E-CALENDARING SYSTEM AND METHOD

Field of the Invention

[0001] The present invention relates to an electronic-calendar (e-calendar). In particular, the invention relates to a shared e-calendar adapted for scheduling events and appointments, and hunting tasks.

Background

[0002] Businessmen often require assistance for managing their schedule, especially when they are away from their workplaces. Some of these businessmen may further wear different hats in different organizations or have regional responsibilities. There may be more than one assistant to help in managing their schedules. When these businessmen are away from their workplaces, it is difficult to coordinate schedules remotely during these periods, especially when more than two parties are involved in scheduling one person's calendar. Generally, their assistants may have to disturbed their current activities to check their availability while scheduling new events which may be conflict previously scheduled time slots.

[0003] Further, when there are needs to plan for a meeting with a group of peoples, more complications are involved as some of the schedules are kept personally. It is more difficult to check the availability. Moreover, when one is taking part-time courses or taking different modules at an institute/school, it is very frustrating and time consuming to check and match all time schedules from different sets of timetables provided by the institute/school.

[0004] In a highly computerized environment, electronic calendar (e-calendar) are getting more popular. Such e-calendar is bundled with most of applications on handheld devices, such as mobile phone, Personal Data Assistant (PDA), or computer software packages, such as Microsoft Outlook. As it evolves, various e-calendars

allow users to send meeting requests and event tasks to other users through emails, and the recipients may respond to the request or counter propose another meeting schedule.

[0005] These computer-based calendaring systems have been developed to simplify scheduling of personal appointment. Some of the e-calendaring systems allow other users to share their e-calendars. However, the e-calendar is revealed to the shared user fully without any privacy protections.

[0006] On the other hand, there are web-based calendars that allow users to assigned multiple users to share their schedules by viewing their shared e-calendars. These users are generally not able to edit/manage their schedules. There are existing scheduling software that allows sharing of schedules but there are still far short of fulfilling a need of mobility, the needs being assisted and privacy.

Summary

[0007] In accordance with one aspect of the present invention, there is provided an electronic calendaring system for providing electronic calendaring services to a plurality of main users via a communication network, wherein the main users are registered to the electronic calendaring services, the system comprising a user account module for managing and controlling user accounts; a calendar module for providing an electronic calendar (e-calendar) to each main user for managing schedules, wherein the e-calendar of the main user can be shared by at least one shared user based on an access right assigned by the main user; a timetable module for providing timetables for importing to the e-calendar of the main user as part of the main user's schedules; and an access right module for controlling the access right of the at least one shared user to access the shared e-calendar, wherein the schedules of the main user are exportable as another timetable for sharing by other main users.

[0008] In accordance with one embodiment, the system the schedules may be configurable to provide reminders/alerts to the main user. It is possible that the reminders/alerts are in a form of short message service or email.

[0009] In accordance with another embodiment, the shared user may not be a registered user to the electronic calendaring services.

[0010] In accordance with a further embodiment, the communication network may be the Internet. It is also possible that the electronic calendaring system is a web-based calendaring system.

[0011] In accordance with yet another embodiment, the access right may include a full access right, a partial access right and a view only right, the access right controls rights to add, to delete, to edit and to view the schedules of the e-calendar. Further, it is possible that the main user accesses to the electronic calendaring system with a unique user ID, and a main user password. The shared user may access to the electronic calendaring system with the unique user ID and a shared user password different from that of the main user password, wherein the electronic calendaring system determine the access right of the shared user based on the shared user password.

[0012] In accordance with yet another embodiment of the present invention, the electronic calendaring services including a task hunting service, for allowing users of the electronic calendaring system to post a task, so that the other users performs the task in response to the posting within a validity period.

[0013] In accordance with yet another embodiment, the schedules may be managed via a messaging service. The messaging service may be Short Messaging Service or e-mail service. Yet, it is also possible that the schedules are manages via an operator service though a operator service gateway.

Brief Description of the Drawings

[0014] This invention will be described by way of non-limiting embodiments of the present invention, with reference to the accompanying drawings, in which:

[0015] **FIG. 1** illustrates a network for a web-based calendaring system in accordance with an embodiment of the present invention;

[0016] **FIG. 2** illustrates a block diagram of a web-based calendaring system in accordance with another embodiment of the present invention;

[0017] **FIG. 3a** exemplifies a part of an operation flow of the web-based calendaring system in accordance with one embodiment of the present invention;

[0018] **FIG. 3b** exemplifies an operation flow when an option to manages personal schedule is selected in **FIG. 3a** in accordance with one embodiment of the present invention.

[0019] **FIG. 3c** exemplifies an operation flow when another option for task hunting is selected in **FIG. 3a** in accordance with one embodiment of the present invention;

[0020] **FIG. 3d** illustrates an operation flow of sub-accounts logon in accordance with one embodiment of the present invention;

[0021] **FIG. 4** exemplifies a display layout of the web-based calendaring system in accordance with one embodiment of the present invention;

[0022] **FIG. 5a** exemplifies a screenshot of the web-based calendaring system in accordance with one embodiment of the present invention;

[0023] **FIG. 5b** exemplifies another screenshot of the web-based calendaring system in accordance with one embodiment of the present invention;

[0024] **FIG. 5c** exemplifies a screenshot when an schedule assignment option is selected in accordance with one embodiment of the present invention;

[0025] **FIG. 5d** exemplifies a screenshot when a schedule category option is selected in accordance with one embodiment of the present invention;

[0026] **FIG. 5e** exemplifies a screenshot when a schedule inbox option is selected in accordance with one embodiment of the present invention;

[0027] **FIG. 5f** exemplifies a screenshot when a create new schedule option is selected in accordance with one embodiment of the present invention;

[0028] **FIG. 5g** exemplifies a screenshot when a share schedule option is selected in accordance with one embodiment of the present invention;

[0029] **FIG. 5h** exemplifies a screenshot when an import schedule option is selected in accordance with one embodiment of the present invention;

[0030] **FIG. 5i** exemplifies a screenshot when an export schedule option is selected in accordance with one embodiment of the present invention;

[0031] **FIG. 5j** exemplifies a screenshot when my phone book option is selected in accordance with one embodiment of the present invention;

[0032] **FIG. 5k** exemplifies a screenshot when an user block list option is selected in accordance with one embodiment of the present invention;

[0033] **FIG. 5l** exemplifies a screenshot of the web-based calendaring system in accordance with one embodiment of the present invention;

[0034] **FIG. 5m** exemplifies a screenshot of the web-based calendaring system in accordance with one embodiment of the present invention; and

[0035] **FIG. 5n** exemplifies a screenshot of the web-based calendaring system in accordance with one embodiment of the present invention.

Detailed Description

[0036] In line with the above summary, the following description of a number of specific and alternative embodiments are provided to understand the inventive features of the present invention. It shall be apparent to one skilled in the art, however that this invention may be practiced without such specific details. Some of the details may not be described at length so as not to obscure the invention. For ease of reference, common reference numerals will be used throughout the figures when referring to the same or similar features common to the figures.

[0037] **FIG. 1** illustrates a network for a web-based calendaring system in accordance with one embodiment of the present invention. The network comprises a web-server **110** for hosting the web-based calendaring system in two servers: a web application server **111** and a database server **112**. The web application server **111** controls the operations of the web-based calendaring system and the database server **112** stores the operations data. The web-based calendaring system is accessible by a plurality of users **101-105** via the Internet **190**. The web-based calendaring system is adapted to provide electronic calendaring service, or simply the service, to the plurality of users **101-105**. The users **101-105** are referenced with different numerals for illustration only, and should not contained limitations on the member of users. The users **101-105** are generally non-administrative users using the service provided by the web-based calendaring system and the web-based calendaring system allows more such users to access thereto. The service is a registration-based service having a plurality of features, which will be described later in details. In the service, each of the users **101-105** hosts at least one electronic calendar (e-calendar); subjected to an access right assigned by the host user of that e-calendar, the e-calendar are shared among users **101-105**. The users **101**, the user **102**, the user **103**, the user **104** and the user **105** are also referred to in this description as the main user **101**, the corporate user **102**, the family user **103**, the non-family user **104** and the other user **105** respectively. The main user **102** includes any natural persons or individuals using the services. The corporate user **102** includes any corporate and organizational bodies, such as companies, institutes and schools, government bodies, etc. The family user **103** includes any members that are related to the main user **102**, such as spouse, parents, children, relatives, etc. The non-

family user **104** includes friends, colleagues, business partners, etc. The other user **105** includes those that are not covered by any of the above. These users **101-105** are herewith referred with different identity for easy illustration only, and not meant to be limitation on the member of users. For example, the main user **102** is being called a "main user" because the later description is provided with reference to that main user **101**. It is understood that all the users **102-105** is a main user **101** from their respective point of view. For easy reference, the users **102-105** are also referred as "the shared users".

[0038] The web-based calendar system allows users to share their e-calendar based on an access right assigned by the host user to the shared users. The access right includes full access right, partial access right, and view only right. The shared users assigned with the full access right would have a right as if he is the main user to schedule and manage his e-calendar. Optionally, any change on the calendar schedule by the shared users with the full access right will be marked and make known to the main user **101** with various means which will be described later. The partial access right includes right to add, to delete, to modify, to view or any of the combinations thereof. Under the partial access right, any action by any other users may require the main user's **101** consent or confirmation depending on configurations of the partial access right. The view-only right allows users to only view the main user's **101** schedule. The right to add, to delete, to modify and to view in any of the access right may further be partial or full. For example, an user given a full view right is able to view not only the availability of the main user **101**, but activities' details that are inputted in the e-calendar, whilst an user given a partial view right may only be able to see the main user's **101** availability on the e-calendar but the shared user may not be able to view the schedules' details. In another example, a shared user assigned the right to add, modify or delete the main user's **101** schedule may be limited to those schedules that are created by that shared user, and for the other schedules, the shared user may only have the right to view.

[0039] Referring to **FIG. 1**, the main user **101** uses the service for managing his schedules with the e-calendar. The corporate user **102** uses the service for uploading activities' timetables and shares them among the users. Optionally, it is possible that

the timetable can be set for sharing among dedicated groups of users by the corporate user **102**. The users allowing to share the timetables can import one of the timetables partially or fully to his e-calendar when desires. The e-calendar hosted by the main user **101** is shared by the users **103-105** and each of the users **103-105** are assigned with a respective access right. For example, the family user **103** is assigned with a full access right whereby the family user **103** can freely view, add, delete and edit the schedules of the e-calendar of the main user **101**. The non-family user **104** is given a partial access right, whereby the non-family user **104** can view, add, delete and edit the schedules with limitations set by the main user **101**. The other user **105** assigned with view-only right is only allow to view fully or partially the schedule of the e-calendar.

[0040] Example 1

[0041] Assuming that the main user **101** is a corporate manager who is attending an online course offered by an institute herein referred as the corporate user **102**. A secretary to the main user **101** (the corporate manager) is a non-family user **104** assisting the main user **101** to schedule his timetable via the web-based calendaring system. The non-family user **104**, as part of her daily duty, checks and manages the e-calendar of the main user **101**.

[0042] In an upcoming exam, the corporate user **102** has scheduled an exam timetable and has made it available on the web-based calendaring system. The main user **101** or the non-family user **104** may then upload/import the timetable to the main user's **101** e-calendar. Should the timetable for the exam clashes with a meeting for that main user **101**, the main user **101** may either re-schedule the meeting, or request corporate user **102** reschedule the exam, if possible. The web-based calendaring system may also allow users to share their timetable in order to schedule a specific meeting remotely. For example, the main user **101** may shares his current month's schedules with other users **105** (his classmates) to arrange for a group discussion.

[0043] Example 2

[0044] Assuming now that the main user **101** is a secondary school student and his parents are the family user **103**. The family user **103** is given a full access right to share the main user's **101** e-calendar. In a new semester, the main user **101** uploads/imports his school timetable into his e-calendar. The family user **103** may checks the main user 101 schedule directly with the web-based calendaring system.

[0045] The above embodiments provide that all users (the main user **101** and the shared users **102-105**) are registered users for the web-based calendaring system. Such embodiment can be implemented on a free web-based service where every one can register for the services for free. In accordance with an alternative embodiment of the present invention, the main user **101** can allow non-registered user to share his e-calendar by creating sub-accounts that depend on the main user's **101** account. These sub-accounts users are not provided with an e-calendar, and but subjected to the access right given, they are able to access the main user's **101** e-calendar. Such embodiment is suitable for a subscription-based system where fees are required to maintain the calendaring services. After the main user's **101** subscribed to the service, the main user 101 may assign identity to shared users with different access rights for allowing the shared users to access his e-calendar. For example, the main user **101** may provide a password unique as the identity to the main user's **101** while maintaining a main user ID for the main user's **101** account. Accordingly, the shared users can login to the main user's **101** account with the main user ID with the unique password assigned to them. Based on the password that is used, the web-based calendaring system allows the main user's **101** calendar to be shared among the shared users with the respective access right. The aforesaid example is provided by way of illustration only, not limitations. It is understood to a skilled person that there may be other alternative ways of managing the sub-accounts that associated with the main user's **101** account.

[0046] Still referring to **FIG. 1**, the calendaring system is configured for allowing users to manage their schedule via a messaging gateway **120** and an operator service gateway **130** remotely. Such remote scheduling can be achieved via other communication means **125** without the need of a personal computer, such as personal mobile phones and conventional telephones. The messaging gateway **120** is configured to receive messages, such as SMS, from the main user **101** for updating their calendar

schedules and then performs time scheduling for that main user **101**. The main user **101** is required to create a message in a specific format and send it to the messaging gateway **120**. The messaging gateway **120** automatically determines the source of the message via the main user's **101** contact details such as phone number, email address and etc., and updates the schedules of the main user's **101** e-calendar. Should the messaging gateway **120** detects error, such as wrong message format or un-identified user contacts, the messaging gateway **120** reverts with an appropriate alert to the sender. The operator service gateway **130** is provided by an operator service (not shown) where live operators are receiving phone (voice) calls from the main users **101** for assisting the main users **101** for managing schedules. When the main users **101** confirm their instructions to update schedules through the operator service, the live operators update the schedules on the main users' behalf.

[0047] **FIG. 2** illustrates a block diagram of a web-based calendaring system **200** in accordance with one embodiment of the present invention. The web-based calendaring system **200** comprises a calendar module **210**, a timetable module **220**, an access right control module **230**, a user account module **240**, a task module **250** and a database **290**. The modules **210-250** are hosted by the web application server **111** and the database **290** is hosted by the database server **112**. The calendar module **210** controls the e-calendar layout creation and display, schedule updating and organizing, etc.; the timetable module **220** allows user to generate, modified, and upload timetables for sharing; the access right control module **230** defines rules and limitations for controlling the ability of the users to view or make changes to the shared e-calendar; the user account module **240** controls users' registrations, accounts management for the web-calendaring system **200**; and the task module **250** allows users to perform tasks searching and matching for the users.

[0048] **FIG. 3a** exemplifies a part of an operation flow of the web-based calendaring system **200** in accordance with one embodiment of the present invention. In step **301**, the user login to the web-based calendaring system via the Internet with a user ID and a password. The system **200** verifies the user ID and the password in step **302** and a main menu is presented to the user for selection in step **303**. In step **304**, the user selects an option provided by the main menu. The system **200** includes two

options: an option to manages his personal schedule in step **310**; or an option for task hunting in step **330**. When the user selects the option to manage his calendar at step **310**, the users are provided with sub-options in step **311** as shown in **FIG. 3b**. In sub-option 1 (in step **312**) user may manage own personal schedule. In sub-option 2 (in step **313**), the users may select and load a timetable, fully or partially, into their calendar. The timetable can be shared in several ways: the users may create a fresh new timetable via the web-based calendaring system and make it available in the system for sharing via public portal or forum; the users may send a timetable to other user(s) via email or other communication means; users may export portions of their schedules from their calendar and shared it within the web-based calendaring system; share it at any internet forum in a prescribed format; and etc. When the timetable is selected/loaded (in step **314**), the web-based calendaring system **200** checks for clashing schedule/timeslot. Any clashing schedule/timeslot may be indicated on the e-calendar for the main user's **101** consideration. The user may then choose (in step **315**) to either import the selected timetable into personal schedule or reject the selected timetable. In sub-option 3 (in step **316**), the user may export and share a personal schedule as timetable. The main user **101** exports the relevant timetable (in step **317**) that include a heading categorizing a type of schedule. Such heading is useful while the users is searching for relevant schedules. The users may then choose whether to share the relevant timetable (in step **318**). If the timetable is to be shared (in step **318**), it may be shared with dedicated users or the timetable may be posted for sharing in public (in step **319**). If not, the user downloads or exports it to its local PC (in step **320**). In sub-option 4 (in step **321**), the main user **101** may select other users for sharing his schedule/timetable. The shared users are being assigned with sub-account and a dedicated password. In sub-options 1-4, the users are given an option to go back to the main menu or exit/logout (in step **322**) from the web-based calendaring system **200**.

[0049] Referring now to **FIG. 3c**, when user selects the option to perform task searching and matching (in step **330**), a task-hunting menu is provided (in step **331**). The task-hunting menu includes two sub-options: A selection for posting task (in step **332**) and a selection for responding to the task (in step **334**). When the task posting (in step **332**) option is selected, the user may input the required task with a posting validity

period (in step **333**). The period may be an hour, two hours, three hours, six hours, a day, a week, a month or a user-defined period. When the task responding (in step **334**) option is selected, the user can view details of the task (in step **335**) and contact the task owner (in step **336**) accordingly. In either option, the user may choose to go back to the main menu (in step **337**) or exit the web-based calendaring system at will.

[0050] **FIG. 3d** illustrates an operation flow of sub-accounts logon in accordance with one embodiment of the present invention. A shared user is provided with a main account user ID and a unique password for accessing and sharing the main user's **101** e-calendar. In step **350**, the shared user logon to the wed-based calendaring system **200** with the given main user ID and unique password. The system **200** performs verification with the main user ID and the unique password in step **351**. When logon successfully, the shared user may add/edit the main user's **101** schedules. Depending on the access right given by the main user **101**, the shared user may only be able to view and edit the schedule previously created by him.

[0051] **FIG. 4** exemplifies a display layout of the web-based calendaring system **200** in accordance with one embodiment of the present invention. The main display layout is divided into sections/frames. The top section **401** includes a header **411** and a general menu **412**. The header **411** may present a logo of the system **200**. The general menu **412** is generally a static menu bar that generally appears on the display layout at all time for providing easy access options. The general menu **412** may include login/logout/registration option, current events option, Help/FAQ (Frequent Asked Question) option, contact option and user account option. The bottom section provides a dynamic window that displays items according to options selected by the users. The selections may be available at the top section **401** or the bottom section itself. The bottom section is divided into three columns: a left panel **421**, a right panel **422** and a main display window **423**. The left and right panels **421**, **422** provide options in the form of menu bars for user selections. The main display window **423** displays information that corresponds to selections made by users. For example, when the user selects to manage personal calendar, a calendar or timetable is shown on the main windows. The calendar or timetable can be displayed in years, months, weeks, or even days as desired by the user. Just for another example, when the user selects a task

hunting option, the main display window **423** displays on-going events. The user may choose to response to any on-going events or he may choose to create a new event for other users.

[0052] **FIG. 5a** exemplifies a screenshot **500** of the web-based calendaring system in accordance with one embodiment of the present invention. The screenshot **500** is taken from a web-browser when a user enters a main page of the web-based calendaring system. The screenshot **500** is constructed based on the display layout of the **FIG. 4**. The top section of the main page provides a quick links panel **502** for user selections. The selections includes "Register" option for registering a new account, "Event" option for viewing current events, "FAQ" (Frequent Asked Questions) option for general information regarding the web-based calendaring system and "Contacts" option provides contact details for allowing user to make enquiries through phone or email. Below the top section, in the middle, there is provided a main window **504** for displaying public announcements, such as web-maintenance announcements, promotions, etc. By the right, there is provided a navigation panel **506** for user selections. The navigation panel **506** includes a service selection panel **508** and a task-posting panel **510**. The service selection panel **508** allows user to switch between the main page, a secretarial service site and the task-hunting site while the task posted panel **510** displays classes of tasks depending on natures of the tasks. Below which, there is provided a news panel **512** for listing latest news. By the left of the announcement board **504**, user may select an appropriate site of origin from a pull down box from a "Global Sites" panel **514**. Below which, the user may logon to his account by entering his username and password in a respective field of a "Member Login" panel **516**. Following the Member Login, there is provided with a "Best Deal" panel **518** for displaying current hot deals that is offering under the web-based calendaring system. Below further, there is provided an advertisement panel for allowing sponsors to post their advertisements thereon. At a bottom of the screenshot **500**, there is provided useful links **522** for user selections. The useful links **522** include an "About Us" option, an "Advertise with Us" option, and a "Feedback" option and a "Help" option, which are self-explanatory.

[0053] **FIG. 5b** exemplifies another screenshot **530** of the web-based calendaring system in accordance with one embodiment of the present invention. The screenshot **530** appears when the user selects the secretarial services from the service selection panel **508** of the **FIG. 5a**. The navigation panel **506** provides a secretarial services panel **552**. The main window **504** provides a calendar panel **534**. The calendar panel **534** is divided into a main calendar **536** and a sub-calendar **538**. The main calendar **536** provides a calendar on monthly basis where the users to manage their schedules thereon. By selecting a specific date on the main calendar **536**, the users may view the schedules on that day, input schedules or amend schedules for that date accordingly. The schedules are displayed briefly on the main calendar **538**. The sub-calendar **538** is a mini calendar resides by the left of the main calendar **536** for quick selections of calendar of different months. User may either use left and right arrow keys provided above the sub-calendar **538** for selecting the calendar of succeeding months or a specific month and year may also be keyed between the arrows to jump to the specific month of desired. A "Go to Today" button is also provided below the sub-calendar **538** for immediate return to today's date. Above the calendar panel **534**, a filter panel **538** is provided allowing users to view only some of the schedules when not all interest them. The filter panel can filter the schedules based on category, title of the schedule, and a specified period.

[0054] The main calendar **536** provided in **FIG. 5b** shows the calendar in monthly basis. It is understood that the calendar may be provided in weekly, or daily basis for easy scheduling.

[0055] Still referring to **FIG. 5b**, the secretarial service panel **532** includes my schedule option, a schedule assignment option, a schedule category option, a schedule inbox option, a create new schedule option, a share schedule option, a remove schedule option, an import schedule option, an export schedule option, my phone book option and an user blocked list option. When my schedule option is selected, the main calendar **536** is displayed and the schedules for that month are shown thereon.

[0056] The e-calendar is illustrated in FIG. 5b by way of example, not limitation. It is understood to the person skilled in the art that the calendar, or e-

calendar referred herein may be any calendars that include the ordinary calendar (also known as Gregorian calendar), lunar calendar, Islamic calendar, and etc. The calendar may also be a single calendar that has two or more calendar system superimposed thereon, such as a Gregorian calendar having a lunar calendar printed thereon correspondingly.

[0057] **FIG. 5c** exemplifies a screenshot when the schedule assignment option is selected. The schedule assignment option allows users to assign which sub-users are allowed to view the main user's calendar. The main user can select the shared users or sub-users from a sub-user list **541** and add them into an accessible list **542** for allowing these shared users or sub-users to share the calendar. Likewise, the shared users or sub-users may be selected from the accessible list **542** and be removed there from. A category drop down box **543** is provided to further categorize the access right of the shared users or sub-users.

[0058] **FIG. 5d** exemplifies a screenshot when the schedule category option is selected. The schedule category option allows the main users to create and remove categories. The categories created by the main user are listed in the category drop box **543** of **FIG. 5c** for selection.

[0059] **FIG. 5e** exemplifies a screenshot when the schedule inbox option is selected. Under the schedule inbox option, the main user may check messages that are sent from other users. The messages for the web-based calendaring system may be accompanied/attached with timetables and schedules for importing by the main user. The schedule inbox further indicates whether the schedule/timetable has already been imported in the main user's calendar.

[0060] **FIG. 5f** exemplifies a screenshot when the create new schedule option is selected. With this option, the main user can enter the information to create a schedule. The information includes a category of the schedule, a title or short description of the schedule, a date and time of the schedule, duration of the schedule and details of the schedule. The users are also provided with an option whether to receive a reminder prior to the scheduled event. If so, the main user may select either to receive the

reminder via short messaging service (SMS) or email. When the reminder is required, the main user further needs to specify a period for sending the reminder before the scheduled event.

[0061] **FIG. 5g** exemplifies a screenshot when the share schedule option is selected. With this option, the main user may allow other users to share his schedule or the main user may create a new schedule/timetable for sharing. The users can download templates, edit and upload them back to the web-based calendaring system for sharing the schedules. The templates allow user to create timetable in a consistent format. It is provided by the server of the web-based calendaring system for editing. Users of the templates require to fill-in schedules and upload them to the server as a timetable. When uploading the schedules, users need to specify a date, a category, a title, a sub-title and etc. in the timetable. A list of currently shared schedule is provided and the main user may remove the shared schedule therefrom when required. Under the remove schedule option, the users may remove a specific schedule from the calendar.

[0062] **FIG. 5h** exemplifies a screenshot when the import schedule option is selected. With this option, users may import schedule/timetable from an external files, such as Microsoft Excel spread sheet files, text files. When a new schedule/timetable is imported, the web-based calendaring system checks if there are any clashing schedules. A list of clashing schedules will be shown to alert the user. When necessary, the users may send a message to other users under this option.

[0063] **FIG. 5i** exemplifies a screenshot when the export schedule option is selected. The users may export schedules for a specified period from the calendar. Before exporting, the user may perform a search by specifying the category of the schedule, title of the schedules and the period of schedules to be exported. The search results are then listed and the users may further select schedules to be exported, if not all.

[0064] **FIG. 5j** exemplifies a screenshot when my phone book option is selected. This option provides a phone book for storing and listing contacts information of other users.

[0065] **FIG. 5k** exemplifies a screenshot when the user block list option is selected. This option allows the main user **101** to temporally block user to see his schedule when desire.

[0066] **FIG. 5l** exemplifies a screenshot **560** of the web-based calendaring system in accordance with one embodiment of the present invention. The screenshot **560** appears when one of the classes of the tasks of the task-posting panel **508** of **FIG. 5a** is selected. The basic layout of the **FIG. 5a** remains except the main window **504** changed to a task listing display **562**. The task listing display **562** provides a task search field **563** and a task listing **564**. The task search field **563** allows users to limit task searching by locations. The task listing **564** lists all currently available tasks that offering by the users. The viewing user may obtain more information by selecting the relevant task.

[0067] **FIG. 5m** exemplifies a screenshot **570** of the web-based calendaring system in accordance with one embodiment of the present invention. The screenshot **570** is shown when any one of the available tasks showing on the task listing **564** of screen shot **570** is selected to reveal details of the task. The task details include the status of the task, job category, job description, posted date, expiry date, and the expected return for the job. The return for the job is generally, but not limited to, monetary value.

[0068] **FIG. 5n** exemplifies a screenshot **580** of the web-based calendaring system in accordance with one embodiment of the present invention. The screenshot **580** is shown when the user selects task-posting option from the navigation panel **506**. This screen allows users to post new task on the web-based calendaring system. When creating a task, the user has to select a relevant task category from a dropdown box. The task description can then entered to describe details of the task required. In the task posting screen, user may also specified a location of which the task to be delivered

or performed and a contact details of the user posting the task. The user further specifies an expected price that the user is willing to pay for the task and an expiry date for that task. Once the details for the task is entered, the user may proceed to post the task and the task will be listed in a way similar to screenshot **570**. The task will also be listed and categorized based on the selected category.

[0069] In the above embodiments, the task hunting service provides users an option to post or seek tasks. In the present description, it is understood that the term "job" and "task" have the same meaning and they can be used interchangeably herewith.

[0070] In accordance with another embodiment, the web-based calendaring system is a subscription-based service. For such service, the users need to pay in-order to use the service. But the users may create sub-users to share their own calendar without the need for the sub-users to subscribe to the service.

[0071] The above embodiment has been implemented in as a worldwide service through the Internet. In accordance with another embodiment, it is possible that the calendaring system is implemented in a private network via local area network, or wide area network.

[0072] The present invention provides a calendaring system having a secretary assisted scheduling that allows multiple users to manage personal calendars/schedules centrally. These schedules include making appointments, arrange meeting, time planning for availability for taking courses from modular class system, and etc. While the shared users are able to check the main user's availabilities, with or without details of activities of the main users, privacy of the main user can be maintained by assigning different access rights to each shared users. In addition, the secretary assisted scheduling allows one to load different sets of timetable into own e-calendar and checks for any crashes in time slot. The present invention further allows users to received alerts for scheduled events.

[0073] The present invention allows communication over the Internet or World Wide Web. The centralized schedules provide accessibility and mobility for users for scheduling their calendar remotely with multiple shared users. A web-based calendaring system requires no special software that is uniquely suited to computer unit, and it can be operated through any standard Web or WAP browser.

[0074] While specific embodiments have been described and illustrated, it is understood that many changes, modifications, variations and combinations thereof could be made to the present invention without departing from the scope of the invention. For example, the e-calendar system may be provided as a desiccated software program for installing in a computer system locally for allowing users to access the e-calendar offline and synchronized the data later. It is also possible the e-calendar system provides a toolbar for embedding in any recognized web-browser for easy access.

Claims

1. An electronic calendaring system for providing electronic calendaring services to a plurality of main users via a communication network, wherein the main users are registered to the electronic calendaring services, the system comprising:

a user account module for managing and controlling user accounts;

a calendar module for providing an electronic calendar (e-calendar) to each main user for managing schedules, wherein the e-calendar of the main user can be shared by at least one shared user based on an access right assigned by the main user;

a timetable module for providing timetables for importing to the e-calendar of the main user as part of the main user's schedules; and

an access right module for controlling the access right of the at least one shared user to access the shared e-calendar;

wherein the schedules of the main user are exportable as another timetable for sharing by other main users.

2. The system according to claim 1, wherein the schedules are configurable to provide reminders/alerts to the main user.

3. The system according to claim 2, wherein the reminders/alerts are in a form of short message service or email.

4. The system according to any one of the preceding claims, wherein the shared user is not a registered user to the electronic calendaring services.

5. The system according to any one of the preceding claims, wherein the communication network is the Internet.

6. The system according to claim 5, wherein the electronic calendaring system is a web-based calendaring system.

7. The system according to any one of the preceding claims, wherein the access right include a full access right, a partial access right and a view only right, the access

right controls rights to add, to delete, to edit and to view the schedules of the e-calendar.

8. The system according to any one of the preceding claims, wherein the main user accesses to the electronic calendaring system with a unique user ID, and a main user password.

9. The system according to claim 8, wherein the shared user accesses to the electronic calendaring system with the unique user ID and a shared user password different from that of the main user password, wherein the electronic calendaring system determine the access right of the shared user based on the shared user password.

10. The system according to any one of the preceding claims, wherein the electronic calendaring services including a task hunting service, for allowing users of the electronic calendaring system to post a task, so that the other users performs the task in response to the posting within a validity period.

11. The system according to any one of the preceding claims, wherein the schedules are managed via a messaging service.

12. The system according to claim 11, wherein the messaging service is Short Messaging Service.

13. The system according to claim 11, wherein the messaging service is E-mail service.

14. The system according to any one of claims 1-10, wherein the schedules are manages via an operator service though a operator service gateway.