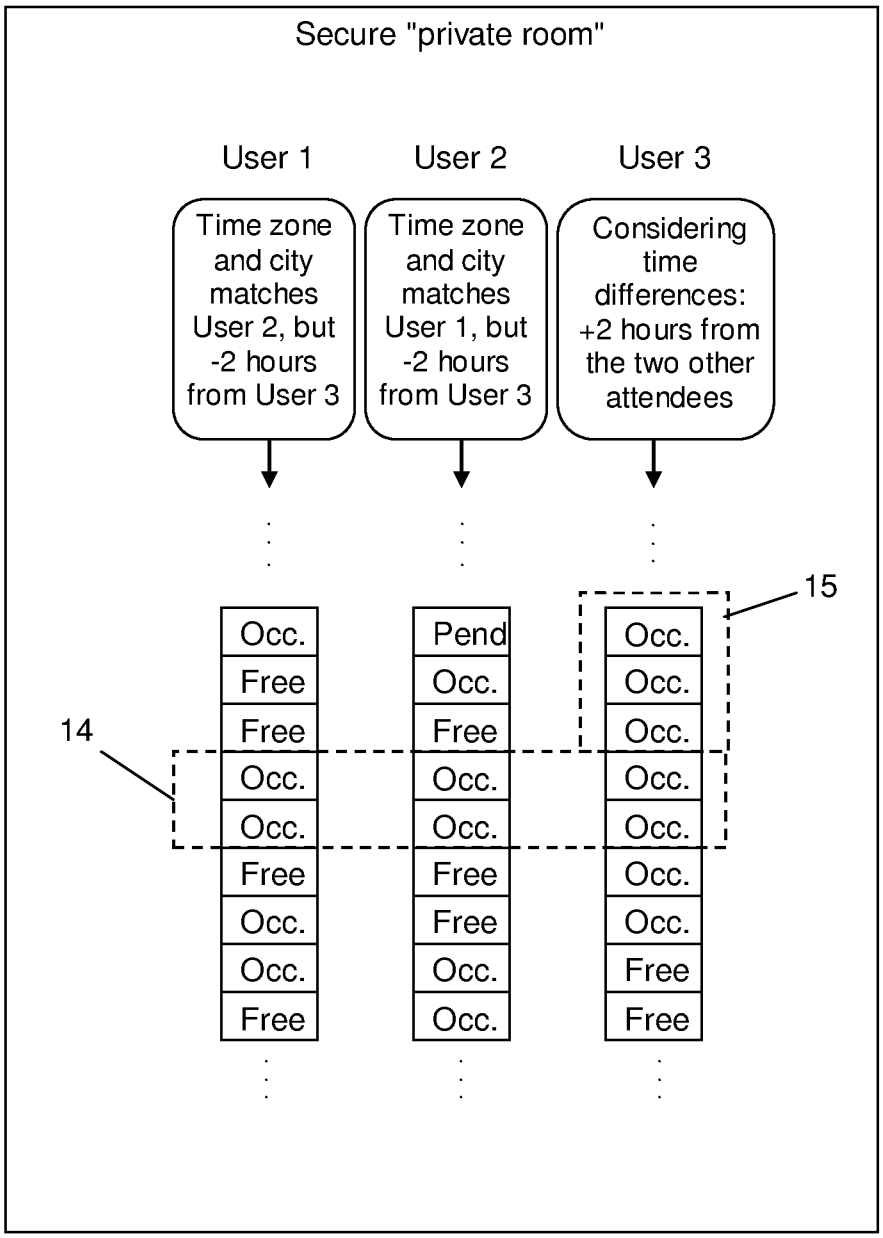

Secure "private room"
User 1
User 2
User 3
Time zone and city matches User 2, but -2 hours from User 3
Time zone and city matches User 1, but -2 hours from User 3
Considering time differences: +2 hours from the two other attendees
15
14
Occ.
Free
Free
Occ.
Occ.
Free
Occ.
Occ.
Free
Pend
Occ.
Free
Occ.
Occ.
Free
Free
Occ.
Occ.
Occ.
Occ.
Occ.
Occ.
Occ.
Occ.
Occ.
Free
Free

Fig. 4

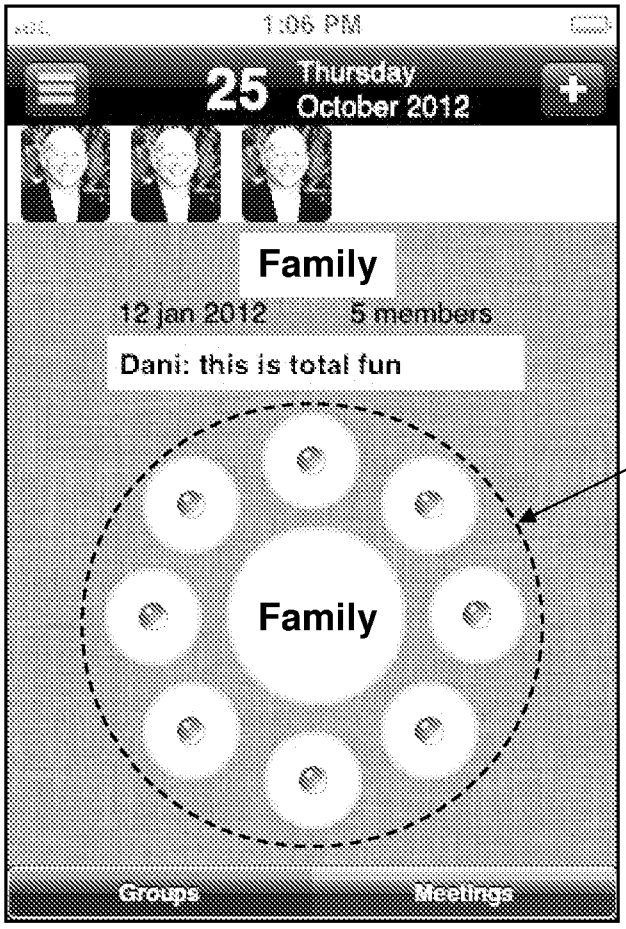

1:06 PM
25
Thursday
October 2012
Family
12 jan 2012
5 members
Dani: this is total fun
Family
Groups
Meetings
50

Fig. 5

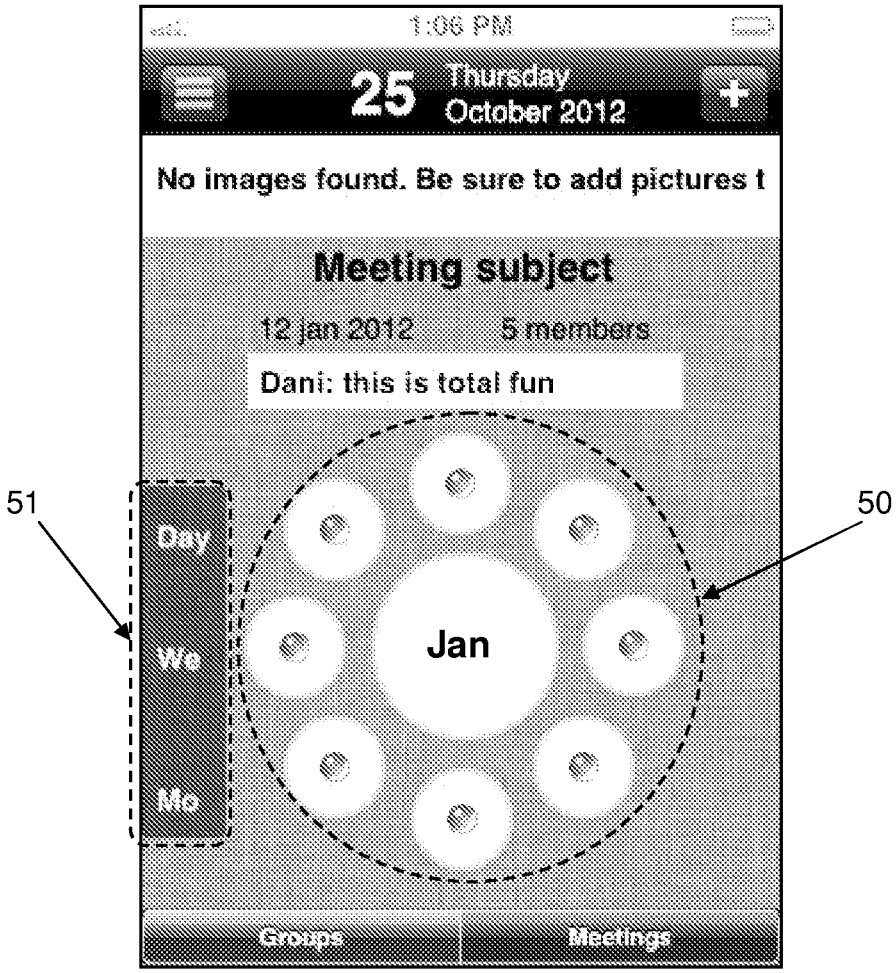

1:06 PM
25 Thursday
October 2012
No images found. Be sure to add pictures t
Meeting subject
12 jan 2012 5 members
Dani: this is total fun
Day
We
Mo
Jan
Groups
Meetings
51
50

Fig. 6


8:37 PM
Back
Preview
Celebrating
10 years together
And you are invited
26 Jan 2013 21:30
Barbie Bar
Send

Fig. 7A


8:38 PM
Back
Preview
Celebrating
10 years together
And you are invited
26 Jan 2013 21:30
Barbie Bar
Confirm
Deny

Fig. 7B

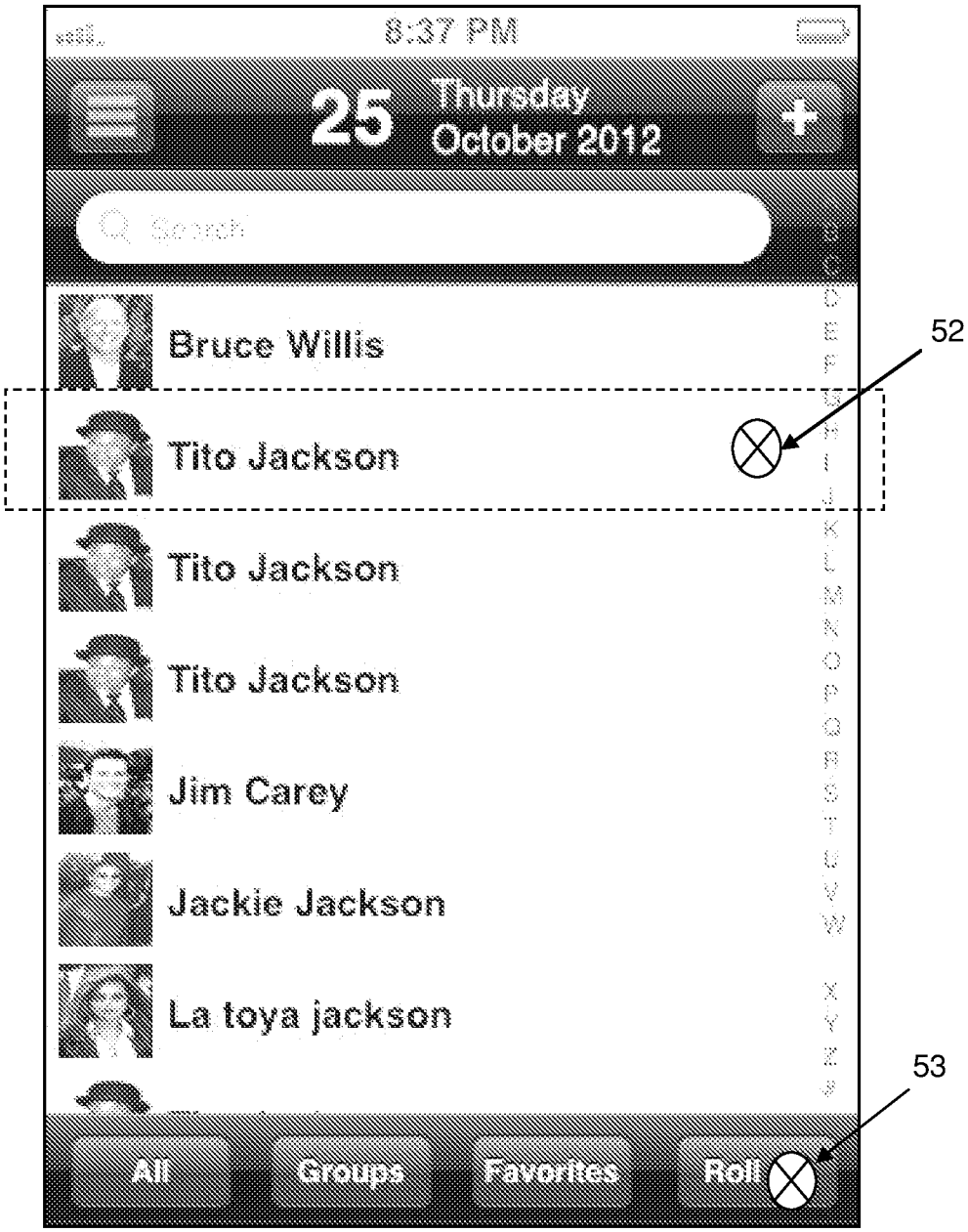

8:37 PM
25 Thursday
October 2012
Search
Bruce Willis
Tito Jackson
Tito Jackson
Tito Jackson
Jim Carey
Jackie Jackson
La toya jackson
All
Groups
Favorites
Roll
52
53

Fig. 8

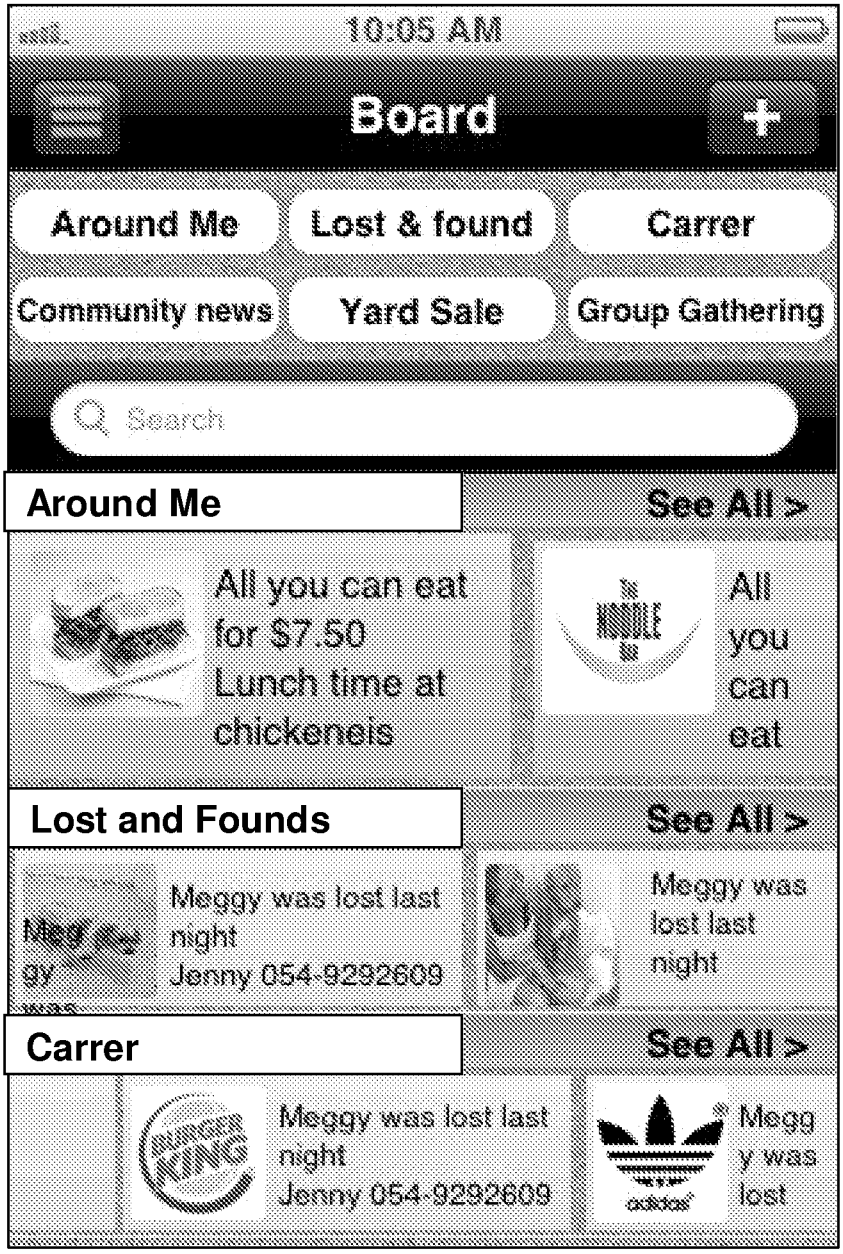

10:05 AM
Board
Around Me
Lost & found
Carrer
Community news
Yard Sale
Group Gathering
Search
Around Me
See All >
All you can eat for $7.50 Lunch time at chickeneis
All you can eat
Lost and Founds
See All >
Meggy was lost last night Jenny 054-9292609
Meggy was lost last night
Carrer
See All >
Meggy was lost last night Jenny 054-9292609
Megg y was lost

Fig. 9

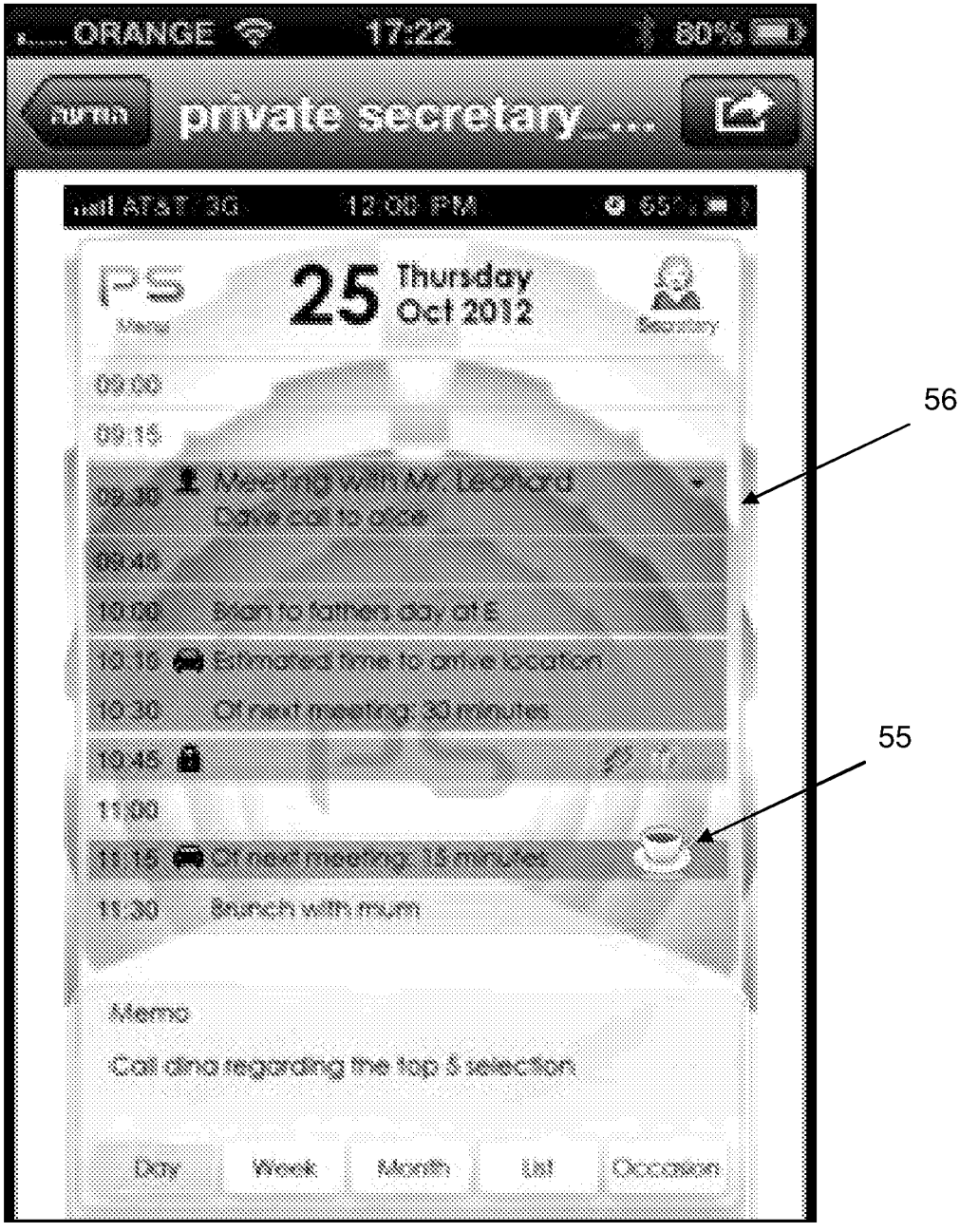

ORANGE
17:22
60%
private secretary
25 Thursday Oct 2012
Memo
Call dina regarding the top 5 selection
Day
Week
Month
List
Occasion
56
55

Fig. 10

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL2013/050155

A. CLASSIFICATION OF SUBJECT MATTER
IPC (2013.01) G06Q 10/00, G06Q 10/06, G06Q 10/10

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)
IPC (2013.01) G06Q 10/00, G06Q 10/06, G06Q 10/10

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)
Databases consulted: THOMSON INNOVATION, Esp@cenet, Google Patents
Search terms used: calendar, coordinate, schedule, manage, time, vacant, free, busy, match, same

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2009083377 A1 BEN-HAIM et al. 26 Mar 2009 (2009/03/26) Paragraphs 7, 16, 27-29, 37	1,5,10,11,17
Y	The whole document	2-4,6-9,12-16,18
Y	US 2012084286 A1 Hubner et al. 05 Apr 2012 (2012/04/05) Paragraphs 14, 33, 41, 49, 50, 52	2-4,6-9,16
A	WO 9938079 A1 APPOINTNET INC. 29 Jul 1999 (1999/07/29) The whole document	1-18

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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

"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
"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
"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
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
10 Jun 2013	10 Jun 2013

Name and mailing address of the ISA:	Authorized officer
Israel Patent Office Technology Park, Bldg.5, Malcha, Jerusalem, 9695101, Israel Facsimile No. 972-2-5651616	GORBONOVA Yelena Telephone No. 972-2-5651669

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/IL2013/050155

Patent document cited search report	Publication date	Patent family member(s)	Publication Date
US 2009083377 A1	26 Mar 2009	US 2009083377 A1	26 Mar 2009
US 2012084286 A1	05 Apr 2012	US 2012084286 A1	05 Apr 2012
WO 9938079 A1	29 Jul 1999	AU 2239299 A	09 Aug 1999
		CN 1330784 A	09 Jan 2002
		EP 1049983 A1	08 Nov 2000
		JP 2002501249 A	15 Jan 2002
		JP 3294840 B2	24 Jun 2002
		JP 2002236789 A	23 Aug 2002
		US 5960406 A	28 Sep 1999
		WO 9938079 A1	29 Jul 1999