RECENT CASE LAW OF THE EPO REGARDING SOFTWARE/BUSINESS METHOD-RELATED INVENTIONS

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Introduction

The recent developments in case law of the EPO in regard to inventions concerning software or business methods are dominated by decision **T 0641/00**[1] TWO IDENTITIES/COMVIK dated September 26, 2002.

This decision, which has to be seen in the context of former famous decisions **T 1173/97**[2] COMPUTER PROGRAM PRODUCTS/IBM and **T 0931/95**[3] CONTROLLING PENSION BENEFIT SYSTEM/PBS PARTNERSHIP answers a fundamental question that has not been answered by the case law so far.

Decisions T 1173/97 and T 0931/95 mainly deal with the question how to decide whether or not a claim comprising a mix of technical and non-technical features constitutes in principal patentable subject matter taking into account the exclusions from patentibility in accordance with Article 52 (2) EPC.

Decision T 0641/00

Recent decision T 0641/00 TWO IDENTITIES/COMVIK examines a different question namely which features from a claim comprising technical and non-technical features can be taken into account when assessing inventive step?

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[1] Not yet published

[2] OJ EPO, 10/1999, pages 609-632

[3] OJ EPO, 10/2001, pages 991-957

The answer provided by T 0641/00 is that for assessment of inventive step, only those features of a claim are taken into account which:

> *"contribute to the technical character whereas features making no such contribution cannot support the presence of inventive step".*

In connection with true business method-related inventions this might result in rejections of applications and patents concerning business methods, which applications and patents prior to this decision were still an invention fulfilling the inventive step requirement pursuant to Article 56 EPC. However, this does in no way mean that true technical software inventions are negatively impacted by this case law. To the contrary, it might be said that in particular, the more recent case law of the EPO leaves no doubt that the EPO's door for real software inventions having technical character are widely opened.

Decision T 0641/00 is particularly relevant for the daily work of Examiners which, in case a prima facie-test reveals that a claimed subject matter is not readily excluded from patentibility immediately proceed with the assessment of novelty and inventive step, and thus in most cases do not examine in detail the presence of possible exclusions from patentibility in accordance with Article 52 (2) EPC. (see Guidelines, part C, chapter IV, "Computer Programs").

Decision T 0641/00 TWO IDENTITIES/ COMVICK has been issued by Board of

Appeal 3.5.1, the same Board that has issued the two further famous decisions T 1173/97 and T 0931/95. However the chairman of this Board has changed between decision T 0931/95 and T 0641/00.

Background of the Decision

T 0641/00 relates to European patent EP 0 579 655 granted in 1997 which was opposed by DeTeMobil Deutsche Telecom.

The invention described in EP 0 579 655 relates to GSM type mobile telephone systems and relates in particular to subscriber identity modules which are inserted by a user into his mobile unit to activate service in the respective telephone system by means of a subscriber identity IMSI stored in the subscriber identity module as well as by means of keying in his personal PIN code.

The improvement of the invention resides in the idea to store two different subscriber identities IMSI on the same subscriber identity module and allowing the user to selectively activate each of these two different identities.

The advantage of such a selection between two different identities resides in the possibility to distribute telephone costs among different users or in between service calls and private calls.

Claim 1 according to the main request which was subject to the decision reads as follows (this claim is different from the granted claim):

> *"Method in a digital mobile telephone system of the GSM type, in which subscriber units (MS) are controlled by a subscriber identity module (SIM), characterized in that the subscriber identity module (SIM) is allocated at least two identities (IMSI 1, IMSI 2), infor-*

> *mation thereon being stored in a home database of the system, said at least two identities being selectively usable, wherein only one identity (IMSI 1 or IMSI 2) can be activated at a time, the user when using a subscriber unit (MS) selectively activating the desired identity in said home database from the subscriber unit, wherein the selective activation is used for distributing the costs for service and private calls or among different users".*

The Board of Appeal found that claim 1 differed by the following features over the closest prior art reference:

(i)   the subscriber identity module is allocated at least two identities,
(ii) said at least two identities being selectively useable, and
(iii) the selective activation being used for distributing the costs for service and private calls or among different users.

The Board of Appeal found that distributing costs according to specific schemes (features (ii) and (iii)) were not disclosed as a technical function of the system and that it was therefore left to the user to decide and to select the desired identity and to the network operator to use the additional identity data in one or the other way. Literally the Board found:

> *"The inconveniences to be eliminated are actually not located in any technical aspects of the network system; distributing costs according to the claimed kind of cost attributing scheme is rather a financial and administrative concept which as such does not require the exercise of any technical skills and competence and does not, on the administrate level, involve any solution to a technical problem. Technical aspects first come into play with the*

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implementation of such a scheme on the GSM system. In other words, the claimed concept of selectively distributing the costs for service and private calls or among different users does as such not make a contribution to the technical character of the invention".

With this finding there were then simply not enough features remaining in the claim that could be used to argue inventiveness over the prior art.

Impact on the Formulation of the Underlying Problem

To finally reject the claim the Board of Appeal had to apply in the usual manner the so called "*problem solution approach*" (PSA).

The underlying problem was formulated by the Board of Appeal as being

> "*to implement the GSM system in such a way as to allow user-selectable discrimination between calls for different purposes or by different users".*

The proprietor's objection to such a formulation of the underlying problem which formulations already contained elements of the inventive solution was rejected by the Boards of Appeal based on the following reasoning:

> "*Although the technical problem to be solved should not be formulated to contain pointers to the solution or partially anticipate it merely because some features appear in the claim does not automatically exclude it from appearing in the formulation of the problem. In particular where the claim refers to an aim to be achieved in a non-technical field, this aim may legitimately appear in the formulation of the problem*

as part of the framework of the technical problem that is to be solved, in particular as a constraint that has to be met".

Earlier Decisions

1. In the above quoted further decision **T 0931/95** CONTROLLING PENSION BENEFITS SYSTEMS/PBS Partnership dated September 8, 2000, it was found that

> "*Methods only involving economic concepts and practices of doing business are not inventions within the meaning of Article 52 (1) EPC. A feature of a method which concerns the use of technical means for a purely non-technical purpose and/or for processing purely non-technical information does not necessarily confirm a technical character to such a method".*

Based on this reasoning the Board of Appeal objected the following method claim comprising a mix of technical and non-technical features as being excluded from patentibility in accordance with Article 52 (1) EPC:

> 1. *A method of controlling a pension benefits program by administering at least one subscriber employer account on behalf of each subscriber employer's enrolled employees each of whom is to receive periodic benefits payments, said method comprising:*
>
> *providing to a data processing means information from each said subscriber employer defining the number, earnings and ages of all enrolled employees of the said subscriber employer;*

determining the average age of all enrolled employees by average age computing means;

determining the periodic costs of life insurance of all enrolled employees of said subscriber employer by life insurance cost computing means; and

estimating all administrative, legal, trustee, and government premium yearly expenses for said subscriber employer by administrative cost computing means;

the method producing, in use, information defining each subscriber employer's periodic monetary contribution to a master trust, the face amount of a lift assurance policy on each enrolled employee's life to be purchased from a life insurer and assigned to the master trust and to be maintained in full force and effect until the death of the said employee, and periodic benefits to be received by each enrolled employee upon death, disability or retirement".

Surprisingly, however, the Board of Appeal found within the same decision that the corresponding apparatus claim comprised technical subject matter and was thus not excluded from patentibility by Article 52 (1) EPC due to the fact that an apparatus constitutes a physical entity or concrete product even if such an apparatus is suitable for performing or supporting an economic activity. Later in the decision this apparatus claim was however to be found to constitute an invention that does not involve an inventive step in the sense of Article 56 EPC.

2. In **T 1173/97** COMPUTER PROGRAM PRODUCT/IBM the Board of Appeal ruled that

"a computer program product is not excluded from patentibility under Article 52 (2) and (3) EPC if, when it is run on a computer, it produces a further technical effect which goes beyond the normal physical interactions between program (software) and (hardware)".

This means that a computer program having the potential to cause a predetermined further technical effect is, in principal, not excluded from patentibility under Article 52 (2) and (3) EPC. Consequently, "computer program products are not excluded from patentibility under all circumstances".

The conclusion of this finding is that although all computer programs produce a technical effect by using physical modifications of the hardware when the program is loaded, this kind of *"trivial technical character"* is not considered sufficient for the purpose of Article 52 EPC. If however a *"further technical effect"* which goes beyond the normal technical interaction of a program with the computer and brings about the technical character required for an invention within the meaning of Article 52 (1) EPC, then the respective subject matter is considered patentable subject matter and thus considered to constitute an invention. The fact alone that the program is recorded on a record carrier i.e. on a concrete product alone does not confer technical character.

Decision T 1173/97 the Board of Appeal found that the following claim fulfills the requirement of the "*further technical effect*" and for that reason constitutes patentable subject matter:

"Method for resource recovery in a computer system running an application (56A) which requests a work operation involving a resource, said method comprising the steps of:

implementing a commit procedure for said work request;

in case the said commit procedure is not completed due to a failure, notifying said application (56A) after some time that it can continue to run, whereby said application (56A) need not wait for resynchronization; and

while said application (56A) continues to run, resynchronizing said incomplete commit procedure for said resource asynchronously relative to said application (56A)".

For the reasons mentioned above, that the "*further technical effect*" does not depend on the presence of a record carrier the Board also allowed the following "*computer program*" claim:

"A computer program comprising program code means for performing all the steps of any one of the claims 1 to 13 when said program is run a computer."

This claim relates to a "*computer program*" itself independently of its physical representation on a data carrier or as a propagating signal etc. The allowance of this claim is a consequence of the Board's finding T 1173/97 COMPUTER PROGRAM PRODUCT, that

"*with regard to the exclusions under Art. 52 (2) and (3) EPC it does not make any difference whether a computer program is claimed by itself or as a record on a carrier*".

3. In **T 1194/97**[4] DATA STRUCTURE PRODUCT/Philips, it was found that a record carrier characterized by having functional data recorded thereon is not a "presentation of information as such" and hence not excluded from patentability. It must be distinguished between information in the sense of "cognitive content" and information comprising "functional data". In this context, functional data includes a data structure defined in terms which inherently comprise the features of the underlying system (extending T 163/85 COLOR TELEVISION SIGNAL/BBC).

Recommendations to Applicants

Being asked by clients whether it is wise to file patent applications for software or business method related inventions in Europe, there is a clear "yes" in regard to those inventions that clearly solve technical objectives. This will be the case in almost each true software invention where the problem and the solution are technical and not merely in the field of economy, etc. In regard to "classical" business methods, applicants will face difficulties in view of the above-described case law. However, it must be noted that great variations can be observed how the case law is applied by different examiners during daily examinations. A good example in this respect is EP0973991 (Cantor Fitzgerald) related to a method for operating a data processing system to provide an index corresponding to a pre-selected portfolio with fixed income securities. This patent, which covers a "classical" business method, was still granted by the EPO in January 2002, and thus after decision T 0931/95.

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[4] OJ EPO, 12/2000, pages 525-599

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