

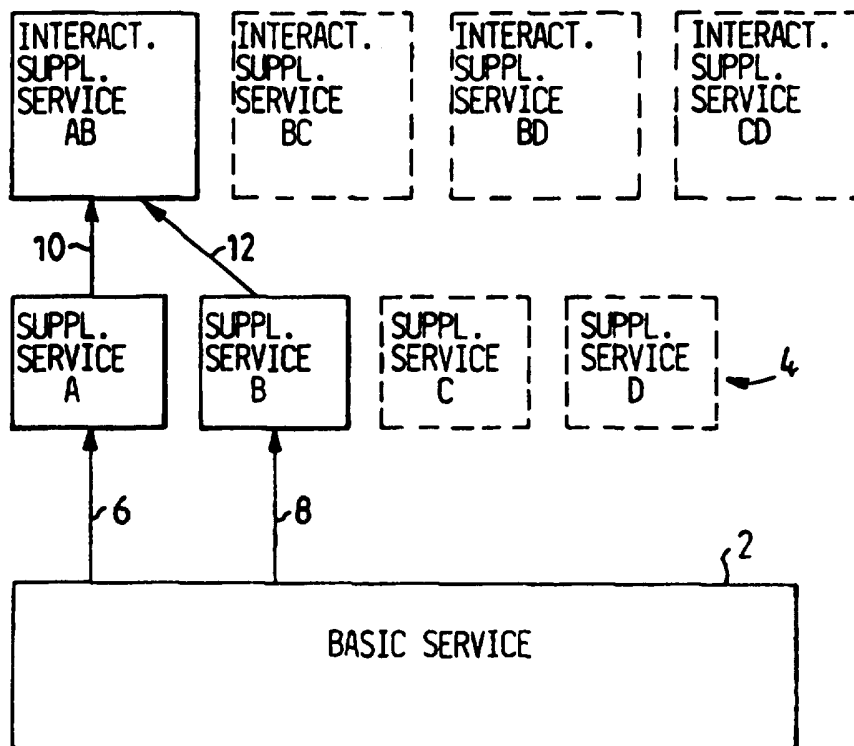


## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup> :</b>  <b>H04M 3/42</b>	<b>A3</b>	<b>(11) International Publication Number:</b> <b>WO 95/20855</b>  <b>(43) International Publication Date:</b> 3 August 1995 (03.08.95)
<b>(21) International Application Number:</b> PCT/SE95/00069 <b>(22) International Filing Date:</b> 24 January 1995 (24.01.95)  <b>(30) Priority Data:</b> 9400209-4      25 January 1994 (25.01.94)      SE  <b>(71) Applicant:</b> TELEFONAKTIEBOLAGET LM ERICSSON [SE/SE]; S-126 25 Stockholm (SE). <b>(72) Inventor:</b> BÄCKSTRÖM, Sven, Gunnar, Nils; Ö Henriks- borgsvägen 68, S-131 31 Nacka (SE). <b>(74) Agents:</b> ROSENQUIST, Per, Olof et al.; Bergensträhle & Lindvall AB, P.O. Box 17704, S-118 93 Stockholm (SE).		<b>(81) Designated States:</b> AU, BR, CA, CN, FI, JP, KR, MX, NO, 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> <i>Before the expiration of the time limit for amending the</i> <i>claims and to be republished in the event of the receipt of</i> <i>amendments.</i>  <b>(88) Date of publication of the international search report:</b> 31 August 1995 (31.08.95)

**(54) Title:** OPTIMIZING THE CAPACITY OF A TELECOMMUNICATION SYSTEM**(57) Abstract**

In a telecommunication system the functionality is separated into basic functionality (2) and supplementary functionality (4). In this system a plurality of users subscribe to basic functions and supplementary functions. Interaction supplementary functions are furthermore included for solving interaction problems appearing when more supplementary functions interact. For optimizing the capacity in such a system only those supplementary functions (A, B) and interaction supplementary functions (AB) which can be possible in a particular telecommunication case are added to the basic function in said telecommunication case aided by means of table information. The table information includes on the one hand subscriber information for each user relating to the supplementary functions subscribed to by the user, on the second hand permit information for each subscribed supplementary function relating to whether the function in question takes an active or a passive state, and thirdly, information with respect to the interaction supplementary functions which should be used for a given set of supplementary functions.



**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.

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

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SE 95/00069

## A. CLASSIFICATION OF SUBJECT MATTER

IPC6: H04M 3/42

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: 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)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0576864 A2 (SIEMENS STROMBERG-CARLSON), 5 January 1994 (05.01.94) --	1-5
A	EP 0578964 A2 (SIEMENS STROMBERG-CARLSON), 19 January 1994 (19.01.94) --	1-5
A	US 4897866 A (BHAIRAV A. MAJMUDAR ET AL), 30 January 1990 (30.01.90) --	1-5
A	US 4567323 A (ROSANNA M. LOTTES ET AL), 28 January 1986 (28.01.86) -- -----	1-5

☐ 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
- "B" 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

26 July 1995

Date of mailing of the international search report

28 -07- 1995

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

Jan Silfverling  
Telephone No. +46 8 782 25 00

# INTERNATIONAL SEARCH REPORT

Information on patent family members

29/05/95

International application No.

PCT/SE 95/00069

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP-A2- 0576864	05/01/94	NONE	
EP-A2- 0578964	19/01/94	NONE	
US-A- 4897866	30/01/90	EP-A, A, A 0365200 JP-A- 2170756	25/04/90 02/07/90
US-A- 4567323	28/01/86	CA-A- 1216349 DE-A- 3374508 EP-A, B- 0151117 SE-T3- 0151117 JP-T- 61500090 WO-A- 8500489	06/01/87 17/12/87 14/08/85 16/01/86 31/01/85