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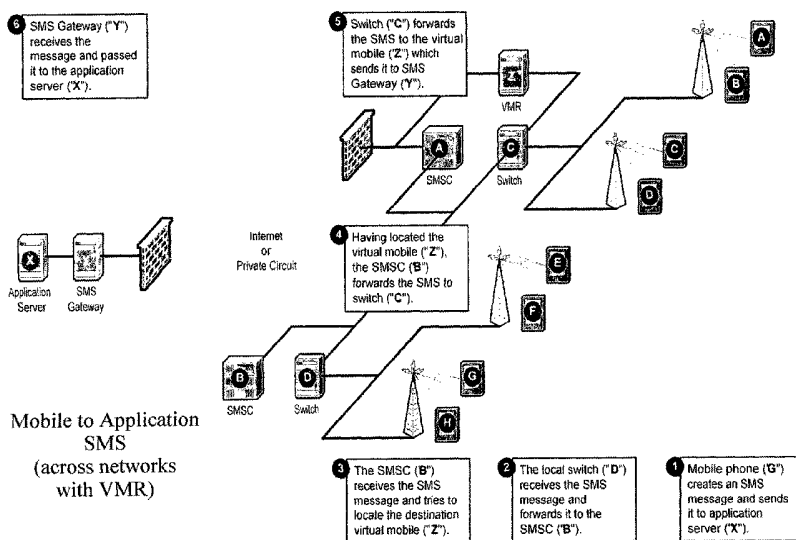
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[Continued on next page]

(54) Title: MESSAGE TRANSMISSION SYSTEM AND METHOD



(57) Abstract: A method and system for routing a message to an application via a mobile telecommunications network in which mobile devices are assigned globally unique identifiers. At least one globally unique virtual mobile identifier is assigned to the application. A request for location information for the virtual mobile identifier is received from a component in the mobile telecommunications network. Routing information corresponding to a predefined static connection point to the application is supplied in response to the request to allow the message to be delivered to the application.



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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.

INTERNATIONAL SEARCH REPORT

PCT/GB 02/02885

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H04Q7/22 H04Q7/38

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 7 H04Q

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 47004 A (LINKOLA JANNE ;SONERA OYJ (FI)) 10 August 2000 (2000-08-10) page 3, line 4 -page 4, line 31 page 11, line 1 - line 31 ---	1-25, 55-61, 65-78, 110,114
X	WO 99 12364 A (NOKIA TELECOMMUNICATIONS OY ;LUMME MARTTI (FI); HIPPELAEINEN LASSI) 11 March 1999 (1999-03-11) page 2, line 17 -page 4, line 34 figure 1 ---	1-25, 55-61, 65-78, 110,114
X	DE 201 01 221 U (MINICK (SWITZERLAND) AG, ERLNBACH) 17 May 2001 (2001-05-17) page 4, line 17 -page 5, line 20 figure 1 --- -/--	1

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

21 January 2003

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

PCT/GB 02/02885

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 98 47270 A (NOKIA TELECOMMUNICATIONS OY ;TUOMINEN JOONAS (FI)) 22 October 1998 (1998-10-22) page 14, line 19 -page 15, line 20 figure 1	
A	US 6 134 441 A (HAMILL-KEAYS JEREMY ET AL) 17 October 2000 (2000-10-17) column 5, line 25 -column 6, line 45	
A	WO 01 33803 A (KOSKI JUSSI ;ALA LUUKKO SAMI (FI); SONERA OYJ (FI)) 10 May 2001 (2001-05-10) page 3, line 30 -page 4, line 35	
A	WO 98 56195 A (GUSTAFSSON PATRIK ;NOKIA TELECOMMUNICATIONS OY (FI); MEURONEN TIMO) 10 December 1998 (1998-12-10) page 9, line 1 -page 10, line 2 figures 4,5	
P,X	WO 02 28129 A (HARRIS IAN ;VODAFONE GROUP PLC (GB)) 4 April 2002 (2002-04-04) page 5, line 16 -page 6, line 8	1,2
P,X	TELESOFT TECHNOLOGIES: "Virtual Network Milborne White Paper" INTERNET, [Online] 18 March 2002 (2002-03-18), XP002218028 Retrieved from the Internet: <URL:www.telesoft-technologies.com/pdf_library/Virtual_milborne_white_paper.pdf> [retrieved on 2002-10-23] the whole document	1-25, 55-61, 65-78, 110,114
P,X	WO 01 58186 A (CUNNINGHAM JOSEPH ;CORRIGAN LOUIS (IE); MARKPORT LTD (IE); MURTAGH) 9 August 2001 (2001-08-09) the whole document	62-64, 79-83
X	WO 97 36434 A (CUNNINGHAM JOSEPH ;DOYLE JAMES (IE); CORRIGAN LOUIS (IE); GREENWOOD) 2 October 1997 (1997-10-02) page 6, line 12 - line 22 figure 1	79

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 02/02885

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: **26-54, 84-113, 115-146**
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 26-54,84-113,115-146

Present claims 26-54, 84-109,111-113, 115-146 relate to an extremely large number of possible apparatus and methods. In fact, the claims contain so many options, that a lack of clarity (and/or conciseness) within the meaning of Article 6 PCT arises to such an extent as to render a meaningful search of the claims impossible. Consequently, the search has been carried out for those parts of the application which do appear to be clear (claims 1-25, 55-61,65-78,110,114)

Claim 26 and 84 are broad and contain so many possibilities since they are mainly based on a disclaimer.

Claim 37 and 115,135 is broad and unclear since the subject-matter is anticipated by every packet network.

Claim 47 is vague.

Claim 53 is broad and unclear since the wording "information regarding the status" of an application is too vague.

Claim 95 is broad and unclear since the wording "core network signaling protocol layer" does not indicate which layer is meant. It is further known to a person skilled in the art that a plurality of protocols are interworking together in a mobile communication system.

Claim 141 is unclear since it is not clear how to connect the "separate distributed network" to the "ss7 layer" at a plurality of points.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-25,55-78, 110,114

A short message is redirected to an application via a SMSC. A routing apparatus redirects the messages by converting a virtual number which is associated to the application to routing information to the application. The problem to be solved is to create a routing mechanism to maintain a flexible network structure, which can be easily expanded.

2. Claims: 62-64,79-83

A plurality of devices for storing routing information, which are situated at geographically disparate locations. The problem to be solved is to store the data redundantly.

INTERNATIONAL SEARCH REPORT

PCT/GB 02/02885

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