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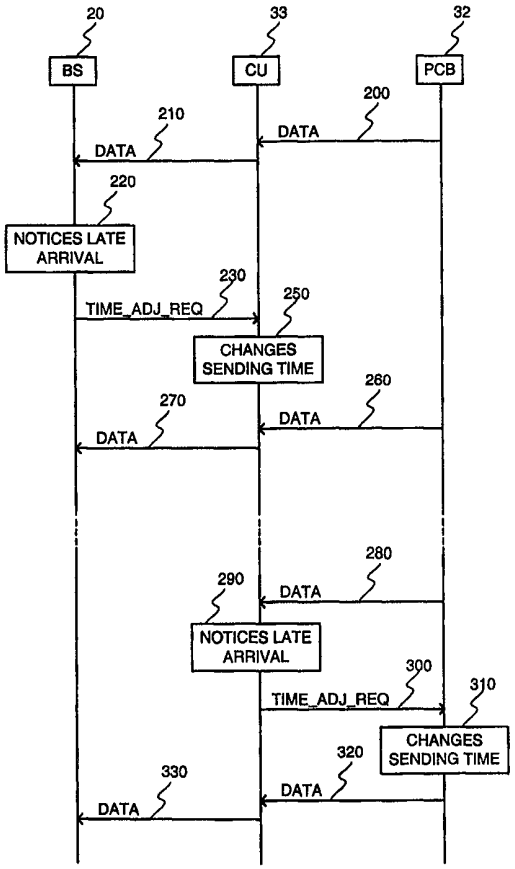
(54) Title: DELAY CONTROL METHOD

(57) Abstract

The invention is directed to a method for controlling delays in a cellular telecommunications network. The delay control method according to the invention is based on a hierarchical structure of delay controlling entities, which preferably communicate only with entities directly above or below them in the hierarchy. In the downlink direction, an entity receiving data, such as a base station or a splitting unit, sends a timing report to the entity sending the data if the data is received too early or too late, whereafter the sending entity may adjust the sending time of data. The same reporting and adjusting process may be repeated through all levels of the control hierarchy, resulting in a collective control of delays from the top of the hierarchy, for example from a RNC, to the bottom, for example to a base station. In the uplink direction, a higher level entity receiving data from a lower level entity may command the lower level entity to adjust the sending time, if the data is received too early or too late. When the same action is repeated in all levels of the hierarchy, a collective control of delays is achieved for the link between the lowest level, e.g. the base station, and the highest level, e.g. a RNC.



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INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

IPC6: H04B 7/005, 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: H04B, H04J, 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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 9716040 A1 (TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)), 1 May 1997 (01.05.97), page 3 - page 4; page 8, line 22 - line 27; page 9, line 6 - line 7, page 14, line 12 - line 14; page 21, line 10 - line 14; page 25, line 26 - line 30	1-2,5-6,9-10
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Y	WO 9711568 A1 (TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)), 27 March 1997 (27.03.97), page 4 - page 7	1-2,5-6,9-10
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A	US 5757772 A (CARL MAGNUS THORNBERG ET AL), 26 May 1998 (26.05.98), see the whole document	9-10
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[X] Further documents are listed in the continuation of Box C. [X] See patent family annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
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International application No.
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0795970 A2 (NEC CORPORATION), 17 Sept 1997 (17.09.97), see the whole document -- --------	1-10

INTERNATIONAL SEARCH REPORT

Information on patent family members

28/09/99

International application No.
PCT/FI 99/00269

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