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Datasheet for the decision of 30 August 2012

Case Number: T 1947/09 - 3.5.05

Application Number: 02786598.9

Publication Number: 1442562

IPC: H04L12/24, H04L12/46

Language of the proceedings: EN

Title of invention:
ETHERNET SWITCH AND SYSTEM

Applicant:
GE CISCO INDUSTRIAL NETWORKS, INC.

Headword:
Ethernet switch/GE CISCO

Relevant legal provisions:
EPC Art. 123(2)
EPC 1973 Art. 56, 84

Keyword:
Added subject-matter - (yes)
Claims - clarity - (no) - result to be achieved
Inventive step - (no)
Oral proceedings - withdrawal of request for oral proceedings
Right to be heard - request for decision according to the state of the file

Decisions cited:

Catchword:

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Case Number: T1947/09 - 3.5.05

D E C I S I O N
of the Technical Board of Appeal 3.5.05
of 30 August 2012

Appellant: (Applicant)	GE CISCO INDUSTRIAL NETWORKS, INC. Route 29 North & Route 606 Charlottesville, VA 22911 (ETATS-UNIS D'AMERIQUE)
Representative:	Illingworth-Law, William Global Patent Operation - Europe, General Electric International, Inc., 15 John Adam Street London WC2N 6LU (ROYAUME UNI)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted 16 March 2009 refusing European patent application No. 02786598.9 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair: A. Ritzka
Members: K. Bengi-Akyuerek
G. Weiss

Summary of Facts and Submissions

I. The appeal is against the decision of the examining division, posted 16 March 2009, refusing the European patent application No. 02786598.9 on the grounds of lack of clarity (Article 84 EPC 1973), lack of novelty (Article 54 EPC 1973) having regard to the disclosure of

D1: WO-A-01/08356,

and added subject-matter (Article 123(2) EPC) with respect to a sole request.

II. Notice of appeal was received on 15 May 2009. The appeal fee was paid on the same day. The statement setting out the grounds of appeal was received on 20 July 2009. The appellant requested to set aside the decision of the examining division and to grant a patent on the basis of a new set of claims (claims 1 to 5) submitted with the statement setting out the grounds of appeal. In addition, oral proceedings were requested as an auxiliary measure in the event that the board intended to confirm the decision to refuse.

III. A summons to oral proceedings scheduled for 6 November 2012 was issued on 1 June 2012. In an annex to this summons pursuant to Article 15(1) RPBA, the board gave its preliminary opinion on the appeal. In particular, objections under the Articles 123(2), 84, and 52(1) together with Article 56 EPC *inter alia* having regard to D1 were raised.

IV. With a letter of reply dated 17 August 2012, the appellant cancelled its request for oral proceedings and requested a decision according to the state of the

file without providing any comments on the substance of the board's communication under Article 15(1) RPBA.

V. Oral proceedings scheduled for 6 November 2012 were cancelled as requested.

VI. Independent claim 1 of the sole request reads as follows:

"An Ethernet switch (10) for use in a non-office environment comprising a plurality of ports (12, 14), said switch configured to be operable within a temperature range of between 0° C and 60° C, said switch further configured to be operable within a non-condensing humidity range of between 10% and 95%, said switch further configured to be operable under an extended vibration of at least 2g (gravity), said switch further configured to support at least one of a Virtual Local Area Network (VLAN), a Quality of Service (QoS), a Remote Monitoring (RMON), and a Spanning Tree, wherein said switch automatically configures the VLAN by operating within the temperature range, and wherein said switch is further configured to transfer data between a plurality of devices."

Reasons for the Decision

1. Admissibility of the appeal

The notice of appeal and the statement setting out the grounds of appeal were submitted validly and timely. The appeal fee was also paid in due time. Consequently, the appeal complies with Articles 106 to 108 EPC together with Rule 99 EPC and is therefore admissible.

2. Article 123(2) EPC

In the board's judgment, claim 1 does not comply with the provision of Article 123(2) EPC for the following reasons:

2.1 The board concurs with the examining division in that the feature "wherein said switch automatically configure the VLAN by operating within the temperature range" (emphasis added) in claim 1 is not supported by the original disclosure according to which the respective "switch can automatically configure Virtual LANs ... for IP telephones by overlaying a voice topology onto a data network and maintaining the quality of voice traffic" (cf. page 5, lines 4-6 of the description as filed).

2.2 Hence, it cannot be directly and unambiguously derived from the original application that an automatic temperature-dependent VLAN configuration may take place as specified by the above feature of claim 1.

In view of the above, claim 1 contains subject-matter which extends beyond the content of the application as filed (Article 123(2) EPC).

3. Article 84 EPC 1973: Clarity

The board judges that claim 1 does not meet the requirements of Article 84 EPC 1973, the reasons being as follows:

3.1 The features of claim 1 related to the operability of the switch under specific temperature, humidity, and vibration conditions, merely define the results to be achieved, i.e., the desired operational parameter

ranges, rather than indicating the concrete steps or structural features for achieving such a desired switch operability under various environmental circumstances.

In particular, the skilled reader would not be able to unequivocally derive the underlying relevant features for designing the targeted switch to be used in any non-office environment from the recited environmental parameter settings. As a consequence, the matter for which protection is sought is not clearly defined.

3.2 Furthermore, the phrase "automatically configure the VLAN" (emphasis added) used in claim 1 lacks its proper antecedent in the case that a VLAN is not supported by the switch, since the support of a Virtual LAN represents an optional feature according to the wording of claim 1 ("... said switch further configured to support at least one of a Virtual Local Area Network (VLAN), ...").

3.3 In view of the above, claim 1 lacks clarity (Article 84 EPC 1973).

4. Article 52(1) EPC: Novelty and inventive step

In the board's judgment, claims 1 and 5 do not meet the requirements of Article 52(1) EPC together with Article 56 EPC 1973 for the following reasons:

4.1 The board agrees with the examining division in considering D1 as the closest prior art.

4.2 D1 refers to an Ethernet switch which is neither restricted nor specifically adapted to be exclusively employed in office-based environments and thus is considered to be fairly suitable for being used in a

non-office environment as claimed. D1 discloses, with regard to the terminology of claim 1, a Gigabit Ethernet switch comprising a plurality of ports (see, e.g., Fig. 14) and supporting Virtual Local Area Networks (page 61, line 11), QoS-based transmissions (page 61, line 13), network management based on Remote Monitoring (page 61, lines 31-33), and the use of Spanning Tree algorithms (page 60, line 30).

Further, D1 teaches that the switch may also insert and extract VLAN ID tags (see page 61, line 12) and that Ethernet frames are transmitted based on VLAN priority tag information contained in an IP packet (see page 62, lines 28-30), i.e., without user intervention. This implies that the VLANs are automatically configured in the system of D1. The switch of D1 additionally transfers data between a plurality of devices (see, e.g., Fig. 15).

4.3 Hence, the difference between the subject-matter of claim 1 and the disclosure of D1 is seen to reside in that said switch is operable within a temperature range of between 0°C and 60°C, a non-condensing humidity range of between 10% and 95%, and under an extended vibration of at least 2g.

Consequently, the subject-matter of claim 1 is considered to be novel having regard to the cited prior art (Article 54 EPC 1973).

4.4 The objective problem to be solved by claim 1 is therefore regarded as how to upgrade a general Ethernet switch typically deployed in environmentally controlled systems to an Ethernet switch to be used under (more demanding) industrial environmental conditions.

4.5 However, since the differential features of claim 1 merely define the respective result to be achieved (cf. point 3.1 above) instead of providing the actual solution to the aforementioned objective problem, an inventive step cannot be acknowledged with regard to claim 1.

4.6 The above reasoning also applies to the corresponding apparatus claim 5, whereby the cooperative operation between switches is also disclosed in D1 (see, e.g., Figs. 15 and 16).

4.7 In view of the above, the subject-matter of claims 1 and 5 does not involve an inventive step in view of D1 (Article 56 EPC 1973).

4.8 The appellant argued that the claimed switch would be fundamentally different from the switch of D1, since D1 would not even consider operating outside normal office environmental conditions.

In this regard, the board only notes that the mere fact that the closest prior art fails to address a certain problem or, more specifically, the conditions under which a known device is supposed to be deployed, does not necessarily mean that a skilled person would not be prompted by the posed objective problem or by practical needs to look for a viable solution to this problem, i.e., to ensure that an appropriate operability of this device under more challenging parametric conditions is achieved by, e.g., adapting the respective operational parameter ranges of the device to the conditions of the target environment. Considering that the application itself fails to provide any detailed information as to how such a parametric extension of device operability may actually be achieved, such a parameter adaptation

is regarded, a *fortiori*, to lie in the normal design competence of the skilled person and thus to be obvious.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

K. Götz A. Ritzka

Decision electronically authenticated