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**Datasheet for the decision
of 25 July 2017**

Case Number: T 1756/14 - 3.5.06

Application Number: 04764140.2

Publication Number: 1776634

IPC: G06F9/445, H04L29/08

Language of the proceedings: EN

Title of invention:

METHOD FOR SOFTWARE PROGRAM SYNCHRONIZATION

Applicant:

Telefonaktiebolaget LM Ericsson (publ)

Headword:

Software synchronization/ERICSSON

Relevant legal provisions:

RPBA Art. 11

EPC 1973 Art. 56, 112(1)(a)

Keyword:

Distinction between technical and non-technical features -
immaterial for features which are part of the objective
technical problem (see point 5.1)
Referral to the Enlarged Board of Appeal (no)
Inventive step - all requests (no)

Decisions cited:

Catchword:



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Case Number: T 1756/14 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 25 July 2017

Appellant: Telefonaktiebolaget LM Ericsson (publ)
(Applicant) 164 83 Stockholm (SE)

Representative: Ericsson
Patent Development
Torshamnsgatan 21-23
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 21 February 2014 refusing European patent application No. 04764140.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman W. Sekretaruk
Members: M. Müller
G. Zucka

Summary of Facts and Submissions

I. The appeal lies against the decision of the examining division, with reasons dispatched on 21 February 2014, to refuse European patent application No. 04 764 140.2 for lack of inventive step. Although the decision made reference to a number of documents, in particular

D1: WO 00/36503 A2 and

D5: US 2004/045000 A1,

it did not rely upon any of these in its reasons.

II. A notice of appeal was received on 29 April 2014, the appeal fee being paid on the same day. On 3 July 2014, a statement of grounds of appeal was received, in which the appellant requested that the decision be set aside and that a patent be granted on the basis of claims according to a main or one of six auxiliary requests (the claims being numbered 1-46, 1-42, 1-38, 1-38, 1-35, 1-46 and 1-35 respectively), in combination with the application documents on file. The appellant also requested that the appeal fee be reimbursed because the "inconsistent reasoning" in the decision amounted to a substantial procedural violation (see grounds of appeal, point 1, page 2, 7th paragraph, and page 14, point 5.5), and proposed that questions be referred to the Enlarged Board, including this one (see page 2 of the grounds of appeal): "How should features be assessed, which taken alone may be construed as being non-technical but which show a technical effect taken in combination with other (technical or non-technical) claim features?"

III. In an annex to a summons to oral proceedings, the board informed the appellant of its preliminary opinion *inter*

alia that the subject-matter of claim 1 (of all requests) lacked inventive step over common knowledge alone.

IV. During oral proceedings, the appellant filed a further amended claim 1 as the basis for a seventh auxiliary request and declared that the other claims would be adapted for this request if and once agreement was reached on claim 1.

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

"Method for synchronizing one or more software programs from a first device (D100) to a second device (D200), comprising the steps of

- creating (100) an application profile indicating one or more software programs on the first device (D100) and indicating one ore [sic] more software program providing nodes (SN100, SN200) from which said one or more software programs are obtainable,
- providing (200) the application profile to a synchronization manager (SM100),
- identifying (300) by the synchronization manager (SM100) the one or more software programs and the one or more software program providing nodes (SN100, SN200) according to the application profile,
- requesting (400) by the synchronization manager (SM100) the one or more software program providing nodes (SN100, SN200) to transfer the one or more software programs,
- transferring (500) the one or more software programs from the one or more software program

providing nodes (SN100, SN200) to the second device."

- VI. Claim 1 of the first auxiliary request differs from claim 1 of the main request in that the following phrase has been added to the end of the "creating" step:

"... wherein the application profile comprises at least one license indicator for indicating and identifying at least a part of the one or more software programs requiring a license, ..."

and in that the following additional step has been introduced after the "identifying" step:

"... requesting by the synchronization manager an authorization by a license authority (LA100) of the transfer to the second device (D200) of said part of the one or more software programs for that the license is required from the one or more software program providing nodes where said part of one or more software programs requiring the license are obtainable from, ..."

- VII. Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request in that the following paragraph has been added at the end:

"... wherein the synchronization of a software program requiring a license results in a configuration where the software program requiring a license is operable on both the first device (D100) and the second device (D200) or wherein the software program requiring a license is no longer usable [sic] on the first device (D100) but on the second device (D200) by blocking the

license for the software program on the first device (D100)."

- VIII. Claim 1 of the third auxiliary request differs from claim 1 of the first auxiliary request in that the following has been inserted after the "requesting" step:

"... responding by the license authority with a response message (403rp) for providing the license or an indication thereof to the synchronization manager (DM200) ..."

- IX. Claim 1 of the fourth auxiliary request differs from claim 1 of the third auxiliary request in that the following has been inserted after the "responding" step:

"... providing by the synchronization manager the license or the indication thereof to a software program providing node (SN200) for the transfer of the one or more software programs requiring a license to the second device (D200), ..."

- X. Claim 1 of the fifth auxiliary request differs from claim 1 of the main request in that the preamble and the "creating" step read as follows:

"Method for automatically synchronizing one or more software programs from a first device (D100) to a second device (D200), wherein the first device (D100) comprises at least a processing unit (PU1), an output unit (OU1) and at least a storage unit (SU1), comprising the steps of

- creating (100) an application profile, wherein the application profile is created on the first device (D100) by means of the processing unit (PU1) and stored in the storage unit (SU1), indicating one or more software programs on the first device (D100) and indicating one or more software program providing nodes (SN100,SN200) from which said one or more software programs are obtainable, and wherein the processing unit (PU1) of the first device (D100) is adapted to generate a message comprising the application profile and to send the message via the output unit (OU1) for transfer of the application profile
..."

XI. Claim 1 of the sixth auxiliary request differs from claim 1 of the fourth auxiliary request by the addition of the same features as in claim 1 of the fifth auxiliary request vis-à-vis the main request, its preamble and "creating" step reading as follows:

"Method for automatically synchronizing one or more software programs from a first device (D100) to a second device (D200), wherein the first device (D100) comprises at least a processing unit (PU1), an output unit (OU1) and at least a storage unit (SU1), comprising the steps of

- creating (100) an application profile, wherein the application profile is created on the first device (D100) by means of the processing unit (PU1) and stored in the storage unit (SU1), indicating one or more software programs on the first device (D100) and indicating one or more software program providing nodes (SN100, SN200) from which said one or more software programs are obtainable, wherein the application profile comprises at least one

license indicator for indicating and identifying at least a part of the one or more software programs requiring a license, and wherein the processing unit (PU1) of the first device (D100) is adapted to generate a message comprising the application profile and to send the message via the output unit (OU1) for transfer of the application profile
..."

XII. Claim 1 of the seventh auxiliary request differs from claim 1 of the main request by amendments to the "creating", "providing" and "identifying" steps and the insertion of a "requesting" step, these four steps now being specified as follows:

"...

- creating (100) on the first device (D100) an application profile indicating one or more software programs on the first device (D100) and indicating one or more software program providing nodes (SN100, SN200) from which said one or more software programs are obtainable,
- providing (200) by the first device (D100) the application profile to an application profile storage node (ASN100) via a message (202),
- requesting by the second device (D200) the application profile from [the] application profile [storage] node (ASN100),
- identifying (300) [by] a [...] synchronization manager (SM100) being collocated with the second device (D200) the one or more software programs and the one or more software program providing nodes (SN100, SN200) according to the application profile,

..."

XIII. Each of the requests also contains further independent claims directed at a synchronisation manager device, a computer program for synchronising, a first device and a second device. The wording of these claims is immaterial for this decision.

XIV. Oral proceedings were held on 25 July 2017 as scheduled, at the end of which the chairman announced the board's decision.

Reasons for the Decision

Article 11 RPBA

1. The examining division refused the invention as the "straightforward implementation of a known non-technical method on top of known hardware" (see page 7, esp. paragraphs 3 and 7), using the so-called "COMVIK approach" (based *inter alia* on T 641/00) for the examination of inventions comprising technical and non-technical features.

1.1 The appellant argued that the examining division did not correctly assess inventive step, because it

(a) "mixe[d] up absolute and relative" patentability requirements, i.e. the assessment of whether the claimed subject-matter constituted an invention with that of whether it was novel and inventive (see grounds of appeal, section 4, page 4, paragraph 3, to page 6, paragraph 2),

(b) failed to state in the decision "which concrete features [were] to be evaluated as technical and which as non-technical" (see page 6, last paragraph, to page 7, paragraph 1),

- (c) did not "assess [inventive step] solely on the basis of proven prior art" (see point 5.1, e.g. page 7 of the grounds of appeal, paragraph 3),
- (d) used assumptions about inventive step in the context of computer-implemented inventions which had no basis in the EPC (see page 8, paragraphs 5 and 6), and
- (e) contradicted itself because it considered the method of claim 1 to be non-technical as a whole and, at the same time, to comprise technical features (page 14, section 5.5).

The appellant also criticised the COMVIK approach in more general terms, stating that it had "its limits" where "ambiguous non-technical features" or "potential technical features" were concerned (see page 13, paragraphs 4-6), and because its reliance on "fictitious considerations [...] le[d] to a discrepancy in the manner how CII-inventions [...] and inventions in the field of physics, engineering [etc.] [were] examined" (grounds of appeal, page 8, paragraphs 3 and 7) and produced absurd results (page 8, paragraph 8).

- 1.2 The appellant's assertion that a substantial procedural violation had occurred is primarily based on its opinion that the reasoning in the decision was inconsistent (see point (e) above, and the grounds of appeal, section 5.5).
- 1.3 The board disagrees. The contested decision states that "the entire non-technical method is considered to be part of the formulation of the problem" and that "implementation would be [...] straightforward" for the skilled person (see page 6, paragraphs 3 and 5). A distinction is therefore made between the "method" and

its "implementation". Other passages of the decision make the same distinction (see page 4, bottom, points (a) to (c), and page 7, paragraph 4).

1.4 Hence the board does not consider the passages cited by the appellant to be contradictory, and so the appellant's view that the decision is deficient is unfounded.

1.5 As regards the other points, the board takes the view that the decision applied the COMVIK-based approach of assessing inventive step in good faith and gave its reasons in sufficiently clear terms. It is immaterial whether or to what extent the board agrees with the decision in substance.

1.6 The board therefore does not consider the first-instance proceedings to have suffered from a fundamental deficiency which would have justified immediate remittal under Article 11 RPBA.

The invention

2. The application is concerned with the problem of making sure that two devices employed by a user are equipped with the same software and the same data. This is referred to as synchronisation (see page 1, penultimate paragraph, to page 2, paragraph 1). It is disclosed that the synchronisation of user *data* between machines is supported by the SyncML Sync Protocol. Beyond that, the application and the claims put particular emphasis on the synchronisation of installed *software* between devices (page 2, paragraph 2).

2.1 The proposed solution is to create, on the "first" device, an "application profile" listing the installed

software programs and, for each of them, addresses of (one or more) "nodes" from which the program can be downloaded, its licence requirements - if any, and the address of the corresponding licence authority (see table 1 on page 13).

- 2.2 The application profile is made available to a so-called synchronisation manager which "identifies" the software programs and the corresponding "nodes" and requests that the nodes transfer the programs to the "second" device. Before that, it may, if so indicated in the application profile, inquire with the licence authority whether the transfer is permitted (see paragraph bridging pages 15 and 16).
3. The synchronisation manager is typically embodied in a program (see e.g. page 22, lines 28-30) and it may be "collocated with" the first or the second device (see page 17, lines 30-32; page 18, lines 8-10).
- 3.1 If the synchronisation manager is "collocated with the second device" (page 18, lines 8-10), there are alternative ways of providing it with the application profile. The first device may send the application profile for storage to a dedicated node, aptly referred to as an "application profile storage node" (ASN), from which the synchronisation manager on the second device may then request it (page 18, lines 10-15). Alternatively, the application profile may be stored by the first device on a "movable storage medium" such as a SIM or WIM card, from which the second device can read it when the card has been inserted into a suitable local reader (page 19, lines 1-10).

Clarity issues

4. In its preliminary opinion, the board noted several clarity issues with the independent device claims. These issues were, however, not discussed at the oral proceedings and did not have to be decided on following the appellant's proposal to focus on independent method claim 1, which best reflected the invention as a whole.

Inventive step, main request

5. The examining division found that claim 1 of the main request "define[d] the implementation of a known non-technical method on top of known hardware" (see page 7, section "Conclusion").
 - 5.1 The examining division thus considered that the method being implemented was both known and non-technical. The board notes that if an invention solves the problem of automating a *known* method, whether it involves an inventive step does not depend on whether that method is also *non-technical*, in part or as a whole.
 - 5.2 The examining division started from a hypothetical situation in which a user wanted to install on a new, second computer the software installed on an old, first computer. The situation was imagined to arise "at Christmas", when the second computer was received as a gift, and was hence referred to as the "Christmas example" (see the decision, page 5, paragraph 1).
 - 5.3 The appellant challenged "the Christmas [e]xample [as] an assertion without substance" (see grounds of appeal, page 7, paragraph 3, and page 8, penultimate paragraph, and point 3(c) above). The appellant did not explain

which feature of the example it considered not to have been known before the priority date.

6. The board agrees with the contested decision that the situation is one that commonly arises and which arose before the priority date in the present case (not only at Christmas). The application itself (paragraph bridging pages 1 and 2) makes this assumption too, and the appellant did not challenge it.
- 6.1 The board therefore considers that common knowledge is a suitable starting point for the assessment of inventive step.
- 6.2 Furthermore, the board considers that the technical problem solved by the invention is to provide automated support for the installation on a second device of the software that happens to be installed on a first device. During oral proceedings, the appellant accepted this.
- 6.3 In the board's view, any solution to the given problem necessarily requires
 - (i) determining what software is installed on the first machine,
 - (ii) determining where and how that software may be obtained, and
 - (iii) installing it on the second machine.
- 6.4 The appellant contested this view, arguing that it was based on hindsight and that the inventive step assessment should, even at this point, pay greater attention to the structural and technical features of the claimed solution.

- 6.5 The board disagrees for the following reasons.
- 6.5.1 To decide whether or not a claimed invention involves an inventive step, it must be determined whether the claimed invention would have been obvious to a person skilled in the art (Article 56 EPC 1973). Since an invention is construed as being the solution to a technical problem (see esp. Rule 27(1)(c) EPC 1973), the problem-solution approach for the assessment of inventive step starts with the determination of a technical problem to be solved over a suitably chosen starting point (the "closest prior art"). Once both have been selected, the next step is to determine whether what the skilled person would have done without exercising inventive skill would have led him to the claimed invention. In assessing what the skilled person would have done, it is precisely in order to avoid the risk of hindsight that no regard is taken of the claimed invention.
- 6.5.2 Secondly, items (i) to (iii) merely paraphrase aspects of the technical problem specified in point 6.2. The board agrees with the appellant that it would be possible to copy the software direct from the memory of the first device to the second device. This is, however, not in contradiction of item (ii), because the skilled person would still have to determine "where and how [the] software may be obtained", namely in this case: from the memory of the first device ("where") and by direct copying ("how").
- 6.6 The board also notes that the existence of one obvious solution to a problem is insufficient to show that other solutions are non-obvious. That is to say, irrespective of whether the skilled person could or would have considered copying software from the first

device to the second device, the board regards it as an obvious alternative to perform a new installation of the required software on the second device.

6.7 The appellant remarked that the installation of software from a server on the Internet (as opposed to from a CD or DVD) was not as common in 2004 as it is today, without, however, denying that such an installation method was already known before the filing date of the application. The board, by contrast, is convinced that it was not just known but already common in 2004. Even the application describes the "nodes from which [the ...] software programs can be obtained" (see e.g. page 3, lines 1-4, and table 1) as known infrastructure, and thus as part of the problem rather than as part of the solution. The board notes in passing that a major part of the structural, and undisputably technical, features of the claimed invention, namely the first and second devices and the "software program providing nodes", are thus either implied by the problem or identified as commonly known.

6.8 If the skilled person were to perform the installation on the second device manually, it would be obvious for him to assemble all the required information on a sheet of paper (which software, where to get it, what else to do). Likewise, when and since the skilled person is interested in an automated solution, it would be obvious to assemble that same information in a suitable data structure (an "application profile"). It would further be obvious to task a dedicated program (a "synchronization manager") with the management of the installation task.

- 6.9 The board accepts that there is no necessity for that data structure to contain the "nodes" from which the software can be obtained. The nodes might be left implicit, for instance if they can be derived from the identity of the program and its vendor, or be left for the user to input later on. Nonetheless, it would be obvious to inform the synchronisation manager explicitly about the nodes, for instance to simplify its task. The board notes that the claimed "identifying" step specifies no more than that the synchronisation manager accesses the information in the application profile. There is nothing in the claims or the application to support the appellant's assertion that "the step of identifying is a complex task" (see grounds of appeal, page 11, paragraph 5).
- 6.10 In summary, the board agrees with the examining division that claim 1 of the *main request* specifies an obvious way of automating the installation on a second machine of the software which happens to be installed on a first machine, and therefore lacks inventive step over common knowledge, Article 56 EPC 1973.
7. As already mentioned, the board's assessment does not rely on the assumption that the central idea of the claimed invention is a non-technical method. Therefore, the appellant's criticism of the "COMVIK approach" to assessing inventive step and its opinion on how the examining division should have presented its analysis are not pertinent. Hence, neither a response from the Enlarged Board of Appeal to the proposed question (see point II above) is required for a decision in the present case (cf. Article 112(1) (a) EPC 1973), nor a discussion of the board of appeal decisions cited by the appellant.

Inventive step, auxiliary requests

8. Claim 1 of the *first auxiliary request* is further characterised by the fact that the application profile contains licence requirements and the synchronisation manager requests from a "license authority" the corresponding authorisation for the nodes to transfer software to the second device.
- 8.1 It is noted in passing that claim 1 does not specify expressly, as apparently intended, that the transfer (500) takes place only if and when the licence authority has actually provided the requested authorisation.
- 8.2 Assuming this nonetheless to be the case, these features solve the problem of enforcing an installation requirement. It is commonly known that the installation of software may be regulated by licences in view of which authorisation is or is not provided (see also D5, paragraphs 6 and 16). It is also known that the decision as to whether authorisation is granted is taken by a responsible "authority", which suggests that such authorisation may have to be "requested". Whether the licence authority and the synchronisation manager are separate components or combined with each other is an obvious matter of software design.
- 8.3 The board therefore concludes that claim 1 of the first auxiliary request also lacks inventive step over common knowledge in combination with D5, Article 56 EPC 1973.
9. Claim 1 of the *second auxiliary request* further specifies that, in the final "configuration", a piece of software is either "operable" on both devices or only on the second device and "blocked" on the first one.

- 9.1 The board takes the view that the decision as to whether a program should be allowed to be installed and executed on more than one machine is a non-technical one which the software vendor would take according to legal and economic considerations. As such, this requirement does not solve a technical problem. The board also notes that it was known in the art that the number of allowed installations may be restricted (see D5, abstract and paragraph 6) and that it may, hence, be a given requirement that a software program be uninstalled on a first machine before it may be installed on a second machine.
- 9.2 The board also observes that the claim merely specifies that the "synchronization [...] results in" the desired "configuration" but does not claim any steps that claimed components would have to take to obtain that configuration, let alone any potentially non-obvious ones.
- 9.3 The board therefore concludes that claim 1 of the second auxiliary request also lacks inventive step.
10. Claim 1 of the *third auxiliary request* expressly specifies a "response" from the licence authority to the synchronisation manager. The board considers that this "response" message is an obvious complement to the request discussed above with regard to the first auxiliary request.
11. Claim 1 of the *fourth auxiliary request* specifies that the dialogue between the synchronisation manager and a licence authority may not be required for all software programs to be installed. This is, in the board's view,

an immediate - and thus obvious - consequence of the individual vendors' legal and economic choices.

12. Claim 1 of the *fifth and sixth auxiliary requests* expressly specifies "processing", "storage" and "output unit[s]", in an apparent attempt to clarify the technical character of the individual method steps. These steps' technical character is not an issue in the preceding analysis, which is therefore not affected by this clarification.
13. Claim 1 of the *seventh auxiliary request* specifies that the synchronisation manager is "collocated with" - i.e. runs on - the second device and that the application profile is stored on a dedicated server, from which the second device - i.e. the synchronisation manager running on the second device - requests the application profile. This amendment is based on the original disclosure of the description on page 18 (esp. lines 8-17).
 - 13.1 The description explains (page 19, lines 21-24) that an advantage of using an application profile storage node (ASN) may be that users may not have to concern themselves with "any interconnection compatibilities between the first device [...] and the second device". The board is not convinced of this advantage because users will have to concern themselves with "interconnection compatibilities" with the ASN, and the claimed invention (or the description) provides no basis for distinguishing the one type of interconnection from the other.
 - 13.2 The appellant also suggested during the oral proceedings that the use of an ASN reduces the risk from failure or loss of the first device. Again, the

board is not convinced. With or without an ASN, the first device can be dispensed with as soon as it has transmitted the application profile.

13.3 Thirdly, the appellant argued that the use of the ASN enabled provision and use of the application profile to be temporally decoupled. The board, however, notes that this potential advantage is not discussed in the application and, moreover, that the claimed invention does not imply any temporal proximity between provision and processing of the application profile by the synchronisation manager, let alone between processing the application profile and the eventual provision of the software from the nodes to the second device.

13.4 The effects achieved by storing the application profile on a separate server include the possibility that it may be reused (after having been created once) and that it need not, in the meantime, be stored on either the first or the second device.

13.4.1 The board considers that it is obvious that data which may be needed more than once is kept after creation. In fact, this is obvious irrespective of whether the "synchronization" is carried out manually or automatically. Even a handwritten list of requirements will be kept for reuse to avoid the effort of creating it again. Where this list (or the application profile) is kept will be decided by the skilled person according to the circumstances. The application profile can be kept on the first or the second device or elsewhere. Either choice has its own advantages and disadvantages, of which the skilled person will be aware. For example, in the board's view, a sufficient reason for the skilled person to store the application profile

elsewhere would be if the first and second devices had, like pre-2004 mobile phones, limited memory.

13.4.2 The board concludes that claim 1 of the *seventh auxiliary request* also lacks inventive step over common knowledge in the art, Article 56 EPC 1973.

Rule 103(1) (a) EPC

14. In its preliminary opinion the board took the view that no deficiency was apparent in the first-instance proceedings which would have made reimbursement of the appeal fee equitable. In the end, the question has, however, been left open since the appeal is dismissed and hence reimbursement of the appeal fee is impossible anyway, Rule 103(1) (a) EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



B. Atienza Vivancos

W. Sekretaruk

Decision electronically authenticated