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**Datasheet for the decision
of 17 April 2019**

Case Number: T 1129/13 - 3.5.05

Application Number: 02258764.6

Publication Number: 1324180

IPC: G06F3/06, G06F1/00

Language of the proceedings: EN

Title of invention:

System and method for partitioning a storage area network
associated data library

Applicant:

Hewlett Packard Enterprise Development LP

Headword:

Partitioned data library I/HEWLETT PACKARD

Relevant legal provisions:

EPC Art. 56

Keyword:

Inventive step - (no)



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Case Number: T 1129/13 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 17 April 2019

Appellant: Hewlett Packard Enterprise Development LP
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Representative: EIP
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 6 December 2012
refusing European patent application No.
02258764.6 pursuant to Article 97(2) EPC**

Composition of the Board:

Chair A. Ritzka
Members: R. de Man
F. Blumer

Summary of Facts and Submissions

I. The applicant (appellant) appealed against the decision of the examining division refusing European patent application No. 02258764.6.

II. The examining division decided that independent claims 1 and 8 of the then main request were not clear and that the subject-matter of all claims of both the main request and the first auxiliary request lacked inventive step in view of the following documents:

D2: EP 1 158 386 A2, 28 November 2001; and

D3: EP 1 156 408 A1, 21 November 2001.

The second auxiliary request was not admitted into the proceedings under Rule 137(3) EPC.

III. In its statement of grounds of appeal, the appellant maintained the first auxiliary request considered in the decision under appeal as its sole substantive request.

IV. In a communication accompanying the summons to oral proceedings, the board introduced the following document:

D4: WO 01/20470 A1, 22 March 2001.

It expressed the preliminary opinion that the subject-matter of claim 1 lacked inventive step in view of a combination of document D3 and common general knowledge as evidenced by, *inter alia*, documents D2 and D4.

- V. In a letter dated 28 January 2019, the appellant informed the board that it would not attend the oral proceedings.
- VI. Oral proceedings were held on 17 April 2019 in the appellant's absence. At the end of the oral proceedings, the chair announced the board's decision.
- VII. 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 sole substantive request.
- VIII. Claim 1 of the sole substantive request reads as follows:

"A storage area network associated data library partitioning system (200) characterised by:
a plurality of partitions (215-217) comprising at least one secured partition, each of said plurality of partitions comprising at least one set of at least one storage element slots (205) adapted to store data storage media and at least one set of at least one data transfer elements (201-204) that are adapted to receive said data storage media and transfer data to and from said data storage media; and
a library controller (213) that assigns a different logical element designation (LUN1, LUN2, LUN3) to a virtual controller for each of said plurality of partitions, said virtual controllers directing movement of said media to and from said at least one set of slots and at least one set of data transfer elements assigned to a same of said plurality of partitions, wherein the or each said secured partition is secured by restricting access to users of said storage area network having a unique host device identifier that is

listed in a list of unique host device identifiers for access to a particular secured partition."

- IX. The appellant's arguments, where relevant to the decision, are discussed in detail below.

Reasons for the Decision

1. The appeal complies with the provisions referred to in Rule 101 EPC and is therefore admissible.
2. *The invention as defined by claim 1*
 - 2.1 Claim 1 is directed to a data library partitioning system associated with a storage area network. The system includes a number of "storage element slots" and "data transfer elements". A data transfer element can receive a data storage medium (such as a data tape or an optical disk) held in a storage element slot and transfer data to and from the medium.
 - 2.2 The storage element slots and data transfer elements are organised in a plurality of partitions. The data library partitioning system comprises a library controller that assigns a different "logical element designation" to a "virtual controller" for each partition. The virtual controllers direct movement of data storage media between slots and data transfer elements assigned to the same partition.
 - 2.3 At least one of the partitions is a "secured" partition, meaning that access to the partition is restricted to users having a unique host-device identifier that is listed in the list of unique host-

device identifiers that have been given access to the partition.

3. *Inventive step*

3.1 Document D3 discloses a data library system, which is schematically shown in Figures 1 to 3. The system comprises a server machine 12 communicating through a SCSI bus with data library 14. The data library includes a library unit 16 (paragraph [0009]), which has a recording-medium storage section 30 and a recording-medium reproduction section 32 (paragraph [0011]). The recording-medium storage section 30 contains 600 storage element slots ("pallets") 34 and is divided into three storage stations 30₀, 30₁ and 30₂, respectively containing 300 slots for CD-ROMs, 150 slots for DVD-RAMs and 150 slots for DVD-ROMs (paragraph [0012]). The recording-medium reproduction section 32 is divided into three reproduction stations 32₀, 32₁ and 32₂ corresponding to the three types of recording media (CD-ROMs, DVD-RAMs and DVD-ROMs), each station including one or more data transfer elements ("drives") (paragraph [0013]). The library unit further includes a media transport element ("recording medium transfer section") for the transfer of recording media between slots (paragraph [0010]).

3.2 The data transfer elements of each reproduction station are adapted to receive data storage media of the corresponding type and to transfer data from those storage media. Since CD-ROMs and DVD-ROMs are not writable, the data transfer elements corresponding to those two types are not adapted to transfer data to the data storage media. In contrast, the data transfer elements corresponding to the DVD-RAMs are adapted to transfer data both from and to the data storage media

(paragraph [0026], "recording medium storage/reproduction station 46₀ for DVD-RAMs").

- 3.3 According to paragraph [0023], the disclosure of document D3 is not limited to the CD-ROM, DVD-RAM and DVD-ROM types of storage media. Other possible recording media include tape units such as DLT, 3590, 8mm and AIT, DVD-R, DVD+RW, CD-R, CD-RW, CD-Audio, CD-I, CD-DA, CD-ROM XA and optical magnetic disks. Several of these media are writable.
- 3.4 The three reproduction stations 32₀, 32₁ and 32₂ with their respective storage stations 30₀, 30₁ and 30₂ form partitions or "virtual units" 36₀, 36₁ and 36₂ (paragraph [0014]). The library unit 16 includes a library controller 40, which is logically divided into three controls 40₀, 40₁ and 40₂ with logical unit numbers LUN0, LUN1 and LUN2 corresponding to the partitions 36₀, 36₁ and 36₂ (paragraph [0016]).
- 3.5 The library controller directs movement of CD-ROMs between slots of storage station 30₀ and data transfer elements of reproduction station 32₀ (paragraphs [0019] and [0020]). Likewise, it directs movement of DVD-RAMs and DVD-ROMs between slots of storage stations 30₁ and 30₂ and data transfer elements of reproduction stations 32₁ and 32₂, respectively (paragraph [0020]).
- 3.6 Although in Figure 1 the data library 14 is connected to the server machine via a SCSI bus, paragraph [0024] discloses that they may also be connected via a fibre channel network, which results in a "storage area network".
- 3.7 The subject-matter of claim 1 therefore differs from the data library disclosed in document D3 in that:

- (a) each partition comprises a data transfer element adapted to transfer data not only from but also to a data storage medium; and
- (b) at least one of the partitions is secured in the sense that access to the partition is restricted to users of the storage area network having a unique host-device identifier listed in the list of unique host-device identifiers that have been given access to the partition.

Since there is no functional interaction between the two differences, treating them separately in the assessment of inventive step is justified.

3.8 Difference (a) can be arrived at in an obvious manner by replacing the non-writable media types of the library system shown in Figures 1 to 3 of document D3 with writable media types and adapting the corresponding data transfer elements accordingly (see points 3.2 and 3.3 above).

3.9 Difference (b) concerns controlling access to a "secured" partition by means of an access-control list which lists the entities that have permission to access the partition.

According to paragraph [0025] of document D3, the data library may be connected to more than one server machine (or "host" of a storage area network). In that case, it is obvious to consider the problem of controlling access to one or more of the partitions 36₀, 36₁ and 36₂ by the various server machines.

Starting from the data library of document D3 and faced with this problem, the skilled person would have

consulted document D4, which relates to controlling access to a shared storage device such as a disk-drive storage array in a network having a plurality of host computers (see abstract). Document D4, on page 7, lines 13 to 23, proposes limiting access to a storage volume to a specific set of host computers on the basis of unique host identifiers. In applying this solution to the data library of document D3, the skilled person would have arrived at difference (b) without the exercise of inventive skill.

- 3.10 In its statement of grounds of appeal, the appellant argued that in document D3 all partitions were intended to be accessible by all client machines connected to the server machine and that D3 therefore taught away from secured partitions with user-restricted access. The appellant further argued that the question was not whether the skilled person could have made the change, but whether he would have made it.

However, in the context of the problem-solution approach, once the problem has been formulated, the question to be answered is whether there is any teaching in the prior art as a whole that would have prompted the skilled person, faced with the objective technical problem, to modify or adapt the closest prior art to arrive at something falling within the terms of the claims (see Case Law of the Boards of Appeal, 8th edition, 2016, I.D.5). Given that the objective technical problem asks the skilled person to look for a way to control access to partitions, it does not matter that document D3 itself fails to point in that direction.

In the present case, the board sees nothing in document D3 that would have prevented the skilled person either

from considering the question of securing access or from applying the solution known from document D4.

3.11 Hence, the subject-matter of claim 1 lacks inventive step (Article 56 EPC).

4. *Conclusion*

Since the sole substantive request is not allowable, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated