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Datasheet for the decision of 31 July 2014

Case Number: T 0699/11 - 3.5.05

Application Number: 02425198.5

Publication Number: 1349331

IPC: H04L12/56

Language of the proceedings: EN

Title of invention:
Method for transmitting fixed and variable size data units within the same frame in a PMP system

Applicant:
Siemens Aktiengesellschaft

Headword:
Transmitting fixed and variable size data units within the same frame in a PMP system/SIEMENS

Relevant legal provisions:
EPC Art. 56
RPBA Art. 15(3)

Keyword:
Inventive step - (no)

Decisions cited:

Catchword:

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Case Number: T 0699/11 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 31 July 2014

Appellant: (Applicant)	Siemens Aktiengesellschaft Wittelsbacherplatz 2 80333 München (DE)
Representative:	Maier, Daniel Oliver Siemens AG Postfach 22 16 34 80506 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 22 October 2010 refusing European patent application No. 02425198.5 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair	A. Ritzka
Members:	M. Höhn
	F. Blumer

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division, posted on 22 October 2010, refusing European patent application No. 02425198.5 on the ground of Article 56 EPC, based on prior art publications

D1: US 6055242 A1,
D2: US 6075787 A1 and
D3: US 2001/0015985 A1.

II. The notice of appeal was received on 21 December 2010. The appeal fee was paid on the same day. The statement setting out the grounds of appeal was received on 23 February 2011. The appellant requested that the appealed decision be set aside and that a patent be granted on the basis of the set of claims filed on 13 May 2010, on which the decision under appeal was based.

III. A summons to oral proceedings, to be held on 31 July 2014, was issued on 2 May 2014. In an annex accompanying the summons the board expressed the preliminary opinion that the subject-matter of the independent claims did not appear to fulfil the requirements of Articles 56 and 84 EPC.

IV. By letter dated 30 June 2014 the appellant submitted further arguments supporting the request on file.

V. By letter dated 29 July 2014 the appellant requested a decision according to the state of the file and informed the board that it would not be attending the oral proceedings.

VI. The appellant requested in writing that the decision under appeal be set aside and that a patent be granted on the basis of the main request (claims 1-19) as filed with letter dated 13 May 2008.

VII. Independent claim 1 according to the sole request reads as follows:

"Transmission method to be used in a transmission system, comprising at least one master station and terminal stations, comprising the following steps:
- by said master station receiving data units with a first transmission channel called upstream channel,
- by said master station transmitting data units with a second transmission channel called downstream channel,
- in the downstream channel
- providing a field in a data unit, said field containing information about the type of the respective transmitted data unit, i.e. fixed size data unit or variable size data unit,
- providing an additional field in said data unit only if the data unit is a variable size data unit, said additional field containing information about the length of the data unit,
characterized by
- in the upstream channel receiving by said master station fixed size data units from some terminal stations and variable size data units from other terminal stations."

VIII. Oral proceedings were held on 31 July 2014 in the absence of the appellant. After due deliberation on the basis of the written submissions, the board announced its decision.

Reasons for the Decision

Admissibility

The appeal complies with Articles 106 to 108 EPC (see Facts and Submissions, point II above). It is therefore admissible.

1. Non-attendance at oral proceedings

By letter dated 29 July 2014 the board was informed that the appellant would not be attending the oral proceedings. The board nonetheless considered it expedient to maintain the date set for oral proceedings. Nobody attended on behalf of the appellant.

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

Hence, the board was in a position to announce a decision at the end of the oral proceedings.

2. Article 56 EPC - Inventive step

2.1 The board agrees with the decision under appeal that D1 is to be regarded as the closest prior art to the subject-matter of claim 1 and discloses (the references in parentheses applying to this document):
a transmission method to be used in a transmission system, comprising at least one master station and terminal stations (claim 11), comprising the following steps:

- by said master station receiving data units with a first transmission channel called upstream channel (claim 21),
- by said master station transmitting data units with a second transmission channel called downstream channel (claim 11),
- in the downstream channel
- providing a field in a data unit, said field containing information about the type of the respective transmitted data unit, i.e. fixed size data unit or variable size data unit (claim 17),
- providing an additional field in said data unit containing information about the length of the data unit (claim 18),
- in the upstream channel receiving by said master station fixed size data units from some terminal stations and variable size data units from other terminal stations (claim 21).

2.2 In particular, the board concurs with the argument in the decision under appeal that it is at least implicitly disclosed in D1 that the master station receives in the upstream channels fixed size data units from some terminal stations and variable size data units from other terminal stations.

The decision under appeal is correct in arguing that a headend of an HFC network is typically designed to serve many homes, each comprising one or more information appliances, which can be of different types. Where the protocol for transmission over the HFC is specifically designed to support fixed length and variable length data (see abstract or claim 21 of D1), the skilled reader would conclude that the master station (headend) is configured to receive in the upstream channel fixed size data units from some

terminal stations and variable size data units from other terminal stations (see also D1, column 4, line 4 "modems" and figure 1 with cable modems 140-1 to 140-3). The board therefore does not concur with the appellant's argument to the contrary (see e.g. letter dated 30 June 2014, page 3, second paragraph).

2.3 Document D1 discloses a protocol for downstream broadcast transmission from headend to cable modem and for upstream transmission from cable modem to the headend. It supports different access modes such as STM, ATM of fixed length and variable length data VL over a hybrid fiber/coax HFC (see e.g. abstract or claim 21 of D1).

In particular in the light of the disclosure of claims 21 and 39 of D1, which explicitly distinguishes between upstream transmission of STM payloads (of fixed length) and asynchronous VL (i.e. variable length) payloads which are both enabled, the board does not accept the appellant's argument that the signal is always transformed by the cable modem to the same type of output signal (see e.g. page 3, paragraphs 2 to 4 of the statement setting out the grounds of appeal; paragraph bridging pages 2 and 3 of letter dated 30 June 2014). In contrast, D1 discloses that, depending on the access mode, the cable modem will transmit STM, or ATM (fixed length) or variable length VL data units over the HFC. Since the protocol supports *inter alia* upstream transmission with fixed and variable length data (see e.g. abstract of D1) and this protocol is implemented on the receiver side, i.e. the headend, the skilled person interpreting D1 would also consider that such a head end is capable of receiving fixed size data units and variable size data units (see also claim 42 of D1, which discloses this functionality for the

minimum equipment of a headend and at least a cable modem).

2.4 The board therefore considers D1 to disclose the feature according to the characterizing portion of claim 1. In particular, the passages referred to in D1 fulfil the criterion of a clear and unequivocal disclosure in contrast to the appellant's argument (see page 2, last paragraph onwards of the statement setting out the grounds of appeal and section 2 "Implizite Offenbarung" of letter of 30 June 2014).

2.5 The decision under appeal is therefore correct in identifying that the subject-matter of claim 1 differs from this known transmission method in that the additional field in the data unit as disclosed for example in claim 18 of D1 is provided only if the data unit is of a variable size.

2.6 The problem to be solved by the present invention can therefore be regarded as how to use communication bandwidth more efficiently.

2.7 The skilled person looking for a solution of the objective problem would realize that the problem exists for both downstream and upstream transmission, and therefore would look for a solution in the art irrespective of the direction of the transmission. Thus, the skilled person would also consider D3, which discloses measures for designing a header (see e.g. figures 3 to 5) for a transmission of STM, or ATM (fixed length), or variable length VL data units as in D1.

2.8 The board further agrees with the decision under appeal that the solution according to claim 1 does not involve

an inventive step (Articles 52(1) and 56 EPC), because this feature was already known from D3 (see figures 3 to 5; in particular figure 4, which shows a variable length VL data unit, field 44-4 "Size", which only exists for variable length data units but not for fixed length data units ATM or STM; see also the table in [0041] and the last sentence of [0042] of D3). Hence, according to D3, a length field would only be foreseen for variable length data units. It would be obvious to the person skilled in the art to apply such a feature with corresponding effect to the teaching according to document D1, thereby arriving at the claimed solution according to claim 1.

2.9 Similar arguments apply, *mutatis mutandis*, to corresponding independent claims 17 and 19.

2.10 Claims 1, 17 and 19 therefore do not involve an inventive step with regard to D1 combined with D3 (Article 56 EPC).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

K. Götz-Wein A. Ritzka

Decision electronically authenticated