

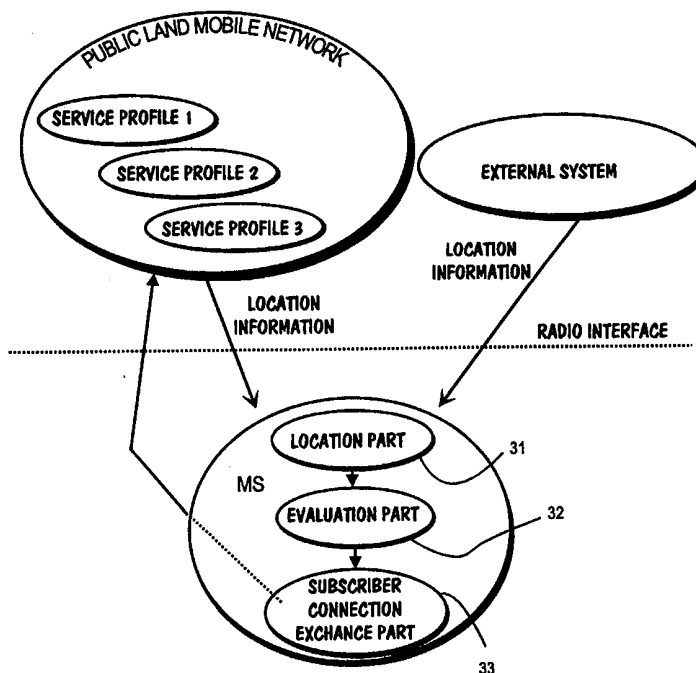
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04Q 7/38		A3	(11) International Publication Number: WO 99/41927
			(43) International Publication Date: 19 August 1999 (19.08.99)
(21) International Application Number: PCT/FI99/00117		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 12 February 1999 (12.02.99)			
(30) Priority Data: 980331 13 February 1998 (13.02.98) FI			
(71) Applicant (for all designated States except US): SONERA OY [FI/FI]; Teollisuuskatu 15, P.O. Box 106, FIN-00510 Helsinki (FI).			
(72) Inventors; and			
(75) Inventors/Applicants (for US only): LINKOLA, Janne [FI/FI]; Kuusikallionkuja 4 F 3, FIN-02210 Espoo (FI). HOKKANEN, Tuomo [FI/FI]; Strömislahdenkuja 2 A 13, FIN-00820 Helsinki (FI).			
(74) Agent: PATENT AGENCY COMPATENT LTD.; Teollisuuskatu 33, P.O. Box 156, FIN-00511 Helsinki (FI).		<p>Published</p> <p><i>With international search report.</i></p> <p><i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p> <p><i>In English translation (filed in Finnish).</i></p>	
		(88) Date of publication of the international search report: 23 September 1999 (23.09.99)	

(54) Title: CHANGE OF SERVICE PROFILE OF MOBILE SUBSCRIBER

(57) Abstract

A system for changing the service profile of a mobile subscriber includes a location part (31), an evaluation part (32) and a subscriber connection exchange part (33). Besides these, the home location register contains such individual subscriber connections for the subscriber, which have a different service profile. The duty of the location part is to find out the location of the mobile station in the network and to give location information to the evaluation part. The information may be e.g. a location area identity, cell identity or switching centre area identity which is used in the public land mobile network. The evaluation part checks to find out whether the location information has changed compared with the location information received earlier. If it has, it searches the memory for the corresponding location information and compares the connection information in the record with the current connection information. If the connection information is identical, the process remains waiting for new location information. If the connection information is different, the evaluation logic deduces that the connection must be exchanged for a new one and a connection exchange operation must be started. This may take



place so that the connection exchange part disconnects the mobile station from the network and reconnects to the network using a new MSISDN number. The algorithms and encryption keys relating to this number it fetches from the memory. The network fetches from the home location register the subscriber information relating to this MSISDN number and along with this also the service profile relating to this number. It is most advantageous to implement the location part, the evaluation part and the subscriber connection exchange part on the subscriber identity module (SIM).

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.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 99/00117

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: H04Q 7/38

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)

IPC6: 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)

WPI, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5568153 A (ANDRE BELIVEAU), 22 October 1996 (22.10.96), see the whole document --	1-19
A	WO 9736436 A1 (ERICSSON INC.), 2 October 1997 (02.10.97), see the whole document --	1-19
P,X	WO 9824257 A1 (NOKIA TELECOMMUNICATIONS OY), 4 June 1998 (04.06.98), page 5, line 33 - line 36; page 6, line 5 - line 17; page 6, line 20 - line 29, page 10, line 2 - line 8 -- -----	1-5,7,9-10, 12,17-19

☐ 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

"&" document member of the same patent family

Date of the actual completion of the international search

5 August 1999

Date of mailing of the international search report

10 -08- 1999

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

Bo Gustavsson/cs

Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT

Information on patent family members

01/07/99

International application No.

PCT/FI 99/00117

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5568153 A	22/10/96	AU 5915496 A WO 9639000 A	18/12/96 05/12/96
WO 9736436 A1	02/10/97	AU 2551297 A EP 0890274 A	17/10/97 13/01/99
WO 9824257 A1	04/06/98	AU 5122598 A FI 964732 A	22/06/98 28/05/98