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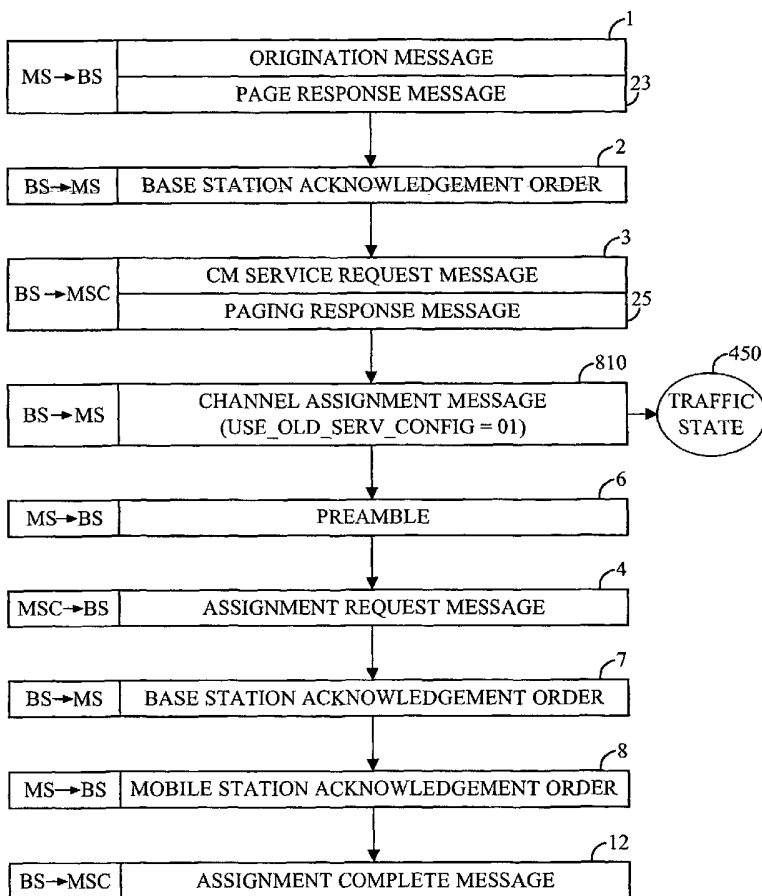
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(54) Title: METHOD AND APPARATUS FOR CALL SETUP LATENCY REDUCTION



(57) Abstract: Techniques for minimizing call setup latency are disclosed. In one aspect, a channel assignment message is sent with a flag to direct the use of previously negotiated service parameters. This aspect eliminates the need for service negotiation messages. In another aspect, a channel assignment message is sent with an active set identifier instead of an active set and its parameters. This aspect reduces the transmission time of the channel assignment message. In yet another aspect, call setup without paging is facilitated by a mobile station (106) sending a pilot strength measurement message between active communication sessions, such that a channel assignment message can be used for mobile station terminated call setup without the need for mobile station paging and related messages.

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European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK,
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GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

International Application No
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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04Q7/38 H04L12/56

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 H04L

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, WPI Data, INSPEC, PAJ

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 18172 A (QUALCOMM INC) 30 March 2000 (2000-03-30) page 2, line 15 -page 7, line 29	1-4,6,7, 23,24, 29,30
Y	page 15, line 26 -page 18, line 15 page 20, line 21 -page 22, line 30 page 28, line 11 - line 24 ---	5
X	EP 1 052 867 A (LUCENT TECHNOLOGIES INC) 15 November 2000 (2000-11-15) column 2, line 17, paragraph 9 -column 3, line 18, paragraph 13 column 6, line 38, paragraph 28 -column 8, line 29, paragraph 39; claims 1,2 --- -/--	1-4,6,7, 14-17, 24,29,30

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

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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

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* & * document member of the same patent family

Date of the actual completion of the international search 8 May 2003	Date of mailing of the international search report 05.06.03
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Donnini, C
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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/26015

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 999 808 A (LADUE CHRISTOPH KARL) 7 December 1999 (1999-12-07)	28
Y	column 2, line 21 - line 44 column 3, line 4 - line 17 column 3, line 43 - column 4, line 45 column 9, line 40 - column 10, line 3 column 12, line 12 - line 30 column 18, line 22 - line 31 claims 1,3-6,8; figures 2,6 ---	5
Y	US 5 943 327 A (MADEMANN FRANK) 24 August 1999 (1999-08-24) column 1, line 44 - column 2, line 65 column 4, line 7 - column 5, line 36; claims 1-3,5,8-10 ---	10-13, 26,27
Y	WO 01 39403 A (SAMSUNG ELECTRONICS CO LTD) 31 May 2001 (2001-05-31) page 1, line 22 - page 2, line 7 page 3, line 6 - line 18 claim 1; figure 1 ---	10-13, 26,27
A	US 2001/014588 A1 (ISHIDA AKIRA) 16 August 2001 (2001-08-16) paragraph '0068!; figure 5 ---	2,24
A	WO 98 24250 A (ERICSSON TELEFON AB L M) 4 June 1998 (1998-06-04) page 9, line 3 - page 10, line 5; figure 2 ---	10-13, 26,27
A	US 5 491 837 A (HAARTSEN JACOBUS C) 13 February 1996 (1996-02-13) column 3, line 48 - line 53 column 5, line 5 - line 57 column 6, line 36 - column 7, line 4 column 8, line 10 - line 15 column 10, line 7 - line 55 claims 1,21; figures 4,5 ---	10-13, 26,27
A	WO 96 33589 A (ERICSSON TELEFON AB L M) 24 October 1996 (1996-10-24) column 10, line 22 - column 11, line 18 column 13, line 7 - line 25 claims 6,7 ---	10-13, 26,27
A	US 5 828 662 A (KRZYMIEN WITOLD ET AL) 27 October 1998 (1998-10-27) column 4, line 65 - column 5, line 15; figure 1 -----	5,28

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 02/26015

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.:
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:

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.:

1-7, 10-17, 23, 26-30

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

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

1. Claims: 1-7, 14 -17, 23-25, 29, 30

Independent claim 1 relates to a method for call setup in a wireless communication system; Independents claim 23 and 30 relate to a wireless communication system; Independent claim 29 relates to an apparatus to setup a call. All independent claims 1, 23, 29 and 30 are dealing with sending a station a channel assignment message to direct the use of previously negotiated parameters.

2. Claims: 8, 9, 25

Claims 8 and 9 relate to a method for call setup in a wireless communication system characterised in that the channel assignment message comprises an active set identifier associated with an active set and the active set's parameters. Dependent claims 25 relates relates to the same aspect in a wireless communication system.

3. Claims: 10, 11, 12, 13, 26, 27

Independent claims 10, 26 and 27 relate to a method and a wireless communication system for terminated call setup without paging, characterised in that the mobile station delivers to a base station a pilot strength measurement message.

4. Claims: 18, 19, 20

Claims 18 to 20 relate to a method of activating a dormant packet data call characterised in that the mobile station sends a base station a reconnect message.

5. Claims: 21, 22

Claims 21 and 22 relate to a method for call setup characterised in that the mobile station transmits a preamble to a base station directly following a channel assignment message received from the base station.

6. Claims: 28, 5

Independent claim 28 relates to a wireless communication system characterised in that a station sends an origination message including a short data burst information for initiation of call setup and delivery of the short data

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

burst information.
Dependent claim 5 relates to the same aspect of an
origination message including a short data burst information
in a method for call setup.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 02/26015

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