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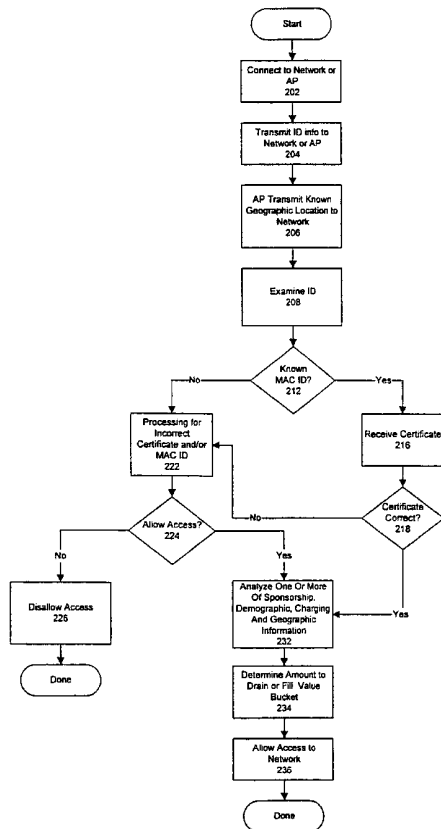
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(54) Title: A NETWORK COMMUNICATION SERVICE WITH AN IMPROVED SUBSCRIBER MODEL USING DIGITAL CERTIFICATES



(57) Abstract: A network communication service with an improved subscriber model. In one embodiment, a mobile user (MU), also referred to as a subscriber, may access the network service through a portable computing device (PCD) using a wireless (or wired) network interface card. Access points (APs) for the network may be widely distributed in various facilities. In one embodiment, the APs are arranged at known geographic locations and may provide geographic location information regarding the geographic location of the mobile user (MU). A digital certificate may be stored on the mobile user's PCD in order to allow access to the network. The digital certificate may store membership information, including information regarding programs or entities in which the mobile user is a member or is affiliated. Each mobile user (subscriber) to the network service may have a "value bucket" which determines the amount of network access or service available to the user. Billing for access to the network communication service, i.e., the amount the "value bucket" is drained or filled, may be based on one or more of a number of factors, including information stored in the digital certificate, such as membership information, the geographic location of the user, demographic information of the user, and charging information of the user.



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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, IBM-TDB, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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- *&* document member of the same patent family

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