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Datasheet for the decision of 18 December 2017

Case Number: T 0189/13 - 3.5.03

Application Number: 02255301.0

Publication Number: 1309151

IPC: H04L29/06, H04N7/24, H04L12/56

Language of the proceedings: EN

Title of invention:
System and method of network adaptive real-time multimedia streaming

Applicant:
Samsung Electronics Co., Ltd.

Headword:
Data flow control/SAMSUNG

Relevant legal provisions:
EPC Art. 83, 123(2)

Keyword:
Sufficiency of disclosure - (no)
Amendments - extension beyond the content of the application as filed (yes)

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Case Number: T 0189/13 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 18 December 2017

Appellant: (Applicant)	Samsung Electronics Co., Ltd. 129, Samsung-ro Yeongtong-gu Suwon-si, Gyeonggi-do, 443-742 (KR)
Representative:	Portch, Daniel Elkington and Fife LLP Prospect House 8 Pembroke Road Sevenoaks, Kent TN13 1XR (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 16 July 2012 refusing European patent application No. 02255301.0 pursuant to Article 97(2) EPC**

Composition of the Board:

Chairman	F. van der Voort
Members:	B. Noll
	S. Fernández de Córdoba

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division refusing European patent application No. 02255301.0 (publication No. EP 1 309 151 A2).

II. The application was refused on the ground that the independent claims of the main request and two auxiliary requests did not comply with Article 123(2) EPC.

III. With the statement of grounds of appeal, the appellant filed new sets of claims of a main request and an auxiliary request, replacing the requests on file.

IV. In a communication accompanying a summons to oral proceedings, the board drew the appellant's attention to issues to be discussed at the oral proceedings, concerning, inter alia, added subject-matter (Article 123(2) EPC) and insufficient disclosure (Article 83 EPC).

V. With a letter dated 17 November 2017, the appellant filed claims of a second auxiliary request.

VI. Oral proceedings were held on 18 December 2017.

The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request or, in the alternative, of a first auxiliary request, both requests as filed with the statement of grounds of appeal, or on the basis of the claims of a second auxiliary request filed with the letter dated 17 November 2017.

At the end of the oral proceedings, after deliberation, the board's decision was announced.

VII. Claim 1 of the main request reads as follows:

"A streaming client (210) comprising:
a determining unit (230) for outputting to the streaming server (110) a control signal including a first bit rate; and
a receiving unit (220) for receiving packets at a second bit rate from a streaming server (110),
wherein the determining unit (230) is arranged to compare the first bit rate with the second bit rate, to change the first bit rate according to the comparison result and to output to the streaming server (110) the control signal including the changed first bit rate."

Claim 1 of the first auxiliary request is identical to claim 1 of the main request.

Claim 1 of the second auxiliary request reads as follows:

"A streaming client (210) comprising:
a receiving unit (220) adapted to:
receive packets transmitted by a streaming server over a streaming path between the streaming server and the streaming client, wherein the streaming server is arranged to transmit these packets at a first packet interval and the receiving unit (220) receives these packets at a second packet interval according to the state of the streaming path, wherein the second packet interval is the time between two packets received by the streaming client (210); and
a determining unit (230) adapted:

a) when loss occurs in the packets received from the streaming server, to output a control signal to the streaming server (110) for increasing the first packet interval, and
b) when loss does not occur in the packets which are received from the streaming server, to compare the first packet interval with the second packet interval and to output to the streaming server a control signal for changing the first packet interval according to the comparison result."

Reasons for the Decision

1. *The application*

The application in suit relates to flow control of packetized data transmitted from a server to a client through a packet switching network, e.g. for providing multimedia streaming services to the user of the client. The service does not benefit from a reserved bandwidth and therefore is not given a dedicated performance by the network. The application in suit is particularly concerned with a way of controlling the rate at which packets are transmitted by the server such that the instantaneously available transmission capacity of the network is optimally used.

2. *Claim 1 of the main request - added subject-matter (Article 123(2) EPC*

2.1 The application as filed does not provide a basis for the feature of claim 1 according to which the control signal, which is output to the streaming server, includes the changed first bit rate.

2.2 The appellant argued that a basis for this feature in the application documents as originally filed was provided by claims 7 and 8 and paragraphs [0006], [0007], [0034] and [0035] of the description (reference is made to the application as published). Further, it was implicit that the streaming client knew the first bit rate at which packets were transmitted by the server. Therefore, it was also implicit that the control signal output by the client for controlling the transmission rate included the rate at which the server was to transmit packet data.

2.3 The board does not agree. Claims 7 and 8 as originally filed and paragraph [0007] of the description are unspecific as regards the exact content of the control signal. In these passages the control signal is specified only by its function, i.e. of controlling the first bit rate. Paragraphs [0008] to [0010] merely state that the control signal is for increasing or decreasing the bit rate. This may be understood by the skilled reader as meaning that the control signal is for indicating a change of the first bit rate, not the rate itself, e.g. as an absolute value. Therefore, the feature in question is not implicitly disclosed either. Paragraphs [0034] and [0035] relate to determining the bandwidth of a bottleneck link on the measured streaming path. This measurement is made before a streaming connection is set up, not during the streaming. These passages cannot serve as a basis for the feature in question either.

2.4 Claim 1 therefore contains subject-matter which extends beyond the content of the application as filed and, hence, does not comply with Article 123(2) EPC. The main request is therefore not allowable.

3. *The first auxiliary request*

Claim 1 of the first auxiliary request is identical to claim 1 of the main request. Therefore, the above finding also applies to the first auxiliary request.

The first auxiliary request is therefore not allowable.

4. *The second auxiliary request - sufficiency of disclosure (Article 83 EPC)*

4.1 According to claim 1 of the second auxiliary request, the streaming client includes a determining unit which is adapted to compare the first packet interval with the second packet interval. The first packet interval is defined as the time interval at which a streaming server transmits packets towards the client.

4.2 The application does not, however, disclose how the first packet interval, which by its very nature is a parameter initially only available at the server, is made known to the streaming client, in order to be used for the interval or rate control, which includes a comparison with the second packet interval.

4.3 The appellant argued that in order to comply with Article 83 EPC it was sufficient for the application to disclose that the first packet interval was available at the client. The question of how the first packet interval was made available to the client did not put an undue burden on the skilled person. A solution could be found by the skilled person by using his common general knowledge, e.g. by transmitting information about the first packet interval from the server to the client.

4.4 The board does not agree. Contrary to the appellant's view, it is not merely an issue of whether or not the skilled person would be able to arrange for a transmission of information on the first packet interval from the server to the client. This ignores the fact that in the present case the first packet interval is used as an input parameter for the process of data rate control. Since this process is highly dynamic, it is necessary for any input parameter to be available for processing without substantial delay. In the board's view, making information on the first packet interval available in a way such that it can be used for the purpose of rate control is a non-trivial problem which cannot be solved by the skilled person solely by applying his common general knowledge.

4.5 For the above reason, the board concludes that the application does not disclose the streaming client claimed in claim 1 of the second auxiliary request in a manner sufficiently clear and complete for it to be carried out by the skilled person (Article 83 EPC).

4.6 The second auxiliary request is therefore not allowable.

5. There being no allowable request, it follows that the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

L. Malécot-Grob F. van der Voort

Decision electronically authenticated