



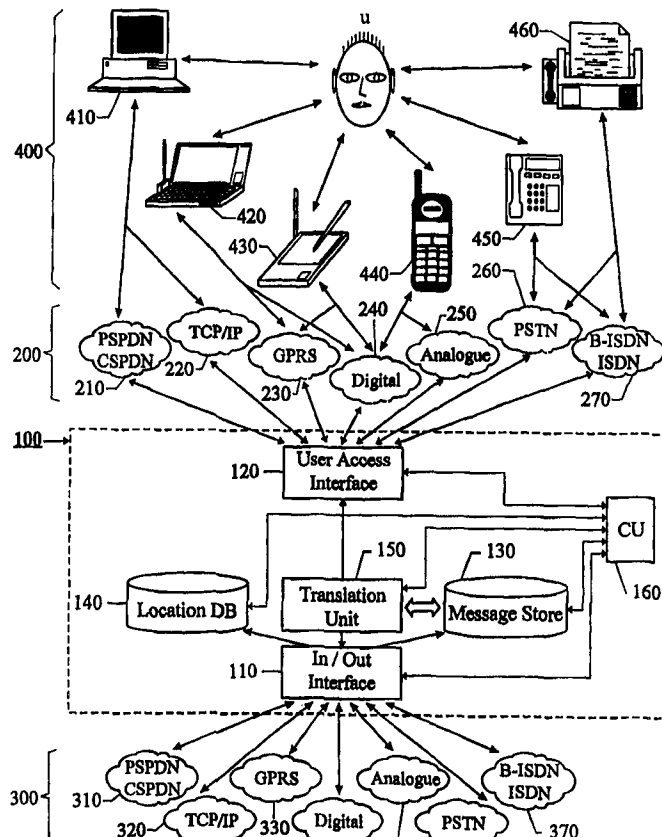
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(54) Title: METHOD AND ARRANGEMENT FOR HANDLING OF MULTIMEDIA MESSAGES IN A TELECOMMUNICATION SYSTEM

(57) Abstract

The present invention relates to methods and an arrangement (100) for receiving, storing and originating multimedia messages. An incoming message is transmitted to an in/out interface via a transport network (300). The message is stored in a message store (130), translated in a translation unit (150) into a format adapted to the presentation capabilities of receiver's (u) current terminal (400) and delivered to the receiver (u) over a user access interface (120) and an access network (200) with guidance from a location database (140). Earlier received messages, which are kept in the message store, can be accessed and edited via any standardised access network thanks to media translation in the translation unit (150). A multimedia message is originated by a user (u) in the system (100) via any access network (200) and the user access interface (120). The message is then stored in the message store (130), translated in the translation unit (150) and delivered to the destination through the in/out interface (110) and an appropriate transport network (300).



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BACKGROUND OF THE INVENTION

The present invention relates to methods in a communication system which allow messages including multiple message types to be stored and delivered to and from a variety of terminal types  
5 over a plurality of interconnecting networks.

The invention also relates to an arrangement for executing said methods.

STATE OF THE ART

10 A communication system is previously known by US-A-4,837,798 in which one single electronic mailbox can receive and store different types of messages, such as voice or data messages. The message recipient has a single point of contact with the system where all messages can be scanned / viewed, which is  
15 pre-selected by the recipient. If necessary the communication system performs media translation from one media to another. Furthermore, one individual message may be composed of parts that use different native media.

US-A-5,333,266 discloses a method and an apparatus for  
20 integrating mail from a plurality of mail servers handling different media types such as text, voice, facsimile, video and image. Various terminal interfaces, e.g. computers or telephones, can be used to collect, generate and act upon a message of any media type. For this purpose the apparatus  
25 comprises translation modules for bi-directional translation between speech and text and between optical character recognition and text.

From EP-A-0,662,763 is known an integrated electronic message system for storage and retrieval of electronic messages of different data types such as voice, video, text or facsimile. Electronic messages directed to a specific destination are placed into a single electronic mailbox, irrespective of the data type of the electronic message. Each message may consist of several message bodies, which contain message parts of different data types. When a stored message is retrieved from a certain endpoint device the format of the message is adapted as much as possible to what kinds of media the specific endpoint device can reproduce. If, for instance, the endpoint device is an ordinary telephone message bodies representing sounds may be presented directly, text bodies containing converted into voice data and message bodies carrying video or image data are eliminated.

In the solution according to US-A-4,837,798 the recipient only has one single point of contact with the communication system. The system is thus incapable of handling e.g. mobile users roaming from one point to another. Incoming messages are always delivered to a default terminal regardless of the user being there or not.

US-A-5,333,266 suggests a distributed message translation system which implies a message translation module in each of the interconnected networks. All message translation modules keep a copy of every message sent. This solution consumes considerable resources that could be used for alternative purposes.

The electronic message transfer system of EP-A-0,662,763 only translates header and title information. Furthermore, messages are always pre-translated, i.e. if the presentation capabilities at the current location of a user demands a message to be

translated before delivery the message will be translated directly and stored centrally in a translated format. Since translation is performed when a message is received and not when a message is actually retrieved some translations may prove to  
5 be unnecessary. This is the case, for instance, when a user before accessing a certain message changes his/her terminal to a terminal which can access the message in its original format.

#### DISCLOSURE OF THE INVENTION

10 An object of the present invention is thus to provide one common message store which may be accessed not only from one, but from multiple terminal and network types.

It is another object of the present invention to link the message store to a user location database, which keeps a record  
15 of every user's current or latest registered location.

A further object of the present invention is to minimise the total need for message translation due to limited presentation capabilities of one or more specific user terminals.

20 Yet a further object of the present invention is to minimise the total need for message translation due to limited transmission capabilities of one or more specific interconnecting telecommunication networks.

These and other objects are met by the present invention according to which the translation is carried out in accordance  
25 with terminal type-data stored in the location database. The automatic translation procedure is complemented by a dynamic dialogue between the user and the messaging system. The dynamic dialogue gives the user an opportunity to notify the system of any additional multimedia presentation capabilities that his/her  
30 terminal may have and/or to inform the system that his/her terminal cannot handle a particular media format, but another variation of this format and/or to choose an alternative

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