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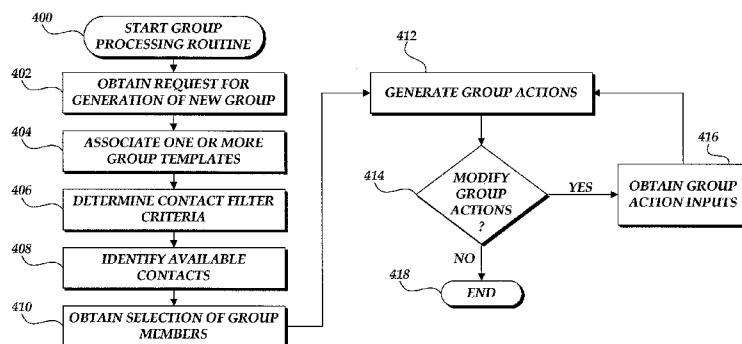


Fig.4.

(57) Abstract: A system, method and computer-readable medium are provided for the generation of group-based information processing service utilizes one or more group-based information templates and contact processing information to determine a set of available contacts and applications or other executable components for inclusion in group-based information. The determination of the contacts or applications or other executable components may be completed automatically without requiring user interaction. Alternatively, at least some portion of the process may require, or provide for, at least some user interaction for the selection or management of the contacts or applications or other executable components included in group-based information.

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## GENERATING GROUP BASED INFORMATION DISPLAYS VIA TEMPLATE INFORMATION

### BACKGROUND

[0001] Generally described, telecommunication devices and communication networks facilitate the collection and exchange of information. Utilizing a communication network and relevant communication protocols, a telecommunication device can engage in audio or data communications with other telecommunication devices, such as voice calls, video calls, messaging (e.g., short message service (“SMS”) or multimedia messaging service (“MMS”)), content streaming, instant messaging, resource browsing (e.g., Web browsing), and the like.

[0002] To facilitate communications, telecommunication devices can be associated with software and hardware components that allow the telecommunication device to maintain contact information, such as telephone numbers, email addresses, messaging addresses, etc., utilized to establish and engage in communications via available communication channels. Typically, such contact information is maintained as contact information in which all known contact information for an identified entity, such as user, can be presented to a telecommunication device user. For example, a telecommunication device may present a user interface in which the contact information associated with a selected individual is presented in a list-based format. In another example, a telecommunication device with voice calling functionality may maintain a “last call list” that keeps track of telephone numbers of the most recent incoming or outgoing calls from the telecommunication device.

[0003] Although contact management user interfaces and software can facilitate the input and management of contact information for a larger set of contacts, typical contact management approaches can become deficient as the set of entities associated with a user grows. In one example, typical call list approaches are limited in the number of contacts identified in the user interfaces (e.g., the last 4 numbers called). Accordingly, such approaches can become deficient as the number of incoming or outgoing communications

(e.g., voice calls) increases because potentially desired contacts are removed from the display based on order of the most recent incoming or outgoing communications.

**[0004]** In another example, typical contact management approaches relate to the presentation of the entire set of contacts that are associated with a user, such as in alphabetical order. As the number of contacts maintained in the telecommunication device, or on behalf of the telecommunication device, users may have increased difficulty in identifying the contact information of specific entities. Additionally, for each contact, the typical contact management approach identifies all known contact information (e.g., phone numbers, IM aliases, email addresses, etc.) without regard to a desired, or preferred, communication method.

**[0005]** In addition to the management of contact information accessible by a telecommunication device, current approaches to manage applications, or other executable components, on telecommunication device can be inefficient in relation to the incorporation of contacts. One approach to managing applications or other executable components relates to user interface in which the set of available application or executable components are presented in a desktop metaphor. In a typical desktop metaphor, each available application or executable component is represented on the user interface by a selectable display object that causes the initiation, or execution of the display object. For example, a user can initiate an email application by selecting a representative display object from the user interface. In another example, a user can interact with social networking services by selecting an executable component that generates an interface for posting information or displaying information. In such a desktop metaphor, the initiation and selection of applications or executable components are independent on the grouping of users. For example, assume a user that is a member of sports team wishes to access a game schedule, post pictures from a previous game to the other team members, and communicate a private message to the other team members. Under the typical desktop metaphor approach, such an individual would be required to independently access each corresponding application (e.g., a calendaring application, a sharing application and a messaging application) by selecting each application from the presentation of all available applications. Additionally, the user would further be required to utilize the interfaces presented by each selected application to control the receipt

of information transmitted (e.g., an email distribution list and a sharing application distribution list). Accordingly, such approaches do not efficiently facilitate group-based interaction.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The foregoing aspects and many of the attendant advantages of the present disclosure will become more readily appreciated as the same become better understood by reference to the following detailed description, when taken in conjunction with the accompanying drawings, wherein:

[0007] FIGURE 1 is a block diagram illustrative of a telecommunication environment including a number of telecommunication devices and a group processing service;

[0008] FIGURE 2 is a block diagram illustrative of components of a telecommunication device for use the generation, management and display of group-based information;

[0009] FIGURES 3A-3C are illustrative user interfaces generated on a telecommunication device for displaying group-based information displays;

[0010] FIGURE 4 is a flow diagram of an illustrative of a group-based information processing routine implemented by a group information processing service to generate group-based information; and

[0011] FIGURES 5A-5C are illustrative user interfaces generated on a telecommunication device for generating group-based information based on user inputs.

#### DETAILED DESCRIPTION

[0012] Generally described, aspects of the present disclosure relate to the management of contact information and applications in group-based information displays. In an illustrative embodiment, the group-based information displays correspond to a collection of display objects representative of either contacts associated with a user or applications or other executable components that are executable, or otherwise accessible, via a telecommunication device. The group-based information displays can be logically organized according to subject matter organizational criteria. The subject matter organizational criteria can include, for example, organization or other affiliates criteria, event-based or activity

based criteria, topic-based criteria, and the like. By accessing group-based information displays generated on a display, telecommunication device users can initiate one or more actions by the selection or manipulation of display objects corresponding to applications or executable components. Additionally, as applicable, the user can limit, or otherwise apply, the initiated actions to contacts identified, or otherwise associated, with specific group-based information displays.

**[0013]** In accordance with another embodiment, a group information processing service can facilitate the generation and management of group-based information, such as for the generation of group-based information displays. Specifically, the group information processing service utilizes one or more group-based information templates and contact processing information to determine a set of available contacts and applications or other executable components for inclusion in group-based information. The determination of the contacts or applications or other executable components may be completed automatically without requiring user interaction. Alternatively, at least some portion of the process may require, or provide for, at least some user interaction for the selection or management of the contacts or applications or other executable components included in group-based information.

**[0014]** Although aspects of the present disclosure will be described with regard to an illustrative telecommunication environment and component interactions, communication protocols, flow diagrams and user interfaces, one skilled in the relevant art will appreciate that the disclosed embodiments are illustrative in nature and should not be construed as limiting. Specifically, although the term telecommunication device is used in this document, the term represents any type of device having a component for communicating with one or more other devices via one or more communication paths. Such communication paths can include wireless communication paths (via infra-red, RF, optical, terrestrial, or satellite communication media) and wired communication paths. Additionally, although the present disclosure references a telecommunication device, one skilled in the relevant art will appreciate that a telecommunication device may also be referred to as a wireless computing device, a mobile communication device, or a computing device. Examples of telecommunication devices are described below with regard to FIGURE 1. Accordingly,

reference to a telecommunication device should not be interpreted as including any particular functionality or operation not described in the present disclosure. Still further, although the present disclosure is described with regard to specific group-based information displays and specific methodologies and frameworks for generating group-based information, the present disclosure should not be construed to require combination of the disclosed embodiments or any specific variation unless such combination or variation is expressly identified.

**[0015]** With reference now to FIGURE 1, a block diagram illustrative of a telecommunication environment 100 will be described. The telecommunication environment 100 can include a group information processing service 102. In an illustrative embodiment, the group information processing service 102 may be utilized to provide, maintain or transmit group-based information to one or more telecommunication devices, as will be described below. The group-based information may be generated, at least in part, from information corresponding to interaction with individual users of telecommunication devices and maintained in a group-based information data store 110. Additionally, the group information processing service 102 may incorporate additional information from external sources, such as network-based data sources 120, into the group-based information. Such network-based data sources may include web sites, location based services, social network services, telecommunication services, message publication services, etc. The group-based information data store 110 can also maintain template information, meta-data and the like for use in the generation of additional group-based information. While the group-based information data store 110 is depicted in FIGURE 1 as being local to the group information processing service 102, those skilled in the art will appreciate that the group-based information data store 110 may be remote to the group information processing service 102 and/or may be a network based service itself.

**[0016]** While the group information processing service 102 is depicted in FIGURE 1 as implemented by a single computing device in the telecommunication device communication environment 100, this is illustrative only. The group information processing service 102 may be embodied in a plurality of computing devices, each executing an instance of the group information processing service. A server or other computing device implementing the group information processing service 102 may include memory, processing

unit(s), and computer readable medium drive(s), all of which may communicate with one another by way of a communication bus. The network interface may provide connectivity over the network 118 and/or other networks or computer systems. The processing unit(s) may communicate to and from memory containing program instructions that the processing unit(s) executes in order to operate the group information processing service 102. The memory generally includes RAM, ROM, and/or other persistent and auxiliary memory.

[0017] As illustrated in FIGURE 1, the group information processing service 102 can include an external data source interface component 104 for obtaining external information from network data sources 120, such as location data, contact data, and other supplemental data that can be incorporated, directly or indirectly, into the group-based information. Examples of external information can include images of an event location, digital media, social networking information, and the like. The group information processing service 102 can also include a device interface component 106 for obtaining information from one or more telecommunication devices (e.g., location data for telecommunication device(s), IP addresses assigned to computing device(s), etc.). The group information processing service 102 can further include a data processing component 108 for processing telecommunication device information and external information in generating various types of group-based information or to provide group-based information upon request.

[0018] One skilled in the relevant art will appreciate that the group information processing service 102 may correspond to a number of computer devices, such as server computing devices. Additionally, the external data source interface component 104, device interface component 106, and data processing component 108 may be implemented in a single computing device or across multiple computing devices. One skilled in the relevant art will also appreciate that the group information processing service 102 may include any one of a number of additional hardware and software components that would be utilized in the illustrative computerized network environment to carry out the illustrative functions of the service 102 or any of the individually identified components.

[0019] With continued reference to FIGURE 1, the telecommunication device communication environment 100 can include a number of telecommunication devices 112 or other computing devices 122, each associated with a user. The telecommunication

devices 112 or other computing devices 122 can generate the group-based information displays that facilitate interaction of a user with other users or other network-based resources. The telecommunication devices 112 can correspond to a wide variety of devices or components that are capable of initiating, receiving or facilitating communications over a communication network including, but not limited to, personal computing devices, electronic book readers (e.g., e-book readers), hand held computing devices, integrated components for inclusion in computing devices, home electronics, appliances, vehicles, machinery, landline telephones, network-based telephones (e.g., voice over IP (“VoIP”), cordless telephones, cellular telephones, smart phones, modems, personal digital assistants, laptop computers, gaming devices, media devices, and the like. In an illustrative embodiment, the telecommunication devices 112 include a wide variety of software and hardware components for establishing communications over one or more communication networks, including wireless communication network 114, a wired communication network (not shown), or an IP-based telecommunication network (not shown). Illustrative components of a telecommunication device 112 will be described in greater detail with regard to FIGURE 2.

**[0020]** In an illustrative embodiment, the telecommunication device communication environment 100 can include a number of additional components, systems and/or subsystems for facilitating communications with the telecommunication devices 112, 112b and/or the group information processing service 102. The additional components can include one or more switching centers 116 for establishing communications with the telecommunication devices 112, 112b via the wireless communication network 114, such as a cellular radio access network, a wireless network based on the family of IEEE 802.11 technical standards (“WiFi”), a wireless network based on IEEE 802.16 standards (“WiMax”), a converged wireless telecommunication network such as Unlicensed Mobile Access (“UMA”), or General Access Network (“GAN”), and other wireless networks. The operation of mobile communication networks, such as wireless communication network 114 are well known and will not be described in greater detail. As illustrated in FIGURE 1, the switching center 116 includes interfaces for establishing various communications via a communication network 118, such as the Internet, intranets, private networks and point to point networks, generally referred to as the “network.” Although the wireless communication



network 114 is illustrated as a single communication network, one skilled in the relevant art will appreciate that the communication network can be made up of any number of public or private communication networks and/or network connections.

[0021] As noted above, the telecommunication device communication environment 100 can further include one or more network data sources 120 for providing external information to the group information processing service 102. The network data sources 120 may include a number of computing devices for obtaining and processing requests for information from either the group information processing service 102 and/or the telecommunication devices 112.

[0022] With reference now to FIGURE 2, illustrative components of a telecommunication device, such as telecommunication device 112, for use in the creation and display of group-based information displays will be described. The telecommunication device 112 may include one or more processing units 202, such as one or more CPUs. The telecommunication device 112 may also include system memory 204, which may correspond to any combination of volatile and/or non-volatile storage mechanisms. The system memory 204 may store information which provides an operating system component 206, various program components 208, program data 210, a group management component 222 and/or other components. As will be explained in greater detail below, the group management component 222 stored in system memory of the telecommunication device 112 may perform all or some of the functions described above in connection with the data processing component 109 of the group information processing service 102 (FIGURE 1). The above-enumerated list of components is representative and is not exhaustive of the types of functions performed, or components implemented, by the telecommunication device 112. One skilled in the relevant art will appreciate that additional or alternative components may also be included in the telecommunication device 112 to carry out other intended functions such as a mobile telephone functions.

[0023] The telecommunication device 112 performs functions by using the processing unit(s) 202 to execute instructions provided by the system memory 204. The telecommunication device 112 may also include one or more input devices 212 (keyboard, mouse device, specialized selection keys, etc.) and one or more output devices 214 (displays,

printers, audio output mechanisms, etc.). Illustrative user interfaces for a telecommunication device 112 will be described with regard to FIGURES 3 and 5, described below.

**[0024]** With continued reference to FIGURE 2, the telecommunication device 112 may also include one or more types of removable storage 216 and one or more types of non-removable storage 218. Still further, the telecommunication device 112 can include communication components 220 for facilitating communication via wired and wireless communication networks, such as the wireless communication network 114 and network 118 (FIGURE 1). Examples of various communication protocols include, but are not limited to, Bluetooth, the family of IEEE 802.11 technical standards (“WiFi”), the IEEE 802.16 standards (“WiMax), short message service (“SMS”), voice over IP (“VoIP”) as well as various generation cellular air interface protocols (including, but not limited to, air interface protocols based on CDMA, TDMA, GSM, WCDMA, CDMA2000, TD-SCDMA, WTDMA, LTE, OFDMA, and similar technologies).

**[0025]** As previously described, in accordance with an aspect of the present disclosure, a telecommunication device 112 can generate one or more group-based information displays on a user interface via an output device 114. In an illustrative embodiment, the group-based information displays include various display objects that have been selected, at least in part, by evaluation of organizational criteria. Examples of organizational criteria include, but are not limited, to as organization or affiliation criteria, event-based or event driven criteria, topic or keyword based-criteria, and the like. In one aspect, the group-based information displays can include a selection of one or more display objects corresponding to contacts associated with a user or user account. The identification of contacts (and the corresponding contact information) may be provided by multiple data sources, such as address books, data files, network sources, etc. In another aspect, the group-based information displays can include a selection of one or more display objects corresponding to applications or executable components that can be executed by the telecommunication device 112. Each of the applications or executable components may be configured in accordance with the organizational criteria or as a function of one or more contacts included in the group-based information.

[0026] In an illustrative embodiment, the display objects may be selectable by a user via any one of a variety of input methods and devices. Additionally, the determination of the display objects that are included in group-based information display may be predetermined, automatically determined (in real time or semi-real time), or manually configured/managed according to user-specified criteria. Further, the display and formatting of the display objects and the group-based information displays may be specified according to specific telecommunication device capabilities, service provider specifications, or user configurations.

[0027] In accordance with another embodiment, the telecommunication device 112 can generate a series of group-based information displays on a user interface. As described above, each group-based information display includes a selection of one or more display objects corresponding to contacts or applications or other executable components. The group-based information display is based on organizational criteria, such as organization or affiliation criteria, event-based or event driven criteria, topic or keyword based-criteria, and the like. Additionally, in this embodiment, a set of group-based information displays can be displayed by the telecommunication device 112 as a series of displays that can be manipulated via standard input techniques, such as touch screen gestures, keypad gestures, trackball movements, etc. The series of group-based information displays can be displayed in a manner to emulate movement along a linear path, circular path or other geometric or non-geometric paths.

[0028] In an illustrative embodiment, the set of group-based information displays can have one or more common display objects corresponding to contacts, one or more common display objects corresponding to applications or executable components, or no common display objects. For example, a single contact may be represented as a display object in more than one of the set of group-based information displays. Likewise, an application or executable component may be represented in more than one of the set of information displays. As will be explained, however, the telecommunication device 112 may initiate a different action from a display object corresponding to the same contact or application or executable component. Additionally, in an embodiment, the series of

group-based information displays can be displayed on the telecommunication device 112 without utilization of a desktop metaphor on the screen display.

**[0029]** With reference now to FIGURES 3A-3C, illustrative user interfaces generated on a telecommunication device for displaying group-based information displays will be described. The user interfaces illustrated in FIGURES 3A-3C correspond to individual group-based information displays generated on a display screen 300 corresponding to an output device 214 (FIGURE 2). One skilled in the relevant art will appreciate that the group-based information displays may vary according to the display capabilities and dimensions of the telecommunication device 112. Additionally, the group-based information displays may further vary according to service plan criteria provided by various service providers, the group-based information displays can also be modified, at least in part, based on criteria provided by service providers, such as a service provider or service providers associated with the wireless communication network. Still further, at least some portion of the group-based information displays may be customizable by users associated with the telecommunication device 112.

**[0030]** Turning now to FIGURE 3A, the display screen 300 includes a group-based information display 302 for displaying display objects according to organizational criteria. In this illustrative example, the organizational criteria correspond to organization or affiliation criteria. Specifically, the display objects in the group-based information display 302 correspond to the contacts and application or other executable components have been selected by some association to a common organization or affiliation (e.g., the "Alumni Association"). In an illustrative embodiment, the association with the organization or affiliation may be explicit, such as via information associated with user profiles via tags or labels. In other embodiments, the association may be inferred according to keyword processing, image processing, or inferences based on relationships with other contacts/applications known to be associated with the organization or affiliation.

**[0031]** With reference to FIGURE 3A, in a first portion of the group-based information display 302, a set of display objects 304A-304F correspond to six contacts associated with the user, or user account, of the telecommunication device 112. The display objects 304A-304F may be selectable such that selection of any of the display can initiate

some type of action on the telecommunication device 112. Examples of the actions can include the display of detailed contact information, the initiation of communications with a selected contact according to a pre-selected communication method or a most recently used communication method (e.g., a SMS message or phone call), the generation of additional user interfaces, and the like.

**[0032]** Illustratively, display objects 304A-304F corresponds to a portion of the user's contacts which are accessible via the user's wireless device and which have some association with the organizational criteria. For example, each of the contacts associated with the display objects may be associated with the organization ("Alumni Association") in accordance with user profile information maintained by the group information processing service or other Web service. In one illustrative embodiment, the subset of contacts is selected by the user and can be subsequently maintained, for example, in data store 224 of the wireless device 112.

**[0033]** In another embodiment, a portion of the display objects 304A-304F can be selected automatically in accordance with one or more other factors. In one example, one factor can be a frequency of communication between the user and one or more user contacts accessible by the wireless device 112. In this example, the group management component 222 monitors communications between the user and each of the user's contacts accessible by the wireless device 112 and maintains data associated with the monitored communications. Based on the monitored communications and corresponding maintained data, the group management component 222 may determine a frequency of communication between the user and each of the user's contacts. This information can then be used to determine the remaining portion of the subset of contacts.

**[0034]** With continued reference to FIGURE 3A, in another portion of the group-based information display 302, a set of display objects corresponding to applications or other executable components are displayed. In one embodiment, the selection of the display object 306 can automatically initiate a corresponding application or cause the telecommunication device 112 to execute one or more components. Specifically, the group-based information display 302 includes a display object 306 for initiating one or more applications that allow for the transmission, or other delivery of data, to the contacts

associated with the group-based information display 302. Examples of such applications or executable components can include email applications, SMS or MMS applications, IM applications, and the like. In another embodiment, the selection of the display object 306 can cause the telecommunication device 112 to display one or more other user interfaces for selecting different applications or other executable components that facilitate sharing or configuring the identified applications or other executable components. Examples of such application or executable components can include applications that access network resources (e.g., Web pages) for distributing content, SMS or MMS application, IM applications, and the like.

**[0035]** In a similar manner, the group-based information display 302 also includes a display object 308 for initiating one or more applications that allow for the uploading, or other delivery of data, to a resource on the communication network 118. Examples of such applications or executable components can include social networking resources, file sharing resources, and the like. As previously described, although the number and function of display objects 304, 306 and 308 are illustrative, these display objects may have been automatically selected during a group-based information generation process. Additionally, some of the display objects may be manually configured or managed by a user or system administrator. The group-based information display 302 further includes two controls 310 that can be manipulated to display a series of group-based information displays on the telecommunication device 112. As previously described, a set of group-based information displays may be presented on a display screen of the telecommunication device 118 in a manner to emulate a linear path, circular path, and other geometric or non-geometric paths.

**[0036]** Turning now to FIGURE 3B, the display screen 300 includes a second embodiment of a group-based information display 320 for displaying display objects according to organizational criteria. In this illustrative example, the organizational criteria correspond to event based criteria. Specifically, the display objects in the group-based information display 320 correspond to the contacts and applications or other executable components have been selected by some association to an identifiable event or set of events (e.g., a set of games/practices associated with the a soccer team). One skilled in the relevant art will appreciate that the same or a similar group may have been formed utilizing affiliation

criteria. However, not all event criteria may have corresponding affiliation or organizational criteria.

[0037] In a first portion of the group-based information display 320, a set of display objects 322A-322C correspond to three contacts associated with the user, or user account, of the telecommunication device 112. In an illustrative embodiment, the display objects 322A-322C are selectable such that selection of any of the display can initiate some type of action, as previously described. Additionally, in this illustrative example, the set of display objects 322A-322C have been selected based on additional criteria corresponding to the event criteria, in this case the captains of the soccer team. In this example, it can be assumed that the contacts corresponding to display objects 322A-322C were associated with tags, or other labels, that facilitated their further identification as team captains. Such information may be maintained by, or otherwise made accessible to, the group information processing service 102.

[0038] Similar to group-based information display 302, in a second portion of group-based information display 320, two display objects 324 and 326 correspond to two applications or other executable components associated with the event criteria. Specifically, the group-based information display 320 includes a display object 326 for initiating one or more applications for calendaring information. The calendaring information may be associated with the event criteria (e.g., soccer games) or derived from information associated with the three contacts corresponding to display objects 322A-322B (e.g., team meetings or social engagements on individual calendaring data). The group-based information display 320 also includes a display object 326 for initiating one or more applications or other executable components for obtaining information about weather. Illustratively, the application 326 may be configured in a manner such that initiation of the application is based, at least in part, on the event criteria (e.g. location of practices/games at the time of the practice/games). Any one of a variety of techniques may be utilized to configure the application 326.

[0039] With continued reference to FIGURE 3B, the group-based information display 320 further includes two display objects 328 and 330, at least which a portion of the information associated with the display object (or execution of the application or other

executable component) includes obtaining information from a network data source 120 (FIGURE 1). Specifically, display object 328 corresponds to an image (e.g., a team logo) that could have been obtained or updated by a network resource (e.g., Web page) sponsored by the soccer team. Additionally, display object 330 corresponding to mapping information or a map service application for displaying maps/directions. In an manner previously described, the application may be configured such that initiation of the application is based, at least in part, on the events making up, or otherwise defining, the event criteria (e.g., mapping locations for the practices/games). The group-based information display 320 further includes two controls 310 that can be manipulated to display of a series of group-based information displays on the telecommunication device 112.

[0040] Turning now to FIGURE 3C, the display screen 300 includes a third embodiment of a group-based information display 350 for displaying display objects according to organizational criteria. In this illustrative example, the organizational criteria correspond to topic based, or keyword-based criteria. Specifically, the display objects included in the group-based information display 350 correspond to the contacts and applications or other executable components have been selected by some association to an identifiable topic or keyword (e.g., "Pearl Jam"). Similar to the group-based information displays 302 and 320, in a first portion of the group-based information display 350, a set of display objects 352A-352C correspond to three contacts associated with the user, or user account, of the telecommunication device 112. The display objects 322A-322 C are selectable such that selection of any of the display can initiate some type of action by the telecommunication device 112, as previously described. Additionally, in this illustrative example, the set of display objects 322A-322C have been selected based on additional criteria corresponding to the topic criteria, in this case, members of a fan club.

[0041] Also similar to group-based information displays 302 and 320, in a second portion of group-based information display 350, four display objects 354, 356, 358 and 360 correspond to applications or other executable components associated with the topic criteria. Specifically, the group-based information display 320 includes a display object 354 for initiating one or more applications for calendaring information associated with the topic criteria (e.g., a concert calendar). The group-based information display 350 also includes a



display object 356 for initiating one or more applications or other executable components for initiating the purchase of merchandise associated with the topic criteria or the contacts identified with display objects 322A-322C (e.g., a commerce-based network resource or a auction-based network resource). The group-based information display 350 further includes a display object 358 for initiating one or more applications corresponding to a social network resource (e.g., a social network Web site) in which a user can post statements regarding a current status, thought or action. Finally, the group-based information display 350 also includes a display object 360 for initiating the playback of media, such as audio or video files. The application 360 may be configured with the topic criteria such that media associated with the topic criteria is accessible or otherwise prioritized. The media may be stored locally on the telecommunication device 112 or accessed via the communication network 118 (e.g., streaming). The group-based information display 320 further includes two controls 310 that can be manipulated to display of a series of group-based information displays on the telecommunication device 112.

[0042] As also previously described, in accordance with an aspect of the present disclosure, a group information processing service 102 can generate utilize various templates and user interfaces for the generation of group-based information. In such an embodiment, the group information processing service 102 can automatically select the contacts eligible to be associated with group-based information. For example, the contacts may be first limited to contacts known the user (directly or indirectly). The contacts may be additionally limited or filtered according to the organizational criteria associated with the group-based information. In a similar manner, the group information processing service 102 can automatically select the applications or other executable components that will be associated with the group-based information. Still further, the selected applications or other executable components may be configured in accordance with the organizational criteria or the selected contacts include in the group-based information display. Examples of such configurations were previously described. Thereafter, the group information processing service 102 can obtain additional user interaction information in modifying, or otherwise adjusting, the display objects displayed in the resulting group-based information displays.

[0043] With reference now to FIGURE 4, a flow diagram illustrative of a group-based information processing routine 400 implemented by a group information processing service 102 to generate group-based information will be described. Routine 400 will be described as being generally performed by the group information processing service 102. However, one skilled in the relevant art will appreciate that actions/steps outlined for routine 400 may be implemented by one or many computing devices/components that are associated with the telecommunication device management environment 100. Accordingly, any functionality described in reference to the routine 400 could be generally performed by any component in the telecommunication device management environment 100, including group management module 222 of the telecommunication device 112, other modules, or combinations thereof. Thus, the following illustrative embodiments should not be construed as limiting.

[0044] At block 402, the group information processing service 102 obtains a request for generation of a new group. In an illustrative embodiment, the request to generate a new group may be initiated by a user through the manipulation of various graphical or physical controls. Additionally, the request to generate may be generated via an alternative computing device, such as computing device 122. Alternatively, the group information processing service 102 may infer a request based on the detection of specific activities related to a group (e.g., the scheduling of events with game or practice in a description field) or the processing of information (e.g., the processing of emails identifying a particular distribution list).

[0045] At block 404, the group information processing service 102 associates one or more potential templates based on the request to form a group. Illustratively, the group information processing service 102 may maintain one or more templates that include the identification of applications that can be associated with types of organizational criteria. For example, for event-based criteria, a corresponding template can be specific that a group-based information display can include calendaring applications, mapping applications, social networking applications, Web logging ("Blog") applications, etc. The template information may be generated by the group information processing service 102, by other service providers such as cellular service providers, or customized according to user preferences. In one

aspect, the group information processing service 102 may obtain specific user interaction/selections of the type of organizational criteria that may be utilized in forming the collection of group-based information. In another aspect, the group information processing service 102 can infer one or more organizational criteria. A sample user interface for selecting organizational criteria will be described with regard to FIGURE 5A.

**[0046]** At block 406, the group information processing service 102 determines contact filter information for determining which contacts are eligible to be included in the group-based information. At block 408, the group information processing service 102 applies the contact filter information to the set of available contacts. As previously described, the set of contacts can correspond to a cumulative grouping of all the contacts maintained, or otherwise associated with, the user. The contact information may be maintained in one or more address books, data files, network resources, etc. The contact information does not have to include all possible contact information and the group information processing service 102 can apply the contact filter information to a subset of the available contact information. The contact filter information can correspond to filter information provided by the user or a mobile service provider. For example, the set of contacts can be filtered based on contacts identified with a particular service level, communication preference, rate plan, etc. The contact filter information can further include keywords, tags or other criteria that can be applied to user profile information to find matching or substantially matching contacts (e.g. contacts associating with keywords, labels or tags).

**[0047]** At block 410, the group information processing service 102 obtains a selection of the filtered contact list. In an illustrative embodiment, users may have the ability to select contacts from the filtered list. An illustrative user interface for selecting contacts will be described with regard to FIGURE 5B. Additionally, in an illustrative embodiment, the selection of contacts from the filtered list may be automatically applied by inferring user selections according to ratings, frequency of use, or other feedback mechanisms. Alternatively, one skilled in the relevant art will appreciate that block 410 may be omitted. At block 412, the group information processing service 102 then generates the set of display objects corresponding to the action that will be facilitated through the group-based

information display. In an illustrative embodiment, the selected set of display objects can be based on the template information. At decision block 414, a test is conducted to determine whether the group actions should be modified. If so, the routine 400 proceeds to block 416 where the group information processing service 102 obtains additional group action inputs to modify or select the previously identified activities. As previously described, users may be provided the ability to selectively modify the display of the display objects included in the group-based information displays or the appearance of the selected display objects. An illustrative user interface for selecting/modifying the group actions will be described with regard to FIGURE 5C. The routine 400 then returns to block 412. Once the user has indicated that there are no further modifications required (or if none are available), the routine 400 terminates at block 418.

**[0048]** With reference now to FIGURES 5A-5C, illustrative user interfaces generated on a telecommunication device for obtaining user input for the generation of group-based information displays will be described. The user interfaces illustrated in FIGURES 5A-5C correspond to displays generated on a display screen 500 corresponding to an output device 214 (FIGURE 2). One skilled in the relevant art will appreciate that the displays may vary according to the display capabilities and dimensions of the telecommunication device 112 and criteria utilized to form specific group-based information displays.

**[0049]** Turning now to FIGURE 5A, a user interface for obtaining a user selection of the organizational criteria of the group-based information display will be described. The user interface corresponds to a display screen 500 that includes a display 502 for displaying various criteria that will be the basis for the subject matter of the group-based information display. As illustrated in FIGURE 5A, the criteria can include information 504 from scheduled events (e.g., calendaring data). The criteria can also include information 506 corresponding to music media in which the user has expressed an interest, played via the telecommunication device or the like. Similarly, the criteria can include information corresponding to video watched via the telecommunication device 112. Still further, the criteria can include information 510 obtained or otherwise interpreted from communications sent via the telecommunication device 112. Finally, the criteria can include information 512

for obtaining keywords or other tags to specify topic-based keywords/criteria. The selection of which criteria are displayed to the user in the display 502 can be based on previous user activity, a current user activity, or organizational criteria associated with other group-based information displays in the telecommunication device 112. As previously described, the group information processing service 102 will utilize the selected organizational criteria to identify relevant templates user in the generation of a group-based information display. In an illustrative embodiment, the first display 502 includes one or more controls 514 for continuing the group-based information generation routine.

[0050] With reference to FIGURE 5B, a user interface for obtaining a user selection of contacts used in the formation the group-based information display will be described. The user interface corresponds to a display screen 500 that includes a display 520 for displaying the filtered (or unfiltered) list of contacts that were identified by the group information processing service 102. As illustrated in FIGURE 5B, the display objects 522, 524, 526 and 528 correspond to contacts associated with the user and possibly additional filtering criteria. Similarly, the second display 520 includes one or more controls 530r continuing the group-based information generation routine. As previously described, during the group-based information process, the selected contacts will be associated with the various applications or other executable components included in the group-based information display.

[0051] With final reference to FIGURE 5C, a user interface for obtaining a user selection of the applications or other executable components used in the formation the group-based information display will be described. The user interface corresponds to a display screen 500 that includes a third display 550 for displaying the selected activities that are available for inclusion in the group-based information display. As illustrated in FIGURE 5C, the display objects 552, 554, 556 and 558 correspond to applications or other executable components associated with the organizational criteria of the group-based information (FIGURE 5A) and identified in a corresponding template. Additionally, display objects 560 corresponding to the selected contacts may be displayed to allow the user to select the actions based on the contacts that are to be included in the group. The display 550 includes one or more controls 562 continuing the group-based information generation routine.

**[0052]** All of the processes described herein may be embodied in, and fully automated via, software code modules executed by one or more general purpose computers or processors. The code modules may be stored in any type of computer-readable medium or other computer storage device. Some or all the methods may alternatively be embodied in specialized computer hardware. In addition, the components referred to herein may be implemented in hardware, software, firmware or a combination thereof. As such, reference in the disclosure to actions performed by a module or component relates to the execution of executable instructions by a processing device, or devices, to cause the referenced action to be preformed.

**[0053]** Conditional language such as, among others, "can," "could," "might" or "may," unless specifically stated otherwise, are otherwise understood within the context as used in general to convey that certain embodiments include, while other embodiments do not include, certain features, elements and/or steps. Thus, such conditional language is not generally intended to imply that features, elements and/or steps are in any way required for one or more embodiments or that one or more embodiments necessarily include logic for deciding, with or without user input or prompting, whether these features, elements and/or steps are included or are to be performed in any particular embodiment.

**[0054]** Any process descriptions, elements or blocks in the flow diagrams described herein and/or depicted in the attached figures should be understood as potentially representing modules, segments, or portions of code which include one or more executable instructions for implementing specific logical functions or elements in the process. Alternate implementations are included within the scope of the embodiments described herein in which elements or functions may be deleted, executed out of order from that shown, or discussed, including substantially concurrently or in reverse order, depending on the functionality involved as would be understood by those skilled in the art.

**[0055]** It should be emphasized that many variations and modifications may be made to the above-described embodiments, the elements of which are to be understood as being among other acceptable examples. All such modifications and variations are intended to be included herein within the scope of this disclosure and protected by the following claims.

## WHAT IS CLAIMED IS:

1. A computer-readable medium having a computer-executable component, implemented by executing instructions on a processor associated with a mobile communication device, the computer-executable component comprising:

a group information management component for:

identifying a subset of contacts associated with an identified subject matter of group-based information and selected at least in part by a user of the mobile communication device, wherein the subset of user contacts includes a portion of the user's contacts accessible by the mobile communication device;

identifying a subset of applications or other executable components accessible by the mobile communication device and associated with the identified subject matter of the group-based information, wherein the subset of applications is selected from a set of applications identified in accordance with one or more templates;

causing display of a set of user interfaces for obtaining user input regarding the modification of at least one of subset of contacts and the subset of applications or other executable components;

modifying at least one of subset of contacts and the subset of applications or other executable components based on the user input; and

generating a group-based information display based the modified subset of contacts and subset of application or other executable components.

2. The computer-readable medium as recited in Claim 1, wherein the subset of contacts includes a plurality of contacts.

3. The computer-readable medium as recited in Claim 1, wherein each contact in the subset of contacts is selected by the user of the communication device.

4. The computer-readable medium as recited in Claim 1, wherein the identified subject matter corresponds to at least one of organization criteria, event-based criteria and topic based criteria.

5. A computer-implemented method comprising:

identifying a subset of contacts associated with an identified subject matter of group-based information and selected at least in part by a user of the mobile communication device, wherein the subset of user contacts includes a portion of the user's contacts accessible by the mobile communication device;

identifying a subset of applications or other executable components accessible by the mobile communication device and associated with the identified subject matter of the group-based information, wherein the subset of applications is selected from a set of applications identified in accordance with one or more templates; and

generating a group-based information display based the modified subset of contacts and subset of application or other executable components.

wherein the method is implemented by a computing system.

6. The method as recited in Claim 5, wherein each contact in the subset of contacts is selected by the user of the communication device.

7. The method as recited in Claim 5, wherein the identified subject matter corresponds to at least one of organizational criteria.

8. The method as recited in Claim 7, wherein the organizational criteria include organization criteria, event-based criteria and topic based criteria.

9. The method as recited in Claim 5, wherein the subset of the applications or other executable components correspond to at least one of an application or other executable component for sharing information or posting information to a network resource.

10. The method as recited in Claim 5, wherein the subset of the applications or other executable components correspond to at least one of an application or other executable component for calendaring information.

11. The method as recited in Claim 5, wherein the subset of the applications or other executable components correspond to at least one of an application or other executable component for interacting with at least one application on the mobile communication device.

12. The method as recited in Claim 5, wherein the subset of the applications or other executable components correspond to at least one of an application or other executable component for interacting with at least one application hosted on a communication network.



13. The method as recited in Claim 5 further comprising:

identifying a second subset of contacts associated with an identified subject matter of group-based information and selected at least in part by a user of the mobile communication device, wherein the subset of user contacts includes a portion of the user's contacts accessible by the mobile communication device;

identifying a second subset of applications or other executable components accessible by the mobile communication device and associated with the identified subject matter of the group-based information, wherein the subset of applications is selected from a set of applications identified in accordance with one or more templates; and

generating a second group-based information display based the modified subset of contacts and subset of application or other executable components.

14. The method as recited in Claim 5 further comprising:

causing display of a set of user interfaces for obtaining user input regarding the modification of at least one of subset of contacts and the subset of applications or other executable components; and

modifying at least one of subset of contacts and the subset of applications or other executable components based on the user input.

15. A method comprising:

identifying a subset of contacts selected by a user of a communication device, wherein the subset of contacts includes a portion of the user's contacts accessible by the communication device and wherein the subset of contacts includes at least two contacts;

identifying a subset of applications or other executable components accessible by the mobile communication device and associated with the identified subject matter of the group-based information, wherein the subset of applications is selected from a set of applications identified in accordance with one or more templates; and

causing generation of a first group-based information incorporating the identified subset of contacts and subset of applications or other executable components;

causing generation of a second group-based information incorporating the identified subset of contacts and subset of applications or other executable components; and

wherein there the first and second group-base information have at least one application or other executable component in common.

wherein the method is implemented by at least one computing device.

16. The method as recited in Claim 15, wherein each contact in the subset of contacts is selected by the user of the communication device.

17. The method as recited in Claim 15, wherein the identified subject matter corresponds to at least one of organizational criteria.

18. The method as recited in Claim 17, wherein the organizational criteria include organization criteria, event-based criteria and topic based criteria.

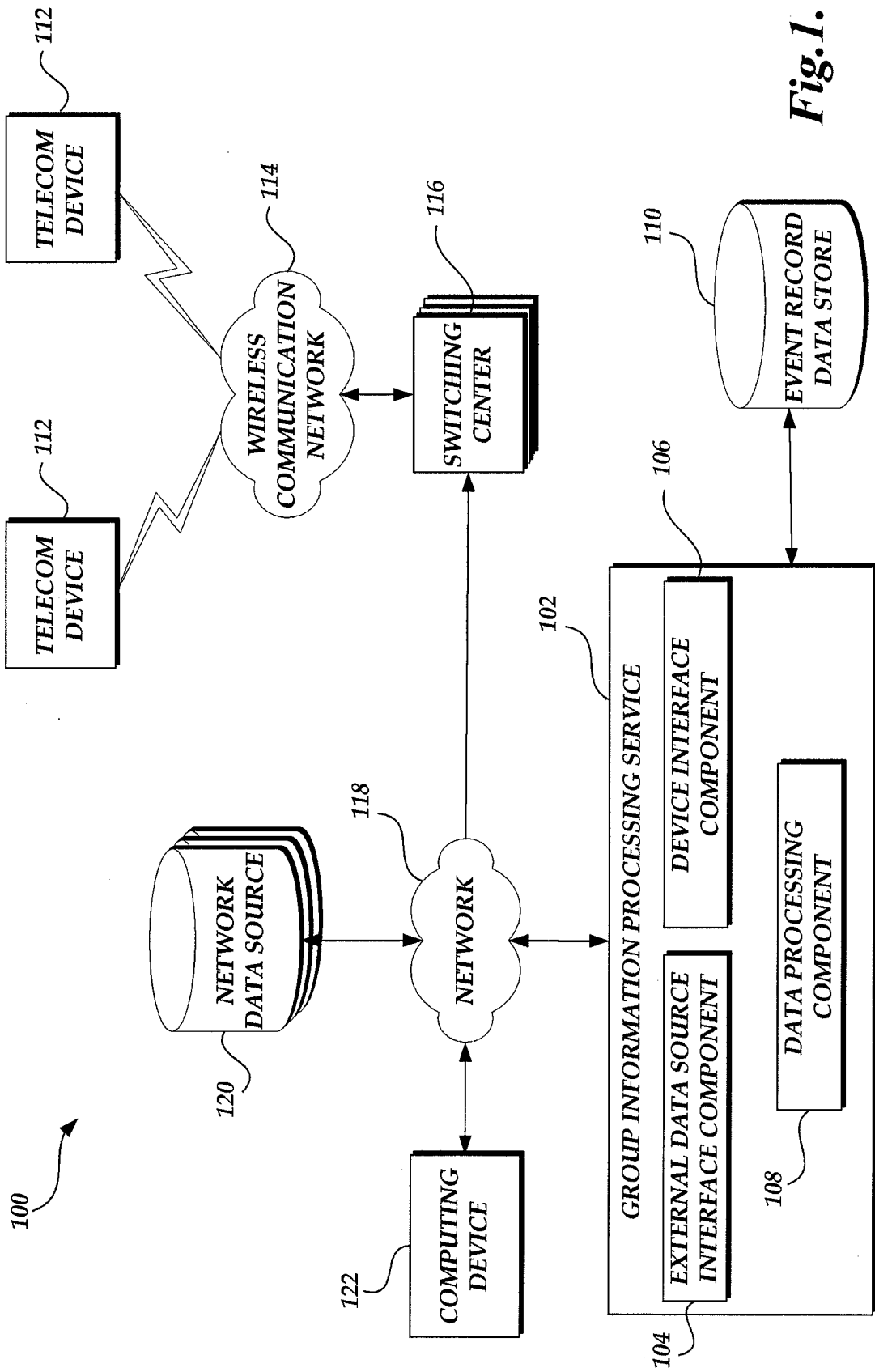


Fig. 1.

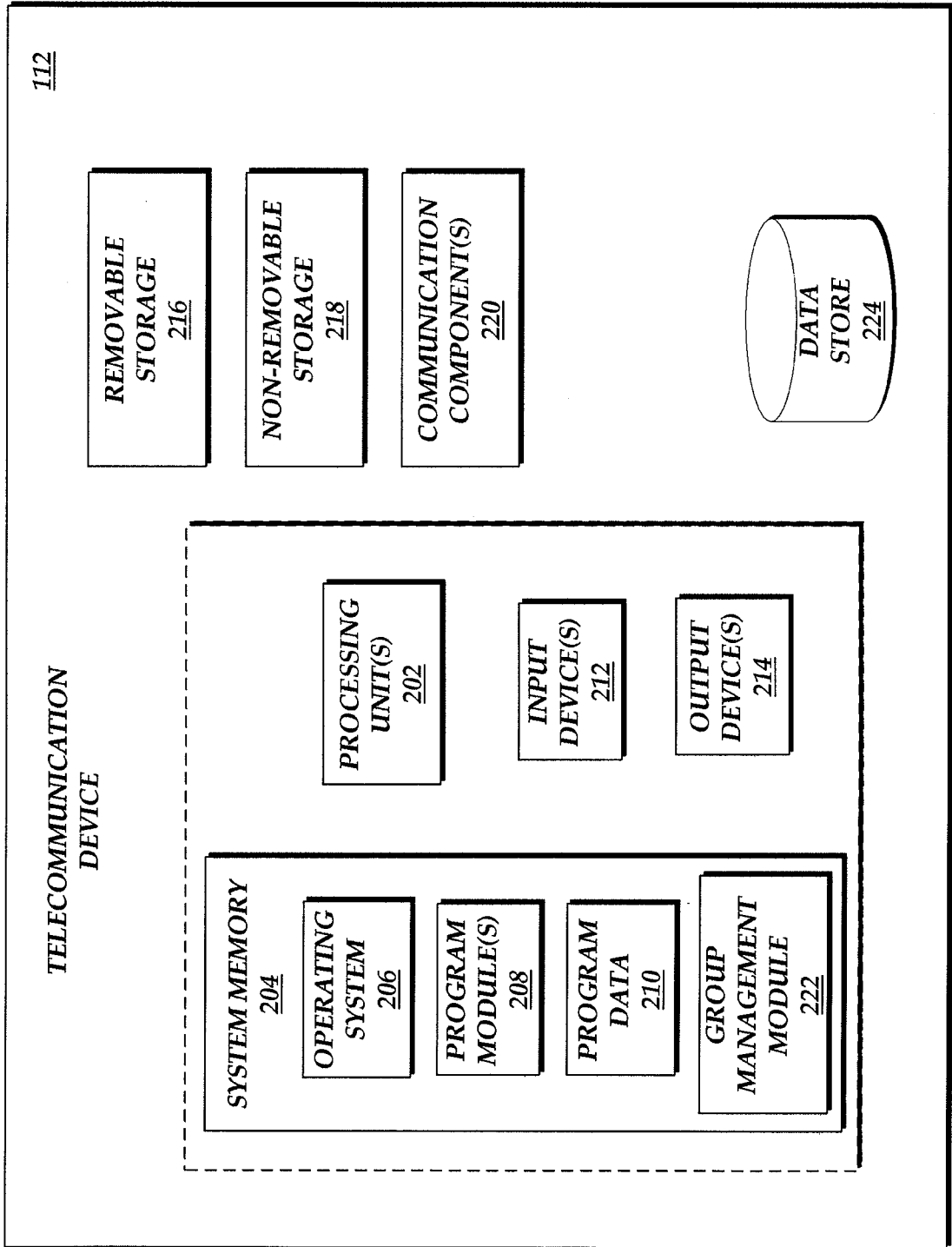


Fig. 2.

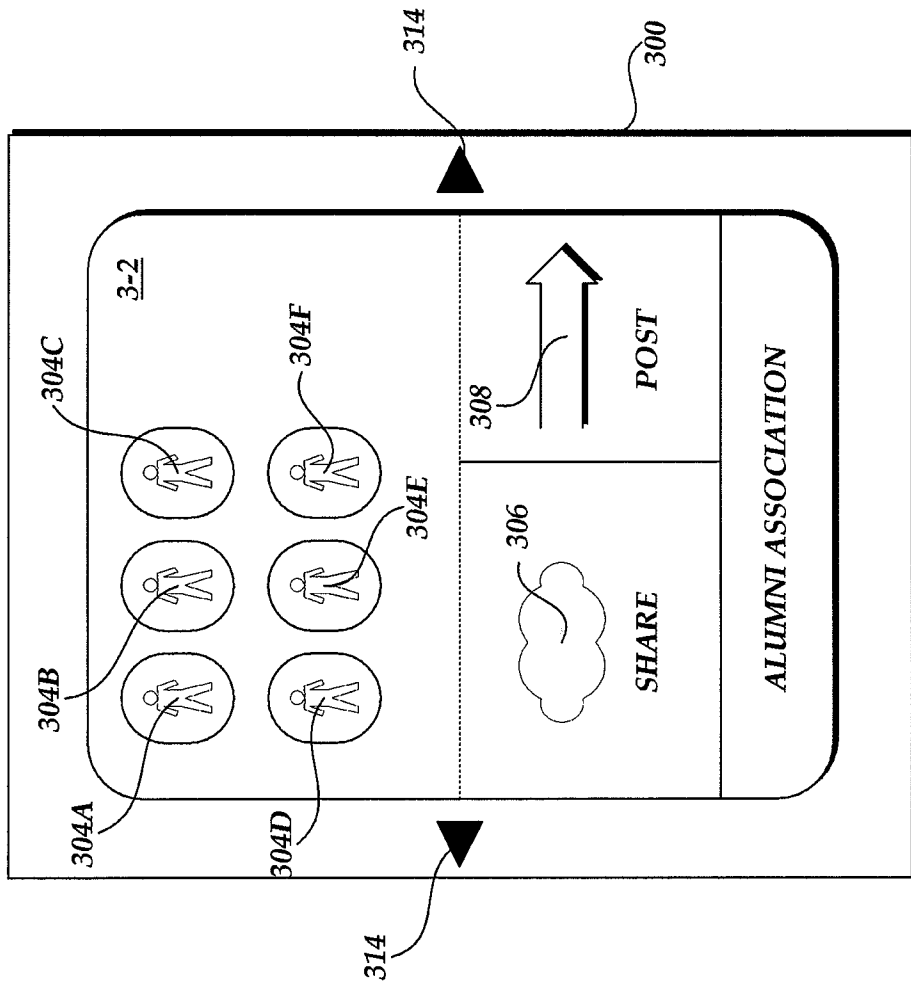
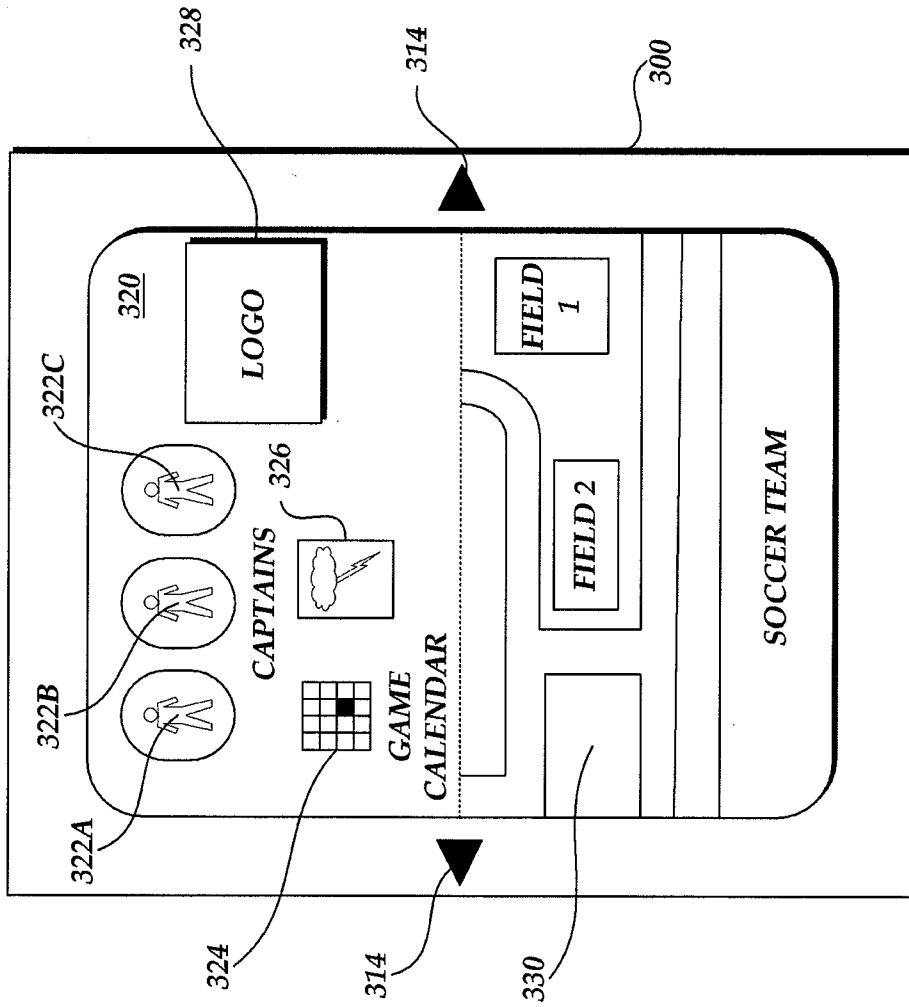


Fig.3A.



*Fig. 3B.*

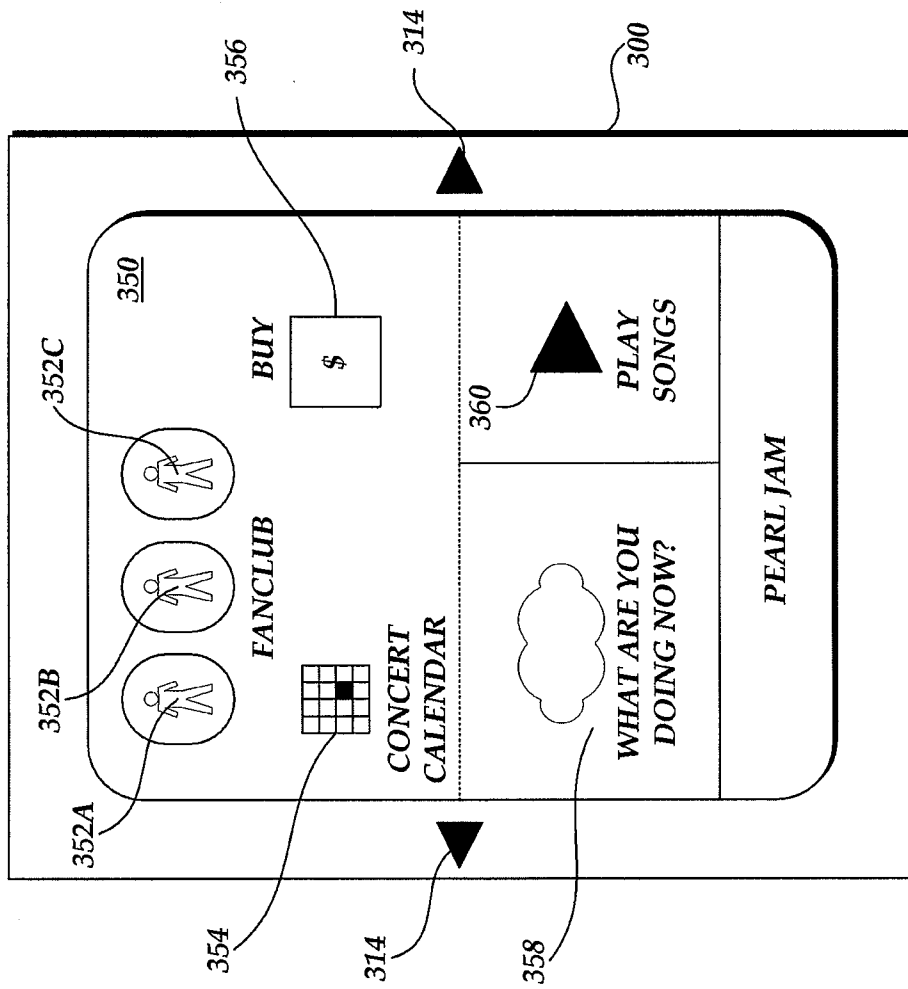


Fig. 3C.

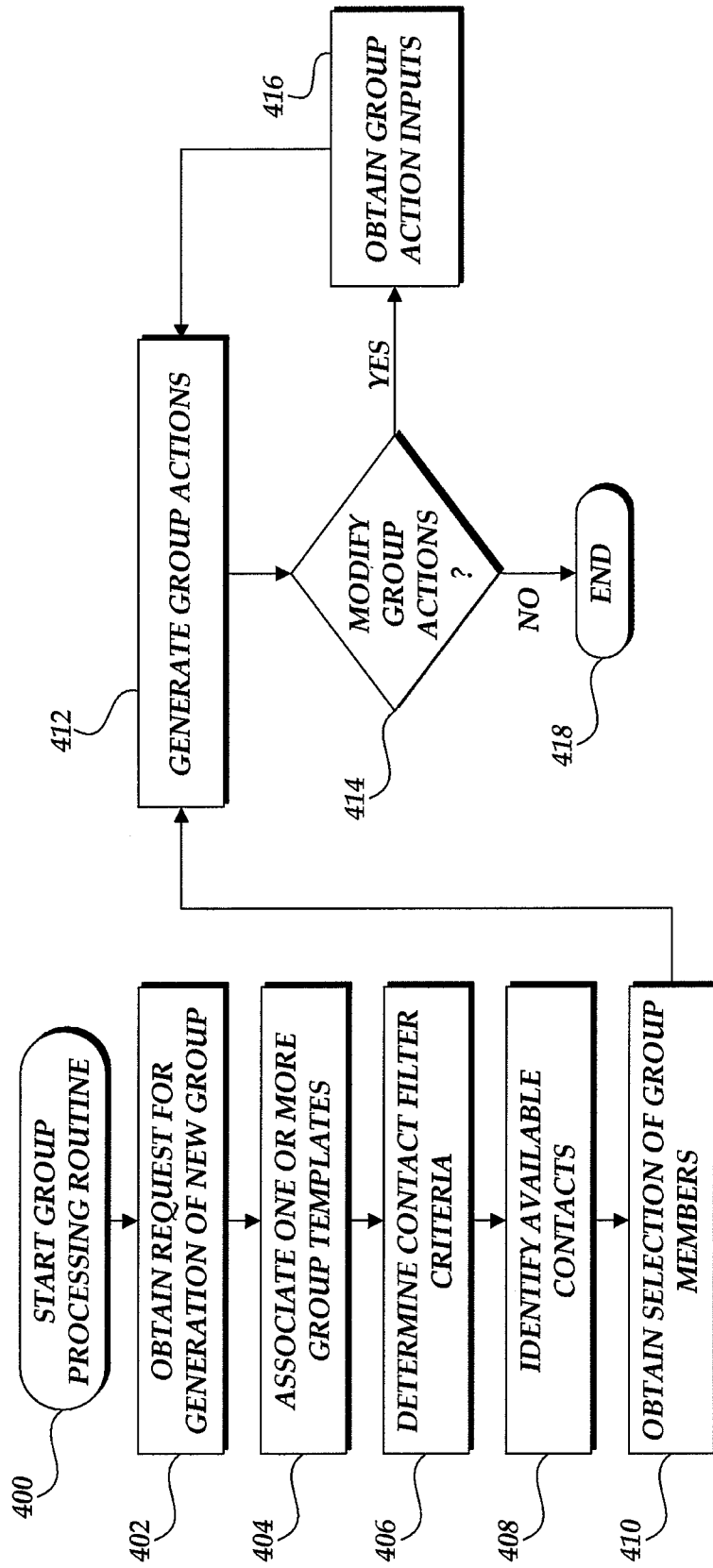
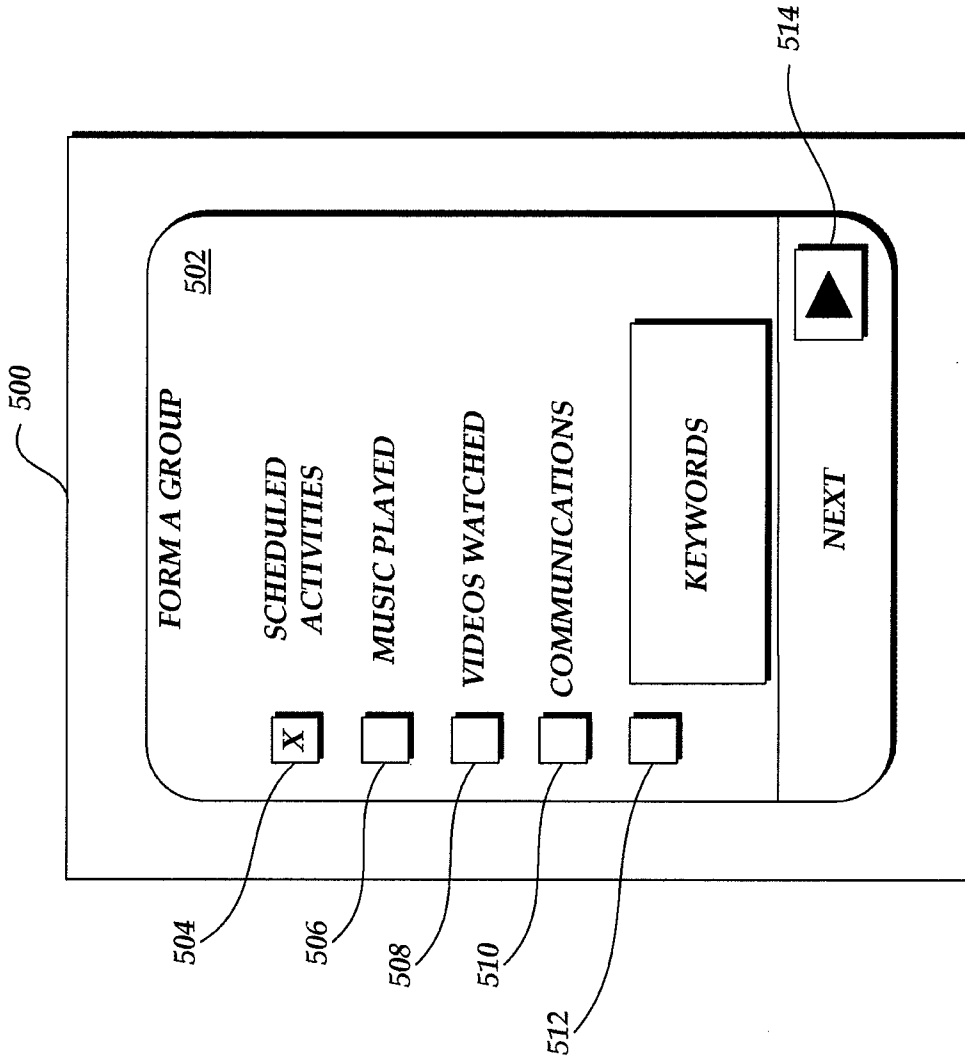
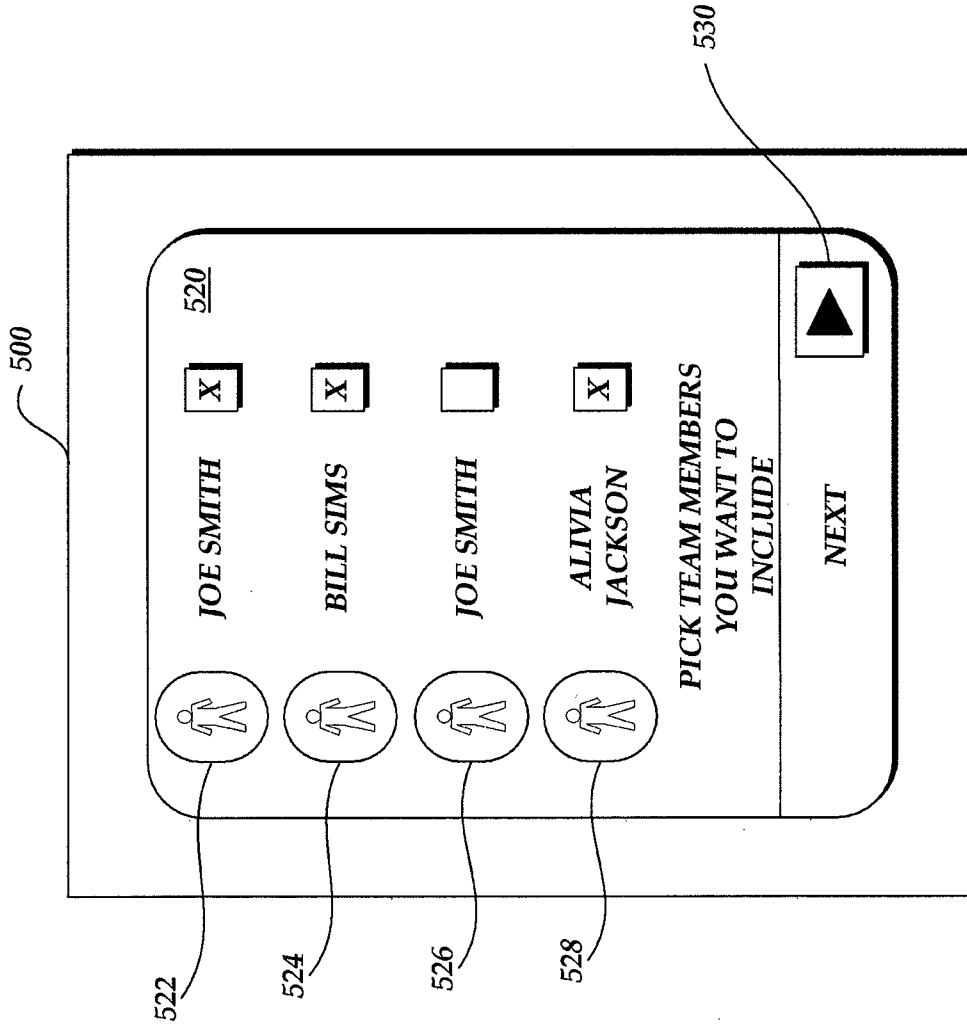


Fig. 4.





*Fig. 5A.*



*Fig. 5B.*

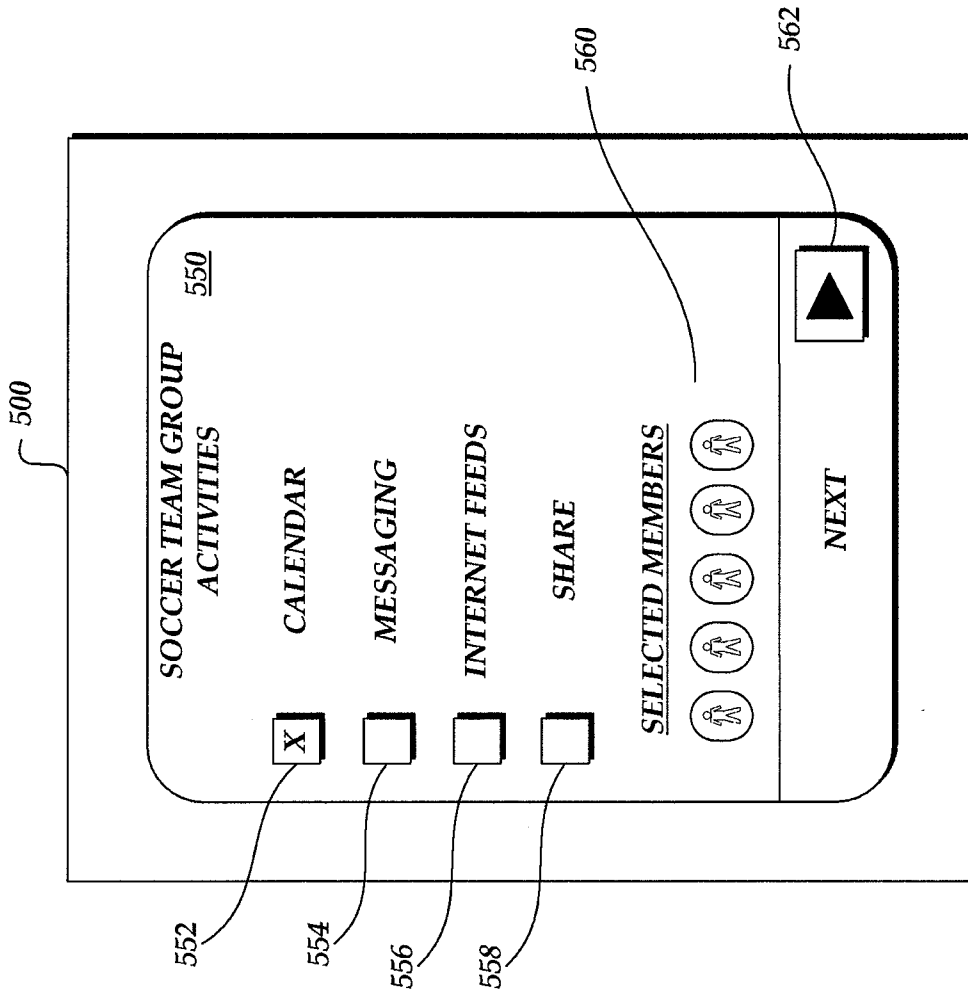


Fig. 5C.