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**Datasheet for the decision
of 8 November 2011**

Case Number: T 0102/08 - 3.5.04

Application Number: 03708307.8

Publication Number: 1472877

IPC: H04N 7/24

Language of the proceedings: EN

Title of invention:

Media transmission system and method

Applicant:

Accenture Global Services Limited

Headword:

-

Relevant legal provisions (EPC 1973):

EPC Art. 56

Keyword:

"Inventive step - no (all requests)"

"Treatment of non-technical problem described in the application"

Decisions cited:

G 0003/08, T 0641/00

Catchword:

See sections 3 to 5



Case Number: T 0102/08 - 3.5.04

D E C I S I O N
of the Technical Board of Appeal 3.5.04
of 8 November 2011

Appellant: Accenture Global Services Limited
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 30 July 2007
refusing European patent application
No. 03708307.8 pursuant to Article 97(1) EPC
1973.

Composition of the Board:

Chairman: B. Müller
Members: M. Paci
A. Dumont

Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division refusing European patent application No. 03 708 307.8, which was published as WO 03/067845 A2.
- II. The following documents, cited as prior art in the communication referred to in the decision under appeal, are relevant to the present decision:
- D1: WO 99/31871 A2 and
D4: US 6,181,711 B1.
- III. The decision under appeal is, as requested by the applicant, a decision according to the state of the file (EPO FORM 2061) referring to a previous communication dated 26 January 2007 in which the examining division had argued *inter alia* that the subject-matter of claim 1 did not involve an inventive step in view of D1 and D4.
- IV. With the statement of grounds of appeal the appellant (applicant) filed three sets of amended claims according to a main request and first and second auxiliary requests, respectively, replacing all previous claims, as well as amended description pages.
- V. In a communication under Article 15(1) RPBA (Rules of Procedure of the Boards of Appeal, OJ EPO 2007, 536), annexed to the summons to oral proceedings, the board expressed *inter alia* the provisional opinion that the subject-matter of claim 1 according to each of the

appellant's three requests did not involve an inventive step in view of D1 and D4.

- VI. With a letter dated 7 October 2011 the appellant filed three sets of amended claims according to a main request and first and second auxiliary requests, respectively, replacing all previous claims.
- VII. Oral proceedings were held before the board on 8 November 2011. At the end of the oral proceedings the board announced its decision.
- VIII. The appellant's final requests are that the decision under appeal be set aside and that the case be remitted to the department of first instance with an order to grant a patent on the basis of the claims of the main, first or second auxiliary requests filed with a letter dated 7 October 2011.
- IX. Independent claim 1 according to the **main request** reads as follows:

"A system for the transmission of a desired one of a plurality of broadcast media channels to a remote client over a data connection, said system including:

means for storing an identifier identifying the remote client and, in association with the identifier, an indication of an available data rate of the data connection to the remote client, said available data rate being lower than a maximum data rate for the data connection to the remote client;

means for determining a rate at which data is to be routed based on the indication of the available data rate of the data connection;

means for routing data at the determined rate for a first one of the broadcast media channels over said data connection to said client; and

means for routing data at the determined rate for an alternate one of said channels over the data connection following receipt of a channel change request from a user."

Claims 2 to 25 according to the main request are of no relevance to the present decision.

- X. Independent claim 1 according to the **first auxiliary request** reads as follows (the differences with claim 1 according to the main request are underlined):

"A system for the transmission of a desired one of a plurality of broadcast media channels to a remote client over a data connection, said system including:

means for storing an identifier identifying the remote client and, in association with the identifier, an indication of an available data rate of the data connection to the remote client, said available data rate being lower than a maximum data rate for the data connection to the remote client;

means for determining a rate at which data is to be routed based on the indication of the available data rate of the data connection;

means for routing data at the determined rate for a first one of the broadcast media channels over said data connection to said client; and

means for routing data at the determined rate for an alternate one of said channels over the data connection in place of a portion of the data routed for

the first one of the broadcast media channels following receipt of a channel change request from a user."

Claims 2 to 24 according to the first auxiliary request are of no relevance to the present decision.

XI. Independent claim 1 according to the **second auxiliary request** reads as follows (the differences with claim 1 according to the first auxiliary request are underlined):

"A system for the transmission of a desired one of a plurality of broadcast media channels to a remote client over a data connection, said system including:

means for providing data for the plurality of broadcast media channels independently of user requests for broadcast media channels;

means for storing an identifier identifying the remote client and, in association with the identifier, an indication of an available data rate of the data connection to the remote client, said available data rate being lower than a maximum data rate for the data connection to the remote client;

means for determining a rate at which data is to be routed based on the indication of the available data rate of the data connection; and

means for routing the data which is responsive to user requests for broadcast media channels, including:

means for routing data at the determined rate for a first one of the plurality of broadcast media channels over said data connection to said client; and

means for routing data at the determined rate for an alternate one of said plurality of

broadcast media channels over the data connection in place of a portion of the data routed for the first one of the plurality of broadcast media channels following receipt of a channel change request from a user, said means further comprising:

means for destroying existing cross connect for the first one of the plurality of broadcast media channels; and

means for creating a new cross connect for the alternate one of said plurality of channels."

Claims 2 to 23 according to the second auxiliary request are of no relevance to the present decision.

XII. The examining division's reasoning in the decision under appeal, by way of reference to the communication dated 26 January 2007, as to whether the subject-matter of claim 1 then on file involved an inventive step can be summarised as follows:

D1 discloses a system for providing video over a xDSL connection ["xDSL" is an abbreviation for a "Digital Subscriber Line", also often simply referred to as "DSL"]. A content server announces the available channels by an announcing protocol. With the settop box the user can select one of the announced channels. The selected channel can be transmitted by unicast or multicast technology. The system checks in a subscriber database whether the user is authorised to receive the selected channel.

Since it is known that the subscriber is connected via xDSL, the indication about the data rate is also implicitly known. D1 teaches explicitly that the

limiting factor is the xDSL line to the subscriber. Hence the system always transmits within the bounds given by the subscriber's access. The storing of other features, next to the subscriber's identification, such as the subscriber's access is thus implicitly disclosed in D1. Even if it were considered that D1 does not disclose that the transmission rate is determined for a possible transmission over a xDSL connection, the introduction of such a feature would still be trivial for the person skilled in the art.

Thus, the subject-matter of claim 1 might differ from the system of D1 by the presence of "means for determining a rate at which the data is to be routed based on the indication of the available bandwidth of the data connection".

This feature has the effect of ensuring that data is not transmitted at too high a data rate over the xDSL line.

The objective technical problem is therefore of ensuring that the right amount of traffic is sent to the user.

It is self evident from D1 that the person skilled in the art was immediately confronted with this problem, because:

- the skilled person was aware that the xDSL line to the subscriber was the bottleneck in the transmission;
- the skilled person was aware of bandwidth constraints concerning the session;

- the skilled person was conscious of customer-related data such as identity and permission to subscribe to a channel.

The skilled person would thus have looked for prior art also relating to xDSL and video on demand technology, but more focused on the transmission aspect.

The skilled person would have come across D4, which teaches to adapt the data rate to the limited bandwidth of the individual line and which thus solves the above problem.

Hence the skilled person would have arrived at the subject-matter of claim 1 without inventive step by applying the teaching of D4 to the system of D1.

- XIII. In its communication annexed to the summons to oral proceedings and/or during the oral proceedings itself, the board also drew attention *inter alia* to the following matters:
- The features relating to the "available data rate being lower than a maximum data rate" appear to be solving only a non-technical problem of pricing. In application of the established case law of the boards of appeal (see, in particular, decision T 641/00 "Two identities/COMVIK, OJ 2003, 352) the objective problem may need to be reformulated by including the non-technical aspects (i.e. the pricing considerations in the present case), whether novel or not, in the formulation of the problem as part of the framework of the technical problem that is to be solved, in particular as a constraint that has to be met.

- The subject-matter of claim 1 according to each of the main request, first and second auxiliary requests may lack inventive step in view of D1 and common general knowledge.

XIV. The appellant essentially argued as follows regarding inventive step in view D1 and common general knowledge:

Main request

D1 discloses a system for transmitting digital multimedia communication information to the settop boxes of end user subscribers via switched circuit technology (ATM) and bandwidth limited end connections (DSL). The system of D1 addresses the problem of bandwidth limitation by including a subscriber in a multi-cast group only when that particular subscriber requests inclusion in that group, so that the subscriber only receives the data specifically requested.

The system of D1 does not store an indication of available data rate of the data connection to the remote client, said available data rate being lower than a maximum data rate for the data connection to the remote client. The following features of claim 1 are therefore not disclosed by D1:

"means for storing an identifier identifying the remote client and, in association with the identifier, an indication of an available data rate of the data connection to the remote client, said available data rate being lower than a maximum data rate for the data connection to the remote client;

means for determining a rate at which data is to be routed based on the indication of the available data rate of the data connection;

means for routing data at the determined rate for a first one of the broadcast media channels over said data connection to said client; and

means for routing data at the determined rate for an alternate one of said channels over the data connection following receipt of a channel change request from a user."

Starting from D1 as the closest prior art, the system of claim 1 solves the objective technical problem of "how to provide channels to subscribers over limited bandwidth data connections".

D1 teaches the skilled person how to multicast packet streams containing reference information while a select set of program information is routed to the settop boxes so that multicast streams can be identified and full content can be routed individually to the settop box for decoding. However, D1 does not teach or suggest determining a data rate at which to route data. In fact, D1 does not discuss data rates at all.

Therefore, when starting from D1 and trying to arrive at the subject-matter of new claim 1, the skilled person would have to dismiss the explicit and central teaching of D1 and replace this teaching with another teaching without an indication to do so. The skilled person would have to substantially amend D1 to at least include a consideration of data rates. However, there is no incentive to do so.

Therefore, the skilled person would not arrive at the technical solution according to the claimed subject-matter when starting from D1 and using common general knowledge, barring impermissible hindsight.

First auxiliary request

The additional feature of claim 1 according to this request (see underlined text under point X above) makes clear that the data connection is maintained during a change of channel. This is in contrast to what is done in D1 in which, upon a request for channel change, the existing virtual circuit must be destroyed and a new virtual channel must be created by the settop box for the alternate channel (see D1, from page 13, line 30, to page 14, line 15).

Hence, the system of claim 1 according to the first auxiliary request involves an inventive step in view of D1 and common general knowledge.

Second auxiliary request

The additional features of claim 1 according to this request (see underlined text under point XI above) make clear that the system has a reserve of broadcast media channels which can be routed to the users, if requested, and that the system has means for destroying an existing cross connect and creating a new cross connect for an alternate channel upon receipt of a channel change request.

Although it is not disputed that the system of D1 also has a reserve of broadcast media channels which can be

sent to the users, the second additional feature is neither known nor suggested by D1. This is because in D1 the switched virtual circuit extends all the way to the settop box and the settop box, not the central office, "terminates the switched virtual circuit" as stated on page 14, lines 7 to 10, of D1.

Hence, the system of claim 1 according to the second auxiliary request involves an inventive step in view of D1 and common general knowledge.

Reasons for the Decision

1. The appeal is admissible.

Main request

Inventive step

2. Closest prior art

It is undisputed that the system of D1 can be regarded as the closest prior art.

D1 discloses a system for the transmission of a desired one of a plurality of broadcast media channels to a remote client over a data connection. The system of D1 includes a channel server (150) maintaining a channel list database (170), which tracks available content channel offerings, and a subscriber database (180), which contains subscriber identifications and the list of permitted channels for each subscriber (see page 5, lines 17 to 23). The channel server regularly updates

the channel list database with programs to be transmitted, preferably by multicasting, on a particular channel. The channel server uses the channel list database (170) and the subscriber database (180) to send to the settop box of each subscriber the list of channels that the subscriber is permitted to watch (see from page 11, line 31, to page 12, line 7). The subscriber can select to receive a program from the list by selecting the associated channel. The settop box then sends a request to receive the selected channel to the channel server (see page 12, lines 7 to 16). Upon reception of this request, a switched virtual circuit between the content provider and the subscriber's settop box is established and the channel programming content is distributed via this switched virtual circuit (see figure 4C and page 12, lines 27 to 33). The distribution is preferably done by multicasting, but could also be by unicasting (see page 12, lines 33 to 38). In the embodiment shown in figure 1, the switched virtual circuit is established in an ATM network (see also page 2, lines 8 to 12). If the subscriber decides to change channel, the switched virtual circuit is terminated and a new switched virtual circuit is established for the new channel (see page 3, lines 14 to 23, and page 14, lines 7 to 15).

3. Distinguishing features

It is undisputed that D1 does not explicitly disclose storing a data rate for the data connection to a remote client. The board, however, regards as implicit in the disclosure of D1 that the system must have means for determining a data rate at which to transmit a broadcast media channel to a subscriber. The following

distinguishing features of claim 1 are thus not anticipated by D1 because of the text portions highlighted in bold:

"means for storing an identifier identifying the remote client **and, in association with the identifier, an indication of an available data rate of the data connection to the remote client, said available data rate being lower than a maximum data rate for the data connection to the remote client;**

means for determining a rate at which data is to be routed **based on the indication of the available data rate of the data connection;**

means for routing data **at the determined rate** for a first one of the broadcast media channels over said data connection to said client; and

means for routing data **at the determined rate** for an alternate one of said channels over the data connection following receipt of a channel change request from a user."

4. Objective technical problem(s)
 - 4.1 The appellant submitted that, when starting from D1 as the closest prior art, the system of claim 1 solved the objective technical problem of "how to provide channels to subscribers over limited bandwidth data connections" (see appellant's letter dated 7 October 2011, page 6).
 - 4.2 The board, however, is not convinced that the objective technical problem formulated by the appellant properly reflects the problem(s) actually solved by the distinguishing features, in combination with the other features of the claim. In the board's view, the distinguishing features of claim 1 contribute to the

solution of two distinct problems for the reasons given below.

The most relevant section in the description of the application as filed (see page 11, lines 11 to 23), reads as follows:

"Multiple Bit Rates

Due to geographical and physical considerations, the maximum bit rates available over the xDSL links vary from customer to customer, generally with those customers located nearer to their local exchanges able to receive higher data rates. To incorporate these differences the Broadband Service Controller is preferably capable of managing transmission of the same TV programmes to different customers at different bit rates or qualities. The STC [settop box] then receives the channel at the highest broadcast rate available that is within the customer-purchased maximum bit rate ceiling.

Under some pricing models, a customer may choose to pay a lower amount and receive a lower bit rate service when their line is capable of receiving a higher rate. Accordingly, the quality made available to the customer is preferably determined by the quality of service purchased and not necessarily the maximum quality available over the line."

In other words, this passage from the description describes **two distinct problems**:

- (1) a **first problem** of how to provide channels to subscribers over limited bandwidth data connection at the highest possible quality of service (i.e.

at the maximum possible data rate of the data connection); and

- (2) a **second problem** relating to the implementation of a pricing model.

The first problem is solved in the system of claim 1 by the following distinguishing features in bold typeface which are **not** underlined, whereas the second problem is solved by the distinguishing features which are underlined (for each set of distinguishing features in combination with the known features of claim 1):

"means for storing an identifier identifying the remote client **and, in association with the identifier, an indication of an available data rate of the data connection to the remote client, said available data rate being lower than a maximum data rate for the data connection to the remote client;**

means for determining a rate at which data is to be routed **based on the indication of the available data rate of the data connection;**

means for routing data **at the determined rate** for a first one of the broadcast media channels over said data connection to said client; and

means for routing data **at the determined rate** for an alternate one of said channels over the data connection following receipt of a channel change request from a user."

- 4.3 The first and second technical problems are unrelated and independently solved because the distinguishing features (an available data rate lower than a maximum data rate) solving the second problem (implementing a pricing model) do not contribute to solving the first

problem (achieving the highest possible quality of service) and, conversely, the distinguishing features (storing an available rate for the data connection to a remote client, determining a routing rate based on that rate and routing channels at that routing rate) solving the first problem (achieving the highest possible quality of service) do not contribute to solving the second problem (implementing a pricing model).

In accordance with the established case law of the board of appeal the first and second problems are therefore to be regarded as two independent **partial problems** and it must be separately assessed, for each of them, whether the combination of features solving the partial problem is obviously derivable from the prior art (see Case Law of the Boards of Appeal of the EPO, 6th edition, section I.D.8.2.2).

- 4.4 Regarding the formulation of the second problem the board draws attention to the case law developed in decision T 641/00 cited above, which is now regarded as well-established (see, for instance, G 3/08, OJ EPO 2011, 10, point 10.13.2 of the Reasons).

According to the approach developed in T 641/00 (see, in particular, points 6 and 7 of the Reasons) features which do not contribute to the solution of a technical problem cannot support the presence of an inventive step and, if the problem is based on a mix of technical and non-technical considerations, the objective problem needs to be reformulated by including the non-technical aspects, whether novel or not, in the formulation of the problem as part of the framework of the technical

problem that is to be solved, in particular as a constraint that has to be met.

In the present case, according to the description as filed (see page 11, lines 11 to 23, the text of which is quoted under point 4.2 above, page 16, lines 10 to 18, and pages 18 to 21) the feature in claim 1 that "said available data rate being lower than a maximum data rate for the data connection to the remote client" is the result of a technical implementation of a pricing model which allows a customer to choose from several data rates, each rate being associated to a corresponding level of quality of service and being priced accordingly. The board regards the pricing model itself as non-technical for being of financial, administrative or commercial nature and thus falling under the exclusion of schemes, rules and methods for doing business in Article 52(2)(c) EPC. Applying the approach defined in T 641/00, it is legitimate to reformulate the objective problem by including the aim to be achieved in a non-technical field, whether novel or not, in the formulation of the problem as part of the framework of the technical problem that is to be solved, in particular as a constraint that has to be met. In the present case, the objective technical problem associated with this feature (i.e. the **second problem** under point 4.2 above) thus needs to be properly reformulated as being how to implement a pricing model which allows the customer to choose to pay a lower amount and to receive broadcast media channels with a quality of service lower than the highest possible quality of service (i.e. at a data rate lower than the maximum possible data rate of the data connection).

- 4.5 Thus, in conclusion, the system of claim 1 solves two partial objective technical problems which are
- (1) how to provide channels to subscribers over limited bandwidth data connection at the highest possible quality of service (i.e. at the maximum possible data rate of the data connection); and
 - (2) how to implement a pricing model which allows the customer to choose to pay a lower amount to receive broadcast media channels at a quality of service lower than the highest possible quality of service (i.e. at a data rate lower than the maximum possible data rate of the data connection).

5. Obviousness

5.1 Regarding the solution to the first objective problem

It is undisputed that the skilled person was aware that in the system of D1 the end connection to the subscriber via a DSL line was the bottleneck in the transmission, as this was explicitly identified as a problem in D1 (see D1, page 4, lines 25 to 29).

Moreover, in the communication annexed to the summons to oral proceedings the board wrote that it regarded as part of the skilled person's common general knowledge before the priority date of the present application that, as stated on page 11, lines 12 to 14, of the present application as filed, "[d]ue to geographical and physical considerations, the maximum bit rates available over the xDSL links vary from customer to customer, generally with those customers located nearer

to their local exchanges [being] able to receive higher data rates".

The appellant acknowledged during the oral proceedings that these facts were not disputed.

The skilled person was therefore aware of the problem that the subscribers in the system of D1 might have DSL lines with different maximum data rates which must not be exceeded when transmitting a broadcast media channel. D1, however, was silent on how to solve this problem.

In the board's view, the skilled person would inevitably have come to the conclusion that the system of D1 had to know the maximum data rate of a DSL line to a subscriber before transmitting data to that subscriber because exceeding the maximum data rate would cause a transmission error. The relevant question is therefore how the skilled person would have achieved this. The board considers that the skilled person only had a limited number of options, namely essentially the following ones:

- to test the maximum data rate of the DSL line to the subscriber **each time immediately before** transmitting the broadcast media channel to that subscriber; or
- to test the maximum data rate of the DSL line to the subscriber **only once** for each DSL line (e.g. the very first time the line is set up) and **to store** this information for later use because the maximum data rate of a given DSL line generally remains the same as long as there has been no physical change to the line.

The board regards both of these two alternative options as obvious to the skilled person. Since the system of

D1 already stored subscriber information in a subscriber database (180, see page 5, lines 17 to 23), it would have been straightforward to also store the maximum data rate of each subscriber's DSL line in this database, in association with the other already stored data relating to the subscriber, such as its identifier, and to determine the transmission rate based on said stored maximum data rate.

For these reasons, the board considers that the invention including the features which in combination solve the first objective (partial) problem does not involve an inventive step in view of D1 and common general knowledge.

5.2 Regarding the solution to the second objective problem

Once the skilled person had been tasked with the problem of implementing in the system of D1 a pricing model which allows the customer to choose to pay a lower amount to receive broadcast media channels at a quality of service lower than the highest possible quality of service (i.e. at a data rate lower than the maximum possible data rate of the data connection), the technical solution proposed in claim 1 would have been straightforward because the maximum purchased data rate (i.e. the "available data rate" of claim 1), which could only be lower or equal to the maximum data rate of the DSL line, would have to be stored for each subscriber in order not to be exceeded when transmitting data.

Accordingly, the invention including the features which in combination solve the second objective (partial)

problem does not involve an inventive step in view of D1 and common general knowledge.

6. The appellant's arguments

The appellant argued that D1, in contrast to the present invention, solved the problem of bandwidth limitation by using multicasting and was silent on data rates. The appellant thus concluded that in order to arrive at the subject-matter of claim 1 the skilled person would have to replace the central teaching of D1 by another teaching without an indication/incentive to do so.

These arguments did not convince the board for the following reasons.

In D1, multicasting is only presented as a preferred embodiment, with unicasting mentioned as an alternative (see page 12, lines 33 to 38). The appellant's contention that the system relies solely on multicasting is thus not founded. Moreover, the board's reasoning under sections 2 to 5 above does not depend on whether the system of D1 uses both multicasting and unicasting, or only multicasting.

The board agrees with the appellant that D1 is silent as to the data rate at which data is transmitted to subscribers. However, D1 identifies as a problem the fact that the DSL lines have a limited bandwidth (see page 2, lines 25 to 33). The skilled person, based either on this indication or on his/her common general knowledge, was necessarily aware of this problem and had no choice but to find a way to ensure that the

maximum data rate of the DSL line was not exceeded in the system of D1.

Lastly, the appellant also argued during the oral proceedings that the feature that "said available data rate being lower than a maximum data rate for the data connection to the remote client" did not only solve a problem of pricing but also a technical problem of allowing a more efficient transmission because if the broadcast media channel does not use the whole maximum bandwidth of the DSL line, additional useful information can also be transmitted simultaneously to the subscriber.

The board observed that there was no disclosure of such a problem in the application as filed, an observation which the appellant did not dispute. The board added that even if this problem were accepted as implicitly disclosed, it would still be obvious to the skilled person that under certain circumstances it would be desirable to accept a (small) decrease in the quality of broadcast media channel transmission in order to simultaneously transmit some additional information to the subscriber (such as programme guide information). For the skilled person it was a usual trade-off between transmitting more services in lower quality or fewer services in higher quality.

7. Conclusion on inventive step

For the above reasons, the subject-matter of claim 1 according to the main request does not involve an inventive step in view of D1 and common general knowledge.

8. Conclusion on the main request

Since the subject-matter of claim 1 does not meet the requirement of inventive step, the main request is not allowable.

First auxiliary request

Inventive step

9. Claim 1 according to the first auxiliary request differs from claim 1 according to the main request by the additional text (underlined below) in the last few lines of the claim reading as follows:

"[...] means for routing data at the determined rate for an alternate one of said channels over the data connection in place of a portion of the data routed for the first one of the broadcast media channels following receipt of a channel change request from a user."

The appellant explained that the "data connection" in claim 1 corresponded to the DSL line, i.e. the data link between the ATM network and the subscriber's settop box. Over this same "data connection" an alternate one of said channels is routed in place of a portion of the data routed for the first one of the broadcast media channels following receipt of a channel change request from a user. The appellant argued that in the system of D1 a different data connection is used for the alternate channel because the switched virtual circuit of D1 extends all the way to the settop box, as evidenced by the sentence on page 14, lines 9 and 10

stating that "the settop box terminates the switched virtual network".

The board cannot agree with the appellant's interpretation of D1. As clearly shown in figures 1A and 1B of D1, broadcast media channels are transmitted from channel server (150) to settop box (116, 122), first via a switched ATM network (112), and then via a twisted pair DSL line (118). In the board's view, it is unambiguously clear to a person skilled in the art that a switched virtual circuit can only be created (and destroyed) inside the ATM network. This is the well-known function of ATM networks. The DSL line, in contrast thereto, is a fixed twisted pair line which cannot create a switched virtual circuit. Therefore the appellant's contention that the DSL line itself is a switched virtual circuit makes no technical sense. The board understands the sentence of D1 quoted by the appellant as merely expressing in too few words that the settop box sends a message to the channel server to terminate the switched virtual circuit. This interpretation is also supported by the fact that it is stated on page 14, lines 1 and 2, of D1 that the switched virtual circuit had been established **by the central office.**

Thus, the board considers that in D1, upon a channel change request from the user, the alternate channel is transmitted over the same DSL line (i.e. the same "data connection" according to the appellant's interpretation of claim 1) as the previous channel. Moreover, the appellant did not dispute that the expression "a portion of the data" could mean the whole data i.e. the whole first channel. Hence, in the system of D1, the

alternate channel is transmitted "over the data connection in place of a portion of the data routed for the first one of the broadcast media channels".

In conclusion, since the additional feature of claim 1 was already present in the system of D1, the subject-matter of claim 1 according to the first auxiliary request does not involve an inventive step for the same reasons as those applying to claim 1 according to the main request.

10. Conclusion on the first auxiliary request

Since the subject-matter of claim 1 does not meet the requirement of inventive step, the first auxiliary request is not allowable.

Second auxiliary request

Inventive step

11. The additional features of claim 1 according to the second auxiliary request with respect to claim 1 according to the first auxiliary request are shown in section XI above.

As to the additional "means for providing data for the plurality of broadcast media channels independently of user requests for broadcast media channels", the appellant does not dispute that the system of D1 also has such means i.e. a reserve of broadcast media channels ready to be transmitted to users (see content providers 160 in figure 1B and page 5, lines 10 to 15 and 21 to 26).

The remaining additional features essentially read:

"means for routing the data which is responsive to user requests for broadcast media channels, including:

[...]

means for destroying existing cross connect for the first one of the plurality of broadcast media channels; and

means for creating a new cross connect for the alternate one of said plurality of channels."

The appellant argued that in D1 the "means for destroying existing cross connect" and the "means for creating a new cross connect" are in the settop box, not in the "routing means".

The board disagrees. For the reasons given under point 9 above, the board considers that the appellant misconstrued the technical disclosure of D1. In the board's view, it is clear from the disclosure of D1 that the "means for destroying existing cross connect" and the "means for creating a new cross connect" are located in the channel server, i.e. in the routing means of the system of D1.

Hence the additional features of claim 1 are all known from D1 and the subject-matter of claim 1 according to the second auxiliary request does not involve an inventive step in view of D1 and common general knowledge.

12. Conclusion on the first auxiliary request

Since the subject-matter of claim 1 does not meet the requirement of inventive step, the second auxiliary request is not allowable.

Conclusion

13. Since none of the appellant's requests are allowable, the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

K. Boelicke

B. Müller