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**Datasheet for the decision
of 24 July 2018**

Case Number: T 0827/16 - 3.5.06

Application Number: 12001602.7

Publication Number: 2469446

IPC: G06F21/00

Language of the proceedings: EN

Title of invention:

Anti-virus method for scrambled digital content

Applicant:

Microsoft Technology Licensing, LLC

Headword:

Scrambling digital content/MICROSOFT

Relevant legal provisions:

RPBA Art. 11

EPC R. 103(1)(a)

EPC Art. 83, 84, 123(2)

Keyword:

Amendments - added subject-matter (no)

Claims - clarity after amendment (yes)

Sufficiency of disclosure (yes)

Remittal to the department of first instance (yes)

Decisions cited:

T 1261/12

Catchword:



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Chambres de recours

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Case Number: T 0827/16 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 24 July 2018

Appellant: Microsoft Technology Licensing, LLC
(Applicant) One Microsoft Way
Redmond, WA 98052 (US)

Representative: Grünecker Patent- und Rechtsanwälte
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 21 October 2015
refusing European patent application No.
12001602.7 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman W. Sekretaruk
Members: M. Müller
A. Teale

Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division to refuse European patent application No. 12 001 602.7 because the main request and auxiliary request 1 did not comply with Article 83 EPC. Two further auxiliary requests were not admitted pursuant to Rule 137(3) EPC because they did not comply with Article 123(2) EPC.
- II. Notice of appeal was filed on 9 December 2015, the appeal fee being paid on the same day. A statement of grounds of appeal was received on 29 February 2016. The appellant requested that the decision be set aside and a patent be granted on the basis of the application documents on file.
- III. In an annex to a summons to oral proceedings, the board informed the appellant of its preliminary opinion that the present claims lacked clarity. Observations relating to Articles 83 and 123(2) EPC were also made.
- IV. In response to the summons, with a letter dated 23 May 2018, the appellant filed amended claims.
- V. During the oral proceedings, which were held as scheduled, the appellant submitted further amended claims 1-12 and requested the grant of a patent on this basis.
- VI. Independent claims 1 and 7 read as follows:

"A method of operating a computer system comprising a plurality of computers each running a virtual machine having a virtual disk and being operably connectable to a portable memory device being a differencing device

that stores changes to a state of a virtual disk image corresponding to the virtual machine, wherein each computer of the plurality of computers has a different code layout of scrambled code segments, the computer system further comprising means to convert between code layouts and a canonical form, the method for software virus prevention comprising:

retrieving, at one of the plurality of computers, a scrambled code block from a portable memory device;

using said means to convert the code blocks from the code layout of said computer to the canonical form; and

re-scrambling the canonicalized code block for use on a virtual machine (315) running on said one of the plurality of computers."

"7. A system for software virus prevention comprising:

a plurality of computers each running a virtual machine having a virtual disk and being operably connectable to a portable memory device being a differencing device that stores changes to a state of a virtual disk image corresponding to the virtual machine, wherein each computer of the plurality of computers has a different code layout of scrambled code segments; and

means to convert between code layouts and a canonical form,

wherein the system further comprises:

means for retrieving, at one of the plurality of computers, a scrambled code block from a portable memory device;

means for converting the code blocks from the code layout of said computer to the canonical form; and

means for re-scrambling the canonicalized code block for use on a virtual machine (315) running on said one of the plurality of computers."

VII. At the end of the oral proceedings, the chairman announced the board's decision.

Reasons for the Decision

The decision not to admit the auxiliary requests

1. According to section I ("Facts and Submissions"), point 10, of the appealed decision, the decision was taken on the basis of a main and an auxiliary request. In section III ("Remarks"), the non-admission of two "second" auxiliary requests was justified by stating that they did not comply with Article 123(2) EPC (see point 1.1 of the remarks, in particular its last paragraph; point 1.2 of the remarks, in particular page 6, last two paragraphs). Formally, these remarks do not form part of the reasons for the decision, since both are clearly separate from each other and because the remarks follow the conclusion that the application is refused (see point 3 of the reasons).
- 1.1 The board notes that the decision not to admit amendments to a European patent application adversely affects the applicant because it implies that no patent is granted on the basis of these amendments. Therefore, the reasons for a non-admission decision are not *obiter*

dicta but are, in fact, part of the reasons of the decision (see also T 1261/12, point 1 of the reasons).

- 1.2 However, the board considers that giving the reasons for the non-admission in the wrong section of the written decision, as in the present case, is neither a fundamental procedural deficiency in the sense of Article 11 RPBA nor a substantial procedural violation within the meaning of Rule 103(1)(a) EPC.

The invention

2. The application generally relates to using a portable memory device in order to increase device and data mobility (see e.g. paragraphs 1, 5, 7, 10 and 20 of the description as originally filed).
 - 2.1 More specifically, the application discloses a distributed computing system comprising several client computers (see figure 2). Any client computer may act as the host for a virtual machine, as depicted in figure 3 (see also paragraph 31, lines 4-5). A portable memory device, such as a flash memory, may then store the "changes to the state of the disk image stored", on its own or in cooperation with "another memory device" (see paragraphs 8 and 10). This portable memory is also referred to as a differencing drive or an overlay drive.
 - 2.2 In this context, the application addresses the problem of virus protection. In the application as originally filed this was mentioned exclusively in paragraph 49 and in claim 1, which corresponds to claim 34 of the earlier application No. 06 100 028.7. For ease of reference, paragraph 49 is reproduced in full here.

"In accordance with an aspect of the invention, a technique for software virus prevention is to scramble code segments to produce a different layout (but equivalent function) on each different machine. The virtual disk 320 design offers a mechanism to map from logical content hash to physical disk block. Given a means to convert between machine-specific code layout and a canonical form, the content mapping scheme disclosed herein may be used to retrieve an equivalent copy of a code block from local media that can be canonicalized and re-scrambled for use on the virtual machine 315."

The description does not refer elsewhere to "scrambling" and "re-scrambling" of code segments, to a code "layout", to a "logical content hash" or even to a "content hash", to a "physical" disk block or to "virus" prevention.

The terms "mapping" and "canonicalized"/"canonical" only also occur in paragraph 50 which, however, is insufficient to define the canonical function in any detail.

Article 123(2) EPC

3. Although figure 3 depicts only a single host machine, the board takes paragraph 31 (lines 4-5) to imply that any client computer can be such a host. Also paragraph 49 unambiguously discloses, in the board's judgment, that there may be different virtual machines, each on a separate "machine", and each "scrambling code segments to produce a different code layout". Figure 3 further discloses that a portable memory device is connectable to a - and thus any - host computer (see no. 310), stores the "user's entire state" (para-

graph 47) and thus acts as the differencing device introduced previously (see, in particular, paragraph 2).

4. Paragraph 49 discloses that scrambling is meant to provide "software virus prevention". It also assumes "a means" adapted "to convert between machine-specific code layout and a canonical form" and states that the invention "may be used to retrieve", "canonicalize" (i.e. convert to canonical form" and "re-scramble"). Paragraph 49 further discloses, in the board's judgment, that it is the computer with which local media are connected which carries out the retrieval, canonicalization and re-scrambling steps for use on the local virtual machine.
5. Finally, the "local media" mentioned in paragraph 49 are disclosed during the discussion of figure 3 which mentions only one type of local media, namely the locally connectable portable flash disk. The board therefore accepts the appellant's argument that the skilled person would, directly and unambiguously, understand the "local media" of paragraph 49 to mean a portable memory device.
6. In summary, the board is satisfied that claim 1 complies with Article 123(2) EPC.
7. Furthermore, although the original claims were only to methods, the board has no doubt that the description discloses the pertinent method(s) being carried out on a system as described and that, therefore, system claim 7, which corresponds closely to claim 1, also complies with Article 123(2) EPC.

Claim construction

Sufficiency of disclosure, Article 83 EPC

Clarity, Article 84 EPC

8. The decision under appeal found that the claimed invention did not comply with Article 83 EPC because the storage of scrambled data did not have "any relevance with respect to the goal of software virus prevention" and no further "action of virus prevention" was disclosed (see points 1.4 and 1.5 of the reasons).

8.1 Indeed the application does not define any virus prevention "action" other than machine-specific scrambling and scrambled storage, and does not define in any detail either the scrambling or the viruses against which the scrambling is meant to help. However, the board agrees with the appellant that the skilled person would understand scrambling of data to mean the re-shuffling of pieces of the data in a predefined and reversible manner. The board also accepts that scrambling provides some, if only a little, protection against viruses. Certain types of viruses may find it more difficult to attach themselves to scrambled "code" and, if a virus did it anyway, the unscrambling might destroy that virus.

8.2 However, the board considers that this effect, which may be referred to as "software virus protection", is an immediate consequence of the claimed steps and does not, in and of itself, limit the claim. The board thus concludes that the claimed purpose "for software virus prevention" is, effectively, redundant but not unclear. Moreover, the board finds that the skilled person would have no problem to implement some form of scrambling which has at least some virus protection effect, so

that the statement of purpose does not cause the claimed invention to be insufficiently disclosed.

9. The board notes that claims 1 and 7 do not specify explicitly that the data retrieved from the portable memory device and eventually re-scrambled "for use on a virtual machine" specifically represent the "changes of the state of a virtual disk image". In principle, the data could be other data. Claims 1 and 7 also leave open which device stores the scrambled data on the portable memory device and when. It need not be decided whether the relevant clarification is possible within the limits of Article 123(2) EPC. However, the board considers that these facts do not render the claims unclear.

Summary

10. The decision under appeal was limited to objections under Articles 83 EPC and 123(2) EPC.
 - 10.1 As argued above, the board disagrees with the objection under Article 83 EPC due to the statement of purpose "software virus protection". The Article 123(2) EPC objections underlying the non-admission of the "second" auxiliary requests is moot because the present independent claims mention "software virus protection". Moreover, with this limitation, the board has no doubt that the introduction of system claims complies with Article 123(2) EPC.
 - 10.2 The board is satisfied that the amendments overcome its clarity objections. The claims remain broad, but breadth is not a deficiency under Article 84 EPC.

Apparently, the breadth of the claims may play a role in the assessment of novelty and inventive step.

- 10.3 Since, however, novelty and inventive step were not addressed in the decision under appeal - or, in fact, during the examining procedure, the board exercises its discretion under Article 111 (1) EPC to remit the case to the examining division 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 examining division for further prosecution.

The Registrar:

The Chairman:



B. Atienza Vivancos

W. Sekretaruk

Decision electronically authenticated