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(54) **Apparatus and method for indicating user information in a conference event package**

Vorrichtung und Verfahren zur Anzeige von Benutzerinformationen in einem Konferenzereignispaket

Appareil et procédé pour signaler des informations utilisateur dans un module d'événement de conférence

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- **PETERSON NEUSTAR J: "A Privacy Mechanism for the Session Initiation Protocol (SIP); rfc3323.txt" IETF STANDARD, INTERNET ENGINEERING TASK FORCE, IETF, CH, 1 November 2002 (2002-11-01), XP015009091 ISSN: 0000-0003**
- **'RFC 4575', August 2006 article J. ROSENBERG ET AL.: 'A Session Initiation Protocol (SIP) Event Package for Conference State', pages 1 - 48**
- **'RFC 4353', February 2006 article J. ROSENBERG: 'A Framework for Conferencing with the Session Initiation Protocol (SIP)', pages 1 - 29**
- **J. PETERSON: 'A Privacy Mechanism for the Session Initiation Protocol (SIP)' RFC 3323 November 2002, pages 1 - 22**

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**Description**

## FIELD OF THE INVENTION

5 **[0001]** The present invention relates generally to multimedia conferencing. More particularly, the present invention relates to the flagging or indicating of a user's information during a multimedia conference.

## BACKGROUND OF THE INVENTION

10 **[0002]** This section is intended to provide a background or context to the invention that is recited in the claims. The description herein may include concepts that could be pursued, but are not necessarily ones that have been previously conceived or pursued. Therefore, unless otherwise indicated herein, what is described in this section is not prior art to the description and claims in this application and is not admitted to be prior art by inclusion in this section.

15 **[0003]** The Open Mobile Alliance (OMA) currently specifies an Instant Messaging service, namely OMA SIP/SIMPLE IM 1.0. The service is based on an Internet Engineering Task Force (IETF)-specified Session Initiation Protocol (SIP)/SIMPLE protocol such as (Session Initiation Protocol) SIP, Message Session Relay Protocol (MSRP) and Extensible Markup Language (XML) Configuration Application Protocol (XCAP).

20 **[0004]** The SIP events framework defines general mechanisms for subscribing to and receiving notifications of events within SIP networks. The SIP events framework is defined in the IETF Request for Comments (RFC) 3265, which can be found at [www.ietf.org/rfc/rfc3265.txt](http://www.ietf.org/rfc/rfc3265.txt). SIP introduces a package which is a specific "instantiation" of the events framework for a well-defined set of events. As used herein, a "SIP event package" is used for tightly coupled conferences. The SIP event package can be used by a conference notification service as outlined in the SIP conferencing framework.

25 **[0005]** In multimedia conferencing, participants of the conference use SIP to subscribe to the conference event package and to obtain information about, among other things, the list of participants, as well as their properties in the conference and the state of other components of the conference. This is discussed in detail in the IETF RFC 4575, which can be found at [www.ietf.org/rfc/rfc4575.txt](http://www.ietf.org/rfc/rfc4575.txt). The body of notification in this conference event package is a XML document. The document describes the state of the conference, the list of participants in the conference, their status, information, media types, etc.

30 **[0006]** A user becomes a participant of a conference by first sending a SIP INVITE request to the Uniform Resource Identifier (URI) that has been allocated to the conference. The conference server answers with a 200 OK response to accept the new participant. The new participant then subscribes to the conference event package in order to obtain the roster and other associated conference data. At about the same time, the other participants who are subscribed to the conference are also notified about the new participant. This is accomplished with an updated notification carrying the XML conference document.

35 **[0007]** Conference servers typically provide an anonymization function at the user's disposal. In many situations, a participant may wish to remain anonymous to the other conference participants, i.e., he or she may not want his or her SIP URI to be revealed to the other participants. This is achieved with the anonymization function of the conference, which replaces the participant's real SIP URI with an anonymous SIP URI such as `sip:user@anonymous.invalid`. This is the current practice according the IETF RFC 3261, which can be found at [www.ietf.org/rfc/rfc3261.txt](http://www.ietf.org/rfc/rfc3261.txt). The anonymization function in the conference therefore allows the conference application to authenticate users and know the real SIP URI of a user, without having to reveal this information to the rest of the participants in the conference.

40 **[0008]** Document "A Privacy Mechanism for the Session Initiation Protocol (SIP)" by J. Peterson Neustar (RFC 3323), IETF STANDARD, November 2002, discloses how to handle privacy when using SIP. This document defines guidelines for the creation of messages that do not divulge personal identity information.

45 **[0009]** In conventional conference scenarios, a problem arises when several anonymous users join the same conference. In particular, when there are several anonymous participants, each anonymous participant is currently unable to identify the anonymous URI that the conference server has selected for him or her. For example, it is helpful to envision a scenario where, in a given conference, there are 50 participants, and 10 of these participants have chosen to remain anonymous. In this situation, it is helpful to assume that the anonymous URIs allocated by the conference server contain some random number, for example, `sip:user39@anonymous.invalid`, `sip:user1932@anonymous.invalid`, `sip:user2723@anonymous.invalid`, and so on. At some point in time, a new participant joins the conference, thereby becoming the 11<sup>th</sup> anonymous participant out of a total of 51 participants. This new participant also subscribes to the conference event package and obtains a list of participants, which includes also his own anonymous URI: `sip:user4563@anonymous.invalid`. The problem is that this new participant is not able to distinguish himself from the rest of the other anonymous participants.

55 **[0010]** In light of the above, it is particularly desirable for the relevant software (the SIP User Agent) in any participant's device to be able to distinguish his or her own SIP URI from others, for example, to display private messages that are received through the conference server. It is desirable for the user interface (UI) in the SIP application to provide a

differentiation of these private messages that are sent by the other participants to the allocated anonymous URI. Therefore, the SIP User Agent (UA) needs to know which URI, among all of the anonymous URIs, is the anonymous URI that is allocated to the user.

## SUMMARY OF THE INVENTION

**[0011]** The above object is solved by a method as set out in claims 1 or 8, by a computer program product as set out in claims 4 or 11, and further alternatively by an apparatus as set out in claims 5 or 12.

**[0012]** The present invention provides a system and method for flagging or indicating user information in a conference event package. According to various embodiments, an extension is added to the current conference event package. This extension adds a new attribute to user information, including a flag or other indicator that explicitly indicates to a user that certain information is the user's own information. Therefore, when a user desiring anonymity joins a conference and then subscribes to the conference event package in order to obtain the roster, the conference server lists one of the participants with an indicator that indicates to the user "this is yourself." This allows the recipient of the roster to identify his or her own URI and adjacent information out of the rest of the URIs belonging to other participants.

**[0013]** With the various embodiments of the present invention, a client's association with specific user information in a conference event package is more explicitly indicated by the conference server than in conventional arrangements. In addition, from an administrator's point of view, the administrator has more flexibility in modifying clients' input information due to internal policy considerations and can explicitly indicate such changes to the client(s), thereby permitting the client(s) to subsequently use the information in the conference. Still further, in the case of several anonymous URIs in a conference, where an administrator modifies the users to make them unique (as required by RFC 4575), the administrator can explicitly indicate to each client its own information to be used in the conference.

**[0014]** These and other advantages and features of the invention, together with the organization and manner of operation thereof, will become apparent from the following detailed description when taken in conjunction with the accompanying drawings, wherein like elements have like numerals throughout the several drawings described below.

## BRIEF DESCRIPTION OF THE DRAWINGS

### [0015]

Figure 1 is a flow chart showing a process by which a user joins a conference in accordance with an embodiment of the present invention, where the user's identity is made public to other conference participants;

Figure 2 is a flow chart showing a process by which a user joins a conference in accordance with an embodiment of the present invention, where the user's identity is kept anonymous;

Figure 3 is an overview diagram of a system within which the present invention may be implemented;

Figure 4 is a perspective view of a mobile telephone that can be used in the implementation of the present invention;

Figure 5 is a schematic representation of the circuitry of the mobile telephone of Figure 4.

## DETAILED DESCRIPTION OF VARIOUS EMBODIMENTS

**[0016]** The present invention provides a system and method for flagging or indicating user information in a conference event package. According to various embodiments, an extension is added to the XML document transmitted as part of the current conference event package. This extension adds a new attribute to user information, including a flag or other indicator that explicitly indicates to a user that certain information is the user's own information. Therefore, when a user desiring anonymity joins a conference and then subscribes to the conference event package in order to obtain the roster, one of the participants will be listed with an indicator that indicates to the user "this is yourself" when the user views his or her user interface.

**[0017]** A first example scenario in accordance with various embodiments of the present invention is depicted in Figure 1. As depicted in Figure 1, "Alice" joins a conference at 110 by transmitting a SIP INVITE request to the URI that has been allocated to the conference. At 120, the conference server authenticates Alice with a 200 OK response, so that the conference server knows who Alice is and which URI is her SIP URI. At no time during this process does Alice indicate any anonymity requirement. At 130, Alice subscribes to a conference event package and, at 140, obtains a conference XML document. The conference XML document, a portion of which is listed below, contains a list of participants, including Alice's URI, which serves as a participant identifier in this scenario. In the portion of the XML document below, there is a new "yourown" XML attribute with a value set to "true" in the vicinity of Alice's information. This flag indicates to Alice's device the URI to which she is known to the rest of the participants.

```
<conference-state>
```

```
<user-count>33</user-count>
</conference-state>
```

```
<users>
<user entity="sip:bob@example.com" state="full">
  <display-text>Bob Hoskins</display-text>
</user>
```

```
...
```

```
<user entity="sip:alice@example.com" state="full"yourown="true">
  <display-text>Alice</display-text>
</user>
</users>
```

**[0018]** At about the same time, an updated conference XML document is transmitted to the other participants of the conference. Each participant's XML document will include a different "yourown" XML attribute marked as "true," thereby indicating to each person his or her own "identity" in the conference.

**[0019]** A second example scenario in accordance with various embodiments of the present invention is depicted in Figure 2. As shown in Figure 2, "Charlie" joins a conference at 210 by transmitting a SIP INVITE request to the URI that is allocated to the conference. At 220, the conference server authenticates Charlie with a 200 OK response, so that the conference server knows who Charlie is and which URI is his SIP URI. However, Charlie also indicates at 230 that he wants privacy via having the conference server not disclose his SIP URI to the rest of the participants. This indication can be accomplished via a variety of messages and mechanisms known in the art. At 240 and in response to this indication, the conference server allocates an anonymous participant identifier, in the form of an anonymous SIP URI, to Charlie. Charlie then proceeds to subscribe to the conference event package at 250 and obtains a conference XML document at 260. The conference XML document includes a list of participants. A relevant portion of the XML document is depicted below. The document includes a "yourown" XML attribute with a value set to "true" for Charlie's anonymized URI. This indicates to Charlie the URI to which he is known to the rest of the participants. In other words, Charlie can observe which of the anonymous URIs is his own.

```
<conference-state>
<user-count>33</user-count>
</conference-state>
```

```
<users>
<user entity="sip:bob@example.com" state="full">
  <display-text>Bob Hoskins</display-text>
</user>
<user entity="sip:alice@example.com" state="full">
  <display-text>Alice</display-text>
</user>
```

```
...
```

```
<user entity="sip:anon34@anonymous.invalid" state="full"yourown="true">
  <display-text>Anonymous</display-text>
</user>

</users>
```

**[0020]** The following is a description of an XML schema that can extend the current XML schema specified in RFC 4575 to add an "yourown" XML attribute. Other XML schemas are also possible.

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema targetNamespace="urn:params:xml:ns:ownflag"
  xmlns="urn:params:xml:ns:ownflag"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  clementFormDefault="qualified"
  attributeFormDefault="unqualified">
  <xs:annotation>
```

```

<xs:documentation xml:lang="en">
  Adds a flag to a user of the conference event
  package to indicate own user information.
</xs:documentation>
5  </xs:annotation>

<xs:import namespace="urn:ietf:params:xml:ns:conference-info"
  schemaLocation="urn:ietf:params:xml:schema:conference-info!>

10  <xs:attribute name="yourown" type="xs:boolean" default="false" />
  </xs:schema>

```

**[0021]** Figure 3 shows a system 10 in which the present invention can be utilized, comprising multiple communication devices that can communicate through a network. The system 10 may comprise any combination of wired or wireless networks including, but not limited to, a mobile telephone network, a wireless Local Area Network (LAN), a Bluetooth personal area network, an Ethernet LAN, a token ring LAN, a wide area network, the Internet, etc. The system 10 may include both wired and wireless communication devices.

**[0022]** For exemplification, the system 10 shown in Figure 3 includes a mobile telephone network 11 and the Internet 28. Connectivity to the Internet 28 may include, but is not limited to, long range wireless connections, short range wireless connections, and various wired connections including, but not limited to, telephone lines, cable lines, power lines, and the like.

**[0023]** The exemplary communication devices of the System 10 may include, but are not limited to, a mobile telephone 12, a combination PDA and mobile telephone 14, a PDA 16, an integrated messaging device (IMD) 18, a desktop computer 20, and a notebook computer 22. The communication devices may be stationary or mobile as when carried by an individual who is moving. The communication devices may also be located in a mode of transportation including, but not limited to, an automobile, a truck, a taxi, a bus, a boat, an airplane, a bicycle, a motorcycle, etc. Some or all of the communication devices may send and receive calls and messages and communicate with service providers through a wireless connection 25 to a base station 24. The base station 24 may be connected to a network server 26 that allows communication between the mobile telephone network 11 and the Internet 28. The system 10 may include additional communication devices and communication devices of different types.

**[0024]** The communication devices may communicate using various transmission technologies including, but not limited to, Code Division Multiple Access (CDMA), Global System for Mobile Communications (GSM), Universal Mobile Telecommunications System (UMTS), Time Division Multiple Access (TDMA), Frequency Division Multiple Access (FDMA), Transmission Control Protocol/Internet Protocol (TCP/IP), Short Messaging Service (SMS), Multimedia Messaging Service (MMS), e-mail, Instant Messaging Service, Bluetooth, IEEE 802.11, etc. A communication device may communicate using various media including, but not limited to, radio, infrared, laser, cable connection, and the like.

**[0025]** Figures 4 and 5 show one representative mobile telephone 12 within which the present invention may be implemented. It should be understood, however, that the present invention is not intended to be limited to one particular type of mobile telephone 12 or other electronic device. The mobile telephone 12 of Figures 4 and 5 includes a housing 30, a display 32 in the form of a liquid crystal display, a keypad 34, a microphone 36, an ear-piece 38, a battery 40, an infrared port 42, an antenna 44, a smart card 46 in the form of a UICC according to one embodiment of the invention, a card reader 48, radio interface circuitry 52, codec circuitry 54, a controller 56 and a memory 58. Individual circuits and elements are all of a type well known in the art.

**[0026]** The present invention is described in the general context of method steps, which may be implemented in one embodiment by a program product including computer-executable instructions, such as program code, executed by computers in networked environments. Generally, program modules include routines, programs, objects, components, data structures, etc. that perform particular tasks or implement particular abstract data types. Computer-executable instructions, associated data structures, and program modules represent examples of program code for executing steps of the methods disclosed herein. The particular sequence of such executable instructions or associated data structures represents examples of corresponding acts for implementing the functions described in such steps.

**[0027]** Software implementations of the present invention could be accomplished with standard programming techniques with rule based logic and other logic to accomplish the various database searching steps, correlation steps, comparison steps and decision steps. It should also be noted that the words "component" and "module," as used herein and in the claims, is intended to encompass implementations using one or more lines of software code, and/or hardware implementations, and/or equipment for receiving manual inputs.

**[0028]** The foregoing description of embodiments of the present invention have been presented for purposes of illustration and description. It is not intended to be exhaustive or to limit the present invention to the precise form disclosed, and modifications and variations are possible in light of the above teachings or may be acquired from practice of the

present invention. The embodiments were chosen and described in order to explain the principles of the present invention and its practical application to enable one skilled in the art to utilize the present invention in various embodiments and with various modifications as are suited to the particular use contemplated.

5

## Claims

### 1. A method, comprising:

10 receiving a request from a user to subscribe to a conference (110) and receiving a request to remain anonymous during the conference;  
 authenticating the user for joining the conference (120); and  
 in response to the request to remain anonymous, assigning an anonymous participant identifier for the user,  
 and providing a list of conference participant identifiers to the user, wherein the list includes an indication of  
 15 which of the listed participant identifiers corresponds to the user (140),  
 wherein the conference is a multimedia conference and the session initiation protocol is used.

### 2. The method of claim 1, wherein the indication comprises a flag that is set to "true" to indicate the participant identifier for the user.

20 3. The method of claim 1, wherein the anonymous participant identifier comprises a randomly assigned session initiation protocol uniform resource indicator.

### 4. A computer program product, embodied in a computer-readable medium, for providing information to a user in a conference of the user's identity, comprising:

computer code for authenticating the user for joining the conference (120); and  
 computer code for, in response to a user subscribing to a conference (110) and remaining anonymous during  
 the conference, assigning an anonymous participant identifier for the user and providing a list of conference  
 30 participant identifiers to the user, wherein the list includes an indication of which of the listed participant identifiers corresponds to the user (140),  
 wherein the conference is a multimedia conference and the session initiation protocol is used.

### 5. An apparatus, comprising:

35 a processor; and  
 a memory unit communicatively connected to the processor and including:  
 computer code for authenticating a user for joining a conference (120) and  
 40 computer code for, in response to the user subscribing to the conference (110) and remaining anonymous during the conference, assigning an anonymous participant identifier for the user and providing a list of conference participant identifiers to the user, wherein the list includes an indication of which of the listed participant identifiers corresponds to the user (140),  
 wherein the conference is a multimedia conference and a session initiation protocol is used.

### 6. The apparatus of claim 5, wherein the indication comprises a flag that is set to "true" to indicate the participant identifier for the user.

7. The apparatus of claim 5, wherein the anonymous participant identifier comprises a randomly assigned session initiation protocol uniform resource indicator.

50

### 8. A method, comprising:

subscribing by a user to a conference (110) and requesting to remain anonymous during the conference;  
 55 receiving an anonymous participant identifier and a list of conference participant identifiers from a conference server, the list of conference participant identifiers representing the participants in the conference; and  
 locating an indication associated with one of the listed participant identifiers, the indication identifying the listed participant identifier that corresponds to the user (140),

wherein the conference is a multimedia conference and a session initiation protocol is used.

9. The method of claim 8, wherein the anonymous participant identifier comprises a randomly assigned session initiation protocol uniform resource indicator.

10. The method of claim 8, wherein the indication comprises a flag that is set to "true" to indicate the participant identifier for the user.

11. A computer program product, embodied in a computer-readable medium, for self-identifying a user within a conference, comprising:

computer code for subscribing by a user to a conference (110) and requesting to remain anonymous during the conference;

computer code for receiving an anonymous participant identifier and a list of conference participant identifiers from a conference server, the list of conference participant identifiers representing the participants in the conference; and

computer code for locating an indication associated with one of the listed participant identifiers, the indication identifying the listed participant identifier that corresponds to the user (140), wherein the conference is a multimedia conference and the session initiation protocol is used.

12. An apparatus, comprising:

a processor; and

a memory unit communicatively connected to the processor and including:

computer code for subscribing by a user to a conference (110) and requesting to remain anonymous during the conference;

computer code for receiving an anonymous participant identifier and a list of conference participant identifiers, the list of conference participant identifiers representing the participants in the conference; and wherein the list includes an indication of which of the listed participant identifiers corresponds to the user's own identifier (140),

wherein the conference is a multimedia conference and the session initiation protocol is used.

13. The apparatus of claim 12, wherein the list of conference participant identifiers is contained in notifying response message.

14. The apparatus of claim 12, wherein the indication comprises a flag that is set to "true" to indicate the participant identifier for the user.

15. The apparatus of claim 12, wherein the anonymous participant identifier comprises a randomly assigned session initiation protocol uniform resource indicator.

## Patentansprüche

1. Verfahren, Folgendes aufweisend:

Empfangen einer Anfrage von einem Benutzer zum Anmelden bei einer Konferenz (110) und Empfangen einer Anfrage, um während der Konferenz anonym zu bleiben;

Authentifizieren des Benutzers zur Teilnahme an der Konferenz (120) und

als Reaktion auf die Anfrage um Anonymität, Zuweisen eines anonymen Teilnehmeridentifikators für den Benutzer und Bereitstellen einer Liste von Konferenzteilnehmeridentifikatoren für den Benutzer, wobei die Liste eine Angabe darüber enthält, welcher der aufgelisteten Teilnehmeridentifikatoren dem Benutzer entspricht (130),

wobei die Konferenz eine Multimediakonferenz ist und das Session Initiation Protocol verwendet wird.

2. Verfahren nach Anspruch 1,

wobei die Angabe ein Flag aufweist, das auf "wahr" gestellt wird, um den Teilnehmeridentifikator für den Benutzer anzugeben.

3. Verfahren nach Anspruch 1, wobei der anonyme Teilnehmeridentifikator einen zufällig zugewiesenen Session Initiation Protocol Uniform Resource Indicator aufweist.

4. Computerprogrammprodukt, ausgeführt in einem computerlesbaren Träger zum Bereitstellen von Information für einen Benutzer in einer Konferenz für die Identität des Benutzers, Folgendes aufweisend:

Computercode zum Authentifizieren des Benutzers zur Konferenzteilnahme (120) und Computercode, um als Reaktion auf die Anmeldung eines Benutzers bei einer Konferenz (100) und zum Anonymbleiben während der Konferenz, einen anonymen Teilnehmeridentifikator für den Benutzer zuzuweisen und dem Benutzer eine Liste von Konferenzteilnehmeridentifikatoren bereitzustellen, wobei die Liste eine Angabe darüber enthält, welcher der aufgelisteten Teilnehmeridentifikatoren dem Benutzer entspricht (140), wobei die Konferenz eine Multimediakonferenz ist und das Session Initiation Protocol verwendet wird.

5. Gerät, Folgendes aufweisend:

einen Prozessor und eine Speichereinheit, die kommunizierend mit dem Prozessor verbunden ist und Folgendes aufweist:

Computercode zum Authentifizieren eines Benutzers zur Teilnahme an einer Konferenz (120) und Computercode um, als Reaktion auf das Anmelden eines Benutzers bei der Konferenz (100) und Anonymbleiben während der Konferenz, dem Benutzer einen anonymen Teilnehmeridentifikator zuzuweisen und dem Benutzer eine Liste von Konferenzteilnehmeridentifikatoren bereitzustellen, wobei die Liste eine Angabe darüber aufweist, welcher der aufgelisteten Teilnehmeridentifikatoren dem Benutzer entspricht (140), wobei die Konferenz eine Multimediakonferenz ist und das Session Initiation Protocol verwendet wird.

6. Gerät nach Anspruch 5, wobei die Angabe ein Flag aufweist, das auf "wahr" gesetzt ist, um dem Benutzer den Teilnehmeridentifikator anzugeben.

7. Gerät nach Anspruch 5, wobei der anonyme Benutzerteilnehmeridentifikator einen zufällig zugewiesenen Session Initiation Protocol Uniform Resource Indicator aufweist.

8. Verfahren, Folgendes aufweisend:

Anmelden durch einen Benutzer bei einer Konferenz (110) und Anfrage zum Anonymbleiben während der Konferenz, Empfangen eines anonymen Teilnehmeridentifikators und einer Liste von Konferenzteilnehmeridentifikatoren von einem Konferenzserver, wobei die Liste der Konferenzteilnehmeridentifikatoren die Teilnehmer der Konferenz darstellt, und Lokalisieren einer Angabe, die zu einem der aufgelisteten Teilnehmeridentifikatoren gehört, wobei die Angabe, die den aufgelisteten Teilnehmeridentifikator identifiziert, der dem Benutzer entspricht (140), wobei die Konferenz eine Multimediakonferenz ist und das Session Initiation Protocol verwendet wird.

9. Verfahren nach Anspruch 8, wobei der anonyme Teilnehmeridentifikator einen zufällig zugewiesenen Session Initiation Protocol Uniform Resource Indicator aufweist.

10. Verfahren nach Anspruch 8, wobei die Angabe ein Flag aufweist, das auf "wahr" gestellt ist, um den Teilnehmeridentifikator für den Benutzer anzuzeigen.

11. Computerprogrammprodukt, ausgeführt in einem computerlesbaren Träger, zur Selbstidentifikation eines Benutzers innerhalb einer Konferenz, Folgendes aufweisend:

Computercode zum Anmelden durch einen Benutzer bei einer Konferenz (110) und zur Anfrage um Anonymität während der Konferenz;  
Computercode zum Empfangen eines anonymen Teilnehmeridentifikators und einer Liste von Konferenzteilnehmeridentifikatoren von einem Konferenzserver, wobei die Liste von Konferenzteilnehmeridentifikatoren die



Teilnehmer der Konferenz darstellt, und

Computercode zum Lokalisieren einer Angabe, die zu einem der aufgelisteten Teilnehmeridentifikatoren gehört, wobei die Angabe den Teilnehmeridentifikator der Liste, der dem Benutzer entspricht, identifiziert (140), wobei die Konferenz eine Multimediakonferenz ist und das Session Initiation Protocol verwendet wird.

**12. Gerät, Folgendes aufweisend:**

einen Prozessor und

eine Speichereinheit, die kommunizierend mit dem Prozessor verbunden ist und Folgendes aufweist:

Computercode zum Anmelden durch einen Benutzer bei einer Konferenz (110) und zur Anfrage um Anonymität während der Konferenz;

Computercode, um einen anonymen Teilnehmeridentifikator zu erhalten und eine Liste von Konferenzteilnehmeridentifikatoren, wobei die Liste der Konferenzteilnehmeridentifikatoren die Teilnehmer der Konferenz darstellt, und

wobei die Liste eine Angabe darüber enthält, welcher der aufgelisteten Teilnehmeridentifikatoren dem eigenen Identifikator des Benutzers entspricht, wobei die Konferenz eine Multimediakonferenz ist und das Session Initiation Protocol verwendet wird.

**13. Gerät nach Anspruch 12, wobei die Liste der Konferenzteilnehmeridentifikatoren in der Bekanntgabeantwortmeldung enthalten ist.**

**14. Gerät nach Anspruch 12, wobei die Angabe ein Flag aufweist, das auf "wahr" gestellt ist, um dem Benutzer den Teilnehmeridentifikator anzugeben.**

**15. Gerät nach Anspruch 12, wobei der anonyme Teilnehmeridentifikator einen zufällig zugewiesenen Session Initiation Protocol Uniform Resource Indicator aufweist.**

**Revendications**

**1. Procédé, comportant les étapes ci-dessous consistant à :**

recevoir une demande en provenance d'un utilisateur cherchant à s'inscrire à une conférence (110) et recevoir une demande de conservation d'anonymat au cours de la conférence ;

authentifier l'utilisateur pour lui permettre de prendre part à la conférence (120) ; et

en réponse à la demande de conservation d'anonymat, affecter un identifiant de participant anonyme à l'utilisateur, et fournir une liste d'identifiants de participants à une conférence à l'utilisateur, dans laquelle la liste inclut une indication de l'identifiant parmi les identifiants de participants répertoriés qui correspond à l'utilisateur (140) ;

dans laquelle la conférence est une conférence multimédia et le protocole d'ouverture de session est utilisé.

**2. Procédé selon la revendication 1,**

dans lequel l'indication comporte un fanion lequel est défini sur « vrai » en vue d'indiquer l'identifiant de participant pour l'utilisateur.

**3. Procédé selon la revendication 1, dans lequel l'identifiant de participant anonyme comporte un identificateur uniforme de ressource de protocole d'ouverture de session affecté de manière aléatoire.**

**4. Produit-programme informatique, intégré dans un support lisible par un ordinateur, pour fournir des informations à un utilisateur prenant part à une conférence, concernant l'identité de l'utilisateur, comportant :**

un code informatique pour authentifier l'utilisateur afin de lui permettre de prendre part à la conférence (120) ; et un code informatique pour, en réponse à l'inscription à une conférence (110) et à une demande de conservation

d'anonymat d'un utilisateur au cours de la conférence, affecter un identifiant de participant anonyme à l'utilisateur et fournir une liste d'identifiants de participants à une conférence à l'utilisateur, dans laquelle la liste inclut une indication de l'identifiant parmi les identifiants de participants répertoriés qui correspond à l'utilisateur (140) ; dans lequel la conférence est une conférence multimédia et le protocole d'ouverture de session est utilisé.

**5. Dispositif, comportant :**

un processeur ; et  
 une unité de mémoire connectée de manière à pouvoir communiquer au processeur et incluant :  
 5 un code informatique pour authentifier un utilisateur afin de lui permettre de prendre part à une conférence (120) ; et  
 un code informatique pour, en réponse à l'inscription à une conférence (110) et à une demande de conservation d'anonymat de l'utilisateur au cours de la conférence, affecter un identifiant de participant anonyme à l'utilisateur et fournir une liste d'identifiants de participants à une conférence à l'utilisateur, dans laquelle la liste inclut une  
 10 indication de l'identifiant parmi les identifiants de participants répertoriés qui correspond à l'utilisateur (140) ;  
 dans laquelle la conférence est une conférence multimédia et un protocole d'ouverture de session est utilisé.

**6. Dispositif selon la revendication 5, dans lequel l'indication comporte un fanion lequel est défini sur « vrai » en vue d'indiquer l'identifiant de participant pour l'utilisateur.****7. Dispositif selon la revendication 5, dans lequel l'identifiant de participant anonyme comporte un identificateur uniforme de ressource de protocole d'ouverture de session affecté de manière aléatoire.****8. Procédé, comportant les étapes ci-dessous, mises en oeuvre par un utilisateur, consistant à :**

s'inscrire à une conférence (110) et demander de conserver l'anonymat au cours de la conférence ;  
 recevoir un identifiant de participant anonyme et une liste d'identifiants de participants à une conférence à partir d'un serveur de conférence, la liste d'identifiants de participants à une conférence représentant les participants à la conférence ; et  
 25 localiser une indication associée à l'un des identifiants de participants répertoriés, l'indication identifiant l'identifiant de participant répertorié qui correspond à l'utilisateur (140) ;  
 dans laquelle la conférence est une conférence multimédia et un protocole d'ouverture de session est utilisé.

**9. Procédé selon la revendication 8, dans lequel l'identifiant de participant anonyme comporte un identificateur uniforme de ressource de protocole d'ouverture de session affecté de manière aléatoire.****10. Procédé selon la revendication 8, dans lequel l'indication comporte un fanion lequel est défini sur « vrai » en vue d'indiquer l'identifiant de participant pour l'utilisateur.****11. Produit-programme informatique, intégré dans un support lisible par un ordinateur, pour identifier automatiquement un utilisateur dans une conférence, comportant :**

un code informatique pour permettre à un utilisateur de s'inscrire à une conférence (110) et demander de conserver l'anonymat au cours de la conférence ;  
 40 un code informatique pour recevoir un identifiant de participant anonyme et une liste d'identifiants de participants à une conférence à partir d'un serveur de conférence, la liste d'identifiants de participants à une conférence représentant les participants à la conférence ; et  
 un code informatique pour localiser une indication associée à l'un des identifiants de participants répertoriés, l'indication identifiant l'identifiant de participant répertorié qui correspond à l'utilisateur (140) ;  
 45 dans laquelle la conférence est une conférence multimédia et le protocole d'ouverture de session est utilisé.

**12. Dispositif, comportant :**

un processeur ; et  
 50 une unité de mémoire connectée au processeur de manière à pouvoir communiquer avec le processeur et incluant :  
 un code informatique pour permettre à un utilisateur de s'inscrire, à une conférence (110) et demander de conserver l'anonymat au cours de la conférence ;  
 un code informatique pour recevoir un identifiant de participant anonyme et une liste d'identifiants de participants à une conférence, la liste d'identifiants de participants à une conférence représentant les participants à la  
 55 conférence ; et  
 dans laquelle la liste inclut une indication de l'identifiant parmi les identifiants de participants répertoriés qui correspond à l'identifiant propre de l'utilisateur (140) ;

dans laquelle la conférence est une conférence multimédia et le protocole d'ouverture de session est utilisé.

**13.** Dispositif selon la revendication 12, dans lequel la liste d'identifiants de participants à une conférence est incluse dans un message de réponse de notification.

5 **14.** Dispositif selon la revendication 12, dans lequel l'indication comporte un fanion lequel est défini sur « vrai » en vue d'indiquer l'identifiant de participant pour l'utilisateur.

10 **15.** Dispositif selon la revendication 12, dans lequel l'identifiant de participant anonyme comporte un identificateur uniforme de ressource de protocole d'ouverture de session affecté de manière aléatoire.

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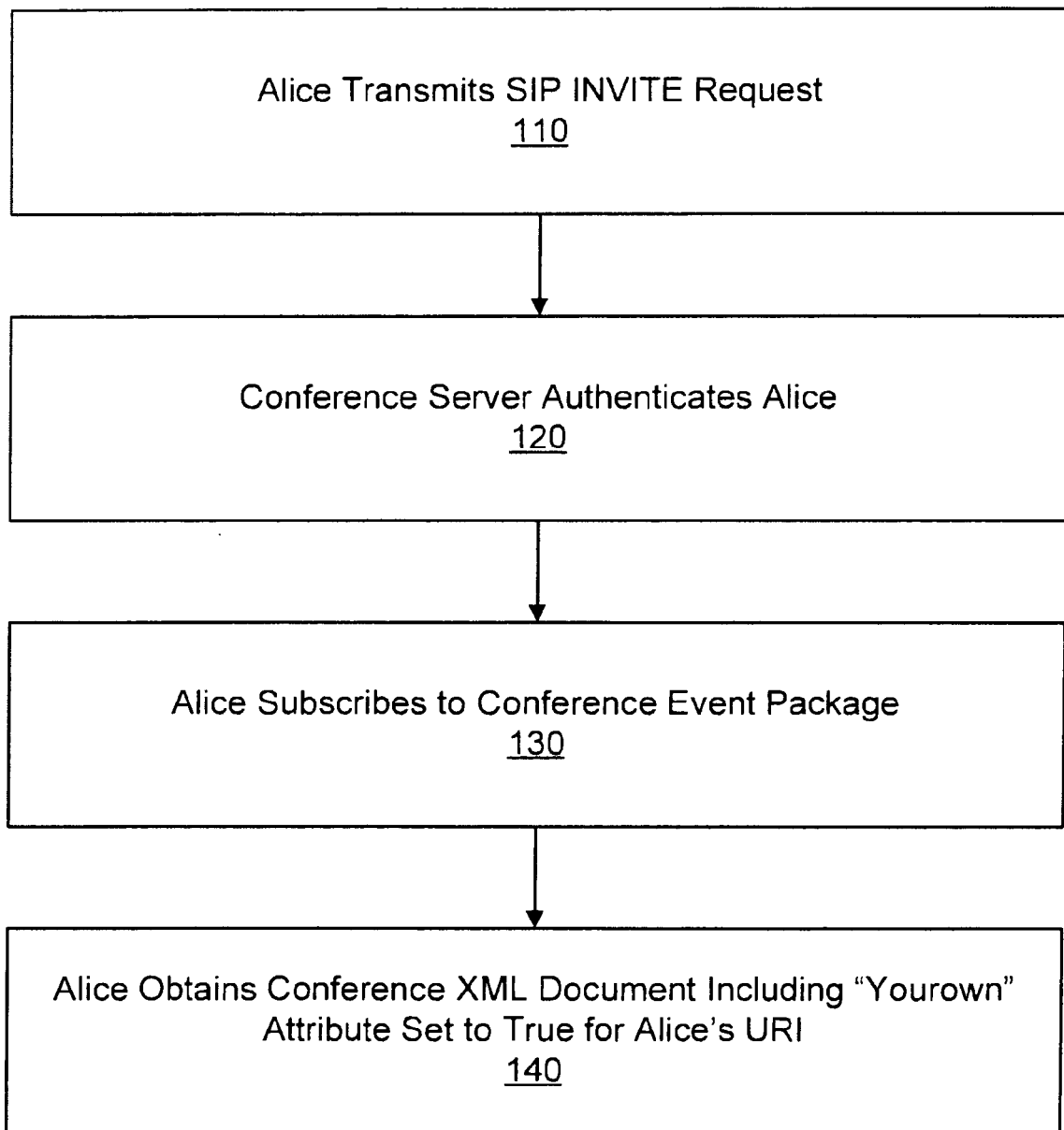


FIG. 1

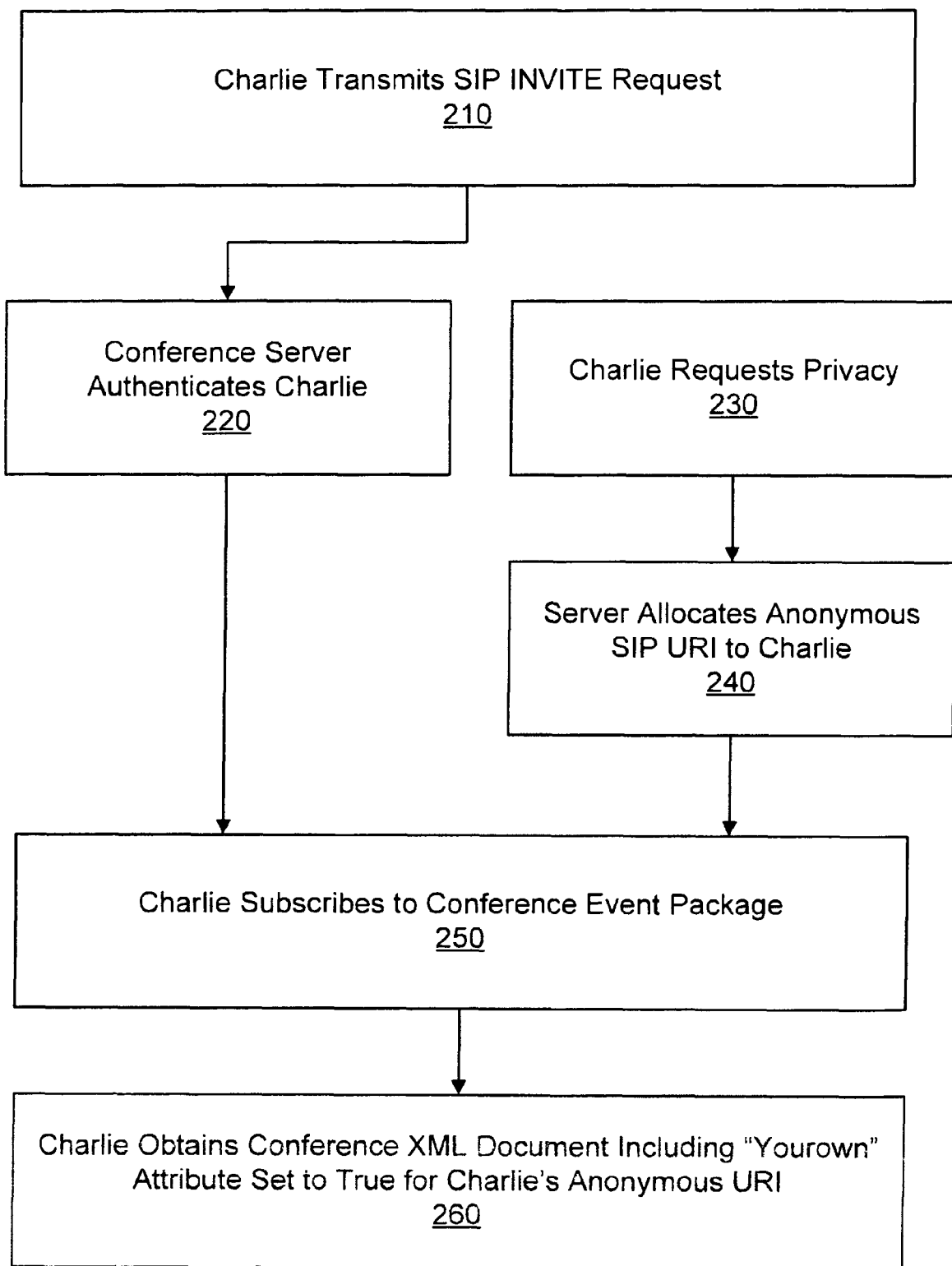


FIG. 2

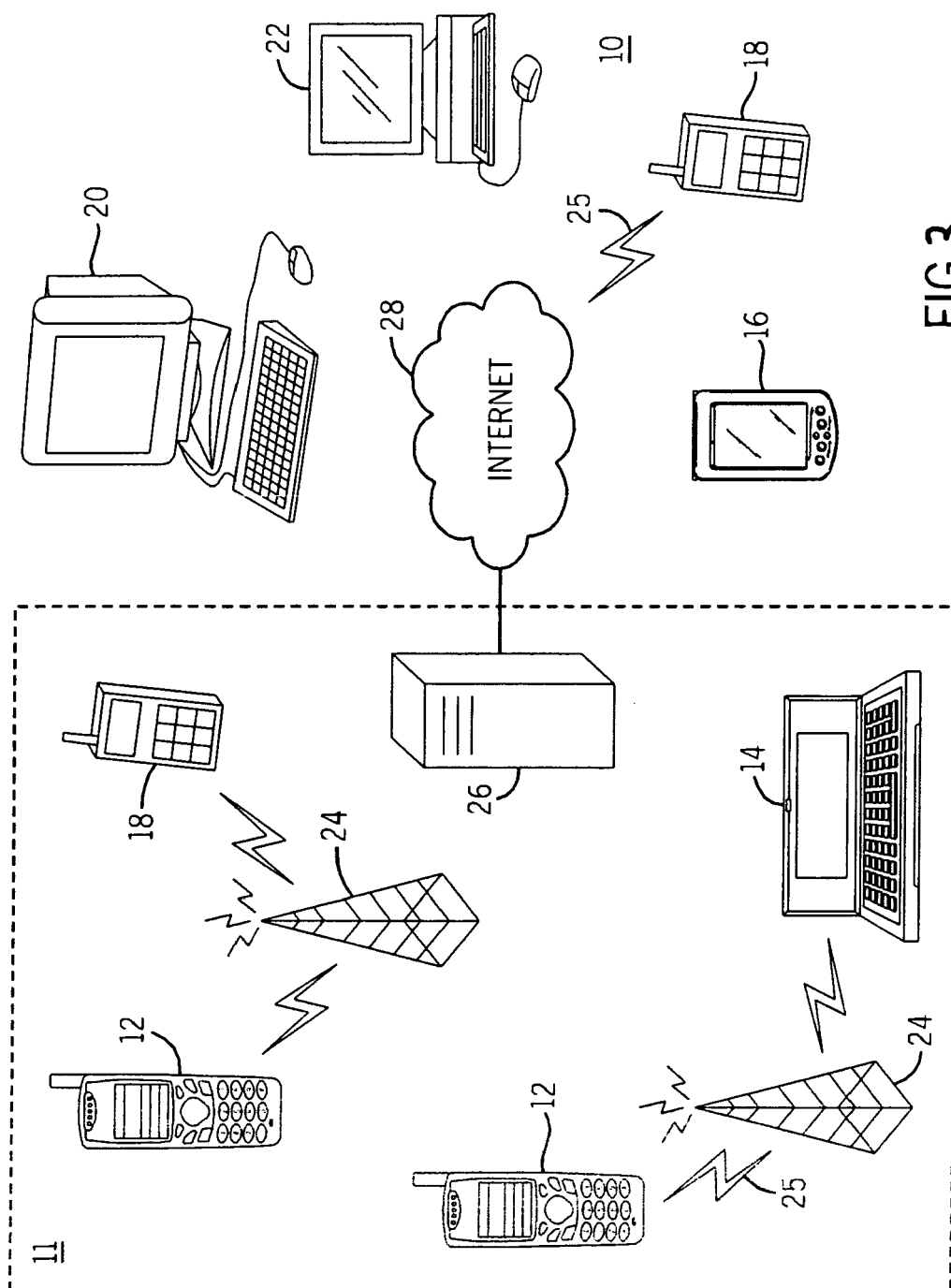


FIG.3

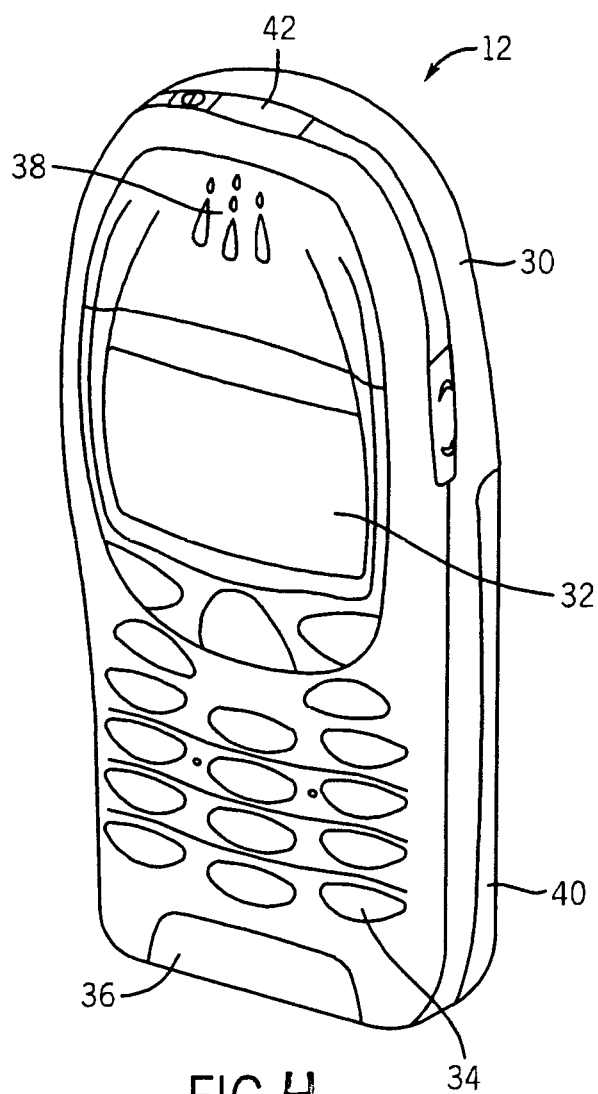


FIG. 4

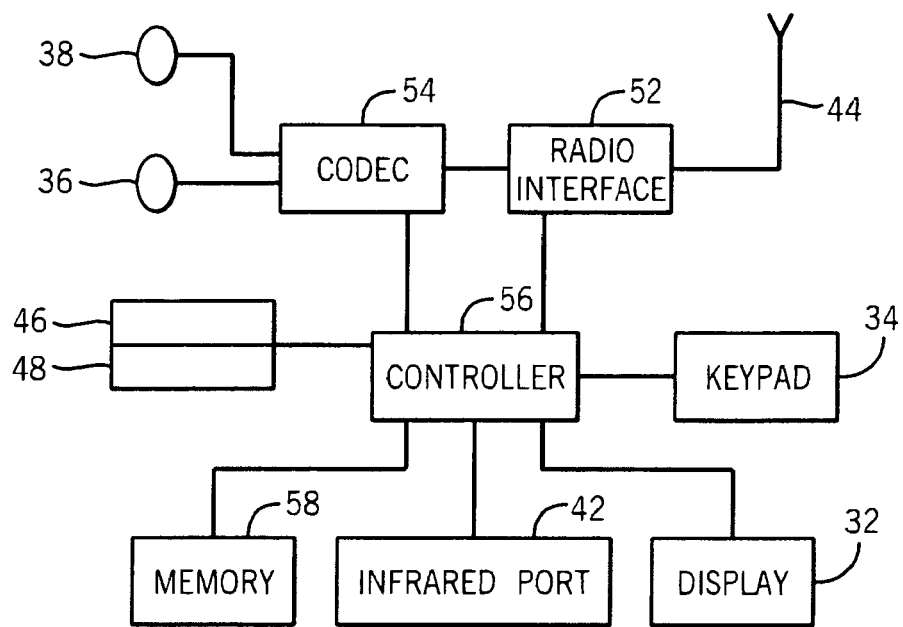


FIG. 5



## REFERENCES CITED IN THE DESCRIPTION

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### Non-patent literature cited in the description

- **J. Peterson Neustar.** A Privacy Mechanism for the Session Initiation Protocol. (*RFC 3323*), *IETF STANDARD*, November 2002 **[0008]**