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**Datasheet for the decision
of 4 July 2018**

Case Number: T 0987/13 - 3.5.04

Application Number: 09168631.1

Publication Number: 2290942

IPC: H04N5/00, H04N7/173

Language of the proceedings: EN

Title of invention:

A method and system for delivery of data to an end user

Applicant:

Bond TV LLC

Headword:

Relevant legal provisions:

EPC Art. 84, 111(1)

Keyword:

Claims - clarity after amendment (yes)

Remittal to the department of first instance - (yes)

Decisions cited:

Catchword:



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Case Number: T 0987/13 - 3.5.04

D E C I S I O N
of Technical Board of Appeal 3.5.04
of 4 July 2018

Appellant: Bond TV LLC
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Wilmington, Delaware 19801 (US)

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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 22 November
2012 refusing European patent application
No. 09168631.1 pursuant to Article 97(2) EPC

Composition of the Board:

Chairman C. Kunzelmann
Members: R. Gerdes
T. Karamanli

Summary of Facts and Submissions

I. The appeal is directed against the decision to refuse European patent application No. 09 168 631.1, published as EP 2 290 942 A1.

II. The patent application was refused on the grounds that claim 1 of the then main request lacked clarity (Article 84 EPC) and that its subject-matter lacked inventive step (Article 56 EPC) over the disclosure of one of the following documents:

D1: De Lattre, Alexis et al.: "VideoLAN Streaming Howto", Internet Citation, 25 January 2007, XP007901600, Retrieved from the Internet: <http://www.videolan.org/doc/streaming-howto/en/> retrieved on 25 January 2007 or

D4: US 2008/0059533 A1.

Claim 1 of the then auxiliary request was found to infringe Article 123(2) EPC and to lack clarity, and its subject-matter was found to lack inventive step over the disclosure of document D4.

III. The applicant filed notice of appeal against this decision, requesting that it be set aside. In its statement of grounds of appeal it submitted arguments as to why the decision was incorrect.

IV. With a letter dated 19 January 2015, it filed the following documents as evidence in support of the argument that the term "Content Delivery Network" had a well-defined meaning for a person skilled in the art:

CDN1: printout of a Wikipedia article on "Content delivery network" edited on 5 April 2006 and

CDN2: screenshot taken from the "Springer" website referring to the book "Content Delivery Networks" by Rajkumar Buyya et al., Series: Lecture Notes in Electrical Engineering, Vol. 9, 2008.

- V. The board issued a summons to oral proceedings together with a communication in which it gave its preliminary opinion.
- VI. The appellant replied with a letter dated 4 June 2018, with which it filed claims according to a new main request and first to fifth auxiliary requests. It also submitted arguments in support of the allowability of these requests.
- VII. Oral proceedings were held before the board on 4 July 2018.

During the oral proceedings the appellant filed claims 1 to 9 according to a new main request "11:15h" which replaced claims 1 to 10 of the previous main request.

The board admitted the main request "11:15h" into the appeal proceedings.

The appellant confirmed its final requests as follows:

It requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims according to the main request "11:15h" filed during the oral proceedings of 4 July 2018 or, in the alternative, according to one of the first to fifth

auxiliary requests, all auxiliary requests as filed with the letter dated 4 June 2018.

VIII. The independent claims of the main request "11:15h" (henceforth only the main request) read as follows:

"1. A method for delivery of data to end user equipment via a Content Delivery Network (CDN) comprising a plurality of nodes (131, 132, 133, 134, 135), the plurality of nodes each being at different geographical locations and being connected to the Internet, wherein the method comprises the steps of:

- hosting in a first datacenter (110, 111, 112) at a first geographical location within the footprint of a satellite transmission a bank of first satellite receivers (115), each specific to a particular end user, the first datacenter (110, 111, 112) being set up to ensure proper reception of audio and video signals on the receivers (115) and to ensure maintenance of operation at all times,
- receiving data on one of said first satellite receivers (115),
- forwarding the received data from said one of the first satellite receivers (115) to a processor (116), for processing the data into Internet packets,
- identifying a node (131, 132, 133, 134, 135) of the CDN (130) which is geographically the closest to the first geographical location and forwarding the processed data from said one of the first receivers (115) to this node (131) of the CDN (130),

- receiving on a node (131,132,133,134,135) of the CDN closest to the end user equipment a request from the end user to have access to data from said one of the first satellite receivers (115), the end user making the request from a geographical location remote from the first geographical location,
- verifying the identity of the end user and, where the verification is positive,
- forwarding processed data from the node closest to the first geographical location to the node closest to the end user equipment, and from the node closest to the end user equipment to the end user equipment via the Internet (140)."

"6. A system (100) for delivery of data to an end user, wherein the system comprises:

- a bank of first satellite receivers (115) hosted in a first datacenter (110, 111, 112) at a first geographical location (110) within the footprint of a satellite transmission, each satellite receiver being specific to a particular end user, the first datacenter (110, 111, 112) being set up to ensure proper reception of audio and video signals on the receivers (115) and to ensure maintenance of operation at all times,
- a processor (116) connected to the bank of first receivers (115) for processing data received on the first receivers (115) into Internet packets,
- a Content Delivery Network (CDN) (130) connected to the processor (116) for receiving the packets of processed data on the CDN (130) and for forwarding the data towards end user equipment, wherein the Content

Delivery Network (CDN) comprises a plurality of nodes (131, 132, 133, 134, 135), the plurality of nodes each being at different geographical locations and being connected to the Internet, and wherein the packets of processed data are received at a node (131, 132, 133, 134, 135) of the CDN (130) which is geographically the closest to the first geographical location; and wherein a node (131, 132, 133, 134, 135) of the CDN closest to the end user equipment is arranged to receive a request from the end user to have access to the data on the CDN from said one of the first satellite receivers (115), the end user making the request from a geographical location remote from the first geographical location,

- an identity verification tool for verifying the identity of an end user and for allowing or refusing the end user to access the data on the CDN (130). [sic] wherein, where the verification is positive, processed data from the node closest to the first geographical location is forwarded to the node closest to the end user equipment, and from the node closest to the end user equipment is forwarded to the end user equipment via the Internet (140)."

Claims 2 to 5 and 7 to 9 are dependent on claims 1 and 6, respectively.

IX. The examining division argued in the decision under appeal that the expression "Content Delivery Network" was unclear, and in particular that it was not clear how in technical terms a CDN differed from any other network. The expression "a Content Delivery Network (CDN) comprising a plurality of nodes, the plurality of nodes each being at different geographical locations and being connected to the Internet" was unclear because the expression "different geographical

locations" had no technical meaning. Communications networks typically consisted of nodes which were at distinct positions. The presence of non-coinciding nodes was an inherent property of a network. It was also unclear whether "connected to the Internet" referred to the CDN or to the nodes.

In addition, the technical implications of identifying "a node ... of the CDN ... closest to the first geographical location" and a "node closest to the end user equipment" were unclear. It was not apparent from the claim how, where and by whom such identification was performed. Moreover, the expression "bank of satellite receivers, each specific to a particular end user" was ambiguous. It was not clear whether the expression referred to a one-to-one mapping or to a many-to-one mapping of receivers to users (see decision under appeal, point 2.1.1).

Regarding inventive step the examining division argued that the provision of at least a second receiver in D1 was banal. Optimising the transmission route and verifying a user's identity was a conventional activity of the network provider. The examining division also held that geographical aspects were of a non-technical nature and therefore did not contribute to inventive step (see point 2.1.2 of the decision).

- X. Regarding remittal to the department of first instance for further prosecution, the appellant essentially argued that remitting the case to the examining division would prolong the proceedings, which would go against the appellant's economic interests.

Reasons for the Decision

1. The appeal is admissible.

Main request

2. *Admission (Article 13 RPBA)*

- 2.1 According to Article 13(1) RPBA (Rules of Procedure of the Boards of Appeal of the European Patent Office, OJ EPO 2007, 536), any amendment to a party's case after it has filed its grounds of appeal may be admitted and considered at the board's discretion.

The board's discretion is to be exercised in view of inter alia the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy. Other criteria, such as sound reasons for filing a request at a late stage in the proceedings, may also be decisive (see Case Law of the Boards of Appeal of the European Patent Office, 8th edition 2016, IV.E.4.4).

- 2.2 Compared to claim 1 of the main request underlying the decision under appeal, present claim 1 has been restricted as regards its first method step, which reads as follows, the amendments being indicated by underlining:

"... hosting in a first datacenter (110, 111, 112) at a first geographical location within the footprint of a satellite transmission a bank of first satellite receivers (115), each specific to a particular end user, the first datacenter (110, 111, 112) being set up to ensure proper reception of audio and video signals

on the receivers (115) and to ensure maintenance of operation at all times, ..."

2.3 The amendments were made following a discussion during the oral proceedings regarding the implications of the previously used expression "hosting at a first geographical location ... a bank of first satellite receivers". In particular, it was discussed whether the previously used expression implied the features which have now been added to the claim. The feature had been the subject of discussions in the proceedings before the department of first instance and in the board's communication annexed to the summons to oral proceedings, but essentially in respect of the meaning of the expression "a bank of first satellite receivers" and the wording "each specific to a particular end user". The board therefore accepts the appellant's argument that this point was raised by the board for the first time in the oral proceedings and that the claim amendments could be considered an appropriate reaction to that discussion. The amendments do not increase the technical complexity of the features discussed in the first-instance proceedings but clarify their technical meaning in the context of the claim.

2.4 In view of the above the board decided to admit the amended main request into the appeal proceedings pursuant to Article 13(1) RPBA.

3. *Amendments (Article 123(2) EPC)*

3.1 Compared to claim 1 of the main request underlying the decision under appeal, which was not objected to under Article 123(2) EPC, present claim 1 has been restricted as regards its first method step (see point 2.2 above).

3.2 A basis for the amendments to claim 1 can be found in the application as filed, page 6, lines 1 to 18, which corresponds to paragraph [0019] of the application as published. Such amendments have also been made to independent claim 6, which defines the corresponding system. Some dependent claims have been deleted, and claims 3 and 7 have been amended in line with the independent claims to refer to a second data center. This amendment is based on page 4, lines 24 to 29, and page 6, lines 1 to 18, together with figure 1.

3.3 Hence, the board finds that the claims of the appellant's main request do not contain subject-matter which extends beyond the content of the application as filed and that they thus comply with Article 123(2) EPC.

4. *Clarity (Article 84 EPC)*

4.1 The examining division argued in the decision under appeal that the expression "Content Delivery Network" (CDN) was unclear, and in particular that it was not clear how in technical terms a CDN differed from any other network. In reaction to this objection, the appellant submitted documents CDN1 and CDN2 as evidence in support of the argument that the term "Content Delivery Network" had a well-defined meaning for a person skilled in the art (see points IV and IX above).

4.2 The board considers documents CDN1 and CDN2 to constitute sufficient evidence that the term "Content Delivery Network" (CDN) was an accepted technical term in the field of communication networks at the filing

date of the present application. However, the fact that the technical term CDN was accepted in its technical field does not necessarily imply that a CDN is clearly delimited from any other network.

- 4.3 In the present case documents CDN1 and CDN2 provide criteria which are considered suitable to decide on a case-by-case basis whether a network can be called a CDN or not, including the optimisation of the computer network for delivery of large media content to end users, for example based on the use of specific protocols and minimisation of public internet data transmission hops. These criteria are not totally clear-cut, but the board considers such specifications to reflect the reality in communication network technology, where terms are not always used in a non-overlapping and unique way. Hence, the board concludes that the expression "Content Delivery Network" is clear.
- 4.4 The examining division also objected that the expression "different geographical locations" referring to a plurality of nodes of a computer network had no technical meaning, because the presence of non-coinciding nodes was an inherent property of a network.
- 4.5 This argument cannot amount to an objection of lack of clarity. The board agrees with the examining division that the feature is implicitly disclosed in any prior-art computer network, but sees no need to modify or delete this expression since it does not entail any ambiguity regarding the functions of the data center or the bank of satellite receivers.
- 4.6 Moreover, the examining division argued that it was unclear whether the adjunct "and being connected to the

Internet" referred to the CDN or to the nodes. In this respect the board agrees with the appellant that it is obvious from the syntax and the comma used in claim 1 that the term refers to the nodes (see statement of grounds, point II.1.b).

- 4.7 The examining division also considered the expressions "identifying a node ... of the CDN ... closest to the first geographical location" and a "node ... closest to the end user equipment" to be unclear. It was not apparent from the claim how, where and by whom such identification was performed.
- 4.8 Regarding this objection the board agrees with the appellant that it need not be specified "where" and "by whom" the identification is performed, because such implementation details are not essential for the present invention. Also concerning the question "how" the identification is performed, the skilled person may refer to standard protocols and algorithms used in networks (see statement of grounds, point II.1.c).
- 4.9 According to the decision under appeal, the expression "bank of satellite receivers, each specific to a particular end user" was ambiguous. It was not clear whether the expression referred to a one-to-one mapping or to a many-to-one mapping of receivers to users (see decision under appeal, point 2.1.1).
- 4.10 Concerning this objection, the board agrees with the appellant's interpretation of the feature stating that each of the receivers in the bank of receivers is uniquely associated with a particular end user. The feature includes the cases of an end user having only one associated receiver and of several (or even all) receivers being associated with the same end user (see

appellant's letter dated 4 June 2018, point II.A.2). Since this interpretation can be derived unambiguously from the wording of the claim, the feature is considered broad but not unclear.

4.11 For these reasons the board does not consider that there is any lack of clarity in the claims of the present main request "11:15h", and in particular no lack of clarity in relation to the matters discussed above (Article 84 EPC). The same considerations apply with respect to independent claim 6, which specifies the system corresponding to the method of claim 1, and to dependent claims 2 to 5 and 7 to 9.

5. *Remittal*

5.1 In addition to the above objections as to lack of clarity, the decision under appeal is based on the ground of lack of inventive step of the claimed subject-matter. The examining division considered the feature of a CDN to be realised in D1 by a network and argued that the provision of at least a second receiver in D1 to realise a "bank of receivers" was banal (see point 2.1.2 of the decision).

5.2 As set out above, the board considers a CDN to be optimised for content delivery and therefore to be distinguished from other networks. More importantly, in the appeal proceedings the appellant amended the independent claims to refer to a first data center hosting the bank of first satellite receivers, "the first datacenter ... being set up to ensure proper reception of audio and video signals on the receivers ... and to ensure maintenance of operation at all times" (see point 2.2 above). These amendments exclude the interpretation of a bank of satellite

receivers as meaning a number of receivers positioned at random but closely. Hence, the board considers the reasoning on inventive step in the decision under appeal to be deprived of its basis by the board's different view of the clarity issues in the decision under appeal and by the amendments to the claims.

- 5.3 During the oral proceedings the board discussed remittal of the case to the department of first instance with the appellant. The appellant argued that remitting the case to the examining division would prolong the proceedings, which would go against the appellant's economic interests.
- 5.4 Remittal gives the appellant the opportunity to have the issue of inventive step decided by two instances. The examining division may also deem it necessary to reconsider the choice of the closest prior art in view of the claim amendments and the board's view on clarity or even to carry out an additional search based on the new claims. The appellant's economic interests are held to be of secondary importance in view of these reasons. The board also notes that the examination proceedings can be accelerated at the appellant's request (see Notice from the European Patent Office dated 30 November 2015 concerning the programme for accelerated prosecution of European patent applications ("PACE"), Supplementary publication 4, OJ EPO 2016, 64-69).
- 5.5 Hence, the board exercises its discretion under Article 111(1) EPC and remits the case for further prosecution.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:



K. Boelicke

C. Kunzelmann

Decision electronically authenticated