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Datasheet for the decision
of 12 June 2018

Case Number:                   T 0829/15  -  3.5.05
Application Number:            12152169.4
Publication Number:            2618526
IPC:                           H04L12/46
Language of the proceedings:   EN

Title of invention:
Method and network access device for accessing a virtual private network

Applicant:
ADVA Optical Networking SE

Headword:
Network labelling information/ADVA

Relevant legal provisions:
EPC Art. 54

Keyword:
Novelty - main request (no) - auxiliary request (no)

Decisions cited:
Catchword:
Case Number: T 0829/15 - 3.5.05

DECISION
of Technical Board of Appeal 3.5.05
of 12 June 2018

Appellant: ADVA Optical Networking SE
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Decision under appeal: Decision of the Examining Division of the European Patent Office posted on 12 December 2014 refusing European patent application No. 12152169.4 pursuant to Article 97(2) EPC.

Composition of the Board:

Chair A. Ritzka
Members: P. Cretaine
D. Prietzel-Funk
Summary of Facts and Submissions

I. This appeal is against the decision of the examining division, posted on 12 December 2014, refusing European patent application No. 12152169.4. The main request and the auxiliary request were refused on the grounds of lack of novelty (Article 54 EPC) over the disclosure of


II. Notice of appeal was received on 10 February 2015 and the appeal fee was paid on the same day. The statement setting out the grounds of appeal was received on 13 April 2015. The appellant requested that the decision be set aside and that a patent be granted based on the main request or the auxiliary request, both of which had been submitted on 6 October 2014 and on which the decision was based. Oral proceedings were requested as an auxiliary measure.

III. A summons to oral proceedings was issued on 19 March 2018. In an annex to this summons, the board gave its preliminary opinion that the subject-matter of the independent claims of the main and auxiliary requests was not novel over the disclosure of D1 (Article 54 EPC).

IV. Oral proceedings were held on 12 June 2018. 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 of the auxiliary request, both requests submitted on 6 October 2014. The decision of the board was announced at the end of the oral proceedings.
V. Claim 1 according to the main request reads as follows:

"A method (10) for accessing a virtual private network (2) over a packet switched network, the method (10) comprising:
sending, by a provider edge router (2a, 2d), network labelling information about data packet labels to a network access device (1)
characterized in
that the network labelling information is sent using a layer 2 network protocol."

Claim 1 according to the auxiliary request adds to
claim 1 of the main request a last feature "wherein the network labelling information is sent in a message comprising a label value field."

Both requests comprise further independent claims
directed to a related network access device (claim 10) and a related packet switched network (claim 13).

Reasons for the Decision

1. Admissibility of the appeal

The appeal complies with Articles 106 to 108 EPC (cf. point II above) and is therefore admissible.

2. Prior art

D1 discloses a method for accessing a virtual private network over a packet switched network for connecting to a service provider (see paragraphs [0005], [0014], [0015], [0020], and [0052] to [0055]; Figure 3). As shown in Figure 3, a nomadic user accesses the network
through a physical port 2 of an access node, i.e. a communication proxy device (see paragraphs [0014] and [0021]) for which no mapping for the target virtual network of the service provider is configured. The serving edge device in the edge node, based on the target virtual network identifier corresponding to the user's request and the interface identifier accessed by the user, i.e. port 2 of the proxy device, provides a mapping relation between the target virtual network and the interface and delivers it to the access network through a layer-2 control protocol packet (see paragraph [0056]: "The IP edge binds the port corresponding to the nomadic user to the VPLAN/VPN ID, sets up a mapping relation between the port and the VPLAN/VPN ID, and delivers the mapping relation to the corresponding access network dynamically through the L2C protocol"). The nomadic user may then access the network through port 2 and the access network maps port 2 to the virtual private network identified according to the mapping.

3. Main request - Article 54 EPC

3.1 The board agrees with the examining division that the provider edge router and the network access device defined in claim 1 can be read onto the serving edge device and the communication proxy device in D1, respectively. The board further holds that the mapping between the target virtual network identifier and the interface identifier falls under the broad definition of network labelling information about data packets label, as specified in claim 1, since the mapping relation, like the packet labels referred to in the section "Background to the invention" of the description, determines the path that packets should take through the network between the user's device and
the requested service provider. This information is embedded in a layer-2 control protocol packet sent by the provider edge router to the network access device (see D1, paragraphs [0056] and [0057]).

3.2 The appellant did not question that the devices involved in method claim 1, namely a provider edge router and a network access device, were already disclosed in D1. It disputed, however, that the mapping relation between the target virtual network and the interface described in D1 was network labelling information about data packet labels within the meaning of claim 1 and that this information was transmitted using a layer 2 network protocol.

First, the appellant argued that since any information about properties of data packets was definitely information in the networking layer domain, i.e. layer 3 in the well-known OSI layer model, the information referred to in claim 1 was layer 3 information. On the contrary, the mapping information in D1 did not contain any information about data packets labels and, as a consequence, could not qualify as layer 3 information. According to the appellant the target virtual network identifier and the interface identifiers were both layer 2 information items used for determining network access using the access and edge nodes shown in Figures 3 and 5, both layer 2 switches, and, consequently, the mapping relation between them was also a layer 2 information item.

Secondly, the appellant disputed that the mapping relation in D1 was transmitted using a layer 2 network protocol. In support of this argument, the appellant quoted paragraphs [0005] and [0007] of D1, which disclosed that the mapping relation was set up, and not
received in a layer 2 protocol message, by the communication proxy device, i.e. the network access device.

3.3 The board is not convinced by these arguments for the following reasons.

First, the mapping relation disclosed in D1 is not a fixed relation defined at the time of installation of the communication network but rather dynamically set-up information related to the routing of packets between a source, the mobile user, and a destination, the requested service provider (see paragraphs [0056] and [0057]). Being information related to the routing of packets, it has to be considered layer 3 information rather than data link, i.e. layer 2, information. Further, since the broad wording "network labelling information about data packet labels" used in claim 1 does not define any specific nature or content of the labels themselves, it encompasses any information used in the network for determining the path that packets should take.

Secondly, paragraph [0057] of D1 discloses that the layer 2 protocol packet received from the edge node is parsed at the access device in order to obtain the mapping relation, which makes clear that the mapping relation is sent in that case in the layer 2 protocol packet.

3.4 For these reasons the board judges that the subject-matter of claim 1 is not novel over the disclosure of D1 (Article 54 EPC).

4. Auxiliary request
Claim 1 adds to claim 1 of the main request the feature that the network labelling information is sent in a message comprising a label value field.

The board agrees with the examining division that this feature has no limiting effect over the wording "network labelling information about data packet labels" since this information, irrespective of the form or content of the labels themselves, has to be transmitted within a specific field of the layer 2 network protocol message.

The board further notes that the appellant did not provide any arguments with respect to the auxiliary request, either in the statement setting out the grounds of appeal or during the oral proceedings before the board.

Thus, the board judges that the subject-matter of claim 1 is not novel over the disclosure of D1 (Article 54 EPC).

5. Conclusion

Neither of the appellant's two requests is allowable under Article 54 EPC.
Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: 

K. Götz-Wein

The Chair:

A. Ritzka

Decision electronically authenticated