



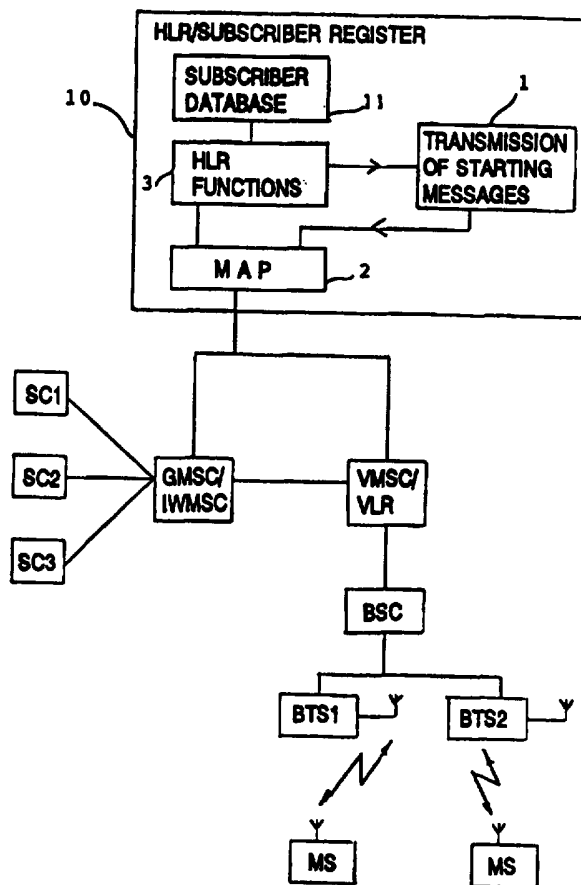
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification <sup>6</sup> : <b>H04Q 7/22</b></p>	<p><b>A3</b></p>	<p>(11) International Publication Number: <b>WO 96/03843</b> (43) International Publication Date: 8 February 1996 (08.02.96)</p>
<p>(21) International Application Number: PCT/FI95/00405 (22) International Filing Date: 17 July 1995 (17.07.95) (30) Priority Data: 943447 20 July 1994 (20.07.94) FI (71) Applicant (for all designated States except US): NOKIA TELECOMMUNICATIONS OY [FI/FI]; Mäkkylän puistotie 1, FIN-02600 Espoo (FI). (72) Inventor; and (75) Inventor/Applicant (for US only): HUOTARI, Seppo [FI/FI]; Harakankuja 6 E 33, FIN-02600 Espoo (FI). (74) Agent: OY KOLSTER AB; Iso Roobertinkatu 23, P.O. Box 148, FIN-00121 Helsinki (FI).</p>	<p>(81) Designated States: AU, CN, DE, GB, JP, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  <b>Published</b> <i>With international search report.</i>  (88) Date of publication of the international search report: 18 April 1996 (18.04.96)</p>	

(54) Title: STARTING A SHORT MESSAGE TRANSMISSION IN A CELLULAR COMMUNICATION SYSTEM

(57) Abstract

The present invention relates to a method for starting a short message transmission in a cellular communication system, a cellular communication system, and a cellular communication system subscriber location register, in which method the subscriber location register (10; HLR) stores information on the fact that at least one short message service center (SC1, SC2, SC3) stores short messages to be transmitted to a subscriber (MS), to whom they cannot be transmitted for the time being, and the subscriber location register (10; HLR) of the subscriber (MS) transmits to said at least one short message service center (SC1, SC2, SC3) a short message transmission starting message when it is possible again to transmit short messages to the subscriber (MS). In order that short messages could be transmitted to subscribers (MS) selectively, the subscriber location register (10; HLR) maintains, short message service center (SC) - and subscriber (MS) - specifically, information (11) on the conditions on which the short message service center (SC1, SC2, SC3) is transmitted short message transmission starting messages.



**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

<b>AT</b>	Austria	<b>GB</b>	United Kingdom	<b>MR</b>	Mauritania
<b>AU</b>	Australia	<b>GE</b>	Georgia	<b>MW</b>	Malawi
<b>BB</b>	Barbados	<b>GN</b>	Guinea	<b>NE</b>	Niger
<b>BE</b>	Belgium	<b>GR</b>	Greece	<b>NL</b>	Netherlands
<b>BF</b>	Burkina Faso	<b>HU</b>	Hungary	<b>NO</b>	Norway
<b>BG</b>	Bulgaria	<b>IE</b>	Ireland	<b>NZ</b>	New Zealand
<b>BJ</b>	Benin	<b>IT</b>	Italy	<b>PL</b>	Poland
<b>BR</b>	Brazil	<b>JP</b>	Japan	<b>PT</b>	Portugal
<b>BY</b>	Belarus	<b>KE</b>	Kenya	<b>RO</b>	Romania
<b>CA</b>	Canada	<b>KG</b>	Kyrgystan	<b>RU</b>	Russian Federation
<b>CF</b>	Central African Republic	<b>KP</b>	Democratic People's Republic of Korea	<b>SD</b>	Sudan
<b>CG</b>	Congo	<b>KR</b>	Republic of Korea	<b>SE</b>	Sweden
<b>CH</b>	Switzerland	<b>KZ</b>	Kazakhstan	<b>SI</b>	Slovenia
<b>CI</b>	Côte d'Ivoire	<b>LI</b>	Liechtenstein	<b>SK</b>	Slovakia
<b>CM</b>	Cameroon	<b>LK</b>	Sri Lanka	<b>SN</b>	Senegal
<b>CN</b>	China	<b>LU</b>	Luxembourg	<b>TD</b>	Chad
<b>CS</b>	Czechoslovakia	<b>LV</b>	Larvia	<b>TG</b>	Togo
<b>CZ</b>	Czech Republic	<b>MC</b>	Monaco	<b>TJ</b>	Tajikistan
<b>DE</b>	Germany	<b>MD</b>	Republic of Moldova	<b>TT</b>	Trinidad and Tobago
<b>DK</b>	Denmark	<b>MG</b>	Madagascar	<b>UA</b>	Ukraine
<b>ES</b>	Spain	<b>ML</b>	Mali	<b>US</b>	United States of America
<b>FI</b>	Finland	<b>MN</b>	Mongolia	<b>UZ</b>	Uzbekistan
<b>FR</b>	France			<b>VN</b>	Viet Nam
<b>GA</b>	Gabon				

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 95/00405

## A. CLASSIFICATION OF SUBJECT MATTER

IPC6: H04Q 7/22

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)

IPC6: H04Q, H04M

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)

INSPEC, WPIL, EDOC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 9512933 A1 (TELEFONAKTIEBOLAGET LM ERICSSON), 11 May 1995 (11.05.95), page 2, line 9 - line 12; page 2, line 14 - line 25; page 4, line 16 - page 5, line 18, page 6, line 3 - line 7, abstract  --	1-14
A	WO 9407338 A1 (NOKIA TELECOMMUNICATIONS OY), 31 March 1994 (31.03.94), page 5, line 20 - page 6, line 7, figures 2-4, claim 1, abstract  --	1-14

 Further documents are listed in the continuation of Box C. See patent family 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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

7 February 1996

Date of mailing of the international search report

08 -02- 1996

Name and mailing address of the ISA/  
Swedish Patent Office  
Box 5055, S-102 42 STOCKHOLM  
Facsimile No. +46 8 666 02 86

Authorized officer

Henrik Fehninger  
Telephone No. +46 8 782 25 00

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 95/00405

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>ETSI-GSM Technical Specification, GSM 03.40 Version 3.5.0, European digital cellular telecommunication system (phase 1); "Technical Realization of the Short Message Service - Point-to Point", 1992, page 13-15, see especially page 13</p> <p style="text-align: center;">--</p>	1-14
A	<p>ITG-Fachbericht 124, Informationstechnische Gesellschaft Fachtagung, Mobile Kommunikation, Vorträge der ITG-Fachtagung, 27-29 September 1993 in Neu-Ulm, vde-verlag gmbh, Berlin, Hientz, Michael et al: "Der short message service - ein neuer dienst der digitalen mobilkommunikation" page 517 -526</p> <p style="text-align: center;">-- -----</p>	1-14

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

05/01/96

International application No.  
PCT/FI 95/00405

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO-A1- 9512933	11/05/95	NONE	
WO-A1- 9407338	31/03/94	NONE	