

ARE BUSINESS METHODS PATENTABLE IN EUROPE ?

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Introduction

In *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, the United States Court of Appeals for the Federal Circuit (CAFC) ruled that the so-called "business method"-exception to statutory subject matter was based on a no longer applicable legal principle and therefore took "the opportunity to lay this ill-conceived exception to rest". In the more recent decision *AT&T Corp. v. Excel Communications*, the CAFC further developed the principles as set forth in *State Street Bank & Trust Co. v. Financial Signature Group, Inc.* and established that business methods and software constitute patentable subject matter that are subject to the same requirements that must be satisfied by any patent application.

Not surprisingly, these two judgments have attracted high attention particularly in the Internet Community as these developments allow to obtain patent protection also for methods of doing business on the Internet. The CAFC's decisions have led to a flood of respective business method patents which leads directly to the question whether corresponding patents may also be obtained in Europe.

Due to a lack of established case law with respect to the patentability of methods of doing business in front of the European Patent Office, the present article aims to summarize the current situation from a practitioner's view considering both, relevant case law formed by the Boards of Appeal as well as examples of European patents that were already granted for business methods in a broader sense.

Related case law of the Boards of Appeal

As indicated above, the Boards of Appeal of the EPO so far have not issued any decision that could answer the question of patentability of business methods in a similar clear manner as this has been done in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* by the CAFC. From decisions that are available, the two most prominent ones are T 1173/97 COMPUTER PROGRAM PRODUCT issued in spring 1999 (parallel to T 935/97 issued on the same day) and K 769/92 SOHEI issued already in 1994.

In particular, the latter decision is interesting for the present discussion as the subject matter that was claimed for by the applicant concerned a "general-purpose computer management system or business management and administration including financial management, inventory management and construction management in shops, offices and enterprises".

Claim 2 of respective patent EP 0 209 907 B1 that was eventually granted in 1996 subsequent to decision T 769/92 SOHEI reads:

2. *A method for operating a general-purpose computer management system including a display unit (4), an input unit (3), an output unit (4, 5) and a processing unit (1), for plural types of independent management including at least financial and inventory management comprising the steps of:*

providing a single transfer slip (Fig. 2) by displaying it in the form of an image on the screen of said display unit (4), said transfer slip having a format commonly used for at least financial and inventory management in order that data relating to at least a debit item, a credit item and a commodity code may be input succes-

sively, providing said memory unit (2) for storing a general-purpose management program and data necessary for management including a journalized daybook file, an item master file, a commodity master file, a journalized daybook accumulation file, and an inventory file, wherein the item master file stores data necessary for financial management processing with respect to a plurality of debit and credit items, each said data being processed with respect to each successive input of transfer slip data corresponding to one item code, and the commodity master file stores data necessary for inventory management with respect to a plurality of commodity codes, each said data being processed with respect to each successive input of transfer slip data corresponding to one commodity code,

automatically entering data successively input through said input unit (3) into the transfer slip,

automatically displaying data entered through said input unit (3) in accordance with said transfer slip,

storing said data into said journalized daybook file in said memory unit,

updating said data corresponding to each item code in said master file and said data corresponding to each commodity code in said commodity master file dependent on transfer slip data entered through said input unit,

transferring said data necessary for financial management processing stored in said journalized daybook file to said journalized daybook accumulation file to store therein and relating the transferred data stored in said journalized accumulation file with the item codes in said item master file,

transferring said data necessary for inventory management processing stored in said journalized daybook file to said inventory file to store therein and relating the transferred data stored in said

inventory file with the commodity codes in said commodity master file, and

reading, in response to an output command entered through said input unit, data necessary for a specific type of management from at least one of said journalized daybook file, item master file, commodity master file, journalized daybook accumulation file and inventory file to output them through said output unit in accordance with a predetermined format for said specific type of management.

As may be understood from the claim language, this invention suggests the use of a single format or "transfer slip" into which all data necessary for dealing with all types of management can be input. This enables the input of data which appears redundant in plural types of management to be input in a single input operation and to store and process the input data in individual files corresponding to the different management types.

In T 769/92 SOHEI the Board of Appeal came to the conclusion that "*in the board's view the non-exclusion from patentability also applies to inventions, where technical considerations are to be made concerning the particulars of its implementation. The very need for such technical considerations implies the occurrence of an (at least implicit) technical problem to be solved and (at least implicit) technical features solving that technical problem*".

Thus, the Board considered the invention, although dealing with a method of doing business, not to be excluded from patentability due to the technical considerations necessary to implement the invention in computerized form.

In T 1173/97 COMPUTER PROGRAM PRODUCT the Board of Appeal ruled that

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

interaction between program (software) and computer (hardware)...This means that a computer program having the potential to cause a predetermined further technical effect is, in principle, not excluded from patentability under Art. 52 (2) and (3) EPC...Consequently, computer program products are not excluded from patentability under all circumstances".

In this decision the Board of Appeal did not have to decide on the patentability of methods for doing business but rather on the allowability of so-called "storage-medium claims" which, before the issuance of that decision, were not allowed by Examiners contrary to an established practice by the USPTO.

Claim 1 of corresponding European patent EP 0 457 112 B1 which was issued in March 2000 as a result of T 1173/97 COMPUTER PROGRAM PRODUCT reads:

1. A method for resource recovery in a computer system, said method, running an application (56 A), said applications (56 A) requesting a work operation involving a resource, said method comprising the steps of:

attempting to implement a commit procedure to said work request, whereby the commit procedure is not completed due to a failure at some time after said commit procedure fails;

notifying said applications (56 A) that it can continue to run, whereby said application (56 A) need not wait for resynchronization; and

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

Claim 20 of this patent reads:

20. 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 on a computer.

Claim 20 thus claims for a "computer program" itself independently of its physical representation on a data carrier or as a propagating signal etc. The allowance of this claim 20 is a consequence of the Board's finding in 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".

To understand the high attention that T 1173/97 COMPUTER PROGRAM PRODUCT has attracted within interested circles in the field of software patenting, it is important to consider the definition of "statutory subject matter" by Article 52 EPC:

1) European patents shall be granted for any inventions which are susceptible to industrial application, which are new and which involve an inventive step;

2) The following, in particular, shall not be regarded as inventions within the meaning of paragraph 1:

*a) discoveries, scientific theories and **mathematical methods**;*

b) aesthetic creations;

*c) schemes, rules and methods for **performing mental acts**, playing games or **doing business**, and **programs for computers**;*

d) presentation of information.

*3) The provisions of paragraph 2 shall exclude patentability of the subject -matter or activities referred to in that provision only to the extent to which a European patent application or European patent relates to such subject-matter or activities **as such**.*

Evidently, mathematical methods, methods of doing business and programs for computers as such are excluded from patentability by the EPC. Based on this definition it was an established practice until T 1173/97 COMPUTER PROGRAM PRODUCT that a claim on a "program product", a "data carrier comprising means for controlling a computer in a certain manner", etc. are excluded per se from patentability because such claim types claim for a computer program "as such" even if the underlying method that is carried out under control of the respective program is otherwise found to comprise technical and thus patentable subject matter.

While it seems quite logical to come to a conclusion that a data carrier or a computer program product comprising program code means for controlling a computer is not regarded as a computer program "as such" due to a concrete physical representation distinguishing it from the mere program, it is somehow surprising that the Boards of Appeal went a step further and argued that "with regard to the exclusion 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".

The question arises what is then a "computer program as such" that is excluded from patentability if the subject matter of the above claim 20 of European patent EP 0 457 112 B1 is not a computer program "as such".

One evident conclusion from this situation with respect to the allowability of business methods under the EPC is that the exceptions from patentable subject matter as defined by Art. 52(2) EPC are to be understood in a very narrow sense. With respect to the herein discussed business methods this has to mean that by no means this provision has to be understood in the sense that it would exclude per se claims on methods for doing business.

As more and more business method patent applications are filed with the EPO and are granted by Examiners, the Boards of Appeal should have an opportunity in the near future to issue a decision with respect to the question of the allowability of methods of doing business and, hopefully, the respective decision will be as clear as T 1173/97 COMPUTER PROGRAM PRODUCT was in regard to the question of the allowability of computer program claims.

Independently of such a decision it may be expected that the Boards of Appeal will not depart from their established case law concerning the requirement of a "technical character", a detailed discussion of which would go beyond the scope of the present article. The above discussed decisions T 769/92 SOHEI and T 1173/97 COMPUTER PROGRAM PRODUCT are fully in line with this established case law, and it may be said that by way of these decisions the meaning of the term "technical character" was generalized without giving up the respective requirement.

The "technical character"-requirement is to be fulfilled in addition to the requirements defined by the above-quoted Article 52 EPC, i.e. is to be fulfilled besides the requirement of novelty, inventive step, susceptibility to industrial application and the requirement to belong to "statutory subject matter" in the sense of Article 52 EPC as discussed above.

The requirement of technical character is manifested by Rule 27(1) and Rule 29(2) EPC stipulating that an invention must relate to a **technical field**, a **technical problem and its solution** and that it should be defined in the claims by its **technical features**.

The requirement that an invention has to relate to a technical problem defined with respect to a technical field is already a hurdle that many business method inventions might have difficulty to take.

Also, the further requirement that an invention must be defined by technical features and thus must have "technical character" will be difficult to reach for many business method inventions as the respective inventions are most typically software-related inventions. The Board of Appeal has ruled in T 1173/97 COMPUTER PROGRAM PRODUCT that the physical modifications of hardware deriving from the execution of the instructions given by programs for computers cannot per se constitute the technical character required for avoiding the exclusion from patentability and that instead a **further technical effect** having a technical character must be present in addition to the technical character represented by a computer that is controlled by the software.

Again, many true business methods might have difficulties meeting this requirement of a "further technical effect" despite the fact that the respective claim defines the method in relation to a computer environment.

In T 1173/97 COMPUTER PROGRAM PRODUCT the Board of Appeal made clear that a worldwide harmonization of patent law is highly desirable and that therefore the regulations of the TRIPS-agreement and in particular of Article 27(1) thereof should be regarded when interpreting Article 52 EPC.

In view of the developments in the United States now allowing patents on any inventions which are concrete, tangible and useful, it appears most desirable that future decisions from the Boards of Appeal further liberalize the requirements for patent protection by an appropriate interpretation of Article 52 EPC in order to keep up with worldwide technological and economic developments.

Some examples of business method patents in the broader sense, granted by the EPO

As indicated herein above, the fact that the Boards of Appeal so far did not have an opportunity to issue a decision providing a clear definition of patentable subject matter in regard to business methods does not mean that the EPO has not already granted a huge number of business method patents so far.

As a first example, one may consider EP 0 572 403 B1 which was issued in March 1995. Claim 1 of this patent reads:

1. In a computerized reservation system for travel related services including a master inventory of travel related services and a plurality of master passenger name records that correlate individuals with reserved travel related services from said master inventory, a method comprising:

creating and storing at least one group control record including a group inventory of travel related services, said group inventory being a subset of said master inventory, and a plurality of group related passenger name records, said group related passenger name records being a subset of said master passenger name records; and

automatically modifying said master inventory, said group related passenger name records and said at least one group control record responsive to changes in at least one of the three.

Probably there are little doubts that the claimed subject matter relates purely to a business method.

Another example of a business method claim in the broader sense may be found in EP 0 762 304 B1 issued in March 1997. The invention described in this patent deals with the problem of price rate fluctuations during the time an online-request for rates is made and the time a resultant online-transaction is made. As a solution to this problem it is suggested that a timer is installed that defines the time during which a certain rate offered by the

system may be accepted by the customer. Claim 18 of this patent reads:

18. Method of operating a computer system for data management including at least the management of data relating to the trading of warrants comprising the steps of

- *displaying on a display unit (3) a first mask having a format allowing the input of a request for specific data including at least warrant rates by an input unit (2),*
- *reading the requested data, if the request is input by the input unit (2),*
- *displaying on the display unit (3) a second mask including the requested data,*
- *holding the requested data for a predetermined time period T_{set} , and*
- *performing a transaction relating to the specific data if a transaction request is input by the input unit (2) during the predetermined time period T_{set} .*

As this patent evidently relates to warrant trading via the Internet it is no surprise that after the patent was granted numerous oppositions mainly by banking companies were filed against this patent. As a decision by the opposition division is expected to be issued soon and since it may be expected that, depending on the respective outcome, an appeal will be filed either by the patentee or by one of the opponents, the Boards of Appeal should have in the future an opportunity to officially decide on the allowability of business method claims by way of this patent.

Conclusion

As indicated above, the current case law of the Boards of Appeal does not provide patent protection to the same extent as it is possible in the United States since *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*

This need not, however, mean that the Courts of Appeal of the European Patent Office would definitely reject the patent on which the CAFC decided in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* as comprising unpatentable subject matter.

Claim 1 of the respective patent US 5,193,056 reads:

1. A data processing system for managing a financial service configuration of a portfolio established as a partnership, each partner being one of a plurality of funds, comprising:

(a) computer processor means for processing data;

(b) storage means for storing data on a storage medium;

(c) first means for initializing the storage medium;

(d) second means for processing data regarding assets in the portfolio and each of the funds from a previous day and data regarding increases or decreases in each of the funds, assets and for allocating the percentage share that each fund holds in the portfolio;

(e) third means for processing data regarding daily incremental income, expenses, and net realized gain or loss for the portfolio and for allocating such data among each fund;

(f) fourth means for processing data regarding daily net unrealized gain or loss for the portfolio and for allocating such data among each fund; and

(g) fifth means for processing data regarding aggregate year-end income, expenses, and capital gain or loss for the portfolio and each of the funds.

Quite likely to be rejected under the current case law of the Boards of Appeal as defining unpatentable subject matter

are the claims of US 5,794,207, which patent forms the basis of Priceline's on-line reverse auction business. Claim 1 of US 5,794,207 reads:

1. A method for using a computer to facilitate a transaction between a buyer and at least one of sellers, comprising:

inputting into the computer a conditional purchase offer which includes an offer price;

inputting into the computer a payment identifier specifying a credit card account, the payment identifier being associated with the conditional purchase offer;

outputting the conditional purchase offer to the plurality of sellers after receiving the payment identifier;

inputting into the computer an acceptance from a seller, the acceptance being responsive to the conditional purchase offer; and

providing a payment to the seller by using the payment identifier.

Definitely unpatentable subject matter in accordance with European case law is defined by US 5,616,089 relating to a method of putting. Claim 1 of this patent reads:

1. A method of gripping a putter comprising the steps:

gripping a putter grip with a dominant hand;

placing a non-dominant hand over an interior wrist portion of the dominant hand behind a thumb of the dominant hand,

resting a middle finger of the non-dominant hand on the styloid process of the dominant hand;

pressing a ring finger and a little finger of the non-dominant hand against the back of the dominant hand;

pressing the palm of the non-dominant hand against a forward surface of the putter grip as the non-dominant hand squeezes the dominant hand.

It may be expected that such subject matter will be considered to be unpatentable even if the interpretation of Article 52 EPC is further liberalized by future case law. Also it seems at least questionable whether the CAFC had in mind such patents when extending the borders of patentable subject matter in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*

In view of the current situation in Europe and the assumption that the definition of patentable subject matter will be further liberalized in view of the desire to reach a worldwide harmonized patent system, applicants should be encouraged to file their applications for business-methods not only in the United States but also in Europe. Only if the claimed subject matter misses any technical character like for example the subject matter defined in US 5,616,089, filing in Europe may be regarded as not appropriate.