

Learning path for patent examiners

Business methods: Intermediate level

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Introduction

This publication, "**Business methods, Intermediate level**", is part of the "Learning path for patent examiners" series edited and published by the European Patent Academy. The series is intended for patent examiners at national patent offices who are taking part in training organised by the European Patent Office (EPO). It is also freely available to the public for independent learning.

Topics covered include novelty, inventive step, clarity, unity of invention, sufficiency of disclosure, amendments and search. Also addressed are patenting issues specific to certain technical fields:

- patentability exceptions and exclusions in biotechnology
- assessment of novelty, inventive step, clarity, sufficiency of disclosure and unity of invention for chemical inventions
- the patentability of computer-implemented inventions, business methods, game rules, mathematics and its applications, presentations of information, graphical user interfaces and programs for computers
- claim formulation for computer-implemented inventions

Each publication focuses on one topic at entry, intermediate or advanced level. The explanations and examples are based on the European Patent Convention, the Guidelines for Examination in the EPO and selected decisions of the EPO's boards of appeal. References are made to the Patent Cooperation Treaty and its Regulations whenever appropriate.

The series will be revised annually to ensure it remains up to date.

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1. Learning objectives

Participants to this course will learn:

- The definition of Business method (BM)
- To apply the two-hurdle approach for a BM application

2. What is a "business method"?

A scheme, rule or method for doing business, subsumed under the term "business method", encompasses, for example, activities of the following nature:

- financial, e.g. banking, billing or accounting
- commercial or administrative, e.g. marketing, advertising, licensing, management of rights and contractual agreements, as well as activities involving legal considerations
- organisational: personnel management, designing a workflow for a business process or communicating postings to a target user community on the basis of location information are examples of **organizational** rules.
- other: operational research, planning, forecasting and optimisations in business environments, including logistics and scheduling of tasks; these involve collecting information, setting goals and using mathematical and statistical methods to evaluate the information for the purpose of **facilitating managerial decision-making**

Business method **features** may be also found in different, often technical, contexts which are not strictly related to financial, commercial, administrative or organisational activities (see examples in section 4.2).

3. Technical effect in the context of business methods

Business methods **as such** are excluded from patentability under Article 52(2)(c) and (3) EPC. Therefore, a business method is **only** excluded under Article 52(2)(c) and (3) EPC if it is claimed "as such", i.e. if it does not go beyond a business activity as such. If the claimed subject-matter specifies technical means, such as computers, computer networks or other programmable apparatus, for executing at least some steps of a business method, it is not limited to excluded subject-matter as such and thus not excluded from patentability under Article 52(2)(c) and (3) EPC.

However, **the mere possibility of using technical means** is **not** sufficient to avoid exclusion, even if the description discloses a technical embodiment. Terms like "system" or "means" should be looked at carefully because a "system" might, for example, refer to a financial organisation and "means" to organisational units if it cannot be inferred from the context that these terms refer exclusively to technical entities (T.154/04).

Once the claimed subject-matter as a whole has been found not to be excluded from patentability under Article 52(2) and (3) EPC, it is examined with respect to novelty and inventive step (GL G-I, 1). A **single** prior-art document disclosing **all** the technical **and** non-technical features of a claim destroys the novelty of that claim. To examine **inventive step**, on the other hand, **the features that contribute to the technical character** of the invention have to be assessed and the **problem-solution approach for mixed-type inventions** applied (GL G-VII, 5.4).

In most business method cases, the features that contribute to the technical character of the invention are limited to those **specifying a particular technical implementation**. Features which specify a particular technical implementation are **not** features of the business method and have to be taken into account in the assessment of inventive step. This is illustrated by the example under point 4.1.

When applying the problem-solution approach for mixed-type inventions (GL G-VII, 5.4), all features which contribute to the technical character of the invention are taken into account. These also include the features which, when taken in isolation, are non-technical, but do, in the context of the invention, contribute to **producing a technical effect serving a technical purpose**, thereby contributing to the technical character of the invention.

Non-technical features may be used in the formulation of the objective technical problem as part of the framework of the technical problem that is to be solved, in particular as a constraint to be met (T. 641/00; see GL G-VII, 5.4.1).

When assessing whether a business method contributes to the technical character of the invention, the following has to be taken into account:

- **The mere possibility of serving a technical purpose is not** sufficient for a business method to contribute to the technical character of an invention. For example, a claim to a "method of resource allocation in an industrial process" encompasses pure business processes and services in finance, administration or management, without limiting the method to any specific technical process due to the breadth of meaning of the term "industry". The claimed method thus cannot be construed to be limited to any, let alone specific, technical process (T. 306/04).
 - The mere fact that the **input** to a business method **is real-world data**, even if the data relates to physical parameters, is **not** sufficient for the business method to contribute to the technical character of the invention. The data being real-world data, for example data related to physical parameters, does not per se render said data functional data; the data may still be considered cognitive data e.g. geographic distances between sales outlets) (T. 154/04, *Reasons 20: "Interacting with and exploiting information about the physical world belongs to the very nature of any business-related activity. Accepting such features as sufficient for establishing patentability would render the exclusion of business methods under Article 52(2)(c) EPC meaningless."*).
- The **result** of a business method may be useful, practical or saleable but that does **not** qualify as a technical effect (T. 619/02, *Reasons 2.6.2: "Accordingly, considerations of usefulness and practicality are no substitute for, or criteria equivalent to the prerequisite of technical character inherent to the EPC."*).
- **Effects inherent to the implemented business method do not qualify as technical effects.** For instance, an automated accounting method that avoids redundant bookkeeping may require fewer computing resources in terms of computer workload and storage requirements.

These advantages, in so far as they result from the fact that fewer operations have to be performed and less data considered due to the business specification of the accounting method, are inherent to the accounting method itself and hence do not qualify as technical effects. An additional example would be a computer-implemented method for facilitating managerial decision-making by automatically selecting from a set of business plans the one that is most cost-effective while also making it possible to meet certain technical constraints, such as a

reduction in environmental impact. Such a method is not considered to make a technical contribution beyond the computer-implementation.

- For claims directed to a technical implementation of a business method, a modification to the underlying business method aimed at **circumventing a technical problem** rather than addressing it in an inherently technical way is not considered to make a technical contribution over the prior art. An example would be an electronic auction that is performed by successively lowering the price until the price is fixed by the remote participant who first transmits a message. Since messages may be received out of order due to possible transmission delays, each message contains timestamp information.

Changing the auction rules to obviate the need for timestamp information amounts to circumventing the technical problem of transmission delays rather than solving it with technical means (T.258/03).

As a further example, in a method for carrying out electronic financial transactions with credit cards at a point of sale, the administrative decision to dispense with the need to obtain the buyer's name or address to authorise the transaction may result in saving time and reducing data traffic. However, this is not a technical solution to the technical problem of the bandwidth bottleneck of communication lines and the limited capacity of server computers, but an administrative measure which does not contribute to the technical character of the claimed subject-matter.

Legal references:

Article 52(2)(c) EPC; Article 52 EPC; GL G-VII, 5.4 ; T.154/04 ; T.258/03 ; T.619/02 ; T.306/04

4. Examples of business methods

4.1 Computerised networked system allowing customers to obtain Ebooks

The claim defines a computerised networked system which allows customers to obtain audiovisual content about selected products using computers installed in all sales outlets of a company, all of which are connected to a central server with a central database storing the audiovisual content as electronic files. In technical terms, the electronic files could be distributed from the central server to the sales outlets either by enabling the download of individual files directly from the central database to the computer when requested by a customer or, alternatively, by transferring a plurality of selected electronic files to each sales outlet, storing these files in a local database at the sales outlet and retrieving the corresponding file from the local database when a customer requests audiovisual content at the sales outlet. Choosing one implementation out of these two options is within the competence of a technically skilled person, such as a software engineer, as opposed to, for example, specifying that the various pieces of audiovisual content offered are different for each sales outlet, which would typically be within the competence of a business expert. Features of the claim specifying either of these two possible technical implementations contribute to the technical character of the invention, whereas features specifying the business method do not.

4.2 Examples of business method features in non-business contexts

4.2.1 In the medical field

A medical support system may be configured to deliver information to the clinician on the basis of data obtained from patient sensors, and only if that data is not available, on the basis of data provided by the patient. Prioritising the sensor data over the data provided by the patient is an administrative rule. Establishing that rule is within the competence of an administrator, e.g. the head of the clinic, rather than that of an engineer. As an administrative rule with no technical effect, it does not contribute to the technical character of the claimed subject-matter and may be used in the formulation of the objective technical problem as a constraint to be met when assessing inventive step (GL.G-VII, 5.4).

4.2.2 In the telecommunications field

A multi-mode mobile phone selects the most economical communication mode on the basis of a charging information table. If the table indicates that a free service is available, it is selected. If not, a discounted service is selected if the discount is valid at the moment the service is requested. If neither a free nor a discounted service is available, the cheapest regular service is selected. This is a business scheme with no technical effect, so it cannot contribute to the technical character of the invention.

The claim is formulated as:

"A method of selecting cards for a multi-mode mobile phone, the multi-mode mobile phone comprising at least one phone card that supports a communication network mode and corresponds to a phone card ID, the method comprising:

- a. providing a charging information table according to charging information, the charging information table including an association between the phone card ID and the charge for each communication service of the communication network mode supported by the phone card;
- b. querying the charging information table through the multi-mode mobile phone after starting one communication service and selecting a most economical communication service charge from the charging information table for the started communication service and corresponding phone card ID; and
- c. switching the multi-mode mobile phone to the phone card corresponding to the selected phone card ID to communicate,

characterised in that:

- d. the charge for each communication service includes regular service information, free service information, and discount service information of each communication service; and
- e. wherein the querying comprises one of:
 - querying the free service information in the charging information table according to the started communication service, and when usable free service information exists, selecting the maximum number of free services, the longest free service duration or the maximum free service flow, and selecting the corresponding phone card ID;
 - querying the discount service information in the charging information table according to the started communication service when the usable free service information does not exist, and when the current time is in a preferential period, selecting the lowest preferential charge and the corresponding phone card ID; and

- querying the regular service information in the charging information table according to the started communication service when the current time is not in a preferential period, and selecting the lowest charge of a single service, the lowest charge of service per unit time, the most flow per unit time or the lowest charge of flow per unit, and selecting the corresponding phone card ID."

Notes:

The present disclosure relates to mobile phone technology, and more particularly to a method of selecting cards for multi-mode mobile phone.

A multi-mode mobile phone usually includes a plurality of phone cards, and each phone card supports one communication network mode. Therefore, the multi-mode mobile phone can work in different communication network modes using different communication technologies, e.g. GSM or CDMA. In this way, the multi-mode mobile phone can switch between different communication network modes according to a user's personal wishes.

Although the current multi-mode mobile phones can switch between different communication network modes and use different phone cards to communicate, in order to meet the user's desire for cost savings and the like, the switching is realised manually. When the user wants to use a service (such as short message service), the mobile phone can ask the user whether to switch, and can provide options for the user. At this time, the user selects from the options according to the charging information of each phone card, and then the mobile phone will switch or not switch according to the user selection.

In summary, when multi-mode mobile phones in the existing technologies are used to meet the individual interests of users, the mobile phones are usually operated manually. Therefore, the operation thereof is inconvenient and inflexible.

According to the invention, the multi-mode mobile phone includes at least one phone card that supports a communication network mode and corresponds to a phone card ID. When a communication service is started, the charging information table is queried and the most economical communication service charge from the charging information table is selected for the started communication service and a corresponding phone card ID is also selected.

Features a)-c) are known in the art. The effect of distinguishing features d) and e) is that the most economical phone card that provides the desired service is selected. If a free service is available, it is selected. If not, a discounted service is selected if the discount is valid at the moment the service is requested. If neither a free nor a discounted service is available, the cheapest regular service is selected. This is based on a business method that is non-technical per se. The objective technical problem is therefore to adapt the method of the prior art to implement that business method. The claimed solution is a straightforward implementation which does not involve an inventive step.

Legal references:

GL G-VII, 5.4

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