Title: AN INFORMATION MANAGEMENT METHOD AND USER TERMINAL

Abstract: An information management method for managing group messages in instant messaging comprises: in response to a processing instruction of a user, a user terminal obtaining a preset number of message records to be processed; displaying the obtained message records to be processed to the user; and in response to an operation of selection by the user of the message records to be processed, sending the user selected message records to a server for being processed by the server according to a preset processing rule. Additionally, the invention further provides an user terminal. The information management method and user terminal may increase the efficiency of information management.
An Information Management Method and User Terminal

DESCRIPTION

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims the priority benefit of Chinese Patent Application No. 2013103671520, filed on August 21, 2013, the contents of which are incorporated by reference herein in their entirety for all purposes.

TECHNICAL FIELD

The disclosure relates to computer communication technologies, and in particular, to an information management method and user terminal.

BACKGROUND OF THE DISCLOSURE

With the development of computer communication technologies, instant messaging becomes more and more approved by people as an extremely practical function of a user terminal, and a group chat platform built by people via instant messaging software may realize instant messaging in a multimedia approach such as text, voice, video, etc. among multiple users. However, due to such a factor as lowering of the threshold of the internet, difficulties in identifying the identification of a user, etc., the group chat platform also becomes a hardest-hit area flooded with various malicious information such as fraud, harassment, pornography, advertisement, etc.

In prior art information management technologies, if a user wants to manage chat information in a group and reports a user account publishing malicious chat messages in the group, it is generally necessary for the user to first view the user account of the malicious publisher in the group chat record, and then perform operations of search and selection for the user account in the group member list, thereafter, the user terminal extracts the malicious chat messages published by the user account selected by the user according to the operations of search and selection and sends them to a background server for processing. However, the above information management method can only manage malicious chat messages published by one user account at a time, and when chat messages in the group continuously dynamically increase, it is difficult for the user to find the malicious
message. Furthermore, if a publisher of malicious chat messages exits the group rapidly after publishing a multitude of malicious messages, when the user finds and wants to manage the malicious chat messages published by the malicious publisher and report the malicious publisher, he cannot already find the user account of the malicious publisher in the group member list and hence cannot manage the malicious chat messages published by the publisher. Therefore, the efficiency of management of group messages in instant messaging by the prior art information management technologies is low, and it cannot realize an efficient management of user accounts within a group and the group.

SUMMARY OF THE DISCLOSURE

In view of the above, the invention provides an information management method, a user terminal, and a computer program product, which can increase the efficiency of information management.

The information management method for managing group messages in instant messaging comprises: in response to a processing instruction of a user, obtaining a preset number of message records to be processed in a group as indicated by the processing instruction; displaying the obtained message records to be processed to the user; and in response to an operation of selection by the user of the message records to be processed, sending the user selected message records to a server for being processed by the server according to a preset processing rule.

The user terminal for managing group messages in instant messaging, comprising at least a processor operating in conjunction with a memory and a plurality of modules, which modules comprise: a first message-record-to-be-processed obtaining module for, in response to a processing instruction of a user, obtaining a preset number of message records to be processed in a group as indicated by the processing instruction; a display module for displaying the message records to be processed obtained by the first message-record-to-be-processed obtaining module to the user; and a first message-record-to-be-processed sending module for, in response to an operation of selection by the user of the message records to be processed obtained by the first message-record-to-be-processed obtaining module, sending the user selected message records to a server for being processed by the server according to a preset processing rule.
The computer program product comprises program codes for performing the following steps when the computer program codes are executed on one or more computing devices: in response to a processing instruction of a user, obtaining a preset number of message records to be processed in a group as indicated by the processing instruction; displaying the obtained message records to be processed to the user; and in response to an operation of selection by the user of the message records to be processed, sending the user selected message records to a server for being processed by the server according to a preset processing rule.

By obtaining a preset number of message records to be processed in a group and displaying them to a user, and then in response to the operation of selection by the user of the message records to be processed, sending the user selected message records to be processed to a server for processing, the information management method and user terminal provided by embodiments of the invention enables the user to directly accomplish management of information of the message records to be processed in the group by a simple operation of selection on the displayed message records to be processed, and thereby simplifies the operation of managing the information of the message records to be processed in the group by the user, so the efficiency of information management may be increased, and an efficient management of user accounts within a group and the group may be realized.

To enable the foregoing and other objects, features and advantages to be more apparent, in the following, a detailed description will be given as follows taking preferred embodiments as examples in connection with appended drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 shows a structural block diagram of a user terminal.

Fig. 2 is a flowchart of a method for information management in a user terminal provided by a first embodiment of the invention.

Fig. 3 is a flowchart of a method for information management in a user terminal provided by a second embodiment of the invention.

Fig. 4 is a flowchart of a step 22 in the method for information management in a user terminal provided by the second embodiment of the invention.
Fig. 5 is a schematic diagram of a processing interaction window in the method for information management in a user terminal provided by the second embodiment of the invention.

Fig. 6 is a flowchart of a method for information management in a user terminal provided by a third embodiment of the invention.

Fig. 7 is a first schematic diagram of a processing interaction window in the method for information management in a user terminal provided by the third embodiment of the invention.

Fig. 8 is a second schematic diagram of the processing interaction window in the method for information management in a user terminal provided by the third embodiment of the invention.

Fig. 9 is a flowchart of a method for information management in a user terminal provided by a fourth embodiment of the invention.

Fig. 10 is a flowchart of a method for information management in a user terminal provided by a fifth embodiment of the invention.

Fig. 11 is a schematic diagram of a processing notification window in the method for information management in a user terminal provided by the fifth embodiment of the invention.

Fig. 12 is a structural diagram of a user terminal for information management provided by a sixth embodiment of the invention.

Fig. 13 is schematic diagram of a storage environment of the user terminal in Fig. 12.

Fig. 14 is a structural diagram of a user terminal for information management provided by a seventh embodiment of the invention.

Fig. 15 is a structural diagram of a first message-record-to-be-processed obtaining module in the user terminal for information management provided by the seventh embodiment of the invention.

Fig. 16 is a structural diagram of a first display module in the user terminal for information management provided by the seventh embodiment of the invention.

Fig. 17 is a structural diagram of a first message-record-to-be-processed sending module in the user terminal for information management provided by the seventh embodiment of the invention.
DETAILED DESCRIPTION OF THE DISCLOSURE

To further elucidate technical means employed by the invention for achieving the intended purposes of the invention and the efficacy, in the following, particular implementations, structures, features according to the invention and the efficacy thereof will be described in detail as follows in connection with the drawings and preferred embodiments.

An information management method provided by embodiments of the invention may be applied in a user terminal for realizing information management, which user terminal may comprise a smart phone, a tablet computer, an e-book reader, an MP3 (Moving Picture Experts Group Audio Layer III) player, an MP4 (Moving Picture Experts Group Audio Layer IV) player, a laptop portable computer, etc.

Fig. 1 shows a structural block diagram of a user terminal. As shown in Fig. 1, the user terminal 100 comprises a memory 102, a memory controller 104, one or more (only one being shown in the figure) processor 106, a peripheral interface 108, a radio frequency module 110, a positioning module 112, a camera module 114, an audio module 116, a touch control module 118 and a key module 120. These components communicate with each other via one or more communication bus/signal line 122.

It may be appreciated that the structure as shown in Fig. 1 is just schematic, and the user terminal 100 may further comprise components more or less than what is shown in Fig. 1, or have a configuration different from that as shown in Fig. 1. The individual components as shown in Fig. 1 may be implemented employing hardware, software or a combination thereof.

The memory 102 may be used for storing a software program or a module, e.g., program instructions/modules corresponding to a method and user terminal for realizing information management in a user terminal in embodiments of the invention, and the processor 106 carries out the above mentioned method for realizing information management in a user terminal by running a software program and a module stored in the memory 102 and thereby executing various functional applications and data process.

The memory 102 may comprise a high speed random memory, or may further comprise a non-volatile memory, for example, one or more magnetic storage, flash memory, or other non-volatile solid memory. In some examples, the memory
102 may further comprise memories arranged remotely with respect to the processor
106, which memories may be connected to the user terminal 100 via a network. Examples of the above mentioned network comprise, but are not limited to, an internet, an intranet, a local area network, a mobile communication network and a combination thereof. The access to the memory 102 by the processor 106 and other possible components may be carried out under the control of the memory controller 104.

The peripheral interface 108 couples various input/output apparatus to a CPU and the memory 102. The processor 106 runs various software and instructions in the memory 102 to perform various functions of the user terminal 100 and data processing.

In some embodiments, the peripheral interface 108, the processor 106 and the memory controller 104 may be implemented in a single chip. In some other examples, they may be implemented by a stand-alone chip, respectively.

The radio frequency module 110 is used for receiving and sending electromagnetic waves, carrying out a transformation between the electromagnetic waves and an electric signal, and thereby communicating with a communication network or other device. The radio frequency module 110 may comprise various existing circuit elements for performing these functions, e.g., an antenna, a radio frequency transceiver, a digital signal processor, an encryption/decryption chip, a subscriber identity module (SIM) card, a memory, etc. The radio frequency module 110 may communicate with various networks, e.g., an internet, an intranet, a wireless network, or communicate with other device via a wireless network. The above mentioned wireless network may comprise a cellular telephone network, a wireless local area network or a metropolitan area network. The above mentioned wireless network may adopt various communication standards, protocols and technologies, comprising but not limited to, Global System for Mobile Communication, Enhanced Data GSM Environment (EDGE), wideband code division multiple access (W-CDMA), code division multiple access (CDMA), time division multiple access (TDMA), Bluetooth, Wireless Fidelity (WiFi) (e.g., American Institute of Electrical and Electronics Engineers standards IEEE 802.11a, IEEE 802.11b, IEEE 802.11g and/or IEEE 802.11n), voice over internet protocol (VoIP), Worldwide Interoperability for Microwave Access (Wi-Max), other protocols for mails, instant
messaging and SMS, as well as any other suitable communication protocols, which may even comprise those protocols currently not yet developed.

The positioning module 112 is used for obtaining the current position of the user terminal 100. Examples of the positioning module 112 comprise, but are not limited to, the global satellite positioning system (GPS), a positioning technology based on wireless local area network or mobile communication network.

The camera module 114 is used for taking a photograph or video. The taken photograph or video may be stored into the memory 102, and may be sent via the radio frequency module 110.

The audio module 116 provides a user with an audio interface, which may comprise one or more microphone, one or more loudspeaker and an audio circuit. The audio circuit receives sound data from the peripheral interface 108, converts the sound data into electrical information, and transmits the electrical information to the loudspeaker. The loudspeaker converts the electrical information into sound waves audible to a human ear. The audio circuit further receives electrical information from the microphone, converts the electrical information into sound data, and transmits the sound data into the peripheral interface 108 for further processing. Audio data may be obtained from the memory 102 or via the radio frequency module 110. Furthermore, the audio data may also be stored in the memory 102 or sent via the radio frequency module 110. In some examples, the audio module 116 may further comprise a headphone playback hole for providing a headphone or other device with an audio interface.

The touch control screen 118 provides an input/output interface between the user terminal 100 and a user simultaneously. In particular, the touch control screen 118 displays audio outputs to a user, the content of which may comprise text, graphics, video and any combination thereof. Some output results may correspond to some user interface objects. The touch control screen 118 further receives an input of a user, e.g., a gesture operation such as click, slide, etc., such that the user interface objects respond to these inputs of the user. Technologies for detecting a user input may be one based on resistance, capacitance, or other any possible touch control detection technologies. Particular examples of a display unit of the touch control screen 118 comprise, but are not limited to, a liquid crystal display or a light emitting polymer display.
The key module 120 also provides an interface for a user to input to the user terminal 100, and the user may cause the user terminal 100 to perform a different function by pressing a different key.

First Embodiment

Fig. 2 is a flowchart of a method for information management in a user terminal provided by a first embodiment of the invention. The information management method in this embodiment is used for managing group messages in instant messaging. As shown in Fig. 2, the information management method in this embodiment comprises the following steps.

In step S11, in response to a processing instruction of a user, the user terminal obtains a preset number of message records to be processed in a group as indicated by the processing instruction.

In particular, the user terminal receives the processing instruction of the user via an instant messaging software client running in the user terminal. In the processing instruction is comprised a number of the group to be processed. The user terminal obtains message records to be processed in the group according to the number of the group to be processed in the processing instruction, and preferably, obtains a preset number of message records to be processed closest to the current system time. Therein, the message records to be processed in the group are records of chat messages published within the group by all the members of the group, and in particular may comprise: user accounts, nicknames, publishing time of publishers of the chat messages, and text information, pictures, network links to voice, video, etc. contained in the chat messages published by the publishers.

In step S12, the obtained message records to be processed are displayed to the user.

In step S13, in response to an operation of selection by the user of the message records to be processed, the user selected message records are sent to a server for being processed by the server according to a preset processing rule.

In particular, the user terminal monitors the operation behavior of the user, and when monitoring the operation of selection by the user of the displayed message records to be processed, in responses to the operation of selection, sends the selected messages to be processed as indicated by the operation of selection to the server, such that the server processes the message records to be processed
according to the preset processing rule, for example, examines and filters information contained in the message records to be processed according to the preset processing rule, judges the property of a user according to the examined result, and exerts a corresponding penalty to a malicious user or group (for example, limits the operation privileges such as login, talk, etc. of a user account, bans a malicious group, and the like).

By obtaining a preset number of message records to be processed in a group and displaying them to a user, and then in response to the operation of selection by the user of the message records to be processed, sending the user selected message records to be processed to a server for processing, the information management method provided by the embodiment of the invention enables the user to directly accomplish management of information of the message records to be processed in the group by a simple operation of selection on the displayed message records to be processed, and thereby simplifies the operation of managing the information of the message records to be processed in the group by the user, so the efficiency of information management may be increased, and an efficient management of user accounts within a group and the group may be realized.

Second Embodiment

Fig. 3 is a flowchart of a method for information management in a user terminal provided by a second embodiment of the invention. The information management method in this embodiment is used for managing group messages in instant messaging. As shown in Fig. 3, the information management method in this embodiment comprises the following steps.

In step S21, in response to a processing instruction of a user, the user terminal generates a processing interaction window.

In particular, the user terminal receives the processing instruction (e.g., a report instruction) input by the user based on an instant messaging software client running in the user terminal, and in response to the processing instruction, generates the processing interaction window (e.g., a report interaction window), which processing interaction window is used for displaying message records to be processed in a group processed by the processing instruction, such that the user selects from the message records to be processed, and accomplishes submission of
a processing request for the selected message records to be processed via the processing interaction window.

In step S22, a preset number of message records to be processed in the group as indicated by the processing instruction are obtained.

In particular, the method for obtaining the preset number of message records to be processed in the group as indicated by the processing instruction may be as shown in Fig. 4, and comprise the following steps.

In step S221, a file of the message records to be processed is read from a local memory of the user terminal.

In the file of the message records to be processed, records of all the chat messages received and sent when a user conducted an instant messaging activity with other users through a user account based on an instant messaging software client are stored, for examples: records of chat messages sent to other user and received from and sent by other user when the user conducts one-to-one chat with the other user; records of chat messages published within the group and published by all the group members in the group when the user conducts a multiplayer instant messaging activity in a chat group or a discussion group with other users; and so on. Therein, the record content of the chat messages may particularly comprise: user accounts, nicknames, publishing time of publishers of the chat messages, and text information, pictures, network links to voice, video, etc. contained in the published chat messages.

In particular, according to a user account of the sender user of the processing instruction, the user terminal searches a file of message records to be processed corresponding to the user account stored in the local memory, and reads records of all the chat messages stored in the file of message records to be processed.

It may be appreciated that the file of message records to be processed may also be stored in a cloud server, and the user terminal may, according to a user account of the user, obtain a file of message records to be processed corresponding to the user account from the cloud server.

In step S222, information records of all the messages to be processed in the group as indicated by the processing instruction are extracted from the file of the message records to be processed.
In particular, according to a number of the group to be processed contained in the received processing instruction, the user terminal extracts, from the read file of message records to be processed, information records of all the messages to be processed in the group processed by the processing instruction, namely, records of chat messages published by all the members in the group, which may particularly comprise: user accounts, nicknames, publishing time of publishers of the chat messages, and text information, pictures, network links to voice, video, etc. contained in the published chat messages.

In step S223, the records of the messages to be processed are parsed to obtain the preset number of message records to be processed.

In a particular implementation of the embodiment, the preset number may be 100. The user terminal parses information records of all the messages to be processed in the group processed by the processing instruction extracted in step S222, and obtains information of 100 messages to be processed closest to the current system time. Therein, information of a message to be processed may particularly comprise: the content of the message to be processed (particular text information, a network link to voice and video, etc.), a user account, nickname, publishing time of the publisher of the message to be processed, etc.

In step S23, the obtained message records to be processed are displayed to the user via the processing interaction window.

In particular, the user terminal displays the obtained message records to be processed to the user by initializing the processing interaction window and drawing the particular information contained in the obtained preset number of message records to be processed in the processing interaction window.

In step S24, in response to an operation of selection by the user of the message records to be processed, the message records to be processed selected by the operation of selection are classified and aggregated according to user accounts and corresponding data packets are generated.

In particular, in response to an operation of selection by the user in the processing interaction window, the user terminal obtains multiple message records to be processed selected by the operation of selection, and then classifies and aggregates the obtained message records to be processed according to user accounts of publishers, in which multiple corresponding data packets are generated for the message records to be processed by aggregating and packing message
records to be processed of the same user account into a data packet. For example, assuming that 20 message records to be processed are selected according to the operation of selection by the user and the 20 message records to be processed are published by 5 different user accounts, respectively, then the 20 message records to be processed are classified and aggregated according to the user accounts to generate 5 data packets in one-to-one correspondence with the 5 user accounts, respectively, and in each data packet are contained all the message records to be processed published by a user account corresponding to the data packet, respectively.

In step S25, a corresponding processing identification is generated for each generated data packet.

In particular, the user terminal generates a corresponding processing identification (ID) for each data packet generated in step S24 according to the current system time, date and a requested service attribute, which processing ID is used for causing a server to identify a data packet corresponding to a requested service attribute and process information of the message records to be processed contained in the data packet according to a preset processing rule.

In step S26, all the data packets and the corresponding processing identifications are sent to a server.

In particular, the user terminal sends all the generated data packets and the corresponding processing IDs to a background access server, and the background access server reorganizes the received data packets and the corresponding processing IDs according to the preset processing rule and sends them to a background processing server after repacking them according to a preset format. The background processing server extracts and examines and filters information of the message records to be processed contained in the received repacked data packets such as the content of the messages to be processed, user accounts of publishers of the content of the messages to be processed, and publishing time, etc. according to the preset processing rule, and processes the user accounts of the publishers of the content of the messages to be processed according to the examined and filtered result, for example, sends warning information to a publisher of the content of the message to be processed via a cell phone number, a mail address pre-retained by the publisher, or limits the user's login
and talk using the user account; for a serious case, it is also possible to ban the user account; and the like.

In the following, the information management method in an embodiment of the invention will be described in a particular application scenario. For example, the user terminal first receives a report instruction sent by a user via an instant messaging software client, generates a report interaction window according to the report instruction, obtains a preset number (e.g., 100) of chat message records in a group reported by the report instruction, and draws information such as the content of chat information, user accounts and nicknames of publishers, publishing time, etc. contained in the obtained chat message records in a report evidence displaying and selecting area in the report interaction window as shown in Fig. 5 according to a preset format so as to be displayed to the user; thereafter, when monitoring an operation of selection by the user in the report interaction window, the user terminal obtains one or more chat message records selected by the operation of selection, and according to an operation of selection by click by the user via a submission button as shown in Fig. 5, encapsulates the obtained one or more chat message records into multiple data packets after classifying and aggregating them according to user accounts of publishers, then generates a corresponding report ID for each data packet, sends the report ID along with the corresponding data packet to a server in order for the server to process, and at the same time generates report information, and displays the report information to the user in order to inform the user of subsequent processing. As described above, the user terminal generates a report interaction window in response to a report instruction of a user, obtains a preset number of message records to be processed in a group as indicated by the report instruction, and displays the obtained message records to be processed to the user via the report interaction window, namely, solidifies the message records to be processed in the report interaction window, and the user terminal may accomplish a report of multiple user accounts by way of an operation of selection by the user in the report interaction window, which avoids that a malicious member of a group cannot be reported due to the member's exiting the group in the prior art, and thereby may realize an efficient management of user accounts and the group.

By obtaining a preset number of message records to be processed in a group and displaying them to a user, and then in response to the operation of selection by the user of the message records to be processed, sending the user
selected message records to be processed to a server for processing, the information management method provided by the embodiment of the invention enables the user to directly accomplish management of information of the message records to be processed in the group by a simple operation of selection on the displayed message records to be processed, and thereby simplifies the operation of managing the information of the message records to be processed in the group by the user, so the efficiency of information management may be increased, and an efficient management of user accounts within a group and the group may be realized.

Third Embodiment

Fig. 6 is a flowchart of a method for information management in a user terminal provided by a third embodiment of the invention. The information management method in this embodiment is used for managing group messages in instant messaging. As shown in Fig. 6, the information management method in this embodiment comprises the following steps.

In step S31, in response to a processing instruction of a user, the user terminal generates a processing interaction window.

In step S32, a preset number of message records to be processed in a group as indicated by the processing instruction are obtained.

In step S33, the obtained message records to be processed are displayed to the user via the processing interaction window.

The specifics of step S31 and step S33 are referred to the corresponding content of the second embodiment, and a description thereof will not be repeated here.

In step S34, the user terminal receives a first selection instruction input in the processing interaction window by the user, and obtains a preset number of message records to be processed published by the user account to be processed according to account information of a user account to be processed contained in the first selection instruction.

In particular, in a particular implementation of the embodiment, the user terminal receives a first selection instruction comprising account information of a user account to be processed input by the user through an operation of selection in a selection area for user accounts to be processed in the processing interaction window as shown in Fig. 7. According to the account information, the user terminal
extracts and parses, from the file of message records to be processed, a preset number (e.g., 100) of message records to be processed closest to the current system time published by the user account to be processed selected by the first selection instruction.

In step S35, the obtained preset number of message records to be processed published by the user account to be processed are displayed to the user via the processing interaction window.

In particular, the user terminal displays the obtained preset number of message records to be processed published by the user account selected by the first selection instruction to the user by drawing the extracted preset number of message records to be processed published by the user account selected by the first selection instruction to the user in the processing interaction window according to a preset format.

It needs to be noted that in this embodiment step S33 is optional, namely, the processing interaction window may directly display the preset number of message records to be processed published by the user account.

In step S36, in response to an operation of selection by the user of the message records to be processed, the user selected message records to be processed are sent to a server for being processed by the server according to a preset processing rule.

In particular, in a particular implementation of this embodiment, in response to an operation of selection by the user in a processing interaction window as shown in Fig. 8, the user terminal obtains message records to be processed (for example, message records to be processed marked a checkmark in Fig. 8) selected by the operation of selection, generates data packets for the obtained message records to be processed, generates corresponding processing identifications (IDs) for the data packets according to the current system time, date and a requested service attribute, and then sends the generated data packets and the corresponding processing IDs to a background access server. The background access server reorganizes the received data packets and the corresponding processing IDs according to a preset processing rule and sends them to a background processing server after repacking them according to a preset format, such that the background processing server extracts and examines and filters information of the message records to be processed contained in the received repacked data packets such as
the content of the messages to be processed, user accounts of publishers of the content of the messages to be processed, and publishing time, etc. according to the preset processing rule, and processes the user accounts of the publishers of the content of the messages to be processed according to the examined and filtered result.

By obtaining a preset number of message records to be processed in a group and displaying them to a user, and then in response to the operation of selection by the user of the message records to be processed, sending the user selected message records to be processed to a server for processing, the information management method provided by the embodiment of the invention enables the user to directly accomplish management of information of the message records to be processed in the group by a simple operation of selection on the displayed message records to be processed, and thereby simplifies the operation of managing the information of the message records to be processed in the group by the user, so the efficiency of information management may be increased, and an efficient management of user accounts within a group and the group may be realized.

Fourth Embodiment

Fig. 9 is a flowchart of a method for information management in a user terminal provided by a fourth embodiment of the invention. The information management method in this embodiment is used for managing group messages in instant messaging. As shown in Fig. 9, the information management method in this embodiment comprises the following steps.

In step S41, in response to a processing instruction of a user, the user terminal generates a processing interaction window.

In step S42, a preset number of message records to be processed in a group as indicated by the processing instruction are obtained.

In step S43, the obtained message records to be processed are displayed to the user via the processing interaction window.

The specifics of step S41 to step S43 are referred to the corresponding content of the second embodiment, and a description thereof will not be repeated here.
In step S44, the user terminal receives a second selection instruction comprising group information processing instruction codes input in the processing interaction window by the user.

In particular, in a particular implementation of this embodiment, the user terminal receives a second selection instruction sent by the user via an operation of selection in a group message record processing and selecting area in the processing interaction window as shown in Fig. 5. In the second selection instruction is contained a group information processing instruction code. The group information processing instruction code may enable the user terminal to encapsulate one or more message records to be processed in a group selected by the user as a whole.

In step S45, in response to the operation of selection by the user, the user selected message records to be processed in the group are obtained.

In particular, in response to an operation of selection by the user of the preset number of message records to be processed in the group displayed in step S43 in the report evidence displaying and selecting area as shown in Fig. 5, one or more message records to be processed selected by the user are obtained. In a particular implementation of this embodiment, if the user does not perform an operation of selection, then it is by default that the user performs such an operation of selection in which all of the preset number of message records to be processed in the group are selected to be processed.

In step S46, according to the group information processing instruction code, the obtained message records to be processed as a whole are sent to the server for being processed by the server according to a preset processing rule.

In particular, according to the group information processing instruction code contained in the received second selection instruction, the user terminal encapsulates one or more message records to be processed in the group selected by the user obtained in step S45 as a whole into a data packet. Then, the user terminal generates a corresponding processing identification (ID) for the data packet according to the current system time, date and a requested service attribute, and sends the generated data packet and the corresponding processing ID along with the number information of the group to a background access server. The background access server reorganizes the received data packet and the corresponding processing ID according to a preset processing rule and sends them to a background processing server after repacking them according to a preset format.
The background processing server extracts and examines and filters information contained in the received repacked data packet such as the content of the messages to be processed, a user account of a publisher of the content of the messages to be processed, and publishing time, the group to which the messages to be processed belong, etc. according to the preset processing rule, and processes the user account of the publisher of the content of the messages to be processed, or the group processed by the processing instruction, or the administrator of the group processed by the processing instruction according to the examined and filtered result.

By obtaining a preset number of message records to be processed in a group and displaying them to a user, and then in response to the operation of selection by the user of the message records to be processed, sending the user selected message records to be processed to a server for processing, the information management method provided by the embodiment of the invention enables the user to directly accomplish management of information of the message records to be processed in the group by a simple operation of selection on the displayed message records to be processed, and thereby simplifies the operation of managing the information of the message records to be processed in the group by the user, so the efficiency of information management may be increased, and an efficient management of user accounts within a group and the group may be realized.

Fifth Embodiment

Fig. 10 is a flowchart of a method for information management in a user terminal provided by a fifth embodiment of the invention. The information management method in this embodiment is used for managing group messages in instant messaging. As shown in Fig. 10, the information management method in this embodiment comprises the following steps.

In step S51, in response to a processing instruction of a user, the user terminal generates a processing interaction window.

In step S52, a preset number of message records to be processed in a group as indicated by the processing instruction are obtained.

In step S53, the obtained message records to be processed are displayed to the user via the processing interaction window.
The specifics of step S51 to step S53 are referred to the corresponding content of step S21 to step S23 in the second embodiment, and a description thereof will not be repeated here.

In step S54, an operation of selection by the user in the processing interaction window is monitored.

In step S55, if an object selected by the operation of selection is message records to be processed, the message records to be processed selected by the operation of selection are classified and aggregated according to user accounts, and sent to a server after encapsulated into multiple data packets.

The specifics of this step are referred to the corresponding content of step S24 to step S25 in the second embodiment, and a description thereof will not be repeated here.

In step S56, if the operation of selection is to input a first selection instruction, then a preset number of message records to be processed published by user accounts as indicated by the first selection instruction are obtained.

In step S57, the obtained preset number of message records to be processed published by user accounts are displayed to the user via the processing interaction window.

In step S58, in response to an operation of selection by the user of the preset number of message records to be processed published by user accounts, the user selected message records to be processed are sent to the server for being processed by the server according to a preset processing rule.

The specifics of step S53 to step S58 are referred to the corresponding content of step S34 to step S36 in the third embodiment, and a description thereof will not be repeated here.

In step S59, if the operation of selection is to input a second selection instruction, then in response to the operation of selection by the user, the message records to be processed in the group selected by the operation of selection as a whole are sent to the server for being processed by the server according to the preset processing rule.

The specifics of this step are referred to the corresponding content of step S44 to step S46 in the fourth embodiment, and a description thereof will not be repeated here.
In a particular implementation of this embodiment, after successfully sending the user selected message records to be processed to the server, the user terminal may further display a processing notification window as shown in Fig. 11 to the user, so as to inform the user of subsequent processing.

By obtaining a preset number of message records to be processed in a group and displaying them to a user, and then in response to the operation of selection by the user of the message records to be processed, sending the user selected message records to be processed to a server for processing, the information management method provided by the embodiment of the invention may solidify and present the messages to be processed in the current group, and enable the user to directly accomplish management of information of the message records to be processed in the group by a simple operation of selection on the displayed message records to be processed, and thereby simplifies the operation of managing the information of the message records to be processed in the group by the user, so the efficiency of information management may be increased, and an efficient management of user accounts within a group and the group may be realized.

Sixth Embodiment

Fig. 12 is a structural diagram of a user terminal for information management provided by a sixth embodiment of the invention. The user terminal provided in this embodiment may be used for implementing an information management method in the above embodiments. The user terminal may comprise at least a processor operating in conjunction with a memory and a plurality of modules. As shown in Fig. 12, the modules comprise a first message-record-to-be-processed obtaining module 61, a first display module 62 and a first message-record-to-be-processed sending module 63.

Therein, the first message-record-to-be-processed obtaining module 61 is used for, in response to a processing instruction of a user, obtaining a preset number of message records to be processed in a group as indicated by the processing instruction.

The first display module 62 is used for displaying the message records to be processed obtained by the first message-record-to-be-processed obtaining module 61 to the user.
The first message-record-to-be-processed sending module 63 is used for, in response to an operation of selection by the user of the message records to be processed obtained by the first message-record-to-be-processed obtaining module 61, sending the user selected message records to a server for being processed by the server according to a preset processing rule.

The above individual modules may be implemented by software codes, and at this point, the above mentioned individual modules may be stored in the memory 102, as shown in Fig. 13. The above individual modules may be equally implemented by hardware, e.g., an integrated circuit chip.

The particular procedures in which the individual functional modules of the user terminal 60 achieve respective functions in this embodiment are referred to the particular content described in the embodiments as shown in Fig. 1 to Fig. 11, and a description thereof will not be repeated here.

By obtaining a preset number of message records to be processed in a group and displaying them to a user, and then in response to the operation of selection by the user of the message records to be processed, sending the user selected message records to be processed to a server for processing, the user terminal provided by the embodiment of the invention enables the user to directly accomplish management of information of the message records to be processed in the group by a simple operation of selection on the displayed message records to be processed, and thereby simplifies the operation of managing the information of the message records to be processed in the group by the user, so the efficiency of information management may be increased, and an efficient management of user accounts within a group and the group may be realized.

Seventh Embodiment

Fig. 14 is a structural diagram of a user terminal for information management provided by a seventh embodiment of the invention. The user terminal provided in this embodiment may be used for implementing an information management method in the above embodiments. The user terminal may comprise at least a processor operating in conjunction with a memory and a plurality of modules. As shown in Fig. 14, the modules comprise a first message-record-to-be-processed obtaining module 71, a first display module 72, a first message-record-to-be-processed sending module 73, a processing interaction window generating module
74, a second message-record-to-be-processed obtaining module 75, a second display module 76, a second message-record-to-be-processed sending module 77, a third message-record-to-be-processed obtaining module 78, and a third message-record-to-be-processed sending module 79.

Therein, the first message-record-to-be-processed obtaining module 71 is used for, in response to a processing instruction of a user, obtaining a preset number of message records to be processed in a group as indicated by the processing instruction. As shown in Fig. 15, the first message-record-to-be-processed obtaining module 71 comprises a reading unit 711, an extracting unit 712 and a parsing unit 713. Therein, the reading unit 711 is used for reading a file of the message records to be processed from a local memory of the user terminal; the extracting unit 712 is used for extracting information records of all the messages to be processed in the group as indicated by the processing instruction from the file of the message records to be processed; and the parsing unit 713 is used for parsing records of the messages to be processed and obtaining the preset number of message records to be processed.

The first display module 72 is used for displaying the message records to be processed obtained by the first message-record-to-be-processed obtaining module 71 to the user. As shown in Fig. 16, the first display module 72 comprises a display unit 721. The display unit 721 is used for displaying the message records to be processed obtained by the first message-record-to-be-processed obtaining module 71 to the user via the processing interaction window.

The first message-record-to-be-processed sending module 73 is used for, in response to an operation of selection by the user of the message records to be processed obtained by the first message-record-to-be-processed obtaining module 71, sending the user selected message records to a server for being processed by the server according to a preset processing rule. As shown in Fig. 17, the first message-record-to-be-processed sending module 73 comprises a data packet generating unit 731, a processing identification generating unit 732 and a sending unit 733. Therein, the data packet generating unit 731 is used for, in response to an operation of selection by the user of the message records to be processed, classifying and aggregating the message records to be processed selected by the operation of selection according to user accounts and generating corresponding data packets; the processing identification generating unit 732 is used
for generating a corresponding processing identification for each data packet generated by the data packet generating unit 731; and the sending unit 733 is used for sending all the data packets generated by the data packet generating unit 731 and the corresponding processing identification generated by the processing identification generating unit 732 to the server.

The processing interaction window generating module 74 is used for generating a processing interaction window, which processing interaction window is used for displaying the message records to be processed obtained by the first message-record-to-be-processed obtaining module 71 to the user for selection by the user.

The second message-record-to-be-processed obtaining module 75 is used for receiving a first selection instruction input in the processing interaction window by the user, in which first selection instruction account information of a user account to be processed is contained, and according to the account information, obtaining a preset number of message records to be processed published by the user account to be processed.

The second display module 76 is used for displaying the message records to be processed obtained by the second message-record-to-be-processed obtaining module 75 to the user via the processing interaction window.

The second message-record-to-be-processed sending module 77 is used for, in response to an operation of selection by the user of the message records to be processed obtained by the second message-record-to-be-processed obtaining module 75, sending the user selected message records to the server for being processed by the server according to the preset processing rule.

The third message-record-to-be-processed obtaining module 78 is used for receiving a second selection instruction comprising a group information processing instruction code input in the processing interaction window by the user, and in response to an operation of selection by the user, obtaining the user selected message records to be processed in the group.

The third message-record-to-be-processed sending module 79 is used for, according to the group information processing instruction code received by the third message-record-to-be-processed obtaining module 78, sending the message records to be processed obtained by the third message-record-to-be-processed
obtaining module 78 as a whole to the server for being processed by the server according to the preset processing rule.

Preferably, the message records to be processed comprise the content of the messages to be processed, user accounts of publishers of the messages to be processed, and publishing time.

The particular procedures in which the individual functional modules of the user terminal 70 achieve respective functions in this embodiment are referred to the particular content described in the embodiments as shown in Fig. 1 to Fig. 11, and a description thereof will not be repeated here.

By obtaining a preset number of message records to be processed in a group and displaying them to a user, and then in response to the operation of selection by the user of the message records to be processed, sending the user selected message records to be processed to a server for processing, the user terminal provided by the embodiment of the invention enables the user to directly accomplish management of information of the message records to be processed in the group by a simple operation of selection on the displayed message records to be processed, and thereby simplifies the operation of managing the information of the message records to be processed in the group by the user, so the efficiency of information management may be increased, and an efficient management of user accounts within a group and the group may be realized.

Eighth Embodiment

The present invention further provides a computer program product comprising program codes for performing the steps of the methods of the present invention as discussed hereinabove when the computer program codes are executed on one or more computing devices. For example, following steps S11, S12, and S13 may be performed: in response to a processing instruction of a user, obtaining a preset number of message records to be processed in a group as indicated by the processing instruction; displaying the obtained message records to be processed to the user; and in response to an operation of selection by the user of the message records to be processed, sending the user selected message records to a server for being processed by the server according to a preset processing rule.

Optionally, the computer program product may be stored on a computer readable recording medium.
The sequence numbers of the above embodiments of the disclosure are only for the purpose of description, and do not represent one embodiment is superior to another.

It needs to be noted that the individual embodiments in the specification are described using a progressive manner, each embodiment highlights its difference from other embodiments, and identical or similar parts of the individual embodiments may be referred relative to each other. Especially for an embodiment of user terminal category, it is described relatively simply due to its similarity to a corresponding method embodiment, and as for its relevant parts reference may be made to the description of the parts of the method embodiment.

It needs to be noted that in this context a relational term such as first, second, etc. is only used to distinguish one entity or operation from another entity or operation, and does not necessarily require or imply there is any such an actual relation or order between these entities or operations. Moreover, the term comprise, comprising or any other conjugation thereof is intended to encompass a non-exclusive inclusion, such that a procedure, method, article, or apparatus comprising a series of elements not only comprises those elements, but also comprises other elements not expressly listed, or further comprises elements inherent to the procedure, method, article, or apparatus. In the absence of more restrictions, an element defined by a phrase comprises a... does not exclude the presence of additional identical elements in a procedure, method, article, or apparatus comprising the element.

It may be understood by those of ordinary skills in the art that all or part of the steps of the above embodiments may be accomplished by hardware, or also be accomplished by related hardware instructed by a program, the program may be stored in a computer readable storage medium, and the storage medium mentioned above may be a read-only memory, a magnetic disk or a compact disc, etc.

The above are just preferred embodiments of the invention, and not any formal restrictions to the invention. While the invention has been disclosed above with preferred embodiments, they are not used to define the invention. Some changes or modifications into equivalent embodiments of equal changes may be made with the technical content disclosed above by those skilled in the art without departing from the scope of a technical solution of the invention. Any simple amendments, equal changes and modifications made to the above embodiments
according to the technical essence of the invention without departing from the content of technical solutions of the invention, all fall within the scope of technical solutions of the invention.
CLAIMS

1. An information management method for managing group messages in instant messaging performed by a user terminal, comprising:

   in response to a processing instruction of a user, obtaining a preset number of message records to be processed in a group as indicated by the processing instruction;

   displaying the obtained message records to be processed to the user; and

   in response to an operation of selection by the user of the message records to be processed, sending the user selected message records to a server for being processed by the server according to a preset processing rule.

2. The method as claimed in claim 1, wherein before the step of obtaining a preset number of message records to be processed in a group as indicated by the processing instruction, the method further comprises:

   generating a processing interaction window, which is used for displaying obtained message records to be processed to the user for selection by the user.

3. The method as claimed in claim 2, wherein the step of displaying the obtained message records to be processed to the user comprises:

   displaying the obtained message records to be processed to the user via the processing interaction window.

4. The method as claimed in claim 1, wherein the step of obtaining a preset number of message records to be processed in a group as indicated by the processing instruction comprises:

   reading a file of the message records to be processed from a local memory of the user terminal;

   extracting information records of all the messages to be processed in the group as indicated by the processing instruction from the file of the message records to be processed; and

   parsing the records of the messages to be processed to obtain the preset number of message records to be processed.
5. The method as claimed in claim 1, wherein the step of, in response to an operation of selection by the user of the message records to be processed, sending the user selected message records to be processed to a server comprises:

   in response to an operation of selection by the user of the message records to be processed, classifying and aggregating the message records to be processed selected by the operation of selection according to user accounts, and generating corresponding data packets;

   generating a corresponding processing identification for each generated data packet; and

   sending all the data packets and the corresponding processing identifications to the server.

6. The method as claimed in claim 2, wherein before the step of in response to an operation of selection by the user of the message records to be processed, sending the user selected message records to a server for being processed by the server according to a preset processing rule, the method further comprises:

   receiving a first selection instruction comprising account information of a user account to be processed input in the processing interaction window by the user;

   according to the account information, obtaining a preset number of message records to be processed published by the user account to be processed; and

   displaying the obtained preset number of message records to be processed published by the user account to be processed to the user via the processing interaction window.

7. The method as claimed in claim 2, wherein before the step of in response to an operation of selection by the user of the message records to be processed, sending the user selected message records to a server for being processed by the server according to a preset processing rule, the method further comprises:

   receiving a second selection instruction comprising a group information processing instruction code input in the processing interaction window by the user;

   the step of, in response to an operation of selection by the user of the message records to be processed, sending the user selected message records to a server for being processed by the server according to a preset processing rule, comprising:
in response to the operation of selection by the user, obtaining the user selected message records to be processed in the group; and according to the group information processing instruction code, sending the obtained message records to be processed as a whole to the server for being processed by the server according to a preset processing rule.

8. The method as claimed in any of claims 1-7, wherein the message records to be processed comprise the content of the messages to be processed, user accounts of publishers of the messages to be processed, and publishing time.

9. A user terminal for managing group messages in instant messaging, comprising at least a processor operating in conjunction with a memory and a plurality of modules, which modules comprise:

   a first message-record-to-be-processed obtaining module for, in response to a processing instruction of a user, obtaining a preset number of message records to be processed in a group as indicated by the processing instruction;

   a first display module for displaying the message records to be processed obtained by the first message-record-to-be-processed obtaining module to the user; and

   a first message-record-to-be-processed sending module for, in response to an operation of selection by the user of the message records to be processed obtained by the first message-record-to-be-processed obtaining module, sending the user selected message records to a server for being processed by the server according to a preset processing rule.

10. The user terminal as claimed in claim 9, further comprising:

   a processing interaction window generating module for generating a processing interaction window, which processing interaction window is used for displaying the message records to be processed obtained by the first message-record-to-be-processed obtaining module to the user for selection by the user.

11. The user terminal as claimed in claim 10, wherein the first display module comprises:
a display unit for displaying the message records to be processed obtained by the first message-record-to-be-processed obtaining module to the user via the processing interaction window.

12. The user terminal as claimed in claim 9, wherein the first message-record-to-be-processed obtaining module comprises:

a reading unit for reading a file of the message records to be processed from a local memory of the user terminal;
an extracting unit for extracting information records of all the messages to be processed in the group as indicated by the processing instruction from the file of the message records to be processed; and

a parsing unit for parsing records of the messages to be processed and obtaining the preset number of message records to be processed.

13. The user terminal as claimed in claim 9, wherein the first message-record-to-be-processed sending module comprises:

a data packet generating unit for, in response to an operation of selection by the user of the message records to be processed, classifying and aggregating the message records to be processed selected by the operation of selection according to user accounts and generating corresponding data packets;
a processing identification generating unit for generating a corresponding processing identification for each data packet generated by the data packet generating unit; and

a sending unit for sending all the data packets generated by the data packet generating unit and the corresponding processing identifications generated by the processing identification generating unit to the server.

14. The user terminal as claimed in claim 10, wherein the user terminal further comprises:

a second message-record-to-be-processed obtaining module for receiving a first selection instruction comprising account information of a user account to be processed input in the processing interaction window by the user, and obtaining a preset number of message records to be processed published by the user account to be processed according to the account information;
a second display module for displaying the message records to be processed obtained by the second message-record-to-be-processed obtaining module to the user via the processing interaction window; and

a second message-record-to-be-processed sending module for, in response to an operation of selection by the user of the message records to be processed obtained by the second message-record-to-be-processed obtaining module, sending the user selected message records to the server for being processed by the server according to the preset processing rule.

15. The user terminal as claimed in claim 10, wherein the user terminal further comprises:

a third message-record-to-be-processed obtaining module for receiving a second selection instruction comprising a group information processing instruction code input in the processing interaction window by the user, and in response to an operation of selection by the user, obtaining the user selected message records to be processed in the group; and

a third message-record-to-be-processed sending module for, according to the group information processing instruction code received by the third message-record-to-be-processed obtaining module, sending the message records to be processed obtained by the third message-record-to-be-processed obtaining module as a whole to the server for being processed by the server according to the preset processing rule.

16. The user terminal as claimed in any of claims 8-15, wherein the message records to be processed comprise the content of the messages to be processed, user accounts of publishers of the messages to be processed, and publishing time.

17. A computer program product comprising program codes for performing the following steps when the computer program codes are executed on one or more computing devices:

in response to a processing instruction of a user, obtaining a preset number of message records to be processed in a group as indicated by the processing instruction;

displaying the obtained message records to be processed to the user; and
in response to an operation of selection by the user of the message records to be processed, sending the user selected message records to a server for being processed by the server according to a preset processing rule.

18. The computer program product according to claim 17, stored on a computer readable recording medium.
Fig. 1
In response to a processing instruction of a user, the user terminal obtaining a preset number of message records to be processed in a group as indicated by the processing instruction.

Displaying the obtained message records to be processed to the user.

In response to an operation of selection by the user of the message records to be processed, sending the user selected message records to be processed to a server.

Fig. 2
In response to a processing instruction of a user, the user terminal generating a processing interaction window

Obtaining a preset number of message records to be processed in the group as indicated by the processing instruction

Displaying the obtained message records to be processed to the user via the processing interaction window

In response to an operation of selection by the user of the message records to be processed, classifying and aggregating the message records to be processed selected by the operation of selection according to user accounts and generating corresponding data packets

Generating a corresponding processing identification for each generated data packet

Sending all the data packets and the corresponding processing identifications to a server

Fig.3
Reading a file of the message records to be processed from a local memory of the user terminal

Extracting information records of all the messages to be processed in the group as indicated by the processing instruction from the file of the message records to be processed

Parsing the records of the messages to be processed to obtain information of the preset number of messages to be processed

Fig. 4
### Report

Report evidence (Please select one or more chat records as an evidence)

- Group notice: This is a study and discussion group; Forbid any advertisement, talk about sex or politics.
- Exclamation (1223456) XXXXXXXXXX
- Bingguo (345678900) OOOOOXXXXXXX[视频]
- Lele (333889200) XXXOOOOOOOOXXXXX
- Lele (333889200) XXXXXXOOXXOOO
- Exclamation (1223456) XXXXXXXOOOOOOXXXXX[Pictures]

**Reported object:**
- [ ] the group
- [X] malicious member

**Reported type:**
- [ ] Sex
- [ ] Advertisement
- [ ] Pretend to be a friend to cheat
- [ ] Malicious harassment
- [ ] Penetrate
- [X] Other

**Report description (optional):**

You can describe in detail a malicious behavior (e.g., bad information in pictures)

![Group information record processing and selecting area](image1)

![Report evidence displaying and selecting area](image2)

**Fig. 5**
In response to a processing instruction of a user, the user terminal generating a processing interaction window

Obtaining a preset number of message records to be processed in a group as indicated by the processing instruction

Displaying the obtained message records to be processed to the user via the processing interaction window

The user terminal receiving a first selection instruction input in the processing interaction window by the user, and according to account information of a user account to be processed contained in the first selection instruction, obtaining a preset number of message records to be processed published by the user account to be processed

Displaying the obtained preset number of message records to be processed published by the user account to be processed to the user via the processing interaction window

In response to an operation of selection by the user of the message records to be processed, sending the user selected message records to be processed to a server

Fig.6
Report

Report evidence (Please select one or more chat records as an evidence)

- □ Group notice: This is a study and discussion group; Forbid any advertisement, sex or
  1223456 (Exlamation)
  1278956 (Moni)
  1285439076 (Guxinglei)
- □ Exlamation (1223456) XXXXXXXXXXX
  1223456 (Exlamation)
- □ Bingguo (345678900) OOOOXXXXXXX[AUDIO]
- □ Lele (33389200) XXXXXXXXX
- □ Lele (33389200) OOOXXXXX00000
- □ Exlamation (1223456) XXXXXXXXXX0000000000[PICTURES]

Reported object: □ the group □ malicious member
Reported type: □ Sex □ Advertisement □ Pretend to be a friend to cheat money □ Malicious harassment □ Frauds

Report description (optional)

You can describe in detail a malicious behavior (e.g., bad information in pictures)

Submit  Cancel

Fig. 7

User-account-to-be-processed selecting area
Report

Report evidence (Please select one or more chat records as an evidence)

- Exclamation (1223456) [Expression]OOOOXXXXOO
- Exclamation (1223456) [Voice]
- Exclamation (1223456) XXXXXXXOOOXXXXXXXOOOO
- Exclamation (1223456) [Audio]XXXXOXXXXXOXOOXX
- Exclamation (1223456) XXXXXXXXXX
- Exclamation (1223456) XXXXXXXOOOXXXXXX[X]Pictures

Reported object: 
- group
- malicious member

Reported type:
- Sex
- Advertisement
- pretend to be a friend to cheat
- Malicious harassment
- penis
- money
- Other

Report description (optional):
You can describe in detail a malicious behavior (e.g., bad information in pictures)

Submit  Cancel

Fig. 8
In response to a processing instruction of a user, the user terminal generating a processing interaction window

Obtaining a preset number of message records to be processed in a group as indicated by the processing instruction

Displaying the obtained message records to be processed to the user via the processing interaction window

The user terminal receiving a second selection instruction input in the processing interaction window by the user, in which a group information processing instruction code is contained

In response to the operation of selection by the user, obtaining the user selected message records to be processed in the group

According to the group information processing instruction code, sending the obtained message records to be processed as a whole to the server

Fig. 9
In response to a processing instruction of a user, the user terminal generating a processing interaction window

Obtaining a preset number of message records to be processed in a group as indicated by the processing instruction

Displaying the obtained message records to be processed to the user via the processing interaction window

If an object instructed to be selected by the operation of selection is message records to be processed, classifying and aggregating the message records to be processed instructed to be selected by the operation of selection according to user accounts, and sending them to a server after encapsulating them into multiple data packets

If the operation of selection is to input a first selection instruction, then obtaining a preset number of message records to be processed published by user accounts as indicated by the first selection instruction

Displaying the obtained preset number of message records to be processed published by user accounts to the user via the processing interaction window

In response to an operation of selection by the user of the preset number of message records to be processed published by user accounts, sending the user selected message records to be processed to the server

If the operation of selection is to input a second selection instruction, then in response to the operation of selection by the user, sending the message records to be processed in the group instructed to be selected by the operation of selection as a whole to the server.

Fig. 10
Your report is accepted. Thank you for your help to our company!
Our staff will process your report as soon as possible.
The processing result will be sent to your mailbox XXXX@XX.com in 24 hours.

You may further:

☐ Remind the group master of maintaining the group (Please be assured that your privacy will be protected)
☐ Leave your contact information in order for us to get your more help when needed

Confirm and close
First message-record-to-be-processed obtaining module

First display module

First message-record-to-be-processed sending module

Fig. 12
Fig.13
First message-record-to-be-processed obtaining module
First display module
First message-record-to-be-processed sending module
Processing interaction window generating module
Second message-record-to-be-processed obtaining module
Second display module
Second message-record-to-be-processed sending module
Third message-record-to-be-processed obtaining module
Third message-record-to-be-processed sending module

Fig. 14
First message-record-to-be-processed obtaining module

- Reading unit
- Extracting unit
- Parsing unit

Fig. 15

First display module

- Display unit

Fig. 16
Fig. 17
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
H04L 12/24(2006.01)i; H04L 12/58(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
H04L; G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
CNTXT;CNABS;VEN:IM, instant 1d messag+, report???, malicious, user, group, manag+, select???, record?, obtain???, acquir???, display???, send???, server

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>CN 103136255 A (TENCENT TECHNOLOGY SHENZHEN CO LTD) 05 June 2013 (2013-06-05) the whole document</td>
<td>1-18</td>
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<tr>
<td>A</td>
<td>CN 101605109 A (TENCENT TECHNOLOGY SHENZHEN CO LTD) 16 December 2009 (2009-12-16) the whole document</td>
<td>1-18</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C. [✔] See patent family annex.

* Special categories of cited documents:
  "A" document defining the general state of the art which is not considered to be of particular relevance
  "E" earlier application or patent but published on or after the international filing date
  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
  "O" document referring to an oral disclosure, use, exhibition or other means
  "P" document published prior to the international filing date but later than the priority date claimed
  "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
  "&" document member of the same patent family

Date of the actual completion of the international search: 03 November 2014

Date of mailing of the international search report: 15 November 2014

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