Datasheet for the decision of 18 April 2008

Case Number: T 0574/06 - 3.5.03
Application Number: 04250919.0
Publication Number: 1463217
IPC: H04B 7/26
Language of the proceedings: EN

Title of invention:
A method of scheduling grant transmission in a wireless communication system

Applicant:
Lucent Technologies Inc.

Opponent:
-

Headword:
Wireless communication system/LUCENT

Relevant legal provisions:
EPC Art. 123(2), 113(1)
EPC R. 115(2)
RPBA Art. 15(3)

Relevant legal provisions (EPC 1973):
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Keyword:
"Added subject-matter (yes)"
"Intermediate generalisation"
"Oral proceedings held in absence of appellant"

Decisions cited:
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DECISION of the Technical Board of Appeal 3.5.03 of 18 April 2008

Appellant: Lucent Technologies Inc.
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Decision under appeal: Decision of the Examining Division of the European Patent Office posted 8 December 2005 refusing European application No. 04250919.0 pursuant to Article 97(1) EPC (1973).

Composition of the Board:
Chairman: A. S. Clelland
Members: T. Snell
M.-B. Tardo-Dino
Summary of Facts and Submissions

I. This appeal is against the decision of the examining division refusing European patent application No. 04250919.0, with publication number EP-A-1463217.

II. In the notice of appeal the appellant requested that the decision be set aside and a patent be granted.

III. In a communication accompanying a summons to oral proceedings the board gave a preliminary opinion in which objections under Articles 123(2), 84, and 52(1) in combination with Articles 54 and 56 EPC were raised.

IV. In response to the board's communication, the appellant filed new claims intended to replace the previous set of claims on file, together with supporting arguments, including inter alia an indication of the basis for the amended claims in the application as filed. The appellant further informed the board that it would not attend the oral proceedings.

V. Oral proceedings were held on 18 April 2008 in the absence of the appellant. The board understood from the appellant's written submissions that the appellant requested that the decision be set aside and a patent be granted on the basis of claims 1-12 as filed with the letter of response to the summons to oral proceedings and received by fax on 17 March 2008. After deliberation, the board's decision was announced at the end of the oral proceedings.
VI. Claim 1 of the appellant's request reads as follows:

"A method of wireless communication comprising: transmitting forward link data having at least one scheduling grant over at least one scheduling grant channel that is time-multiplexed with at least one other channel, said at least one scheduling grant channel and said at least one other channel being coded using the same coding sequence, said at least one time multiplexed scheduling grant comprising information indicating a time slot granted to a user for transmission of at least one packet over a reverse link, the at least one time multiplexed scheduling grant comprising information indicating the user."

Claim 5 of the request reads as follows:

"A method of wireless communication comprising: receiving forward link data having at least one scheduling grant over at least one scheduling grant channel that is time-multiplexed with at least one other channel, said at least one scheduling grant channel and said at least one other channel being coded using the same coding sequence, said at least one time multiplexed scheduling grant comprising information indicating a time slot granted to a user for transmission of at least one packet over a reverse link, the at least one time multiplexed scheduling grant comprising information indicating the user."
Claim 9 of the request reads as follows:

"A method of wireless communication comprising: transmitting a packet in response to receiving at least one scheduling grant over at least one scheduling grant channel that is time-multiplexed with at least one other channel, said at least one scheduling grant channel and said at least one other channel being coded using the same coding sequence, said at least one time multiplexed scheduling grant comprising information indicating a time slot granted to a user for transmission of at least one packet over a reverse link, the at least one scheduling grant comprising information indicating the user."

Reasons for the Decision

1. Procedural matters

1.1 The board considered it to be expedient to hold oral proceedings in accordance with Article 116(1) EPC for reasons of procedural economy. Having verified that the appellant was duly summoned the board decided to continue the oral proceedings in the absence of the appellant (Rule 115(2) EPC and Article 15(3) RPBA).

1.2 In the communication accompanying the summons the appellant was informed that should amended claims be filed in response to the communication, these claims would have to be examined at the oral proceedings for compliance with the EPC; the requirements of Article 123(2) EPC were explicitly mentioned. The appellant was therefore aware that this issue might be
discussed, and could have been expected to indicate in
detail the reasons for compliance of the amendments
with Article 123(2) EPC in the written submission
accompanying the amended claims. In deciding not to
attend the oral proceedings the appellant chose not to
make use of the opportunity to make further oral
submissions in support of the written submission or to
respond to any objections raised by the board.

1.3 Moreover, in accordance with Article 15(3) RPBA, the
board shall not be obliged to delay any step in the
proceedings, including its decision, by reason only of
the absence at oral proceedings of any party duly
summoned who may then be treated as relying only on its
written case.

1.4 Under these circumstances, the board considers that all
necessary measures to respect the appellant's right to
be heard without delaying the proceedings have been
taken. The board therefore considers that the
requirements of Article 113(1) EPC are met and the
board is in a position to issue its decision.

2. Added subject-matter (Article 123(2) EPC)

2.1 In the following analysis, the board refers to the
published application (EP-A-1463217), unless otherwise
indicated.

2.2 Claim 1 as originally filed comprises a first method
step which reads: "transmitting forward link data
having at least one time multiplexed scheduling grant".
In claim 1 on file, this step is more narrowly defined as follows:

"transmitting forward link data having at least one scheduling grant over at least one scheduling grant channel that is time-multiplexed with at least one other channel, said at least one scheduling grant channel and said at least one other channel being coded using the same coding sequence".

This more narrow definition adds the limitations that (i) the same coding sequence is used for all the time-multiplexed channels, and (ii) the time-multiplexed channel(s) to be multiplexed with the one or more scheduling grants is/are some undefined other channel or channels.

The basis for these amendments is said by the appellant in his letter of reply to the summons to oral proceedings to be found in the passage between page 11, line 14 and page 14, line 9 of the application as filed (which corresponds to paragraphs 0030 - 0038 of the application as published), and in figures 4-9.

However, in the board's view, this section of the application, which in fact deals with the detailed embodiments of the invention, cannot provide a basis for a generalised code-division based system with time-multiplexing as now claimed since it concerns specifically a modified version of the CDMA2000 HRPD ("high-rate packet data") system. This follows both from paragraph 0025, in which it is stated that in CDMA2000 HRPD both data and control information may be time-multiplexed and use the same set of Walsh codes,
as well as from paragraph 0030 where CDMA2000 HRPD is referred to again as the context for the invention. CDMA2000 HRPD is the only type of system referred to in the context of both time-multiplexing and CDMA.

Since the whole passage indicated by the appellant has to be viewed in the context of a CDMA2000 HRPD-type system, the description only provides support for the time-multiplexing of a scheduling grant on the same code-division channel in such a system.

Moreover, in the board's view, this passage does not provide a basis for time-multiplexing a scheduling grant channel with any other channel, but only with those "other channels" specifically mentioned in the disclosed embodiments (e.g. pilot, MAC, data or control channels).

Thus, the board considers that claim 1 now on file is an intermediate generalisation between the broad disclosure of original claim 1 and the specific embodiments disclosed in paragraphs 0030 - 0039, for which no basis exists in the application as filed.

Claim 1 therefore includes matter extending beyond the content of the application as originally filed, contrary to Article 123(2) EPC.

2.3 Claim 1 moreover states that the scheduling grant comprises "information indicating a time slot granted to a user for transmission of at least one packet over a reverse link".
The first reference in the description to the scheduling of the time of transmission can be found in paragraph 0021, which states the following: "In general, a scheduler may select a user for transmission at a given time ...". This paragraph however refers to base station scheduling for forward link transmission.

In paragraph 0022, referring to the evolution of 3G standards to enable high-speed packet access on the reverse link, it is stated that "Most of the techniques used on the FL (board's note: forward link) may also be used on the reverse link ..... These techniques include fast scheduling ...".

In the view of the board, neither of these references comprises a clear and unambiguous disclosure of a scheduling grant comprising, for scheduling transmission on the reverse link, "information indicating a time slot granted to a user for transmission of at least one packet".

The most direct disclosure of time scheduling in the present application appears to be in figure 5. This figure comprises a first transmission sequence including a plurality of time slots the majority of which are filled by scheduling grants (SG). The second transmission sequence in figure 5 shows a succession of bursts B transmitted in response to each respective scheduling grant with a delay of 1.5 slots. This figure relates to the embodiment described in paragraphs 0031-0033 in which (cf. paragraph 0031) "each active mobile ... may be allocated a unique MACIndex that is used as AT ID (board's note: Access Terminal ID) in order to indicate to a particular mobile if it has been
scheduled for RL (board's note: reverse link) packet transmission or not."

From this disclosure the board infers that scheduling is performed by the access terminal recognising its own ID and transmitting in the next possible uplink slot (allowing for a predetermined processing delay of 1.5 slots). Hence the only method of scheduling disclosed in the present application is apparently the transmission of an ID from which the remote terminal derives an instruction to transmit. Whilst this is one specific method of indicating a timeslot for transmission, claim 1 embraces any kind of information indicating a time slot for transmission. This could include, for example, the indication of a time slot number within a frame. A specific disclosure in the application as originally filed has therefore been generalised. The board therefore concludes that subject-matter has been added by this amendment, infringing the terms of Article 123(2) EPC.

2.4 Finally, the board considers that there is no support in the application as filed for the expression in claim 1 "for transmission of at least one packet over a reverse link" (board's underlining). Original claim 9 specifies the transmission of "a packet" in response to a scheduling grant. No passage of the description can be found which provides support for more than one packet being transmitted in response to a scheduling grant. Nor does figure 5 provide support either.

2.5 In view of the above, the board cannot agree with the appellant that support for claim 1 on file can be found in the passage of the description and the drawings.
indicated by the appellant in the response to the summons to oral proceedings. The appellant has provided no other arguments which could lead to a different conclusion.

2.6 The above considerations apply mutatis mutandis to independent claims 5 and 9, which contain features corresponding to those objected to in claim 1.

2.7 The board therefore concludes that claims 1, 5 and 9 are not allowable under the terms of Article 123(2) EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Magliano A. S. Clelland