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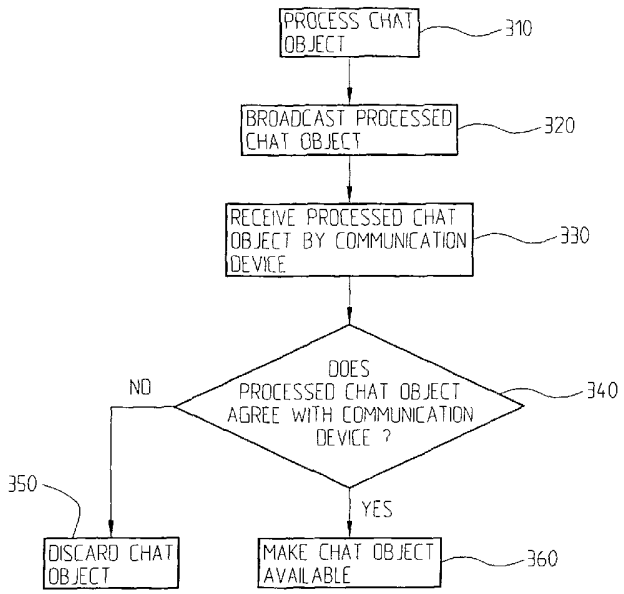
(54) Title: A METHOD AND A SYSTEM OF CHAT GROUP HANDLING



(57) Abstract: A method and a system of handling a chat group, more specifically to control access to a chat group to only a predetermined group of people. At least a subset of the predetermined group of people are a subset of subscribers to a service provider that communicates devices of the subscribers. According to the invention the service provider communicates a chat object of the chat group to the communication devices, and by conditioning display of and access to the chat object at a specific communication device by means of an identification tag that identifies if a subscriber belongs to the predetermined group of people and associates the subscriber to the specific communication device.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

A method and a system of chat group handling

FIELD OF THE INVENTION

The present invention relates generally to a method and a system for handling chat groups, specifically to provide a controlled access to a chat group.

BACKGROUND TO THE INVENTION

Communications networks such as the internet have become popular for their ability to enable people to communicate a variety of information across great distances. One popular type of communication is real time text conversations between users. These conversations, referred to as "chat", typically involve at least two people that are in connection with a chat server where messages from the connected participants are received and then distributed to all the other connected participants. A chat server establishes a virtual "chat room" where the text conversations are made.

Many chat rooms relate to television programs. This has stirred an interest by television broadcasters to provide chat rooms associated with their television programs. Development with television distribution and reception has opened the possibilities to combine television viewing and linking to chat rooms. A typical system can provide a plurality of separate chat rooms, each associated with a corresponding television program. When a viewer selects a chat option when viewing a particular television program, the viewer is placed in a chat room corresponding to the displayed television program. Text messages from viewers of the same program who have likewise selected the chat option are displayed to each other.

The popularity of chat groups will probably increase, thus more chat options of the same television program will be available to viewers, making it difficult for viewers to choose which one to join.

SUMMARY OF THE INVENTION

An object of the invention is to define a method and a system of handling chat groups.

Another object of the invention is to define a method and a system of allowing controlled access to chat groups.

The aforementioned objects are achieved according to the invention by a method and a system of handling a chat group, more specifically to control access to a chat group to only a predetermined group of people. At least a subset of the predetermined group of people is a subset of subscribers to a service provider that communicates services to communication devices of the subscribers. According to the invention the service provider communicates a chat object of the chat group to the communication devices, and by conditioning display of and access to the chat object at a specific communication device by means of an identification tag that identifies if a subscriber belongs to the predetermined group of people and associates the subscriber to the specific communication device.

The aforementioned objects are also achieved according to the invention by a method of gaining access to a chat group via communication devices. The communication devices can for example be set top boxes or multimedia home servers (MHS) connected to a television set, or an advanced television set with communication capability built in. The access is limited to a predetermined group of people. At least a subset of the predetermined group of people are a subset of subscribers of a service provider providing services to the subscribers via the communication devices by means of broadcasting. Each subscriber is associated to a specific communication device by means of an identification tag specific to each subscriber. According to the

invention the method comprises the step of conditioning the display of and access to a chat object of the chat group at a specific communication device, on the identification tag.

Preferably the method further comprises the step of generating a list of identification tags identifying the subset of subscribers of the service provider that are part of the predetermined group.

Advantageously the method can further comprises two additional steps. In a first additional step the service provider couples the chat object of the chat group with one identification tag of the generated list. In a second additional step the chat object is broadcasted with the coupled identification tag to the communication devices. And in the step of conditioning the display of and access to a chat object of the chat group at a specific communication device, on the identification tag, comprises at a communication device, upon receiving a chat object with an identification tag, the step of determining if the received identification tag is associated to the communication device in question, and if it is associated then displaying and allowing access to the received chat object.

Or suitably in some versions the method can further comprises the two additional steps of the service provider coupling the chat object of the chat group with the identification tags of the generated list, and the chat object being broadcasted with the coupled identification tags to the communication devices. And in the step of conditioning the display of and access to a chat object of the chat group at a specific communication device, on the identification tag, comprises at a communication device, upon receiving a chat object with identification tags, the step of determining if any one of the received identification tags is associated to the communication device in question, and if it is associated then displaying and allowing access to the received chat object.

Or still in some other versions the method can further comprise the three additional steps of the service provider coupling a verification tag with one identification tag of the generated list, and broadcasting the verification tag with the coupled identification tag to the communication devices, and in a communication device, upon receiving a verification tag with an identification tag, determining if the received identification tag is associated to the communication device in question, and if it is associated then storing the verification tag to which it was coupled.

Or in further versions the method further can further comprise the three additional steps of the service provider coupling a verification tag with the identification tags of the generated list, and broadcasting the verification tag with the coupled identification tags to the communication devices, and in a communication device, upon receiving a verification tag with identification tags, determining if any one of the received identification tags is associated to the communication device in question, and if it is associated then storing the verification tag to which it was coupled.

Suitably the method further comprises the two steps of the service provider coupling the chat object of the chat group with a verification tag, and broadcasting the chat object with the coupled verification tag to the communication devices. And suitably the step of conditioning the display of and access to a chat object of the chat group at a specific communication device, on the identification tag, comprises at a communication device, upon receiving a chat object with a verification tag, the step of determining if the received verification tag matches a stored verification tag in the communication device in question, and if there is a match then displaying and allowing access to the received chat object.

Advantageously it is determined that an identification tag is associated to a specific communication device if the identification tag verifies against either a unique number of the communication device, an identification tag of the communication device, or information comprised on a smartcard coupled to the communication device.

In some versions the method further comprises the three additional steps of in a communication device, providing an identification tag of the communication device in question to the service provider, in the service provider, comparing the provided identification tag with the list of identification tags identifying the subset of subscribers of the service provider that are part of the predetermined group, and if there is a match then providing the communication device in question with a verification tag, and in the communication device in question, storing the provided verification tag. Suitably the method then further comprises the two additional steps of the service provider coupling the chat object of the chat group with a verification tag, and broadcasting the chat object with the coupled verification tag to the communication devices. And also suitably the step of conditioning the display of and access to a chat object of the chat group at a specific communication device, on the identification tag, comprises at a communication device, upon receiving a chat object with a verification tag, the step of determining if the received verification tag matches a stored verification tag in the communication device in question, and if there is a match then displaying and allowing access to the received chat object.

One or more of the features of the above-described different methods according to the invention can be combined in any desired manner, as long as the features are not contradictory.

The aforementioned objects are further achieved in accordance with the invention by a system of gaining access to a chat group via communication devices. The access being limited to a predetermined group of people. At least a subset of the predetermined group of people are a subset of subscribers of a service provider providing services to the subscribers via the communication devices by means of broadcasting. Each subscriber is associated to a specific communication device by means of an identification tag specific to each subscriber. According to the invention the system comprises means of conditioning the display of and access to a chat object of the chat group at a specific communication device, on the identification tag.

In some embodiments the broadcasting is by means of a digital video broadcasting (DVB) system. Different embodiments of the system according to the invention can also be reached according to additional features mentioned above in connection with the description of the method according to the invention. The features of the above-described different embodiments of a system according to the invention can be combined in any desired manner, as long as no conflict occurs.

By providing a method and system of only allowing access of a chat object to a predetermined limited group of people, which are also not more than a subset of the subscribers to a service provider, which is distributing the chat object allowing access to a chat group, a number of advantages over prior art methods and systems are attained. By using the identification tags that that are associated to the subscribers, it is possible to identify the subscribers and their communication device. It is thus possible to broadcast a chat object to all the subscribers but only displaying and allowing access to it to subscribers that belong to the predetermined limited group of people. It is thus possible to reach a special interest group of people with dedicated chat groups. The groups that are reached can be very large. Further it gives these groups of people access to chat groups with like-minded people, not only to the aspect of watching the same program. For example if there is a political broadcast, then a specific party can but up a chat group for its members only, and this without any involvement of the subscribers. The group of people/subscribers that are given access to the different chat groups do not control the chat group selection, this is done entirely by the chat group provider or a chat group determiner on the service provider side. This enables large chat groups to be dynamically created on demand from a chat group definer. A further advantage of the present system is that if, for example, the identification tag resides on a smart card that is removable from a communication device, then the subscriber can bring the access of these directed chat groups to other communication devices. The identification tag might in some versions/embodiments be a password which identifies the subscriber by means of a login procedure. In other versions/embodiments the identification tag might be a

combination of communication device number or smartcard number, and a password/login procedure, to thereby enable different profiles to a single communication device. The invention provides many more advantages over prior art system, some more which will be disclosed in further detail below.

DESCRIPTION OF THE FIGURES

The invention will now be described in more detail for explanatory, and in no sense limiting, purposes, with reference to the following figures, in which

Fig. 1 shows a schematic overview of a system according to the invention,

Fig. 2 shows a flow chart of a basic method of associating a predetermined group of people with specific communications devices according to the invention,

Fig. 3 shows a flow chart of a basic method of making a chat object available, according to the invention, at a communication device associated with a person of a predetermined group of people,

Fig. 4 shows a flow chart of one version according to the invention of tag processing of fig. 2,

Fig. 5 shows a flow chart of another version according to the invention of tag processing of fig. 2,

Fig. 6 shows a flow chart of one version according to the invention of making a chat object available of fig. 3,

Fig. 7 shows a flow chat of a further version according to the invention of tag processing of fig. 2,

Fig. 8 shows a flow chart of still another version according to the invention of tag processing of fig. 2,

Fig. 9 shows a first version according to the invention of providing a communication device with a verification object,

Fig. 10 shows a second version according to the invention of providing a communication device with a verification object.

DESCRIPTION OF PREFERRED EMBODIMENTS

In order to clarify the method and the system according to the invention, some examples of its use will now be described in connection with Figures 1 to 10.

Figure 1 shows a schematic overview of a system according to the invention. A distribution network and service provider 101 such as a digital video broadcasting (DVB) network, broadcasts one or more services, such as a television program, to a number of communication devices 110, 112, 114, such as television sets, of subscribers of the services. The communication devices 110, 112, 114 can typically comprise a receiver connected to an antenna 150, 152, 154, some type of processing means such as a computer with program and data memory, possibly a massive memory such as a harddisc, a backchannel interface for connection to a chat provider 103 for input to a chat group, and preferably a user interface such as a visual interface and some means for user input, such as a keyboard and/or a remote control. Broadcasting is illustrated by the transmitter 151 and receiver 150, 152, 154 antennas, and is by its nature typically one-directional. The content of the services can be generated by the service provider 101 itself, or from one or more content providers 104, 105. The content providers 104, 105 can either be directly coupled 144, 146 to the service provider 101, or just provide the service provider 101 with the relevant content in a batch, such as a videotape. To only provide subscribers with services, there needs to some sort of identification of the subscribers at the communication devices 110, 112, 114. This can, for example, be arranged by a

distributed smart card 130, 132, 134 that is inserted into an appropriate communication device 110, 112, 114 to thereby unlock it, i.e. enable reception of the broadcasted services. This subscriber verification can be arranged in other ways. For example, a password can be distributed to the subscribers, or a serial number of the communication device of a subscriber can be sent to the service provider, which then broadcasts it back to the communication device, to thereby open it for one or more services.

As mentioned before, chat groups are also made available to television viewers. A chat provider 103 is then necessary. The chat provider 103 needs to be connected 141 to the service provider/broadcaster 101 to make selectable chat objects available to the subscribers. The chat provider 103 further needs to be connected 143, 120, 160, 162, 164 to the communication devices 110, 112, 114 of the subscribers. There needs to be at least a one-way connection from the communication devices 110, 112, 114 to the chat provider 103. Communication from the chat provider 103 to the communication devices 110, 112, 114 can always be broadcasted to the communication devices 110, 112, 114 by means of the service provider/broadcaster 101. The network 120 can for example be a telephone network, the internet or a combination of the two.

A content provider/chat group definer 105 and/or a chat group definer 107 can according to the invention access those of a desired predetermined group of people that are subscribers of a service of a service provider, with a chat object and create an associated chat group without displaying or providing access to any other subscriber of a service of the service provider. Suitable authenticity verification of the group definers 105, 107 is preferably done to reduce the risc of fraudulent use. The predetermined group of people can for example be members of a political party, members of an interest group, a specific magazine subscribers and the like. For the system to work, at least some of the people of the predetermined group must be subscribers of some service of a service provider, which also will broadcast the chat object in question. According to the invention this is possible by only letting the

communication devices of subscribers which are also part of the predetermined group of people display and allow access to a chat object, by using the subscriber identification tags. According to the invention the display and access to a chat object at a communication device is conditioned on the identification tag associated to the communication device. If the identification tag is associated to a subscriber that is also part of the predetermined group of people to whom the chat object is directed, then the chat object is displayed and accessible. On the other hand if the identification tag is associated with a subscriber that is not a part of a predetermined group of people to whom the chat object is directed, then the chat object will not be available at that communication device.

Figure 2 shows a flow chart of a basic method of preparing specific communication devices that are associated with people of a predetermined group to be able to receive and then display and allow access to chat objects according to the invention. In a first step 210 a list of predetermined group of people and a list of subscribers is retrieved from a chat group definer 105, 107 of figure 1. The predetermined group of people might be all employees of a company or perhaps a selected group of employees. The list of predetermined group of people need only comprise names or other type of identification such as addresses or telephone numbers, that can be matched to names or other type of identification on the list of subscribers. The list of subscribers must also comprise an identification tag to each subscriber, the identification tag being associated with the communication devices of the subscribers. The retrieval can be done once at initiation, when the predetermined group of people changes, when the list of subscribers changes, and/or at set intervals. A second step 220 determines if there is a match of a name of the predetermined group of people with a name of the list of subscribers. If there is a match, a third step 230 extracts an identification tag from the list of subscribers of the matched name. Thereafter a fourth step 240 does a first identification tag processing. Then in a fifth step 250 it is determined if there are more names to check, and if so returns up to the second step 220. If there are no more names to check then a sixth step 260 does a final identification tag processing. The first identification tag processing 240 and the

final identification tag processing 260 will vary in dependence on the specific embodiment/version of the invention. Different examples of this are given in relation to figures 4, 5, 7, and 8. This procedure will however extract identification tags of the people of the predetermined group that are also subscribers and then prepare only the communication devices that have these identification tags.

Figure 3 shows a flow chart of a basic method of making a chat object available, according to the invention, at a communication device associated with a person of a predetermined group of people. In a first step 310 a chat object is processed, examples of which are given below, to be prepared, according to the invention, to be broadcasted. A chat object can additionally be processed with an activation time, which can, for example be coupled to a particular program, be set with a start and/or stop time. This will enable a chat object to be broadcasted ahead of the actual availability time. A chat object is also suitably provided with availability markers, i.e. should a chat object be visible/available the whole time, only in connection with certain channels/programs/viewing, and/or for a predetermined time after turn on or after a certain program/channel is selected. In a second step 320 the processed chat object is broadcasted to the communication devices. Then in a third step 330 the broadcasted processed chat objects are received by a communication device. A fourth step 340 in the communication device determines if the received processed chat object agrees with the communication device in question, i.e. is the received chat object intended for this communication device. If it does not agree with the communication device in question, then in a fifth step 350 in the communication device, the received processed chat object is discarded. On the other hand, if the received processed chat object agrees with the communication device in question, then in a sixth step 360 the received processed chat object is made available for display or further processing. For example, if a subscriber decides to access a chat group by means of the chat object, then preferably additional verification of the subscribers right of access to the group is made. This is suitably done by means of the secondary bidirectional communication network 120, 143, 160, 162, 164.

According to the invention a chat object that is dedicated to a predetermined group of people is always processed before it is broadcasted. This processing can suitably either involve adding an identification tag as is disclosed below in relation to figure 4, or involve adding a verification object as is disclosed below in relation to figure 6.

Preferred embodiments/versions of the invention involves either the use of identification tags or the use of verification objects to determine if a chat object agrees with a specific communication device. However, both methods use identification tags to sort out the communication devices. An advantage with the use of verification objects is that communication devices can be approved during times when there is plenty of bandwidth available for broadcasting these verification objects, and then only use very little broadcasting bandwidth when the chat objects are broadcasted. An advantage with using identification tags directly is that groups can be created with very little lead time, groups can be created dynamically upon the demand of a group definer.

Figure 4 shows a flow chart of one version of using identification tags only according to the invention of the fourth step 240 of figure 2 of tag processing which interacts with figure 3 making a chat object available. In a first substep 441 of the fourth step 240 of figure 2 which is also a substep of the first step 310 of figure 3, an identification tag which has been extracted in the third step 230 of figure 2 is added to a chat object that is associated with a chat group to which the predetermined group of people are to be allowed access to. Then in a second substep 442 of the fourth step 240 of figure 2 which is also a substep of the second step 320 of figure 3, the chat object with an identification tag is broadcasted.

Figure 5 shows a flow chart of another version of using identification tags only according to the invention of the fourth 240, fifth 250, and sixth 260 steps of figure 2, which interacts with figure 3 making a chat object available. In a substep 543 of the fourth step 240 of figure 2 and also a substep of the first step of figure 3, an identification tag that has been extracted is added to an appropriate chat object. Then

a further step 550 which basically is the fifth step 250 of figure 2, determines if there are more names in the predetermined group of people or not. If there was no more names, i.e. all the identification tags have been extracted and added to the appropriate chat object, then in a substep 561 of the sixth step 260 of figure 2 and also a substep of the second step 320 of figure 3, broadcasts the chat object with all the extracted identification tags together.

According to these two versions of using identification tags only, the fourth step 340 of figure 3 will determine if a received identification tag of a received chat object matches an identification tag that is associated with the communication device in question or not. If there is a match, then the received chat object agrees with the communication device, otherwise not.

Figure 6 shows a flow chart of one version of using verification objects according to the invention of the first 310 and second 320 step of figure 3 making a chat object available, by means of verification objects. In a first substep 611 of the first step 310 of figure 3 a verification object is added to an appropriate chat object. Then in a second substep 621, a substep of the second step 320 of figure 3, the appropriate chat object is broadcasted with the verification object tag.

According to this version of using verification objects, the fourth step 340 of figure 3 will determine if a received verification object of a received chat object matches a verification object that is stored at the communication device in question. If there is a match, then the received chat object agrees with the communication device, otherwise not. To be able to use verification objects, they need to be prestored at the relevant communication devices. This can be achieved in a number of different ways and is disclosed in relation to figures 7, 8, 9, and 10.

Figure 7 shows a flow chart of a further version according to the invention of the fourth step 240 of figure 2 of tag processing, in association with verification object handling. This further version discloses how a verification object can be transferred

to the correct communication devices. In a first substep 744 of the fourth step 240 of figure 2 an extracted identification tag is coupled to a verification object. Then in a second substep 745 of the fourth step 240 of figure 2, the verification object is broadcasted with the identification tag, the verification object is then stored in the communication device with a matching identification tag according to figure 9.

Figure 8 shows a flow chart of still another version according to the invention of the fourth 240, fifth 250, and sixth 260 steps of figure 2, in association with verification object handling. This version will also broadcast identification tags with a verification object. In a substep 846 of the fourth step 240 of figure 2, an identification tag is coupled to a verification object. Then in a step 850 which is basically the fifth step 250 of figure 2, it is determined if there are more names in the predetermined group of people to be compared. If there are no more names to be compared, then in a substep 862 of the sixth step 260 of figure 2, the verification object is broadcasted with all the extracted identification tags, the verification object is then stored in communication devices with a matching identification tag according to figure 9.

Figure 9 shows a flow chart of a first version of providing a communication device associated with a person of a predetermined group of people with a verification object. In a first step 910 a communication device receives a broadcasted verification object coupled to an identification tag or tags, according to figure 7 and figure 8 respectively. Then in a second step 920 it is determined if the, or one of the, received identification tag(s) matches an identification tag associated with the communication device in question. If there is no match, then in a third step 930, the received verification object is discarded. On the other hand, if there is determined a match, then in a fourth step 940, the received verification object is stored at the communication device in question for future reference.

Figure 10 shows a flow chart of a second type of manner of providing a communication device associated with a person of a predetermined group of people

with a verification object. In a first step 1010 a service provider receives an identification tag from a communication device. In a second step 1020 a subscriber name which is associated with the received identification tag is extracted from the list of subscribers. Then in a third step 1030 a list of the predetermined group of people is retrieved. Thereafter, in a fourth step 1040, it is determined if there is a match of a name of the predetermined group of people with the extracted subscriber name from the list of subscribers. If there is a match, i.e. it is determined that the identification tag comes from a subscriber that is also a part of the predetermined group of people, then in a fifth step 1050 a verification object is sent to the communication device in question for future reference, the communication device storing the verification object.

Using verification objects, large groups of subscribers can be updated during periods of time when there is braodcasting bandwidth available. Once this has been done, then only the communication devices of the subscribers that are to be added or removed from a group need to be alerted. In some versions/embodiments of the invention, verification objects are only valid a predetermined time, or until a predetermined time, or from a first predetermined time to a second predtermined time, or verification objects are only valid for a predetermined number of chat group accesses.

The present invention can be put into apparatus-form either as pure hardware, as pure software or as a combination of hardware and software If the method according to the invention is realized in the form of software, it can be completely independent or it can be one part of a larger program. The software can suitably be located in a general-purpose computer or in a dedicated computer.

As a summary, the invention can basically be described as a method and a system which provide means to enable a controlled access to and display of chat objects at a communication device, such as a television set, by conditioning the access to and display of the chat object to an identification tag associated with a communication

device in question. The invention can be seen as a controlled information channel where a predetermined group of subscribers are able to see and access a chat object, by accessing the chat object being able to see and/or participate in the chat group of the chat object. A chat object can in some embodiments/versions of the invention be a multimedia object that can be used for other purposes than only making a chat group available to subscribers. In some of these versions/embodiments a back channel 120, 143, 160, 162 164 is not necessary as there is no need for subscriber feedback. For example, a multimedia object can be directed advertisements, be directed program updates, provide access to games, both stand alone and network type, provide program patches that will report on subscriber viewing habbits, provide select programs or program patches that gives the communication device a new functionality such as program recording, provide viewer profiles to provide easier access to a selected type of viewing or specific programs and possibly also to provide means to block certain type of viewing or specific programs which is considered unsuitable for the predetermined group of people. The predetermined group of people can subscribers in a region, town or area, belong to a religious community, be children of the subscribers, randomly selected people which are to knowingly or unknowingly provide viewing statistics.

The invention is not limited to the embodiments described above but may be varied within the scope of the appended patent claims.

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	FIG 1	a schematic overview of a system according to the invention,
5	101	service provider and distribution network such as a digital video broadcasting (DVB) network,
	103	chat/service provider,
	104	content provider,
	105	content provider and chat group definer,
10	107	chat group definer,
	110	subscriber communication device,
	112	subscriber communication device,
	114	subscriber communication device,
	120	bidirectional communication network such as a telephone network,
15	130	identification tag carrier,
	132	identification tag carrier,
	134	identification tag carrier,
	141	communication between chat provider and service provider/broadcaster,
20	143	communication between chat provider and bidirectional network,
	144	communication between content provider and service provider/broadcaster,
	145	communication between chat provider and chat group definer/ content provider,
25	146	communication between content provider/chat definer and service provider/broadcaster,
	147	communication between chat provider and chat group definer,
	150	broadcasting reception antenna,
	151	broadcasting transmission antenna,
30	152	broadcasting reception antenna,
	154	broadcasting reception antenna,

160 communication between subscriber communication device and bidirectional communication network,

162 communication between subscriber communication device and bidirectional communication network,

164 communication between subscriber communication device and bidirectional communication network.

FIG 2 a flow chart of a basic method of associating a predetermined group of people with specific communication devices according to the invention,

210 a first step of retrieving list of predetermined group of people and a list of subscribers,

220 from the first step, or no from the second step, or yes from the fifth step: a second step, which determines if there is a match of a name of the predetermined group of people with a name of the list of subscribers,

230 yes from the second step: a third step, which extracts an identification tag from the list of subscribers of the matched name,

240 from the third step: a fourth step, which does a first identification tag processing,

250 from the fourth step: a fifth step, which determines if there are more names in the predetermined group of people,

260 no from the fifth step: a sixth step, which does a final identification tag processing.

FIG 3 a flow chart of a basic method of making a chat object available, according to the invention, at a communication device associated with a person of a predetermined group of people,

310 a first step of processing a chat object,

320 from the first step: a second step, which broadcasts processed chat object to communication devices,

330 from the second step: a third step, in which broadcasted processed chat objects are received by a communication device,

340 from the third step: a fourth step, which determines if the received processed chat object agrees with the communication device in question,

350 no from the fourth step: a fifth step, which discards the received processed chat object since it was determined that it does not agree with the communication device in question,

360 yes from the fourth step: a sixth step, which makes the received processed chat object available for display or further processing since it was determined that it agrees with the communication device in question.

FIG 4 a flow chart of one version according to the invention of the fourth step 240 of figure 2 of tag processing which interacts with figure 3 making a chat object available,

441 a first substep of the fourth step of figure 2/ a substep of the first step of figure 3: add an identification tag to a chat object,

442 from the first substep: a second substep/ a substep of the second step of figure 3, which broadcasts the chat object with an identification tag.

FIG 5 a flow chart of another version according to the invention of the fourth 240, fifth 250, and sixth 260 steps of figure 2, which interacts with figure 3 making a chat object available,

543 a substep of the fourth step of figure 2/ a substep of the first step of figure 3: add an identification tag to a chat object,

550 from the substep of the fourth step: the fifth step of figure 2 which determines if there are more names in the predetermined group of people,

561 no from the fifth step of figure 2: a substep of the sixth step of figure 2/ a substep of the second step of figure 3, which broadcasts the chat object with all identification tag.

FIG 6 a flow chart of one version according to the invention of the first 310 and second 320 step of figure 3 making a chat object available, by means of verification objects,

611 a first substep of the first step of figure 3: add a verification object to a chat object,

612 from the first substep: a second substep/ a substep of the second step of figure 3, which broadcasts the chat object with a verification object tag.

FIG 7 a flow chart of a further version according to the invention of the fourth step 240 of figure 2 of tag processing, in association with verification object handling,

744 a first substep of the fourth step of figure 2: couple an identification tag to a verification object,

745 from the first substep: a second substep of the fourth step of figure 2, which broadcasts the verification object with an identification tag, the verification object being stored in the communication device with a matching identification tag.

FIG 8 a flow chart of still another version according to the invention of the fourth 240, fifth 250, and sixth 260 steps of figure 2, in association with verification object handling,

846 a substep of the fourth step of figure 2: couple an identification tag to a verification object,

850 from the substep of the fourth step of figure 2: the fifth step of figure 2 which determines if there are more names in the predetermined group of people,

862 no from the fifth step of figure 2: a substep of the sixth step of figure 2, which broadcasts the verification object with all identification tags, the verification object being stored in communication devices with a matching identification tag.

FIG 9 a flow chart of a first version of providing a communication device associated with a person of a predetermined group of people with a verification object,

910 a first step of a communication device receiving a broadcasted verification object coupled to an identification tag or tags,

920 from the first step: a second step, which determines if received identification tag matches an identification tag associated with the communication device,

930 no from the second step: a third step, in which the received verification object is discarded,

940 yes from the second step: a fourth step, which stores the received verification object for future reference.

FIG 10 a flow chart of a second version of providing a communication device associated with a person of a predetermined group of people with a verification object,

1010 a first step of a service provider receiving an identification tag from a communication device,

1020 from the first step: a second step, which extracts a subscriber name which is associated with the received identification tag from the list of subscribers,

1030 from the second step: a third step of retrieving a list of predetermined group of people,

1040 from the third step: a fourth step, which determines if there is a match of a name of the predetermined group of people with the extracted subscriber name from the list of subscribers,

yes from the fourth step: a fifth step, which sends a verification object to the communication device for future reference, the communication device storing the verification object.

CLAIMS

1. A method of gaining access to a chat group via communication devices, the access being limited to a predetermined group of people, at least a subset of which predetermined group are a subset of subscribers of a service provider providing services to the subscribers via the communication devices by means of broadcasting, each subscriber being associated to a specific communication device by means of an identification tag specific to each subscriber, **characterized in that** the method comprises the step of conditioning the display of and access to a chat object of the chat group at a specific communication device, on the identification tag.

2. The method according to claim 1, **characterized in that** the method further comprises the step of generating a list of identification tags identifying the subset of subscribers of the service provider that are part of the predetermined group.

3. The method according to claim 2, **characterized in that** the method further comprises the steps of:

- the service provider coupling the chat object of the chat group with one identification tag of the generated list;
- broadcasting the chat object with the coupled identification tag to the communication devices;

and in that the step of conditioning the display of and access to a chat object of the chat group at a specific communication device, on the identification tag, comprises at a communication device, upon receiving a chat object with an identification tag, the step of:

- determining if the received identification tag is associated to the communication device in question, and if it is associated then displaying and allowing access to the received chat object.

4. The method according to claim 2, **characterized in that** the method further comprises the steps of:

- the service provider coupling the chat object of the chat group with the identification tags of the generated list;
- broadcasting the chat object with the coupled identification tags to the communication devices;

and in that the step of conditioning the display of and access to a chat object of the chat group at a specific communication device, on the identification tag, comprises at a communication device, upon receiving a chat object with identification tags, the step of:

- determining if any one of the received identification tags is associated to the communication device in question, and if it is associated then displaying and allowing access to the received chat object.

5. The method according to claim 2, **characterized in that** the method further comprises the steps of:

- the service provider coupling a verification tag with one identification tag of the generated list;
- broadcasting the verification tag with the coupled identification tag to the communication devices;
- in a communication device, upon receiving a verification tag with an identification tag, determining if the received identification tag is associated to the communication device in question, and if it is associated then storing the verification tag to which it was coupled.

6. The method according to claim 2, **characterized in that** the method further comprises the steps of:

- the service provider coupling a verification tag with the identification tags of the generated list;

- broadcasting the verification tag with the coupled identification tags to the communication devices;
- in a communication device, upon receiving a verification tag with identification tags, determining if any one of the received identification tags is associated to the communication device in question, and if it is associated then storing the verification tag to which it was coupled.

7. The method according to any one of claims 5 to 6, **characterized in that** the method further comprises the steps of:

- the service provider coupling the chat object of the chat group with a verification tag;
- broadcasting the chat object with the coupled verification tag to the communication devices;

and in that the step of conditioning the display of and access to a chat object of the chat group at a specific communication device, on the identification tag, comprises at a communication device, upon receiving a chat object with a verification tag, the step of:

- determining if the received verification tag matches a stored verification tag in the communication device in question, and if there is a match then displaying and allowing access to the received chat object.

8. The method according to any one of claims 3 to 7, **characterized in that** it is determined that an identification tag is associated to a specific communication device if the identification tag verifies against a unique number of the communication device.

9. The method according to any one of claims 3 to 7 **characterized in that** it is determined that an identification tag is associated to a specific communication device if the identification tag verifies against an identification tag of the communication device.

10. The method according to any one of claims 3 to 7, **characterized in that** it is determined that an identification tag is associated to a specific communication device if the identification tag verifies against information comprised on a smartcard coupled to the communication device.

11. The method according to claim 2, **characterized in that** the method further comprises the steps of:

- in a communication device, providing an identification tag of the communication device in question to the service provider;
- in the service provider, comparing the provided identification tag with the list of identification tags identifying the subset of subscribers of the service provider that are part of the predetermined group, and if there is a match then providing the communication device in question with a verification tag;
- in the communication device in question, storing the provided verification tag;

12. The method according to claim 11, **characterized in that** the method further comprises the steps of:

- the service provider coupling the chat object of the chat group with a verification tag;
- broadcasting the chat object with the coupled verification tag to the communication devices;

and in that the step of conditioning the display of and access to a chat object of the chat group at a specific communication device, on the identification tag, comprises at a communication device, upon receiving a chat object with a verification tag, the step of:

- determining if the received verification tag matches a stored verification tag in the communication device in question, and if there is a match then displaying and allowing access to the received chat object.

13. A system of gaining access to a chat group via communication devices, the access being limited to a predetermined group of people, at least a subset of which predetermined group are a subset of subscribers of a service provider providing services to the subscribers via the communication devices by means of broadcasting, each subscriber being associated to a specific communication device by means of an identification tag specific to each subscriber, **characterized in that** the system comprises means of conditioning the display of and access to a chat object of the chat group at a specific communication device, on the identification tag.

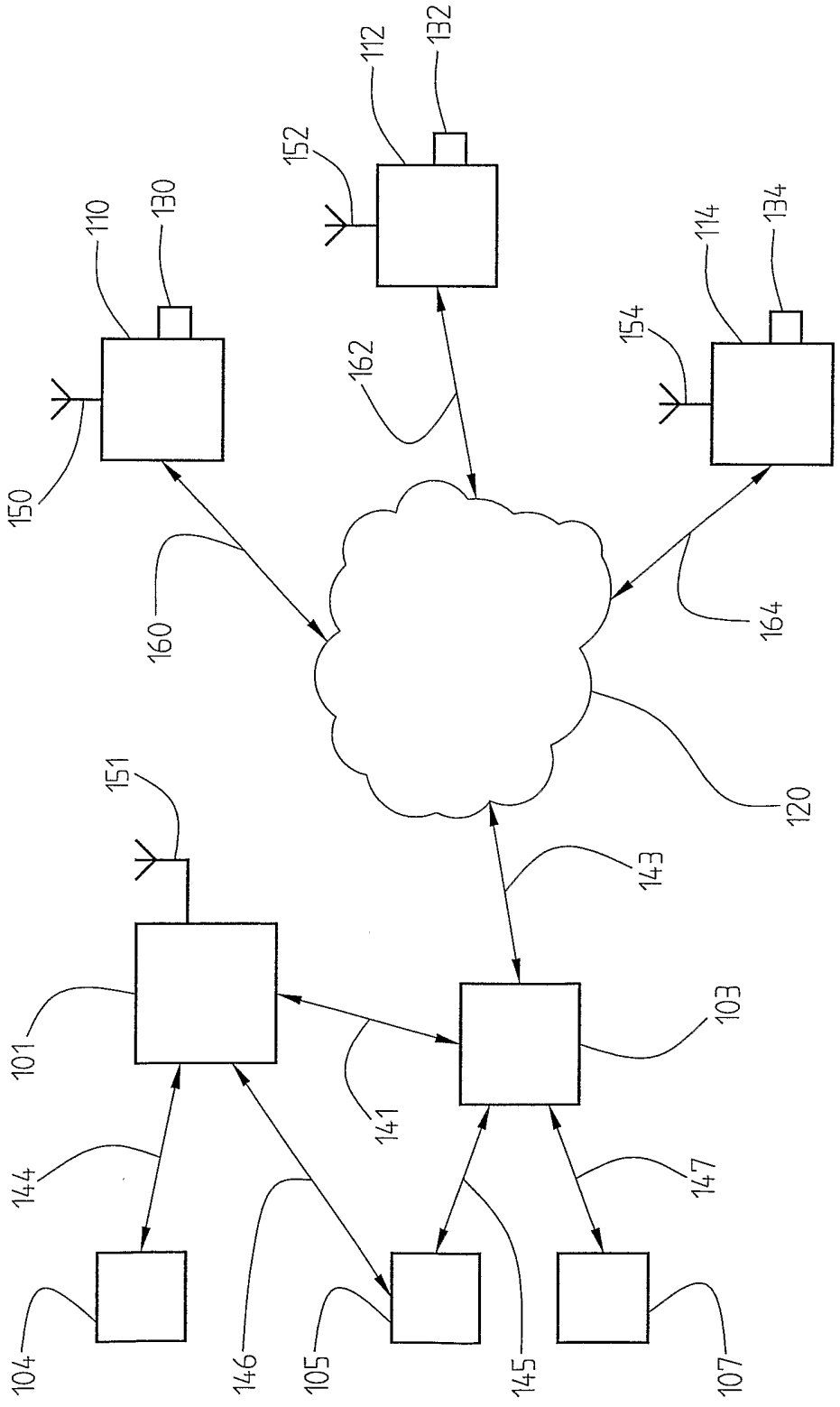
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Fig. 1

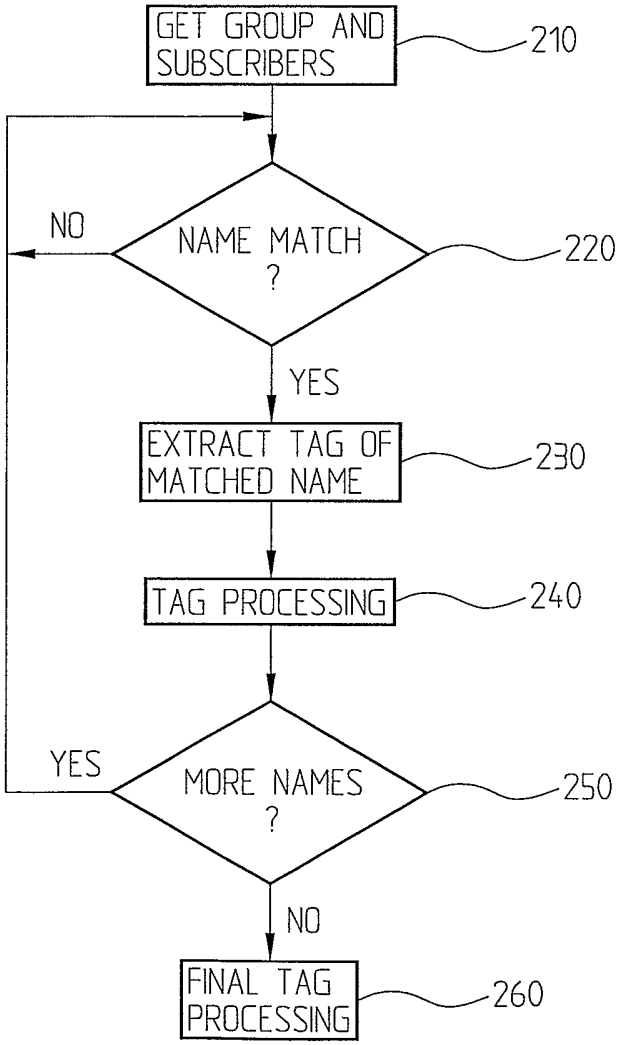
GET GROUP AND SUBSCRIBERS
210
NAME MATCH ?
220
NO
YES
EXTRACT TAG OF MATCHED NAME
230
TAG PROCESSING
240
MORE NAMES ?
250
YES
NO
FINAL TAG PROCESSING
260

Fig.2

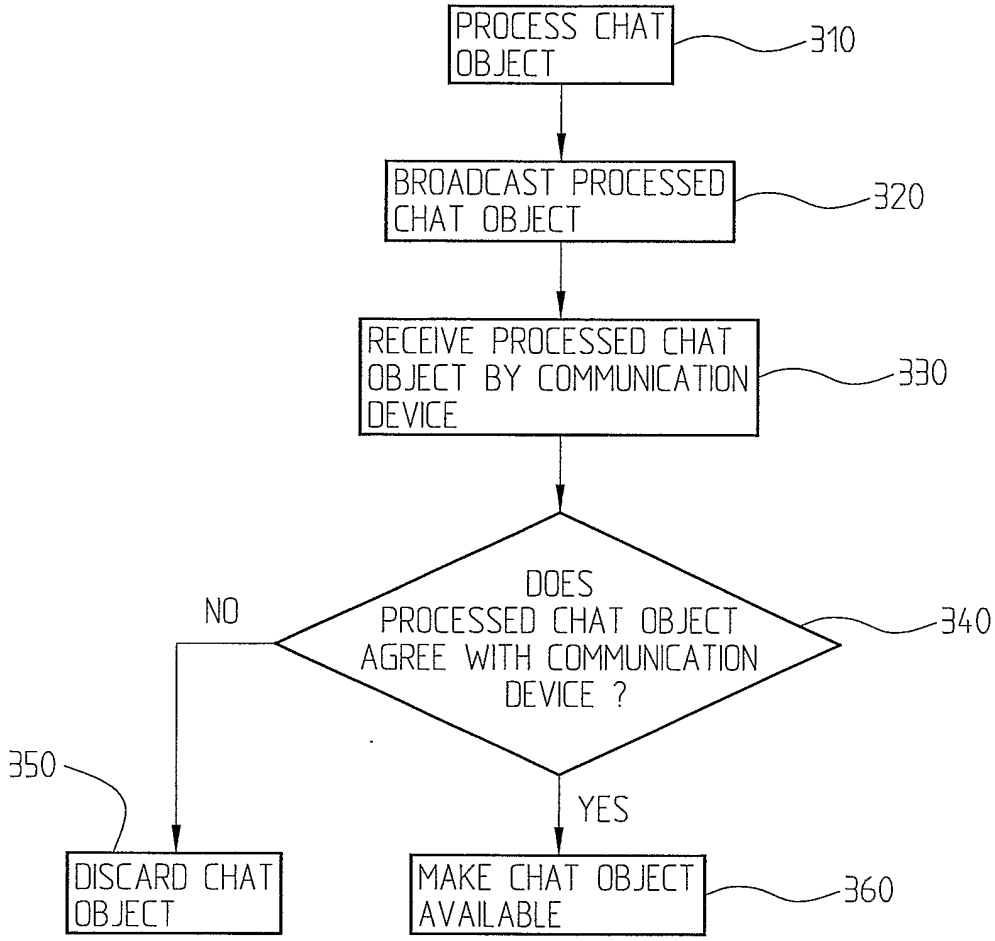
PROCESS CHAT OBJECT
310
BROADCAST PROCESSED CHAT OBJECT
320
RECEIVE PROCESSED CHAT OBJECT BY COMMUNICATION DEVICE
330
DOES PROCESSED CHAT OBJECT AGREE WITH COMMUNICATION DEVICE ?
340
NO
YES
350
DISCARD CHAT OBJECT
MAKE CHAT OBJECT AVAILABLE
360

Fig. 3

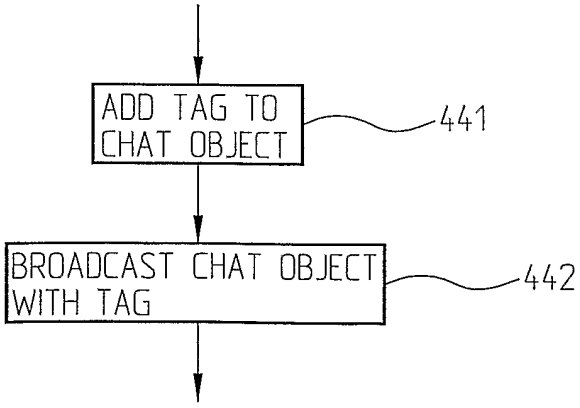
ADD TAG TO CHAT OBJECT
441
BROADCAST CHAT OBJECT WITH TAG
442

Fig. 4

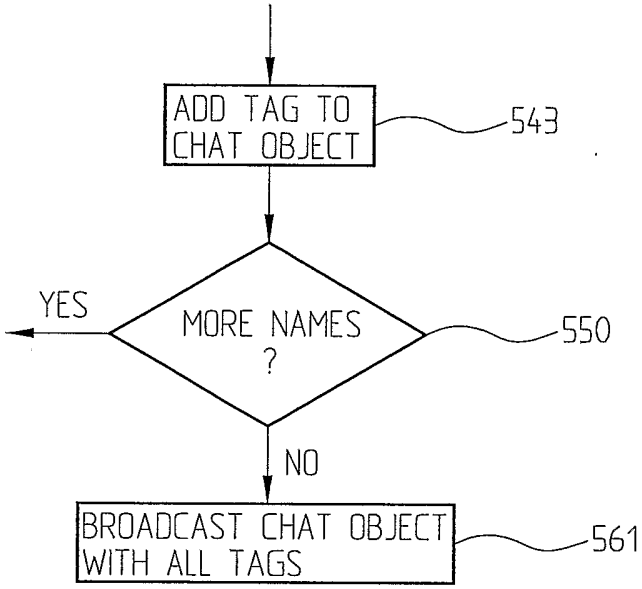
ADD TAG TO CHAT OBJECT
543
YES
MORE NAMES ?
550
NO
BROADCAST CHAT OBJECT WITH ALL TAGS
561

Fig. 5

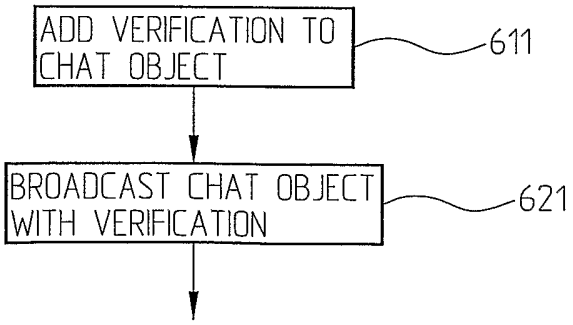
ADD VERIFICATION TO CHAT OBJECT
611
BROADCAST CHAT OBJECT WITH VERIFICATION
621

Fig. 6

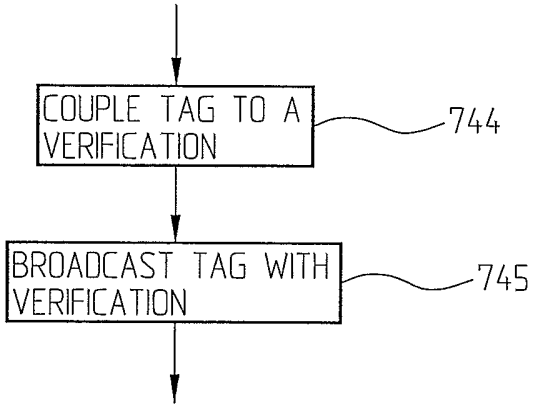
COUPLE TAG TO A VERIFICATION
744
BROADCAST TAG WITH VERIFICATION
745

Fig. 7

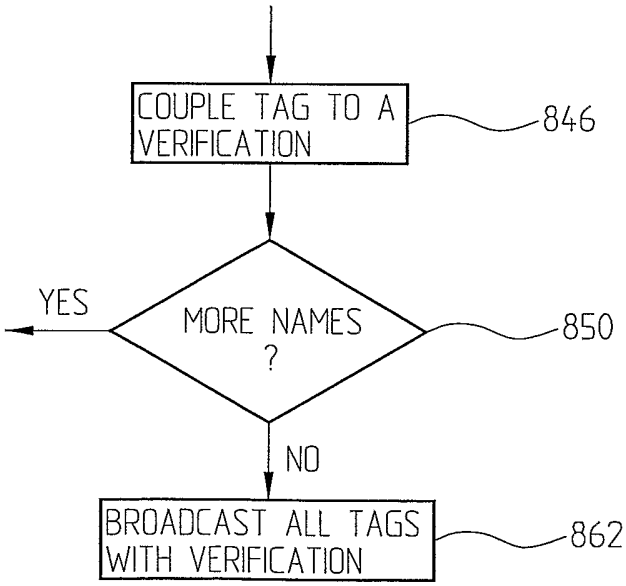
COUPLE TAG TO A VERIFICATION
846
YES
MORE NAMES ?
850
NO
BROADCAST ALL TAGS WITH VERIFICATION
862

Fig. 8

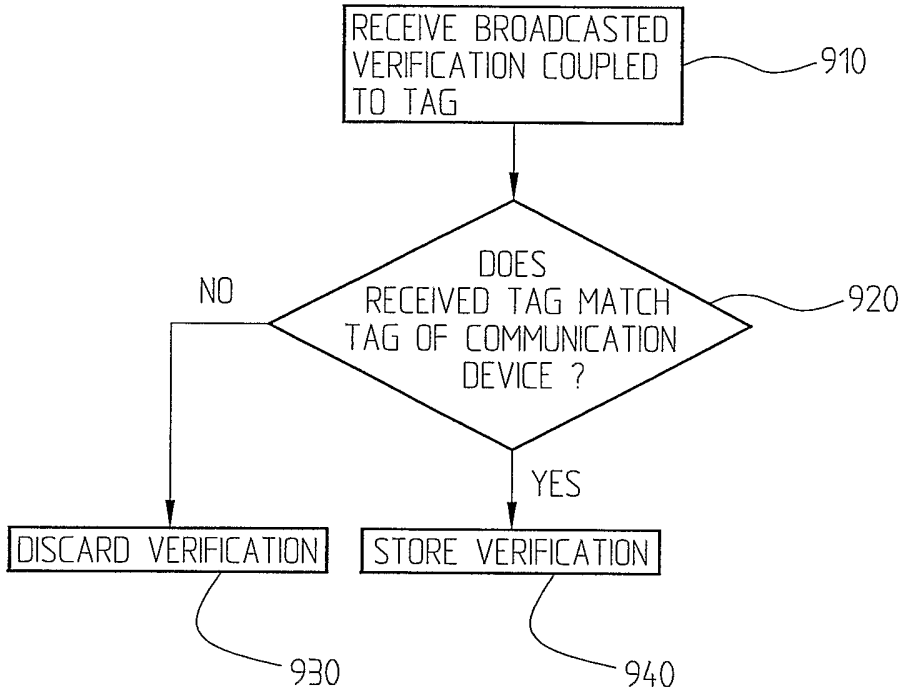
RECEIVE BROADCASTED VERIFICATION COUPLED TO TAG
910
DOES RECEIVED TAG MATCH TAG OF COMMUNICATION DEVICE ?
920
NO
YES
DISCARD VERIFICATION
STORE VERIFICATION
930
940

Fig. 9

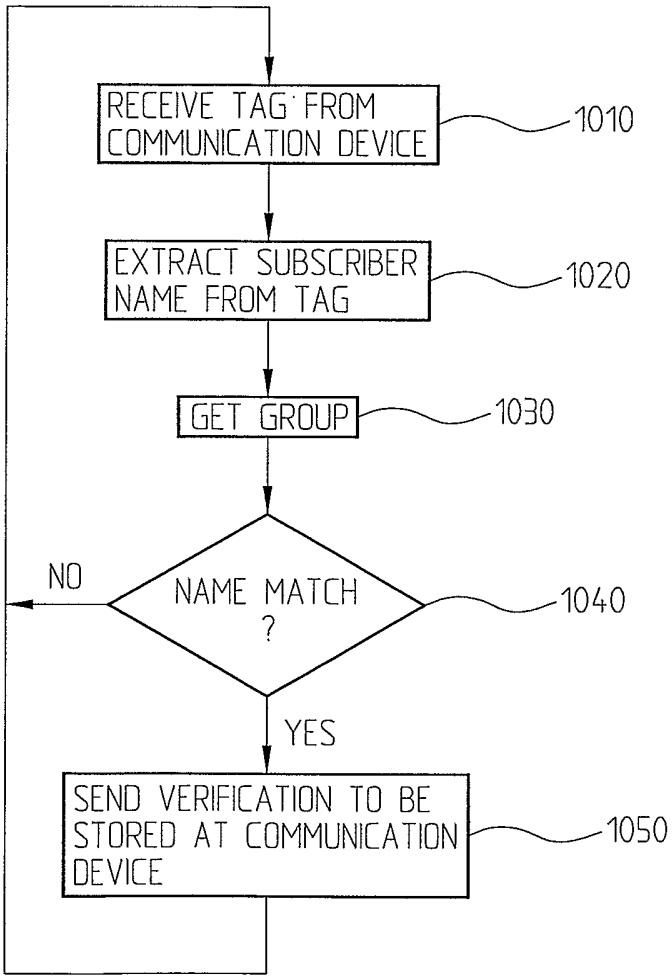
RECEIVE TAG FROM COMMUNICATION DEVICE
1010
EXTRACT SUBSCRIBER NAME FROM TAG
1020
GET GROUP
1030
NAME MATCH ?
1040
NO
YES
SEND VERIFICATION TO BE STORED AT COMMUNICATION DEVICE
1050

Fig. 10