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**Datasheet for the decision
of 20 December 2018**

Case Number:	T 2380/12 - 3.5.06
Application Number:	03746118.3
Publication Number:	1490771
IPC:	G06F9/445
Language of the proceedings:	EN

Title of invention:

USING DISASSOCIATED IMAGES FOR COMPUTER AND STORAGE RESOURCE MANAGEMENT

Applicant:

Symantec Corporation

Headword:

Disassociated images/SYMANTEC

Relevant legal provisions:

EPC 1973 Art. 56

EPC Art. 123(2)

Keyword:

Inventive step - (no)

Amendments - added subject-matter (no)

EPA Form 3030

This datasheet is not part of the Decision.
It can be changed at any time and without notice.

Decisions cited:

Catchword:

Case Number: T 2380/12 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 20 December 2018

Appellant: (Applicant)	Symantec Corporation 350 Ellis Street Mountain View, CA 94043 (US)
Representative:	Lavoix 62, rue de Bonnel 69448 Lyon Cedex 03 (FR)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 9 July 2012 refusing European patent application No. 03746118.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	W. Sekretaruk
Members:	S. Krischer
	A. Teale

Summary of Facts and Submissions

I.   The appeal is directed against the decision of the
        examining division, dated 9 July 2012, to refuse
        application No. 03746118.3 for lack of inventive step
        of auxiliary request II over document:

        D1   WO 99/63434 A1.

        The remaining five requests were not admitted into the
        procedure (Rule 137(3) EPC) for prima facie not
        complying with Article 123(2) EPC and/or Article 56
        EPC 1973.

II.   A notice of appeal was received on 3 September 2012.
        The appeal fee was paid on the same day. A statement of
        grounds of appeal was received on 8 November 2012,
        containing a main request and auxiliary requests I
        to IX. Oral proceedings were requested.

III.   In a communication dated 19 April 2018, the rapporteur
        raised an objection of lack of inventive step without
        citing a document. The objection with respect to
        Article 123(2) EPC was considered void.

IV.   In a letter dated 17 August 2018, the appellant
        submitted arguments and filed auxiliary request X.

V.   In its summons to oral proceedings, the board gave
        further reasons why the claims (including auxiliary
        request X) lacked an inventive step.

VI.   In a letter dated 4 December 2018, the appellant
        submitted further arguments and informed the board that

the appellant intended not to attend the oral
proceedings.

VII.   Oral proceedings were held on 20 December 2018 in the
        absence of the appellant, as announced. At their end,
        the board announced its decision.

VIII.   The appellant requests that the decision be set aside
        and that the case be remitted with the order to grant a
        patent based on the main request or one of auxiliary
        requests I to IX, filed with the grounds of appeal, or
        auxiliary request X, filed on 17 August 2018.
        The other application documents are the same as in the
        appealed decision, with the exception of some
        replacement pages for the description as specified in
        the grounds of appeal, page 8.

IX.   Claim 1 of the main request reads as follows:

        "1. A method of computer resource management,
        comprising the steps of:
        receiving (302), at a management node that comprises at
        least one management computer (110), at least one ample
        image (104) captured from an existing computer (102)
        that is distinct from the management computer, the
        ample image comprising a copy of at least a portion of
        storage of the existing computer (102) comprising at
        least file names, file contents, and sector allocation
        information;
        mounting the ample image (104) within a management
        environment at the management node to make the ample
        image accessible within the management environment; and
        modifying, at the management node, the ample image, by
        repairing at least one file within the ample image;

deploying the modified ample image from the management
node to a computer that is distinct from the management
node."

X.   Beside some editorial changes, claim 1 of auxiliary
        request I mainly differs from that of the main request
        in that the following is inserted between the step of
        receiving and that of mounting:

        "characterized in that:
        the ample image is captured from an existing computer
        and is thus disassociated from the existing computer in
        that the ample image is located at the management node
        and the management node is distinct from the existing
        computer;"

XI.   Claim 1 of auxiliary request II differs from that of
        auxiliary request I in that the following passage is
        inserted between the step of receiving and that of
        capturing:

        "obtaining, at the management node, meta-data that is
        structurally associated with the ample image (102);
        indexing the ample image into a collection of ample
        images at the management node such that the ample image
        can be located by using at least part of the meta-data
        as a key, characterized in that:"

        and in that the steps of modifying and deploying are
        replaced by:

        "the ample image is modified at the management node by:
            detecting a virus in at least one infected file
            within the ample image,
            repairing the infected file."

This means that no deploying is taking place.

XII.   Claim 1 of auxiliary request III differs from that of
         auxiliary request II in that the steps of capturing,
         mounting and modifying are replaced by:

         "mounting the ample image within a management
         environment within the management node to make the
         ample image accessible within the management
         environment, characterized in that:
         at least one the ample image is captured from an
         existing computer (102) and is thus disassociated from
         the existing computer in that the ample image is
         located at the management node and the management node
         is distinct from the existing computer, and by
         modifying the ample image by handling viruses by
         detecting viruses and then repairing the infected
         files."

XIII.   Claim 1 of auxiliary request IV differs from that of
         auxiliary request II in that the following is added at
         the end:

         "the modified ample image is deployed from the
         management node to a computer that is distinct from the
         management node."

XIV.   Claim 1 of auxiliary request V differs from that of
         auxiliary request III in that the following text is
         added at the end:

         "and deploying the modified ample image (104) to at
         least one of: the existing computer (102), another
         computer that is distinct from the management node."

XV.   Claim 1 of auxiliary request VI differs from that of
         auxiliary request V in that the step of deploying is
         replaced by:

         "deploying the modified ample image (104) to the
         existing computer (102) from which the ample image was
         captured."

XVI.   Claim 1 of auxiliary request VII differs from that of
         auxiliary request V in that the step of deploying is
         replaced by:

         "deploying the modified ample image (104) to another
         computer that is distinct from both the management node
         and the existing computer (102) from which the ample
         image was captured."

XVII.   Claim 1 of auxiliary request VIII differs from that of
         auxiliary request VI in that the steps of obtaining and
         indexing are replaced by:

         "obtaining, at the management node, meta-data that is
         structurally associated with the ample image (102), the
         meta-data including a computer name of the existing
         computer;
         indexing the ample image into a collection of ample
         images at the management node such that the ample image
         can be located by using at least the computer name of
         the existing computer as a key;".

XVIII.   Claim 1 of auxiliary request IX differs from that of
         auxiliary request VIII in that the steps of obtaining
         and indexing are replaced by:

         "obtaining, at the management node, meta-data that is
         structurally associated with the ample image (102), the

meta-data including a computer name of the existing
computer and an image creation time of the received
ample image;
indexing the ample image into a collection of ample
images at the management node such that the ample image
can be located by using at least the computer name of
the existing computer and the image creation time as a
key;".

XIX.   Claim 1 of auxiliary request X reads as follows:

"1. A method of computer resource management,
comprising the steps of: receiving (302), at a
management node that comprises at least one management
computer (110), at least one ample image (104) captured
from an existing computer (102);
obtaining (304) at the management node meta-data that
is structurally associated with the ample image;
indexing (306) the ample image into a collection of
ample images such that the ample image can be located
by using at least part of the meta-data as a key;
mounting the ample image (104) within a management
environment at the management node, the management
environment providing at least the ability to perform
at least one file system type operation to read files
and directories; and
identifying a suspect file within the ample image;
tracking (602, 604) propagation of the suspect file
over multiple computers using ample images of multiple
existing computers (102) and/or tracking propagation of
the suspect file over time using ample images of a
particular existing computer that were created at
different points in time;

modifying, at the management node, the ample image, by
repairing the at least one file within the ample image,
wherein the modified ample image differs from the image
received by the management node (110) in one or more of
the following ways: a change in application software; a
change in driver software; a change in other software;
a change in the partition table; a change in cluster
size; a change in the folder in which given data is
stored; a change in the partition in which data is
stored; a change in status of a file infected by a
virus; a change in status in an illegal file."

Reasons for the Decision

1.   *Summary of the invention*

1.1   The application relates to distributing a collection of
        files (figure 1: "ample image 104"; see page 6, second
        and third paragraph) from a client computer (figure 1:
        "computer to be imaged 102") via a server computer
        ("management node 110") to a client computer (figure 3:
        "deploy (modified) ample image(s) 316"). The image is
        first built with the help of a conventional imaging
        tool from the hard-disk of the client computer (page 7,
        third paragraph). The image is then transmitted from
        the client to the server over a network or with the
        help of DVDs (page 11, last sentence; page 20, third
        paragraph). The image is made accessible on the server
        by a human system administrator mounting it as a
        standard folder/volume/partition/disk using an existing
        image mounting tool, such as V2i Protector (pages 9
        and 21, second paragraph). The image is then - among

others - scanned for viruses, and if necessary modified
on the server by "repairing" one or more files in which
a virus has been detected (page 22 lines 25-27;
pages 18 and 24, last paragraph; see also figure 5 for
the different modifying possibilities). The commands
for these searching and modifying steps 310 and 312 are
either input interactively by a human system
administrator or by a script file containing the user
commands (page 21, third paragraph). Thereafter, the
modified image is transmitted ("deployed") from the
server to another or the same client computer with the
help of a familiar image deployment tool (paragraph
bridging between pages 21 and 22).

1.2   To summarise the claimed method, an image of a client
computer is transmitted to a server computer, scanned
for viruses thereon, repaired if necessary, and
transmitted to a client computer. Thus, the invention
mainly consists in a combination of an imaging and a
virus scanner program.

2.   *Original disclosure*

As to the non-admittance of the main request and
auxiliary requests I and III-V in the decision (10, 11,
14-16), the board is satisfied with the passages cited
in the grounds of appeal, page 2, penultimate
paragraph. They show that the objected (rather general)
steps of modifying the ample image are indeed
originally disclosed (Article 123(2) EPC).

3.   *Inventiveness*

3.1   Although the board does not agree with the appealed
decision that D1 is an appropriate starting point for

assessing inventive step, it agrees with its overall finding that the claimed subject-matter lacks inventive step.

3.2   D1 is not an appropriate starting point, since it relates to creating a software configuration image on an "image builder" server computer according to the wishes of a purchasing customer (see Abstract), instead of extracting the image from an existing (model) computer, as in the application. It follows that D1 does not disclose the step of claim 1 of all requests of receiving at a server ("management node") an image of an existing (client) computer. The first passage of D1 cited in the decision (12.1) for the receiving step concerns a receiving step from one server ("image server") to another server ("management information system" or MIS; see page 5, lines 7-9). However, the image is not captured from the first server, but built from scratch at the first server. Furthermore, the second server (MIS) does not fulfill the rôle of the management node of the invention, namely to distribute files (see page 9, second paragraph for the whole disclosure in D1 about the MIS), but is merely a recipient of them (see figure 1). The second passage cited in decision section 12.1 does not relate to the invention of D1, but to prior art (page 1, lines 15-16; see also lines 14-15 and 17-18 for the prior art using model systems and distributing their images; see page 2, third paragraph for the fact that no model system is used in D1).

3.3   However, the board considers the claimed subject-matter to be (at most) a mere automation of the common behaviour of a human system administrator who wants to safely distribute a file collection (i.e. an image) of

a model computer to other computers. He or she
therefore builds the image to be distributed on the
model computer with the help of a conventional imaging
tool (see section 1.1 above) and transmits it to his/
her server computer, either over a network or with the
help of removable storage media (like DVDs; see again
section 1.1). In order to safely distribute files, he
or she would obviously consider running a virus scanner
on the image before distributing the image to a
computer. It can justifiably be assumed that it is best
practice of a system administrator to always clean an
image by running an antivirus scan before restoring any
file of the image to a computer.

3.4   In any case, no technical effect can be seen in the
        claimed sequence of system administrator's actions with
        known software tools (image builder, mounting tool,
        virus scanner) that would go beyond the usual effects
        these tools produce. Without such a technical effect,
        the claimed subject-matter lacks inventive step.

3.5   It appears that the launching of these actions is not
        even fully automated, but that the system administrator
        has to launch them manually (see page 17, second
        paragraph) or to program scripts which do so (page 21,
        third paragraph; in particular lines 19-20: "Commands
        may be subject to policies specified 606 by an
        administrator.").

3.6   As to the auxiliary requests, they either explicitly
        formulate features already implicitly present and
        considered in the discussion above (e.g. auxiliary
        request I: "the ample image is captured from an
        existing computer and is thus disassociated from the
        existing computer in that the ample image is located at

the management node and the management node is distinct
from the existing computer"), or the same argument as
used above applies to their additional features. For
example, using "meta-data" (auxiliary request II), such
as the computer name (auxiliary request VIII) or the
image creation time (auxiliary request IX) to find the
image of the computer with that name, or the image
which was created at that time does exactly what it is
meant to do. Moreover, the description states that
"conventional database indexing techniques and tools"
are used for that purpose (page 14, second paragraph).

3.7   As to the newly filed auxiliary request X, the
        appellant wrote in its letter dated 17 August 2018
        (page 1, paragraph 4) that it was a further restriction
        of the main request and auxiliary request II.

3.8   The board is not convinced of that, since both the
        deployment step of claim 1 of the main request and the
        virus-detection step of claim 1 of auxiliary request II
        are missing in claim 1 of auxiliary request X. Moreover
        the modifying step was generalised to subject-matter
        not relating to virus-checking (e.g. changes of the
        partition table, the cluster size or the folder/
        partition in which data is stored; see the last five
        lines of claim 1).

3.9   The newly added tracking step also has no relation to
        the other steps of claim 1. In particular, one of the
        most important steps, namely the modifying step, does
        not depend on the tracking step. All the more, as the
        tracking step does not produce a result upon which a
        later computation could depend. Thus, this new tracking
        step cannot establish an inventive step of the
        previously claimed method. Furthermore, its alleged

effects (page 3, paragraph 4, last sentence: facilitating forensic investigations, saving administrative overhead) are not considered by the board to possess technical character.

3.10   Therefore, the subject-matter of all requests is considered not to be inventive.

3.11   The appellant argues on page 3, first paragraph of its letter dated 17 August 2018 that it was not common for a human system administrator to perform an antivirus scan on an image of a different computer than the computer on which the administrator was operating.

3.12   However, the passage in the original description (page 3, last paragraph), cited in the reply (middle of page 2), states that "although many tools are used to ..., relatively little has been done to make use at a network management computer of information provided there in a backup copy of another computer's stored data". This explicitly states that the prior art comprises some programs ("tools") which automate and support the analysis and management of a client computer's image at a server computer.

3.13   For the board, it follows that it was not only common for the human system administrator to perform a "remote" analysis and management of an image "by hand" (i.e. using existing imaging tools, image mounting tools, virus scanners and image deployment tools; see the communication, section 1), but there were already before the priority date of the application some (albeit "relatively little") programs to automate this task.

3.14   In its letter dated 4 December 2018 (page 3, third
       paragraph), the appellant argues that "relatively
       little" meant "nothing or virtually nothing".

3.15   The board is not convinced by that. It is clear that
       "relative little" does not mean "nothing" in this
       context. Furthermore, the term "virtually nothing" (not
       used in the description passage) is not clearer than
       "relative little", but anyway means more than nothing.
       Therefore, in terms of programs, it follows that at
       least one program existed before the priority date
       which "make[s] use at a network management computer of
       information provided there in a backup copy of another
       computer's stored data". This implies that it was at
       least common to a skilled person to automate the task
       of remotely analysing and managing an image of another
       computer.

3.16   Thus, it is confirmed that the claimed subject-matter
       lacks inventive step.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

L. Stridde   W. Sekretaruk

Decision electronically authenticated