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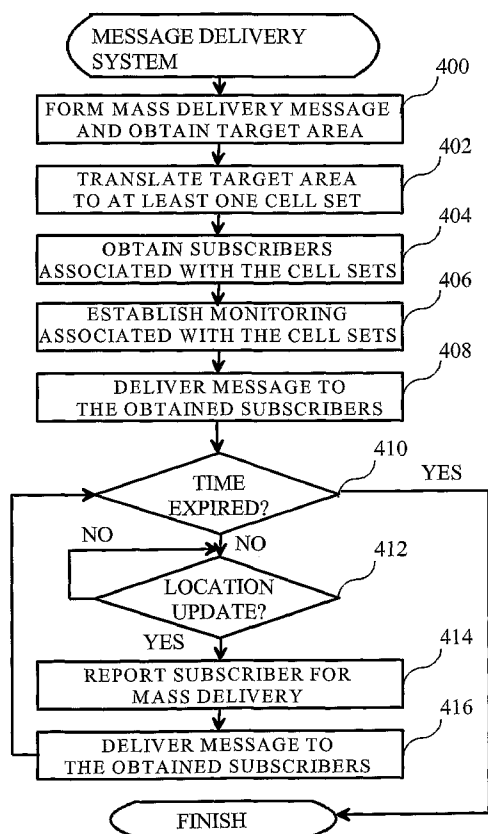
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[Continued on next page]

(54) Title: METHOD FOR THE DELIVERY OF AREA RELATED MESSAGES IN A MOBILE COMMUNICATION SYSTEM



(57) Abstract: The invention relates to a method for the delivery of messages to a specified geographical area in a communication system. In the method is specified for an application server a geo-graphical area and a message for delivery. The geographical area is translated to a first set comprising at least one cell set. Each the cell set comprising at least one cell. A search is performed in the database server using at least the first set as search criterion. A search request is sent specifying a second set comprising at least one cell set to at least one serving node. A search is performed in a database comprised in the at least one serving node with the second set as a criterion. From the at least one serving node is provided in response a list comprising information on the subscribers in the area of the second set. Finally, the message is sent from the application server to the subscribers.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI2006/000161

A. CLASSIFICATION OF SUBJECT MATTER

IPC: see extra sheet

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)

IPC: G06F, H04Q

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

SE,DK,FI,NO classes as above

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

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1209886 A2 (ALCATEL USA), 29 May 2002 (29.05.2002), figures 3,4, claims 1-5, abstract, [0012]-[0015],[0023]-[0038] --	1-9
A	US 20050043037 A1 (IGOR V.IOPPE ET AL), 24 February 2005 (24.02.2005), claims 19,46-49, abstract, [0008]-[0016],[0058]-[0065] --	1-9
A	US 6208866 B1 (BAGHER ROUHOLLAHZADEH ET AL), 27 March 2001 (27.03.2001), column 4, line 26 - column 5, line 52, figures 3,4, claims 1-7, abstract --	1-9

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International application No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 20040103158 A1 (DONALD J. VELLA ET AL), 27 May 2004 (27.05.2004), figure 3, claims 1-3,25, abstract, [0030]-[0031],[0049],[0064]-[0075] --	1-9
A	EP 1045609 A1 (NOKIA NETWORKS OY), 18 October 2000 (18.10.2000), figure 4, claims 1-4, abstract, [0037]-[0041] -- -----	1-9

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Cited literature, if any, will be enclosed in paper form.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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International application No.

PCT/FI2006/000161

EP	1209886	A2	29/05/2002	US	6745021 B	01/06/2004
US	20050043037	A1	24/02/2005	EP	1407624 A	14/04/2004
				JP	2004535744 T	25/11/2004
				US	20050043036 A	24/02/2005
				WO	03005747 A	16/01/2003
				WO	03009605 A	30/01/2003
				AU	2003223333 A	13/10/2003
				CA	2479963 A	09/10/2003
				EP	1494578 A	12/01/2005
				IL	164210 D	00/00/0000
				JP	2006506693 T	23/02/2006
				MX	PA04009210 A	20/06/2005
				US	20040078223 A	22/04/2004
				US	20050177393 A	11/08/2005
				WO	03082097 A	09/10/2003
US	6208866	B1	27/03/2001	NONE		
US	20040103158	A1	27/05/2004	CA	2430344 A	27/05/2004
EP	1045609	A1	18/10/2000	AU	3969800 A	02/11/2000
				WO	0064210 A	26/10/2000