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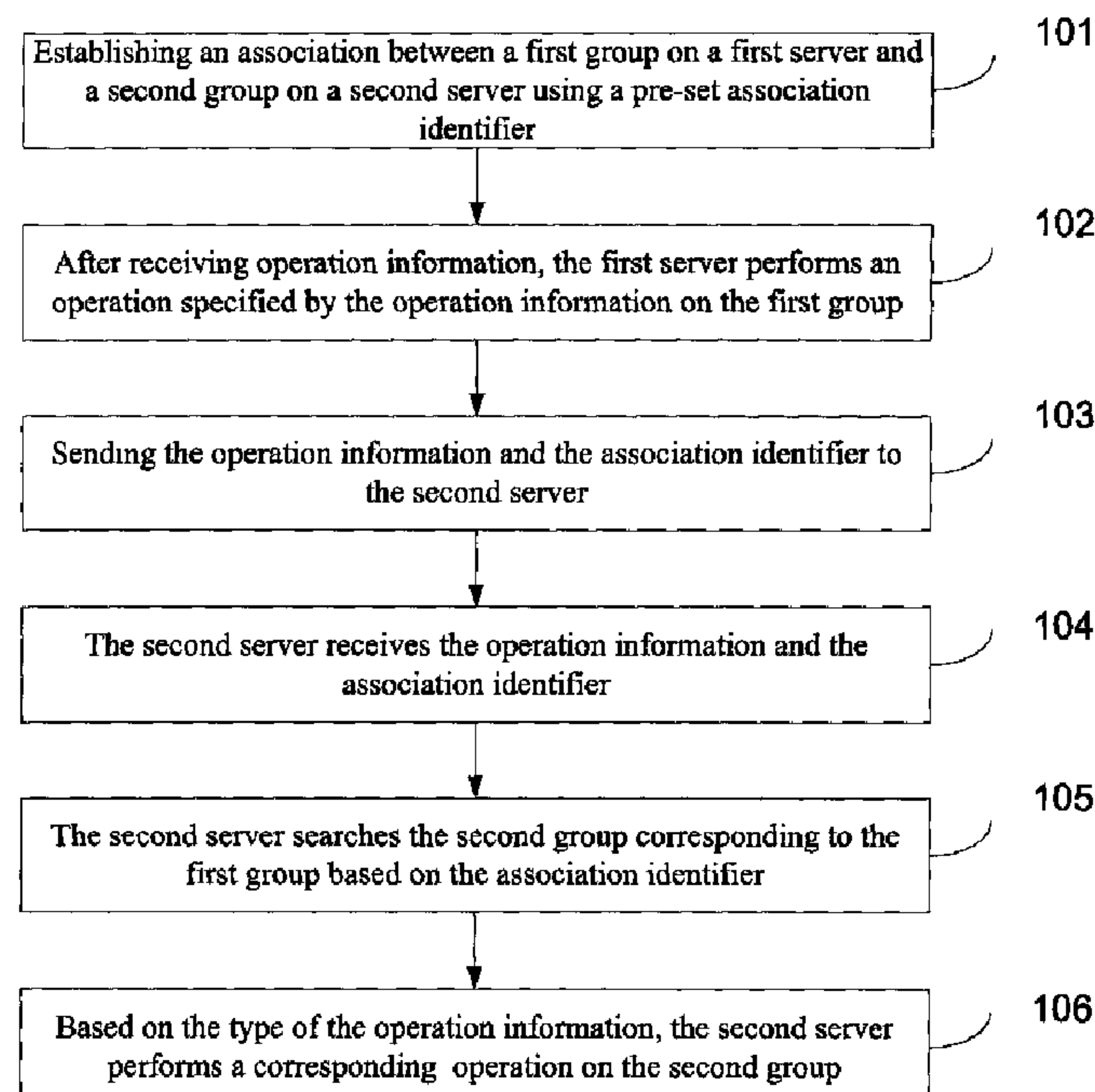


FIG. 1

(57) **Abrégé/Abstract:**

A method, system and a group server for synchronizing operations of multiple groups are disclosed by the present invention. The method includes: a first group on a first server is associated with a second group on a second server in advance by using a preset



(57) **Abrégé(suite)/Abstract(continued):**

association identifier (101); after receiving an operation information, the first server performs the operation specified by the operation information for the first group (102); the first server sends the operation information and the identifier identifying the association to the second server (103); the second server receives the operation information and the association identifier (104); the second server inquires a corresponding second group according to the association identifier (105); and the second server performs the corresponding operation for the second group according to the type of the operation information (106). A member of a group can manage information in the corresponding group by using real time interaction, thus improving the dependence and interactivity between the groups in two modes.

Abstract

A method, system and a group server for synchronizing operations of multiple groups are disclosed by the present invention. The method includes: a first group on a first server is associated with a second group on a second server in advance by using a pre-set association identifier (101); after receiving an operation information, the first server performs the operation specified by the operation information for the first group (102); the first server sends the operation information and the identifier identifying the association to the second server (103); the second server receives the operation information and the association identifier (104); the second server inquires a corresponding second group according to the association identifier (105); and the second server performs the corresponding operation for the second group according to the type of the operation information (106). A member of a group can manage information in the corresponding group by using real time interaction, thus improving the dependence and interactivity between the groups in two modes.

METHOD, SYSTEM AND GROUP SERVER FOR SYNCHRONIZING OPERATIONS OF MULTIPLE GROUPS

Technology Field

5 The present invention relates to the field of Internet technology and, more particularly, relates to a method and system for synchronizing operations of multiple groups and a group server.

Background

10 With the rapid development of communication technologies, Instant Messaging (IM) has become a mainstream application trend on the Internet. IM not only provides users with a one-to-one chat model, but also provides a many-to-many group model. In the group model, a group message from any member of the group is sent to all other members of the group, and the group information of the group members also needs to be managed.

15 Correspondingly, in the Social Networking Services (SNS) on the Internet, services similar to the group model are also provided, i.e., the SNS groups, such as classes, groups, and so on.

 In the process of reducing the present invention into practice, Applicant discovered that the existing technology has at least the following disadvantages:

20 Lack of connections between different group models: for example, for the above mentioned two group models, the group from the network services and the IM group cannot be combined, the status of these two groups cannot be related to each other, and any operation on one group model cannot be reflected in the other group model.

Contents of Invention

25 The disclosed embodiments of the present invention provide a method and system for synchronizing operations of multiple groups.

 One aspect includes a method for synchronizing operations of the multiple groups

includes:

establishing an association between a first group on a first server and a second group on a second server using a pre-set association identifier;

performing, by the first server, an operation specified by operation information on the first group after the first server receives the operation information;

sending the operation information and the association identifier to the second server;

receiving, by the second server, the operation information and the association identifier;

searching, by the second server, the second group corresponding to the association identifier; and

performing, by the second server, an operation corresponding to a type of the operation information on the second group based on the type of the operation information,

Another aspect includes a system for synchronizing operations of multiple groups, characterized by, including:

an associating module;

a first server; and

a second server, wherein:

the associating module is used for establishing an association between a first group on the first server and a second group on the second server using a pre-set association identifier;

the first server is used for, after receiving operation information, performing an operation specified by the operation information on the first group and sending the operation information and association identifier to the second server;

the second server is used for receiving the operation information and the association identifier, searching the second group corresponding to the association identifier, and, based on a type of the operation information, performing an operation corresponding to the type of the operation information on the second group

Another aspect includes a group server, including:

an associating module used for establishing an association between a first group on the group server and a second group on another server using a pre-set association identifier;

a first operating module used for, after the group server receives the operation information, performing an operation specified by the operation information on the first

group;

a sending module used for sending the operation information and the association identifier to the other server such that the other server can searching the second group corresponding to the association identifier and performs an operation corresponding to the type specified by the operation information on the second group

The technical solutions provided by embodiments of the present invention may include following advantages:

By establishing an association between at least two groups and carrying out real-time information interaction between the groups of these two models using certain network protocols, operations of the group of one model can be reflected in the associated group, and resources of the group of one model can be shared by the associated group. Thus, members of one group can use this real-time interaction to manage the information in the associated group, and the dependence and interaction between the groups of the two models can be increased.

Description of the Drawings

To more clearly illustrate embodiments of the present invention or technical solutions of existing technologies, the drawings required by the embodiments or existing technologies are briefly described in the followings. The drawings described below are merely certain embodiments of the present invention, those with ordinary skill in the art can derive other drawings from these drawings without creative work.

Figure 1 is a flow chart of a method for synchronizing operations of multiple groups provided by embodiment 1 of the present invention;

Figure 2 is a flow chart of a method for synchronizing operations of multiple groups provided by embodiments of present invention;

Figure 3 is a flow chart of another method for synchronizing operations of multiple groups provided by embodiments of present invention;

Figure 4 is a flow chart of another method for synchronizing operations of multiple groups provided by embodiments of present invention;

Figure 5 is a structural illustrative diagram of a system for synchronizing operations of multiple groups provided by embodiments of present invention.

Detailed Embodiments

To more clearly explain purposes, technical solutions, and advantages of the present invention, specific embodiments with accompanying drawings are used to further describe in detail the present invention in the followings.

5 The disclosed embodiments of the present invention provide a method for synchronizing operations of multiple groups, as shown Figure 1. For example, to synchronize operations of two groups, the method may include:

101: Establishing an association between a first group on a first server and a second group on a second server using a pre-set association identifier;

10 102: After receiving operation information, the first server performs an operation specified by the operation information on the first group;

103: Sending the operation information and the association identifier to the second server;

15 104: The second server receives the operation information and the association identifier;

105: The second server searches the second group corresponding to the first group based on the association identifier;

106: The second server performs an operation corresponding to the type specified by the operation information on the second group;

20 Further, in the disclosed embodiments, the first group and second group may be located within a same client or in different clients. A client may be any user equipment, including but not limited to: computers, laptops, mobile phones, which is not limited in the disclosed embodiments.

25 Also, the first group may be an IM group and the second group may be an SNS group; or the first group may be an SNS group and the second group may be an IM group. The first and second groups may also be two other groups on the Internet or have a collective relationship.

30 By establishing an association between the SNS group and the corresponding IM group and carrying out real-time information interaction between the groups of these two models using certain network protocols, operations of the group of one model can be reflected in the associated group, and resources of the group of one model can be shared by the associated group. Thus, members of one group (SNS or IM group) can use this

real-time interaction to manage the information in the associated group (IM or SNS group), and the dependence and interaction between the groups of the two models can be increased.

5 The disclosed embodiments of the present invention provide a method for synchronizing operations of multiple groups, which is further described below using the first group being an SNS group and the second group being an IM group as example.

10 In the disclosed embodiments, an SNS group refers to the SNS group involving interactions among contact people, that is, a group formed by multiple people based on a certain Internet SNS community, such as an alumni class using the name of the class and school as the unit or an interest group using certain common interest as the unit, etc. It should be noted that, the SNS group generally includes users, user information, a user list, and shared resources, etc. The user information may include, but not limited to, user name, IM number, user ID, and class name, etc.

15 In the disclosed embodiments, an IM Group refers to an Internet-based real-time communication group with a large number of people, that is, a group formed by multiple people on a server for a same type IM tool, such as an MSN group and a QQ group, etc. It should be noted that, the IM group generally includes group members, group information, a group member list, and shared resources, etc. The group information may include, but not limited to, class group ID, class group itself, member data and information, class, age, school, and other key information.

As shown Figure 2, the method for synchronizing operations of multiple groups may include:

201: An SNS group user or a corresponding computer program visits the SNS group and initiates a request to associate with an IM group.

25 202: Based on the user's user information in the SNS group, the first server hosting the SNS group sends a request for obtaining the group information corresponding to the user information to the second server hosting the IM group.

30 Further, the user information and/or group information may be encrypted according to the pre-set configuration between the servers or between the groups, which is not specified or limited by the disclosed embodiments of the present invention.

203: Based on the received request, the second server searches and determines whether there is any group information corresponding to the user information on the second server. If there is not, the method continues to step 204; if there is, the method

continues to step 205.

More specifically, searching whether there is corresponding group information may be carried out by the followings:

Using the ID of the user requesting to associate with the IM group, searching the
5 group containing the ID of the user on the second server. For example, the information filled by the user in the SNS group may include the user's IM number. The IM number may then be used to query whether the IM number belongs to any group on the second server. If it does, the second server has corresponding group information; if it does not, the second server does not have corresponding group information.

10 It should be noted that, during the searching process, in addition to the user's ID, other information can also be used to perform the search, such as the name of the user's SNS group or the other information of the user in the SNS group (including the related school and related district, etc.).

The second server may have the IM group corresponding to the SNS group, or the
15 second server might not have the IM group corresponding to the SNS group. When there is no corresponding IM group, the user information may be obtained from the SNS group on the first server, and an IM group may be created based on the user's requirement.

Further, after obtaining the corresponding IM group, the followings may be
20 performed:

When the user requesting the association is an administrator of the SNS group and/or the corresponding IM group, the user can directly start the association, without asking whether the association operation is allowed;

When the user requesting the association is an ordinary member of the SNS group
25 and/or the corresponding IM group, the user can request the administrator of the SNS group and/or the corresponding IM group via mail or intra-group mail, etc., to associate these two groups.

204: The second server obtains the user information from the SNS group on the first server and, based on the user information, establishes a corresponding IM group and
30 continues to step 207.

205: Making the group corresponding to group information as the IM group associated with the SNS group, and sending the group information to the first server.

It should be noted that, the second server may choose multiple corresponding IM

groups based on the request, determine at least one IM group to be associated based on the user's instruction; and then send the group information of the determined IM group to the first server.

In addition, the first server can selectively store the received group information based on the user's need. If the information of the two groups is not symmetric, i.e., the group information or the group members of these two groups are not consistent, according to user settings, information of one group may be obtained to the other group. That is, using the information from the one group as the basis to synchronize the data of the two groups.

206: The first server receives the group information corresponding to the user information.

207: After receiving the group information corresponding to the user information, and through certain network protocols, the first server establishes the corresponding relationship between the association identifier and the SNS group, and also establishes the corresponding relationship between the association identifier and the IM group.

Further, if the first group has corresponding shared resources, and/or the second group has corresponding share resources, establishing the corresponding relationship between the association identifier and the shared resources in the first group, and/or establishing the corresponding relationship between the association identifier and the shared resources in the second group.

Further, after associating together these groups, the user list of the SNS group (or the IM group) may be presented to the IM group (or the SNS group), and annotations may be added according to the user's status in the IM group (or SNS groups). For example, if the SNS group includes a user A and the user A did not join the IM group, the status of A on the user list may be annotated with "have not joined the IM group" or other information. Detailed implementations may be known to those skilled in the art and, thus, are omitted here.

Further, the association identifier may be used to associate together groups from two different servers in subsequent operation synchronizing processes. The association identifier may be pre-set. The association identifier may be set by the first server and the second server via negotiation; or one party may set the association identifier and notify the other party. Because the association identifier has a corresponding relationship with the other party, the corresponding other party can be determined by the

association identifier. For example, if the first server sets the association identifier and notifies the second server, because the association identifier has a corresponding relationship with the second group on the second server, the second group corresponding to the first group on the first server can be determined by the association identifier.

5 When a client has multiple second groups, any two of these second groups may correspond to a same association identifier or may correspond to different association identifiers. For example, if the first group is an SNS group, the second group of the client is the corresponding IM group, and there are two IM groups, then an association identifier 1 may be set for the SNS group, and the association identifier 1 may also be set
10 for the two IM groups. Or association identifier 1, association identifier 2, and association identifier 3 may be set for the SNS group and two IM groups, respectively, while the association identifier 1 corresponds to association identifier 2 and association identifier 3.

In addition, preferably, the association identifier may be a group number. The
15 content of the association identifier is not limited and can be defined in any form, such as letters, numbers, and strings, etc. Further, when the association identifier is sent to the second server, the location of the association identifier with respect to other information is also not limited and can be defined as needed. For example, the association identifier may be defined as a prefix or suffix of other information. As long as the association
20 identifier can be recognized by the first server and the second server, no specific limitation is provided by the disclosed embodiments of the present.

It should be noted that, Step 201 to Step 207 describe the process associating the SNS group with the IM group, which is the basis for synchronizing operations of multiple groups. After the two groups establish the association relationship, when a user logs in
25 any group, the user can view the information of group(s) associated with that group. For example, when a user logs in the IM group, the user can view information of the SNS group associated with the IM group, and the information may include the class name, enrollment year, number of class members, and class leader, etc. When the user logs in the SNS group, the user can view information of the IM group associated with the SNS
30 group, and the information may include group name, ID, and so on.

In the disclosed embodiments of the present invention, operation information made by the user in a group can be categorized into various types:

Operations on the relationship chain, i.e., operations on the user's attributes and the

relationship chain between users, such as operations for deleting a user, joining the group, setting the administrator, and setting group owner transfer, etc.;

Operations on posting information: these are not operations on the relationship chain, but rather are operations initiated by the user, such as posting logs, posting
5 micro-blog, modifying status, posting messages, and writing mood, etc.;

Operations on visiting shared resources, i.e., the user visiting the resources stored on the server, such as operations for accessing the e-mail system, viewing the album, sharing files, and downloading, etc.

Operations on searching relevant user information, i.e., operations for searching
10 user information, and accessing the group member list, group member card, group member photo, and recent operations, etc.

When the operation specified by the operation information is an operation on the relationship chain, the method shown in Figure 2 can also include:

208: After receiving the operation information specifying the operation, the first
15 server performs the operation on the SNS group as specified by the operation information.

Further, when the first server performs the specified operation, it may need to verify the client's authority. Only those clients with user privilege in the SNS group and user privilege in the IM group can complete the above operations by communicating with the server.

20 209: The first server sends the operation information and the association identifier identifying the SNS group to the second server.

Further, when sending the operation information and association identifier, any appropriate means such as report or e-mail may be used, which is not limited by the disclosed embodiments of the present invention.

25 It should be noted that, the interaction between the two servers may be realized through certain network protocol, such as HTTP, TCP or UDP, etc.

210: The second server receives the operation information and association identifier.

It should be noted that, due to potentially different data formats and storage formats
30 on these two servers, the receiving server may convert the information from the other server into a format that can be understood by the receiving server.

211: The second server searches the IM group corresponding to the SNS group based on the association identifier.

More specifically, the IM group corresponding to the SNS group is the group in Step 201 to Step 207 after the association is established. The IM group may be one group or multiple groups, which is not limited by the disclosed embodiments of the present invention. An SNS group can correspond to multiple IM groups, and, similarly,
5 an IM group can correspond to multiple SNS groups. When there is a one-to-multiple situation, steps in 208-212 may be used to synchronize operations in one group into other groups, or to selectively synchronize certain groups based on the user settings, which is not limited by the disclosed embodiments of the present invention.

When selecting the groups, the relationship chain overlapping degree (the degree of
10 overlapping between the members of the SNS group and the members of the IM group) may need to be calculated. Preferably, the overlapping degree between the SNS group and IM group can reach a one-to-one level, i.e., the relationship chain is the same. At this time, synchronized operations in the SNS group and IM group can be carried out.

212: The second server performs an operation specified by the operation
15 information on the IM group.

More specifically, the client of the IM group can choose whether to carry out such operation based on the contents of the operation information. The IM group may prompt the operation information to the client. If the user chooses to accept the operation, the client continues the operation; if the user chooses not to accept the
20 operation, the client may stop carrying out the operation. The disclosed embodiments of the present invention do not specify any limitations. Whether or not the second server performs this operation may be determined by an agreement between the second server and the user.

Further, the second server can also display the content of the operation information
25 on the client of the IM group.

It should be noted that, Step 208 to Step 212 may reflect the process of synchronizing a relationship chain operation into the IM group when the user performs the relationship chain operation on the SNS group. When there is any relationship chain operation on the IM group, such operation can also be synchronized based on the
30 principle of the above method, and the details are omitted here.

When the operation specified by the operation information is an operation for posting information, where operations for posting information refer to operations used by the user to post logs, send group messages, change status, and post photos, etc., but not

operations on the relationship chain, Step 212 can include: displaying content of the operation information on the client of the IM group. For example, when a user in the SNS group posts a new log, the first server sends the operation for posting the log and the association identifier identifying the SNS group to the second server. The second server
5 performs the method in the above steps 210-211, and displays the operation for posting the log on the client of the IM group. For example, it may display “the user posted a log ‘Life’” on the client of the IM group. This operation can contain specific contents of the posted log, and the specific contents may be pulled through the http protocol, udp protocol, or tcp protocol, which is not limited by the disclosed embodiments of the
10 present invention.

It should be noted that, although the disclosed embodiments describe the process for synchronizing operations for posting information to the IM group when the user performs information posting operations in the SNS group, the same principle can be used to perform synchronization when information posting operations occur in the IM group,
15 such as posting new logs or generating chat messages or pictures, the details of which are omitted herein.

When the operation specified by the operation information is an operation in the SNS group for visiting shared resource in the IM group, as shown in Figure 3, the method for synchronizing operations of multiple groups may include:

20 301: The client of the SNS group sends the operation information for visiting the shared resources in the IM group and the association identifier of the SNS group to a third server.

The third server may be a server storing the share resources between the first server and the second server. The first server may download the shared resources of the second
25 server from the third server, or may share the shared resources with the second server through the third server. For example, the third server can be a mail system server.

Further, such visiting may including the client visiting any data stored on the server, such as operations for accessing e-mail, viewing the album, sharing files, and downloading, etc.

30 It should be noted that, the above mentioned three servers may communicate with one another through the association identifier. Preferably, the third server may have a resource list and SNS groups stored with IM group numbers, such as: file list, album list and so on.

In addition, a corresponding resource(s) can also be obtained through a returned resource ID.

302: Based on the association identifier of the SNS group, the third server searches the shared resources of the IM group corresponding to the SNS group.

5 It should be noted that, the third server may find the corresponding resource list based on the group number of the IM group, and the resource list may include the ID of the corresponding resource.

303: The third server sends the found shared resources of the IM group to the client of the SNS group.

10 It should be noted that, although the disclosed embodiments describe the process for searching shared resources from the third server based on the association identifier and sending the shared resource to the requester when the user performs shared resource visiting operations in the SNS group, the same principle can be used when the user performs shared resource visiting operations in the IM group, the details of which are
15 omitted herein.

The above disclosed embodiments describe the process for synchronizing operations on the SNS group to the IM group. When a user performs an operation on the client of the IM group and the operation specified by the operation information is querying related user information in the IM group, such as querying user information and accessing group
20 member list, group member card, group member photo, and recent operations, etc., as shown in Figure 4, the method for synchronizing operations of multiple groups may include:

401: The client of the IM group on the second server sends a request message for querying certain user information to the second server;

25 402: The second server sends the request message and the association identifier identifying the IM group to the first server;

403: The first server receives the request message and the association identifier;

404: The first server queries the SNS group corresponding to the IM group based on the association identifier;

30 405: The first server obtains information corresponding to the request message from information of the SNS group;

406: The first server sends the obtained information to the second server;

407: The second server receives the obtained information, and displays the obtained

information on the client of the IM group.

It should be noted that, in the above disclosed embodiments, if the operation in the IM group or the SNS group is an operation that needs to notify the user through mail or tips as preconfigured by the user, when this type of operation occurs, the network side
5 may notify the user of the operation on the group by mail or tips.

The group in the disclosed embodiments of the present invention may be a group on the IM software, or an SNS group, such as an alumni group, class and so on.

It should be noted that, in the above disclosed embodiments, each server may have different storage format and coding format, etc. A format conversion system may be
10 configured at the server side to allow communications between different servers.

By establishing an association between the SNS group and the corresponding IM group and carrying out real-time information interaction between the groups of these two models using certain network protocols, operations of the group of one model can be reflected in the associated group, and resources of the group of one model can be shared
15 by the associated group. Thus, members of one group (SNS or IM group) can use this real-time interaction to manage the information in the associated group (IM or SNS group), and the dependence and interaction between the groups of the two models can be increased.

The disclosed embodiments of the present invention also provide a system for
20 synchronizing operations of multiple groups. Figure 5 shows the system for synchronizing operations of multiple groups according to disclosed embodiments of the present invention. As shown in Figure 5, the system includes:

An associating module 501, used for establishing an association between a first group on a first server and a second group on a second server using a pre-set association
25 identifier;

A first operating module 502, used for, after the first server receives the operation information, performing an operation specified by the operation information on the first group;

A sending module 503, used for sending the operation information and the
30 association identifier to the second server;

A receiver module 504, used for the second server to receive the operation information and the association identifier;

A searching module 505, used for the second server to search the second group

corresponding to the first group based on the association identifier;

A second operating module 506, used for the second server to perform an operation corresponding to the type specified by the operation information on the second group.

Further, the associating module 501 includes:

5 A group information request unit 5011, used for the first server to, based on the user information in the first group, send a request for obtaining the group information corresponding to the user information to the second server having the second group;

A determining unit 5012, used for the second server, based on the request, search and determine whether there is any group information corresponding to the user information
10 on the second server. If there is, triggering the group information sending unit to make the group corresponding to the group information as the second group, and sending the group information to the first server; if there is not, triggering the creating unit to create the second group corresponding to the user information in the first group on the second server;

15 An identifying unit 5013, used for establishing the corresponding relationship between the association identifier and the first group, and also establishing the corresponding relationship between the association identifier and the second group.

Associating module 501 also includes:

A first shared-resource unit 5014, used for establishing the corresponding
20 relationship between the association identifier and the shared resources corresponding to the first group; and/or,

A second shared-resource unit 5015, used for establishing the corresponding relationship between the association identifier and the shared resources corresponding to the second group.

25 Further, the second operating module 506 includes:

A first operating unit 5061, used for, when the operation specified by the operation information received by the second server is an operation on the relationship chain, performing the operation on the second group as specified by the operation information;

A second operating unit 5062, used for, when the operation specified by the
30 operation information received by the second server is an operation for posting information, sending the contents of the operation information to the second group;

A third operating unit 5063, used for, when the operation specified by the operation information received by the second server is an operation for querying relevant user

information in the first group, searching the relevant user information in the second group and returning the found user information to the second server.

The system also includes:

5 A shared-resource module 507, used for, when the third server receives the operation information and the association identifier, and the operation specified by the operation information is an operation for visiting the shared resources of the second group, searching the shared resources based on the association identifier and sending the shared resources to the first group.

10 Another embodiment of the present invention provides another system for synchronizing operations of multiple groups to improve the user experience. The system may include: an associating module, a first server, and second server. The associating module may be used for establishing an association between a first group on the first server and a second group on the second server using a pre-set association identifier. The first server is used for, after receiving operation information, performing
15 an operation specified by the operation information on the first group and sending the operation information and association identifier to the second server. The second server is used for receiving the operation information and the association identifier, searching the second group corresponding to the association identifier, and performing an operation corresponding to the type specified by the operation information on the second group.

20 According to the embodiment of the present invention, the first server may include: a first operating module for, after the first server receives the operation information, performing an operation specified by the operation information on the first group; a sending module for sending the operation information and association identifier to the second server. Correspondingly, the second server may include: a receiving module for
25 receiving the operation information and association identifier; a searching module for searching the second group corresponding to the association identifier; a second operating module for performing an operation corresponding to the type specified by the operation information on the second group.

30 In this embodiment, the associating module, the first server, and the second server may implement functionalities of the system shown in Figure 5, and the specific implementation process may be similar to the system shown in Figure 5 and, thus, is omitted herein.

The system provided in this embodiment follows the similar principles of the

method embodiments, and the specific implementation is similar to the method embodiments and, thus, are omitted herein.

Another embodiment of the present invention also provides a group server, including:

5 An associating module used for establishing an association between a first group on the group server and a second group on another server using a pre-set association identifier; a first operating module used for, after the group server receives the operation information, performing an operation specified by the operation information on the first group; a sending module used for sending the operation information and the association
10 identifier to the other server such that the other server can searching the second group corresponding to the association identifier and performs an operation corresponding to the type specified by the operation information on the second group.

Preferably, the group server may also include:

15 A receiving module used for receiving the operation information and the association identifier from the other server; a searching module used for searching the first group corresponding to the association identifier from the other server; and a second operating module used for, based on a type of the operation information sent from the other server, performing an operation corresponding to the type of the operation information from the other server on the first group.

20 It can be seen in light of above disclosed embodiments, by establishing an association between the SNS group and the corresponding IM group and carrying out real-time information interaction between the groups of these two models using certain network protocols, operations of the group of one model can be reflected in the associated group, and resources of the group of one model can be shared by the associated group.
25 Thus, members of one group (SNS or IM group) can use this real-time interaction to manage the information in the associated group (IM or SNS group), and the dependence and interaction between the groups of the two models can be increased.

30 All or part of the technical solutions provided by the disclosed embodiments of the present invention can be implemented through computer programs instructing certain hardware. Such computer programs may be stored in certain computer-readable medium, including ROM, RAM, disk, CD-ROM, or other media capable of storing program code.

The above disclosed are certain preferred embodiments, which are not used to limit

the present invention. Any changes, equivalent replacements, and improvement, etc., within the spirit and principles of the present invention should fall into the protection scope of the present invention.

Claims

1. A method for synchronizing operations of multiple groups, characterized by, comprising:
 - establishing an association between a first group on a first server and a second group on a second server using a pre-set association identifier;
 - after the first server receives operation information, performing, by the first server, an operation specified by the operation information on the first group;
 - sending the operation information and the association identifier to the second server;
 - receiving, by the second server, the operation information and the association identifier;
 - searching, by the second server, the second group corresponding to the association identifier; and
 - based on a type of the operation information, performing, by the second server, an operation corresponding to the type of the operation information on the second group.
2. The method according to claim 1, characterized by, wherein establishing the association between the first group on the first server and the second group on the second server using the pre-set association identifier further includes:
 - based on user information of the first group, sending, by the first server, a request for obtaining group information corresponding to the user information to the second server of the second group;
 - searching and determining, by the second server and based on the request, whether there is group information corresponding to the user information on the second server; when there is, making the group corresponding to the group information the second group and sending the group information to the first server; when there is not, creating the second group corresponding to the user information of the first group and sending the group information of the second group to the first server;
 - establishing a corresponding relationship between the association identifier and the first group, and a corresponding relationship between the association identifier and the second group.

3. The method according to claim 2, characterized by, after establishing a corresponding relationship between the association identifier and the first group and a corresponding relationship between the association identifier and the second group; further including:

establishing a corresponding relationship between the association identifier and a shared resource corresponding to the first group; and/or

establishing a corresponding relationship between the association identifier and a shared resource corresponding to the second group.

4. The method according to claim 3, characterized by, further including:

when a third server receives the operation information and the association identifier and the operation specified by the operation information is an operation for visiting the share resource of the second group, searching, by the third server, the shared resource based on the association identifier and sending the shared resource to the first group.

5. The method according to claim 1, characterized by, wherein, based on a type of the operation information, performing the operation corresponding to the type of the operation information on the second group further includes:

when the operation specified by the operation information received by the second server is an operation on a relationship chain, performing the operation on the second group as specified by the operation information;

when the operation specified by the operation information received by the second server is an operation for posting information, sending contents of the operation information to the second group;

when the operation specified by the operation information received by the second server is an operation for querying relevant user information in the first group, searching the relevant user information in the second group and returning the found user information to the second server.

6. A system for synchronizing operations of multiple groups, characterized by, comprising:

an associating module;

a first server; and

a second server, wherein:

the associating module is used for establishing an association between a first group on the first server and a second group on the second server using a pre-set association identifier;

the first server is used for, after receiving operation information, performing an operation specified by the operation information on the first group and sending the operation information and association identifier to the second server;

the second server is used for receiving the operation information and the association identifier, searching the second group corresponding to the association identifier, and, based on a type of the operation information, performing an operation corresponding to the type of the operation information on the second group.

7. The system according to claim 6, characterized by, wherein:

the first server further includes:

a first operating module for, after the first server receives the operation information, performing an operation specified by the operation information on the first group;

a sending module for sending the operational information and association identifier to the second server;

the second server further includes:

a receiving module for receiving the operation information and association identifier;

a searching module for searching the second group corresponding to the association identifier;

a second operating module for performing the operation corresponding to the type specified by the operation information on the second group.

8. The system according to claim 7, characterized by, wherein the associating module further includes:

a group information request unit used for the first server to, based on the user information in the first group, send a request for obtaining the group information corresponding to the user information to the second server having the second group;

a determining unit used for the second server to, based on the request, search and

determine whether there is any group information corresponding to the user information on the second server; if there is, triggering a group information sending unit to make the group corresponding to the group information as the second group, and sending the group information to the first server; and if there is not, triggering a creating unit to create the second group corresponding to the user information in the first group on the second server

an identifying unit used for establishing a corresponding relationship between the association identifier and the first group and a corresponding relationship between the association identifier and the second group.

9. The system according to claim 8, characterized by, wherein the associating module further includes:

a first shared-resource associating unit used for establishing a corresponding relationship between the association identifier and the shared resource corresponding to the first group; and/or,

a second shared-resource associating unit used for establishing a corresponding relationship between the association identifier and the shared resource corresponding to the second group.

10. The system according to claim 9, characterized by, further including:

a shared-resource module used for, when a third server receives the operation information and the association identifier, and the operation specified by the operation information is an operation for visiting the shared resource of the second group, searching the shared resource based on the association identifier and sending the shared resource to the first group.

11. The system according to claim 7, characterized by, wherein the second operating module further includes:

a first operating unit used for, when the operation specified by the operation information received by the second server is an operation on the relationship chain, performing the operation on the second group as specified by the operation information;

a second operating unit used for, when the operation specified by the operation information received by the second server is an operation for posting information, sending the contents of the operation information to the second group;

a third operating unit used for, when the operation specified by the operation information received by the second server is an operation for querying relevant user information in the first group, searching the relevant user information in the second group and returning the found user information to the second server

12. A group server, comprising:

an associating module used for establishing an association between a first group on the group server and a second group on another server using a pre-set association identifier;

a first operating module used for, after the group server receives the operation information, performing an operation specified by the operation information on the first group;

a sending module used for sending the operation information and the association identifier to the other server such that the other server can searching the second group corresponding to the association identifier and performs an operation corresponding to the type specified by the operation information on the second group.

13. The group server according to claim 12, characterized by, further including:

a receiving module used for receiving the operation information and the association identifier from the other server;

a searching module used for searching the first group corresponding to the association identifier from the other server;

a second operating module used for, based on a type of the operation information sent from the other server, performing an operation corresponding to the type of the operation information from the other server on the first group.

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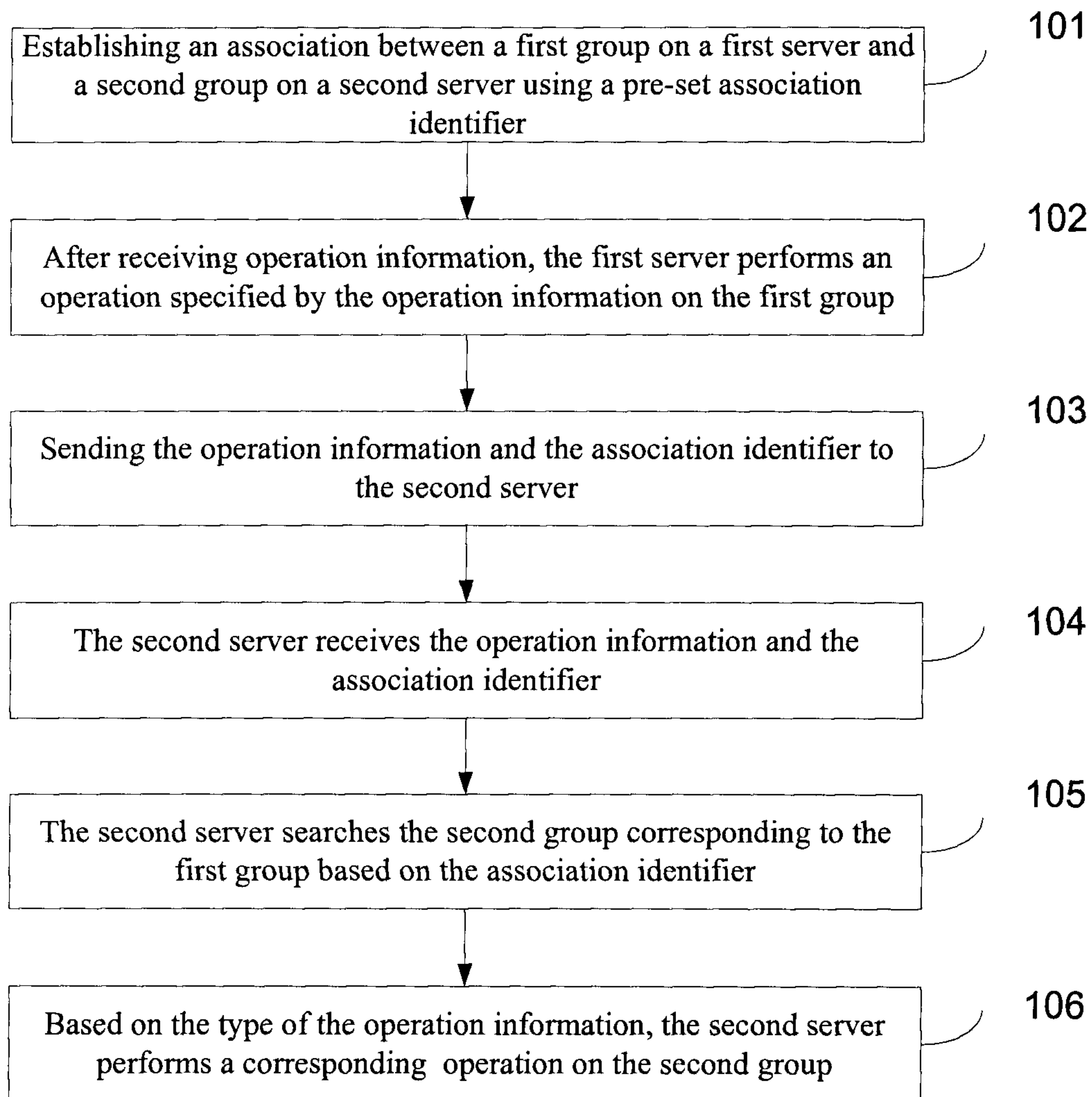


FIG. 1

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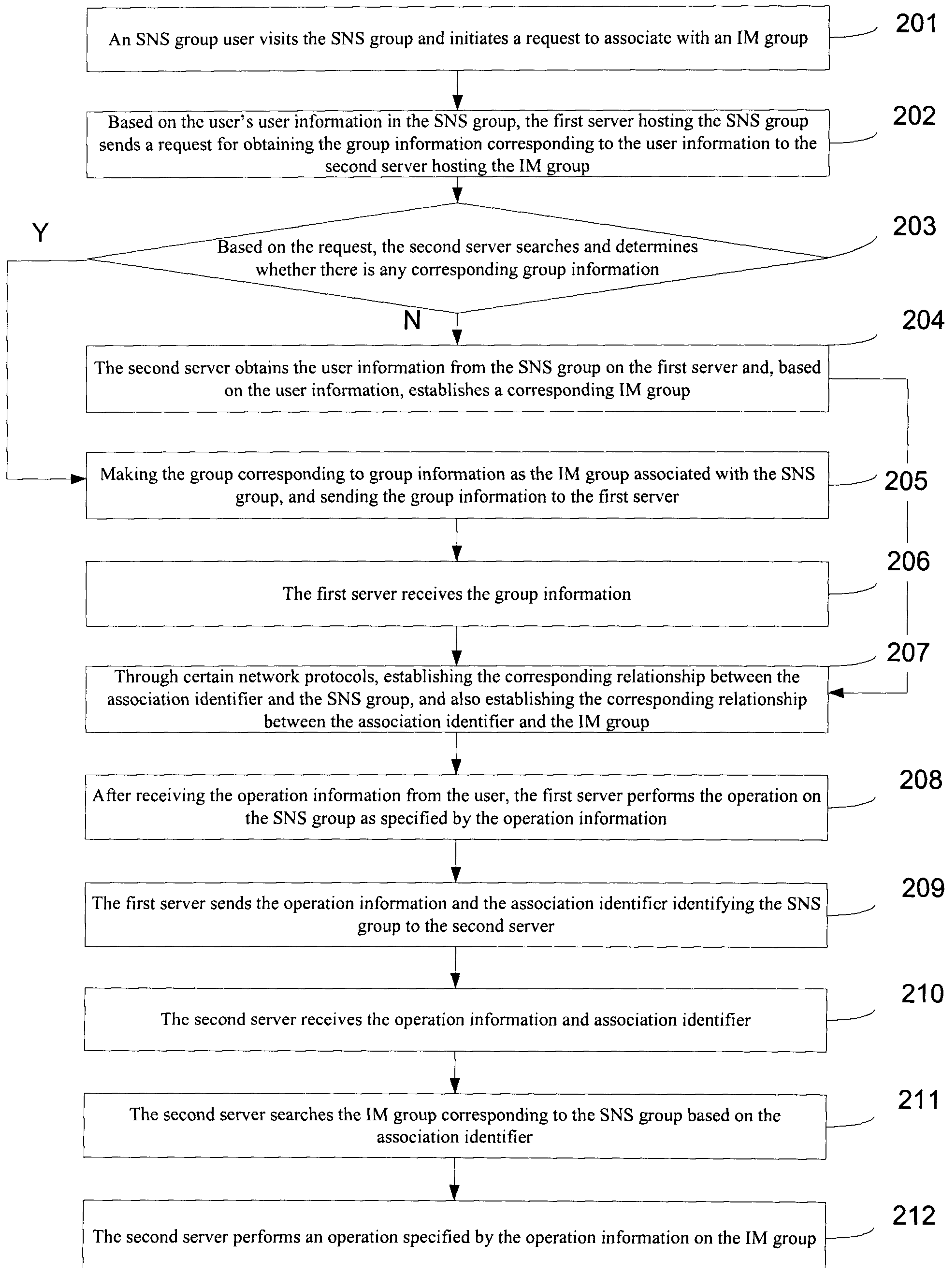
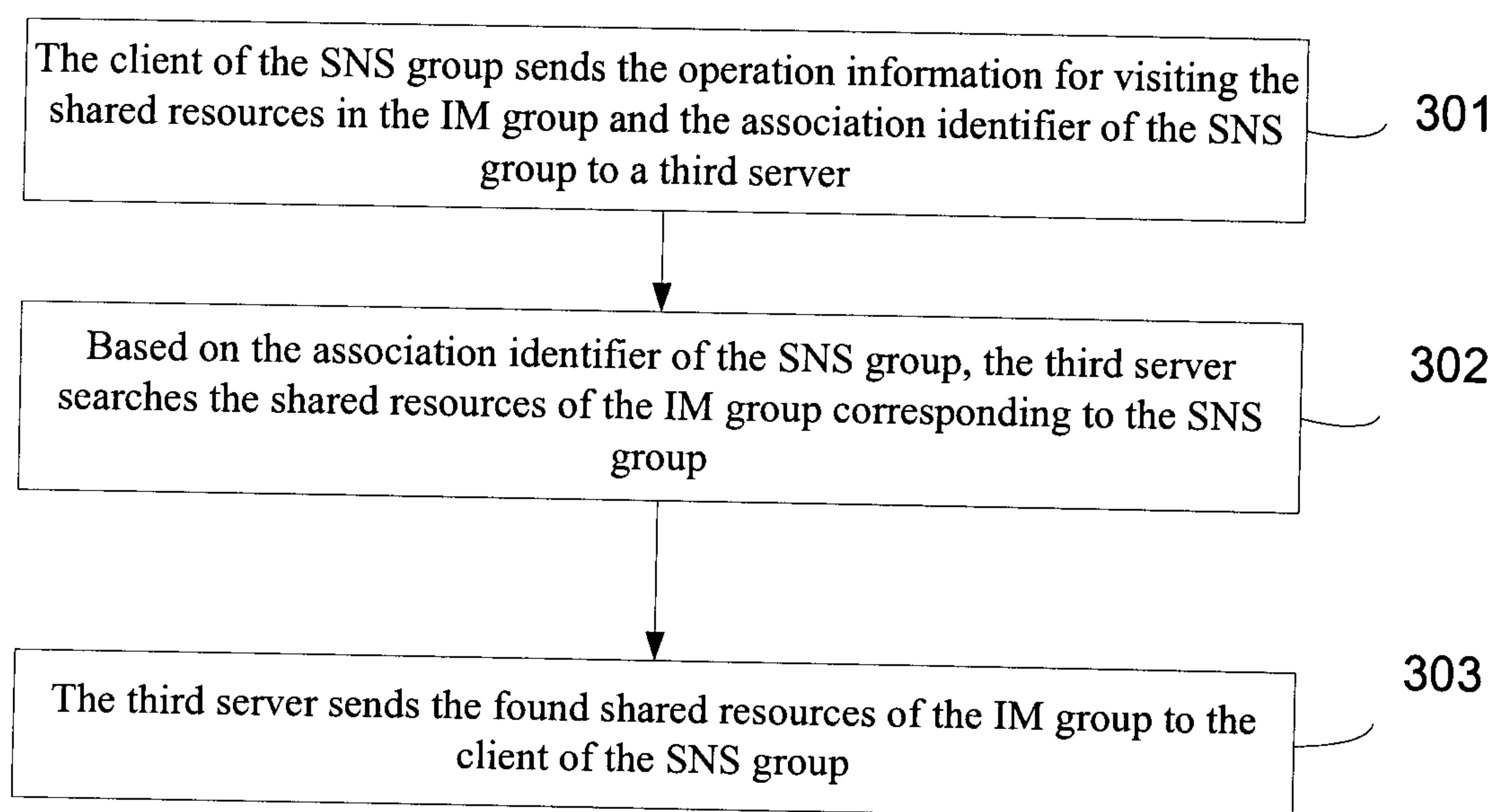


FIG. 2

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**FIG. 3**

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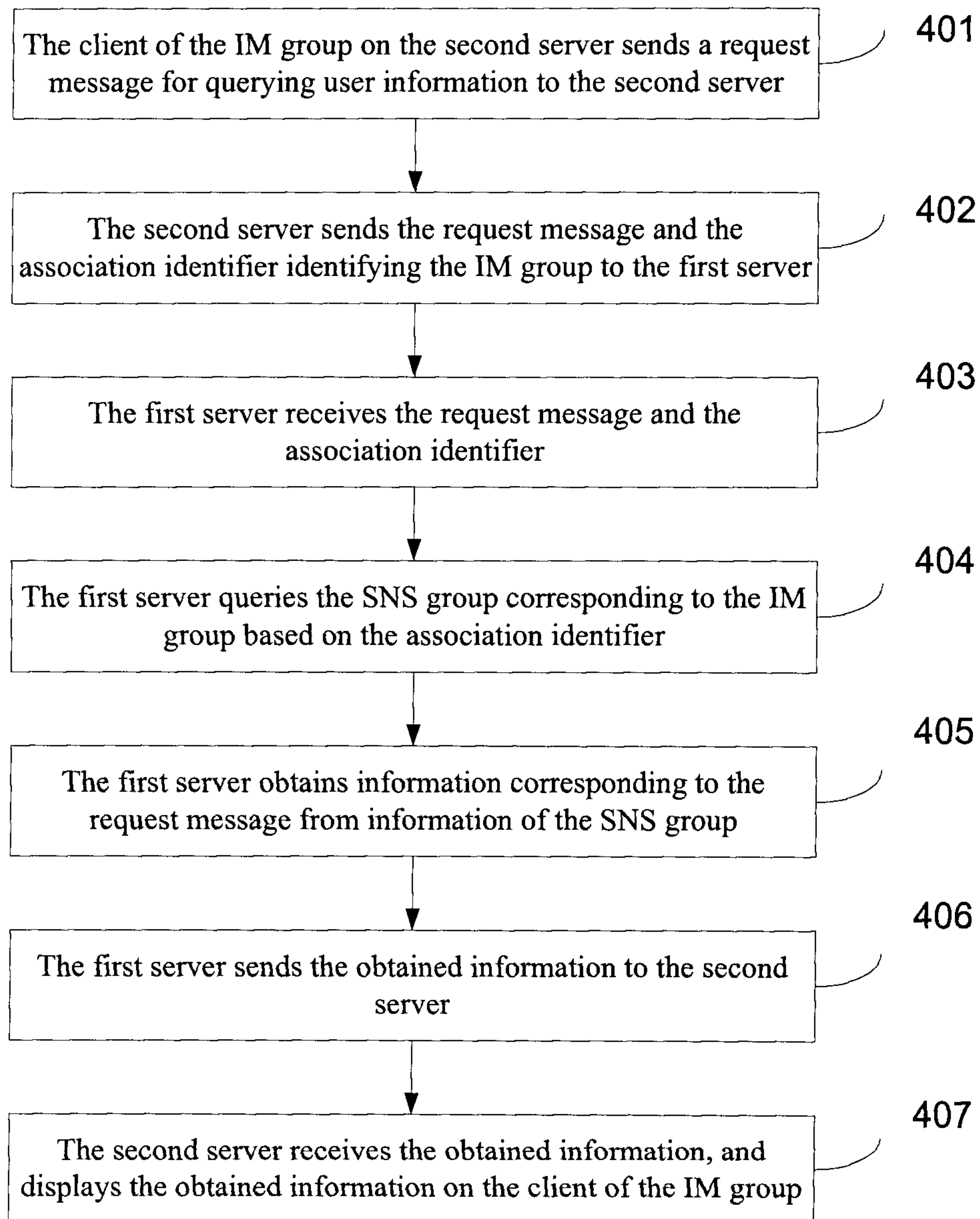
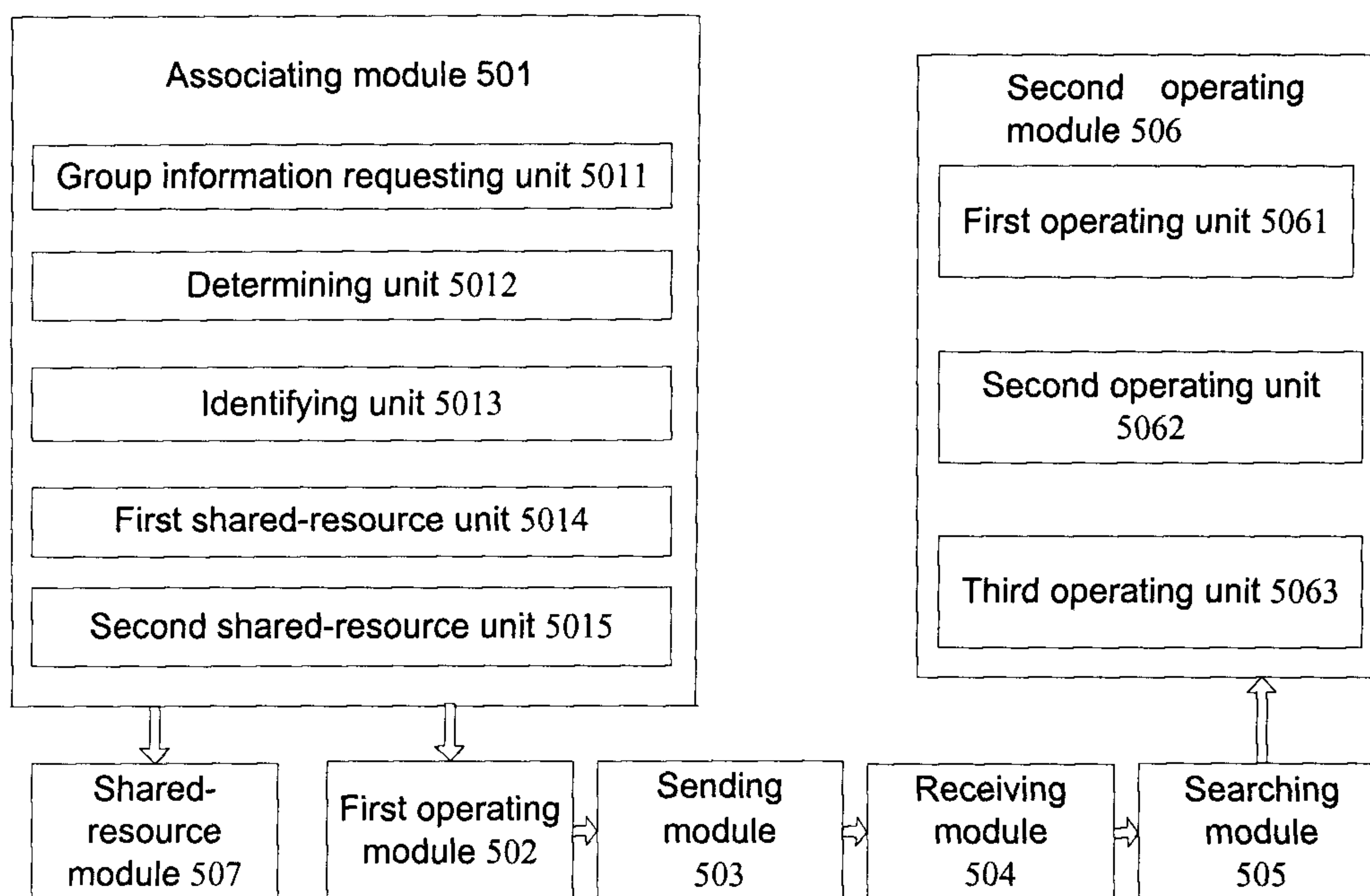


FIG. 4

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**FIG. 5**

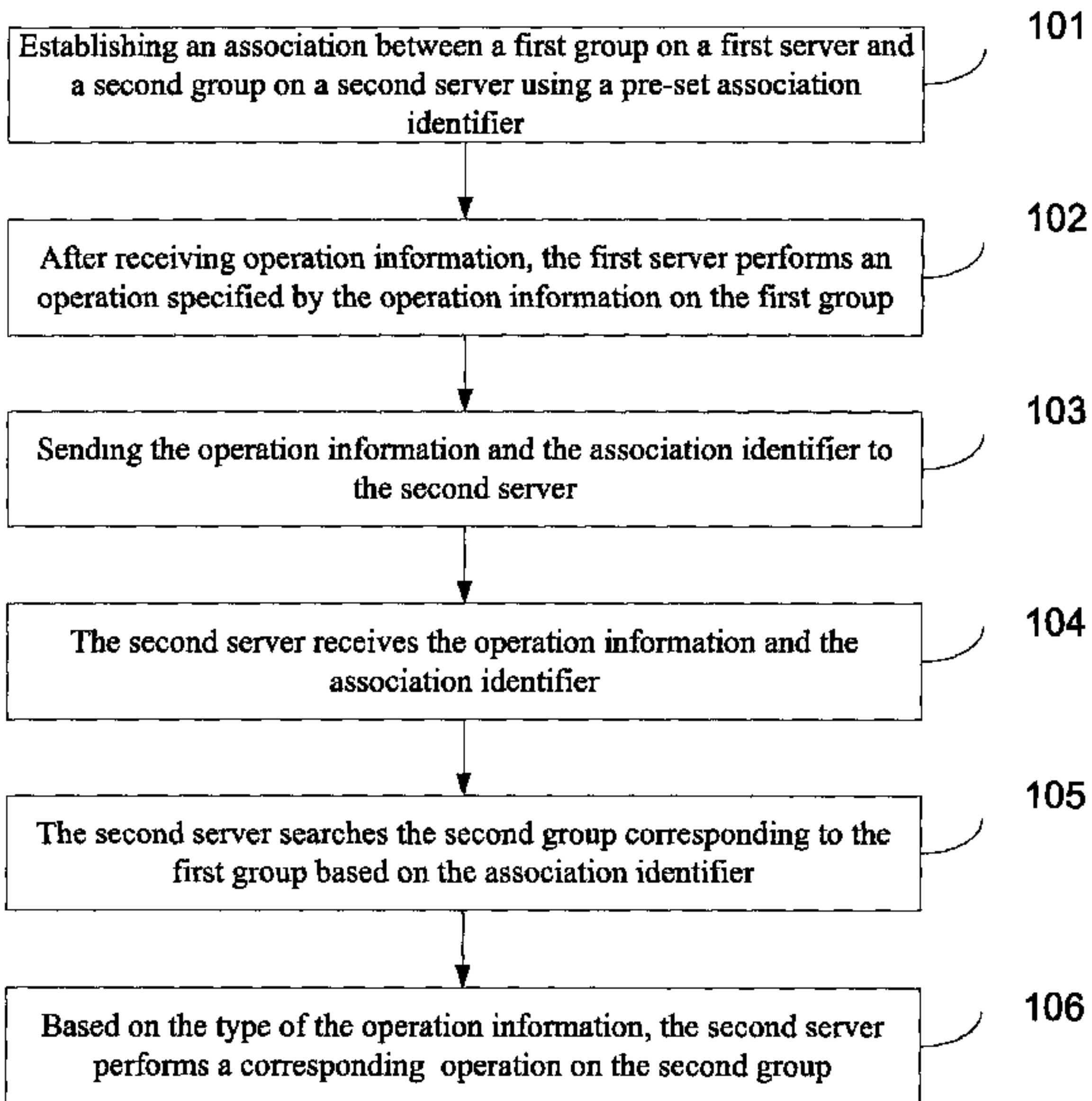


FIG. 1