

Construction of Claims of Patent for Business Methods in China

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Raising of the issue

The ruling delivered by the US Court of Appeals for the Federal Circuit (the CAFC) in 1998 in the *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*¹ marks the beginning of the patent protection for business methods, and has removed, once and for all, the barrier to patent protection for business methods in the U.S.. While the requirements for patent grant in the EU and Japan are somewhat different

from those in the United States, the practice to bring business methods under the patent protection there is the same as that in the United States. It is particularly noteworthy that the EPO practically encourage its examiners to assess applications for the patent for business method in terms of novelty and inventiveness, which makes it more likely for such applications to be treated as those relating to the ordinary technologies. The EPO even considers it unnecessary to separately examine the claimed subject matter.²

內容修改為“對於權利要求中的功能性特徵，應當理解為覆蓋了說明書中所記載的相應結構、材料或動作以及其等同物。”

(2) 增加商業方法專利保護範圍確定原則的內容

明確《專利法》第 56 條第 1 款賦予的商業方法專利權保護範圍確定原則的含義；加入對商業方法特徵和商業應用領域限定與權利要求保護範圍的關係的解釋；明確商業方法特徵不能被單獨割裂考察，商業方法特徵和其修飾的技術特徵應被視為不可分割的一個整體；具有商業方法用途的技術特徵應被看作整個技術方案的一個有機組成部分，對權利要求的保護範圍起着限定作用；商業應用領域在專利權保護範圍中同樣起着限定作用。

(3) 增加商業方法專利申請的權利要求撰寫的規定

首先要求權利要求書中應該寫入體現與計算機及網絡技術具體結合的技術特徵；其次，寫入的技術特徵應該與權利要求所預期解決的技術問題息息相關，在技術問題、技術手段和技術效果這“三要素”中，技術問題與技術手段應相互對應；另外，對於在權利要求書中僅進行概括性限定的內容，包括對有關技術實現手段的概括以及對商業實施內容的概括，說明書中應該有充分的信息支持所述權利要求，並且公開的程度要以本專業領域技術人員能夠實施為準。■

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*本文觀點不代表國家知識產權局專利複審委員會的官方意見

¹ *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 47 U.S.P.Q. 2d 1596 (Fed. Cir. 1998), 參見 <http://law.findlaw.com/fed/961327.html>. 轉引自張平：“回顧與分析—美日歐載商業方法軟件上的專利保護之爭”，《上海知識產權論壇》，上海大學出版社 2002 版，第 32 頁。

² 參見《歐洲專利局申訴委員會的判例法》，2001 年 12 月第四版，發明的技術性部分。在 T 931/95 (OJ 2001, 441) 中，申訴委員會闡述當審查涉及的發明是否被認為是 EPC Art. 52(1) 意義下的發明時，根據 EPC 區別發明的“新的特徵”和發明中從已有技術中公知的特徵是沒有依據的。因此根據 EPC 而採用所謂的技術貢獻方法用於這個目的是沒有依據的。確實，這個方法混淆了對“發明”的要求和對“新穎性”以及“創造性”的要求。而在 T 1173/97 (OJ 1999, 609) 中，申訴委員會曾主張為了審查新穎性和創造性的目的而確定發明關於現有技術取得的技術貢獻比根據 EPC Art. 52(2) 和 (3) 確定可能的排除更為適當。

³ 張榮彥：“對複審及無效程序中有關問題的探討”，《中國知識產權報》，2001 年 11 月。

In China, business methods have long been treated as “the rules and methods for mental activities” mentioned in Article 25 of the Patent Law and precluded them from patentability as non-technical solutions mentioned in Rule 2, paragraph one of the Implementing Regulations of the Patent Law. The tendency of less attention to the examination of subject matter of the patent protection and ever-increasing economic globalisation pose great challenge to, and have great impact on, the practice in China. In early 2003, patenting the two applications for patent for the business methods of e-commerce filed by the US Citibank shows that the patent protection for business methods in China is still based on the concept of patentable subject matter and that the study on the standards for patent grant in relation to novelty and inventiveness is obviously inadequate. It should be particularly noted that the “contribution doctrine” has been discarded in the examination of the subject matter of the patent protection in the Guidelines for Examination as of 2006, and the examiners now no longer comment on the patentable subject matters by way of reciting the prior art. Correspondingly, the claims of some patent applications relating to business method containing their technical features, as a whole, are no longer deemed to be those to which Article 25 of the Patent Law applies, nor is it necessary to further comment on whether they are technical solutions under Rule 2, paragraph one of the Implementing Regulations. This has made the study other than on the subject matter of the protection for business method even more necessary.

Once a business method is patented and becomes an enforceable right, how to define its extent of protection is an unavoidable issue when its validity is challenged in the patent invalidation proceedings and, but more importantly, an issue which is to be directly faced with in the patent infringement litigation.

Determination of the extent of protection of patent right for business method

1. Definition

A business method refers to an invention carried out by means of computer and network technology and centring on a subject matter of a business model adopted in business activities or of a method whereby the business activities are performed; in the protection of the patent right for business method a business method patentee is given the right to preclude or prohibit another person from exploiting his par-

ticular technology or implementing his technological idea when the latter is not duly authorised or justified to do so. The extent of protection of patent right for business method is embodied in the form of the claims in the patent application documents.

Before the extent of protection of the patent right for business method is elaborated, it is necessary to make clear the basic position China takes in determining the extent of protection of the patent right in general.

2. China's position

As the whole process of evolution of the doctrines for determination of the extent of patent protection in the United Kingdom, United States and Germany shows, both the peripheral defining doctrine of the United Kingdom and United States, and the central defining doctrine of Germany represent great variation from the initial intention thereof. To date, the United Kingdom and United States have accepted the invention gist doctrine and the equivalents doctrine to supplement the peripheral defining doctrine, and the “three-phase doctrine” determination method has been incorporated in the German central defining doctrine. The early peripheral defining doctrine of the United Kingdom and United States overemphasises the literal description of the claims, which makes it impossible for some acts of exploitation of non-substantial change compared with literal claims to fall within the extent of the claims, and are not effectively protected as a result. That is why the UK and US doctrine has been supplemented in this way. The German central defining doctrine gives judges so much discretion for claim construction that the objectivity of such construction is affected. The two doctrines *per se* have limitations. Article 69 of the EPC spells out a middle-way position, having well addressed the one-sidedness of the two.

What doctrine is proper for China to adopt should be considered in line with the practical situation of the nation. The peripheral defining doctrine of the United Kingdom and United States is too much dependent on the wording of the claims when determining the extent of protection. The applicants and patent attorneys in China are by far less proficient than those in the two countries in drafting claims since the patent system has been in place for just a short period of 20 years since the first Patent Law was promulgated in 1984. In situation like this, adoption of the “peripheral defining system” is obviously unfavourable to the Chinese patent applicants. While the German “central defining system” is not too particular about the wording of the claims, it is relatively de-

manding to the judges. Within the current court system in China, it is improper for the judges to undertake this part of the work; hence the “central defining system” is not feasible either in China. The practical situation determines that China has to take a middle-way position.

3. Determination doctrine

The standards for determination of the extent of protection of the patent right, namely the provision of Article 56 of the Patent Law, are substantially the same as what is set forth in Article 69, paragraph one of the EPC. It is specified in the Opinions on Several Issues Relating to Patent Infringement Adjudication (For Trial Implementation) issued by the Beijing Higher People's Court on 29 September 2001 that “the extent of protection for the patent right should be determined by the contents of the claims. When the description and drawings are used to construe the claims, the middle-way interpretation doctrine should be adopted; the ‘periphery defining’ doctrine should be avoided, namely the extent of patent protection is exactly the same as the extent of protection literally stated in the claims, with the description and drawings used only to clarify some confusions in the claims; so should the ‘central defining’ doctrine be avoided, namely the claims only define the general core of the invention, and the extent of protection may be extended to what a technical expert presumes to be the extent of protection claimed by the patentee upon reading the description and drawings. The middle-way construction should stand somewhere between the above two extreme interpretation doctrines, and account should be taken of the combination of the due protection of the patentee with the legal certainty of the claims and the due interests of the public”.

“Be determined by the contents of the claims” and “the description and drawings may be used to construe the claims” are interrelated in such a way that the former is the premise of the latter, and the latter supplements the former.

4. Application of the determination doctrine to patents for business method

First of all, a patent applicant drafts the claims of a business method patent to protect the business method *per se*. He does not hope that the protection sought is limited by some specific technological means to realise it. For example, he does not hope the involvement of the technical feature, such as computer network or communication equipment, narrows down the extent of protection the business method *per se* can reach. To this end, the applicant usually drafts the claims in “generic terms”. It is nothing wrong to duly use

“generic terms”. However, when the claims only embody the steps or workflow of a business method, without disclosing the specific means to perform the business method or workflow with the help of computer and network, they are at the risk of being rejected during the examination. Then, if without properly amending the claims, the applicant or patentee incorporates, on his own, the embodiment of the description into the claims, hoping to rectify the defects by way of interpretation of the extent of protection, what he has done goes beyond the extent defined by the claims, adds new features to the claims, and makes an undue and narrowed interpretation of the extent of protection of the claims. This issue will be more clearly illustrated with the following examples.

In an automatic trade system is provided a trading process and device which can automatically check the corresponding price in the order book of another exchange. If a better price is not found in any other place, the exchange allows the matching. There are two independent claims: claim 1 is a process claim; claim 2 a product claim. The two claims go as the following:

“1. A process for automatic connection with other exchange, comprising these steps: receiving an order; checking which exchange offers the best price to match with said order and if another exchange offers a better price, then automatically telling the offer equal to the better price by the exchange.

2. An automatic exchange connected with other exchanges, comprising: the means for receiving an order; the means for checking which exchange offers the best price to match with said order, and the means for automatically telling the offer equal to the better price by another exchange if the exchange offers a better price.”

The object of this application is to find the best price of the exchange trading online to offer or bid for the best price. Claims 1 and 2 respectively define an automatic trading process and device, wherein, except the expression of “automatic trade” that embodies electronic means used in the trade, the wording of the claims does not, at all, show that the extent of protection claimed relates to anything of the combination of the computer and network technology for effecting the automatic trade online. As the claims drafted in the “generic terms” show, claims 1 and 2 seek to protect the process and flow of the trade. While claim 2 contains the receiving means, assessing means and price-offering means that are functionally defined with the steps of the process of the trade carried out by man, neither means have embodied any specific means to effect the combination of computer

and network technology. In other words, what are claimed in claims 1 and 2 do not relate to a technical solution within the meaning of the Patent Law. The applicant argues, during the examination, for reviewing the claims with reference to the description, and emphasises that it is described in the description that “it is stated in the claims of the present application that logic function is provided in the particular exchange (formulated exchange) and that a two-way data communication route is set up from said formulated exchange to all the exchanges trading under particular financial contract. Use of the data communication network according to the present invention will sufficiently reduce the number of the data communication routes required, and thus reduce the total quantity of information transmitted on the network, and improve the network efficiency.” Examination of the description of the present application shows that the process of carrying on the trade online has indeed been described with reference to the specific communication network technology. Then, should what is described in the description be integrated in claims 1 and 2 in the construction of the claims? Under the above-discussed principle for determining the extent of protection for a patent right, the construction goes beyond the automatic trading process and device *per se* the applicant expects to claim in the claims, and, has, in essence, altered what are claimed in the claims and added to the said process and device new technological information, which, goes beyond the extent expressed in the claims and goes to the extreme of “central defining system”. This way of claim construction is not acceptable.

5. Meaning of “determined by the claims”

Relations between business method features and technical features

The preceding principle remains applicable to the claims of the patent right for business method. One issue that needs to be looked into is that since the extent of protection of a claim is defined by technical features, then, are the features of the workflow or steps of a business method technical features? What are their position and role in determining the extent of protection for a whole invention patent right?

First, a clear, consistent definition of the technical feature is not found in various countries, nor is an express definition set forth in the Chinese patent law. The mainstream view in the community is that a technical feature refers to (the feature) making use of the “law of the nature” (natural force).

Second, let's analyse whether business method features are technical ones. According to the foregoing definition, the workflow, step and model features of a business method in conventional business method, which do not make use of the law of the nature, are not technical features. However, if these business method features are combined with such technical features as computer network and communication device in a business method patent, they merely describe the use of these technical features in way of functional definition. As a case in point, “an allowance computation means for determining the regular allowance of the said employees” or “a processor means for determining whether a plurality of potential buyers accepts said offer and for determining that said buyers purchase from one of the plurality of accepted sellers”. When the allowance computation method or the method determining the seller according to the offer is carried in the technical means and media, such as computation device, processor means or computer system, it has become an integral part of these technical means; hence a separate business method feature no longer exists, and it has been replaced by the technical features having the use of business method.

Position and function of the technical features having the use of business method

Now that the business method features and the technical features have become an inseparable whole, the technical features having the use of business method are naturally an integral part of the whole technical solution, playing the role of defining the extent of protection of the claims. But the actual defining function of a business method feature is eventually embodied as the subject matter claimed by the claims. The basis of this can be found in Section 3.1.1 of the Guidelines for Examination as of 2006. In effect, reflection on the issue from an opposite perspective would make it easier to understand. If a business method feature is separately deemed to be a non-technical feature and is not taken into account when the extent of protection of the claims is determined, what is left will only be the name of the subject matter, such as “a computer device”, “a processor means” and “a computer system”. The public would be at a loss what to do about the way to construe the claims because they do not know what product or what act falls within the extent of protection of the claims and then commit an infringement. This way of construction and determination conversely tell us that the business method features should not be dealt with in isolation. They should be treated as a whole together with the

technical features they define.

How to treat the definition of the field of business application in the claims

In the preamble portion of the independent product claim of some business method patent is stated the field of business application of an invention, in addition to the title of the subject matter of the invention. For example, “a computer processing and data transmission device for transmitting stock clearance information among the investors, brokers and keepers”. In the above example, the use, as an attributive, and the title of the subject matter jointly constitute the claimed subject matter, with its real defining function dependent on its impact on the computer processing and data transmission device.

An issue often encountered in the examination of novelty and inventiveness is that a computer processing and data transmission device is found in the searched prior art, but it is not used for transmitting stock clearance information among the investors, brokers and keepers. In this case, can we think that its use in the claims is just the construction to help the public understand the claims, and does not function to define the extent of protection of the claims?

The business method patents are generally inventions using the computer information and network technology as the specific main means to perform business activities or carry on business operation, in which the business operation concepts and the computer information and network technology have become an inseparable whole. For this matter, protection of it excluding the definition of its particular field of business application is equal to broadening the extent of protection, represents direct intrusion of the prior art, and thus causes prejudice to the public interests. Where the field of business application is defined in the construction of the claims in the right determination proceedings, the patentee should not work out an opposite construction in the infringement litigation. This is also the aim of the estoppel doctrine. Therefore, the definition of the field of business application is of substantial significance, and should not be ignored.

6. Requirement of claim drafting

If infringement lawsuit arises after a business method is patented, the accused infringer may defend against the infringement allegation in ways of, say, requesting to invalidate the patent in suit, claiming exception to infringement, pointing out the expiry of the limitation for action or inaction, accusing the patentee of right abuse, exposing the patentee's act of fraud in the course of patent application, or practicing

the prior art defense. The means of defense used most in China is requesting invalidation of the business method patent right in suit. The accused infringer may challenge or question the validity of the patent in suit in the invalidation proceedings. Once the decision on invalidation of the patent right takes effect, the accused infringer does not have to be legally liable for the patent infringement. The provisions of the Patent Law regarding the extent of protection of the patent right for the grounds for invalidation of patent are Article 26, paragraph four of the Patent Law and Rule 20, paragraph one, and Rule 21, paragraph two of the Implementing Regulations of the Patent Law. Besides, in the phase of examination for patenting business methods, these law provisions are the effective means to limit the extent of protection for patent for business method, in addition to novelty and inventiveness.

With respect to this, what should be first put into the claims when drafting them are the technical features embodying the specific combination of computer and network technology, and it should then be stated that these technical features are closely related to the technical problems the claims are meant to resolve. What is emphasised here is the correspondence between the technical problem and the technical means of the “three elements”: the technical problem, technical means and technical effect. As a case in point, a method and device for auction online, wherein the related technical means by virtue of setting up the delay window is relevant to resolving the technical problem of non-synchronous auction in different localities caused by the delay of communication, but it is merely stated that use of the means of the computer network cannot be deemed to be the use of a technical means to resolve a particular technical problem. It should be noted that what is emphasised here is not the technical problem, not a business problem. The value of the existence of a technical means lies in the resolution of the technical problem; when a technical problem is resolved thanks to the use of a corresponding technical means, the invention is certain to produce a technical effect corresponding to the technical problem. For information in the claims which gives the definition by way of generalisation, including generalisation of the relevant technical means for achieving the technical effect and that of the information of business exploitation, the description should contain sufficient information to support said claims, and make the disclosure to such an extent as to enable a person skilled in the art to carry it out.

Interpretation of extent of protection of business method patent right

Article 56 of the Patent Law is both the basis for determining the extent of protection of the patent right and for construing the claims with the description and appended drawings.

1. Necessary conditions for interpretation

In 1967, the US Federal Claims Court believed in the ruling in *Autogiro Co. of America v. United States* that limited wording *per se* made it impossible for the claims to appear completely clear. To remove difference between language expression and an invention, it was necessary to get to know the conception and background of the invention. In-depth understanding of the invention was likely to change the direct construction of the claims.

Since a business method patent *per se* has the characteristics of interweaving business with technical problems and combination of the work flow and model of a business method with compute network and communication technical means, business terms are often used in the literal description of the claims of the business method patent right. Any general literal construction of the claims in terms of the computer and communication technology would result in the occurrence of the problem of the above ruling. For this reason, the only way to reduce difference between literal expression in various arts and the substantial content of the invention is to know the general conception and background of the invention, identifying what business problem the inventor wants to resolve and how a technical means is utilised to achieve his purpose. If the description and drawings are not referred to, it is very difficult to make clear whether a technical problem and a technical solution to resolve said technical problem lie behind the resolution of the business problem. Here the technical solution should be understood as a solution generated by the integration of business method features with technical features.

2. Who construes the claims

Who has the right to construe the claims has long been an issue of great controversy in and out of China. It is an issue resulting from the varied understanding of the nature of claim construction, namely whether claim construction is an issue of law or an issue of fact ascertainment.

In the United States, if it is deemed an issue of law, the judge does the construction; if fact ascertainment, the jury.

For the US Supreme Court, claim construction is the judge's business, not the jury's.

This issue is not clearly addressed in the patent-related judicial practice in China. It is relatively complicated for the separated handling of patent infringement cases and patent invalidation cases. Under the current law in China, patent infringement cases are under the jurisdiction of the intermediate people's courts having the jurisdiction of various regions; patent invalidation cases are heard by the Patent Reexamination Board (PRB). A view universally accepted is that the judge works out a claim construction in the patent infringement litigation, whereas the PRB is empowered to do so in a case of request for patent invalidation.

A patent relating to business method encompasses both the computer and communication technology and the know-how of business operation; hence construction of the claims of a business method patent requires legal, technological and business knowledge. That is why the USPTO requires that examiners examining inventions in class 705 (class of business method inventions) to have a business degree and have their business industrial experience in the examination of the patent applications in class 705. The examiners in the Patent Office and PRB in China basically do not have the business degree nor background in business operation. On top of this, judges in the courts do not even have their technical background. As a result of this, on the one hand, those who are to construe the claims of a business method patent are yet to improve their professional proficiency, and, on the other, the claim of the business method patent is to be construed by two groups of people, so the standards and doctrines for the claim construction is yet to be harmonised. The ways have long not been exactly the same in claims construction in the patent examination and patent infringement trial. The inconsistency in claim construction brings uncertain factors in the claim construction in patent invalidation and infringement trial. Handling the two categories of cases together will be beneficial to the construction of claims, as positively shown in *Amazon.com, Inc. v. Barnesandnoble.com, Inc.* heard by the US CAFC on 14 February 2001. The US CAFC accepts the thinking of the accused infringer of the said case that it should establish the infringement between holding the patent valid but non-institution of infringement and presence of infringement but declaring the patent invalid, and it concludes that the patent right in suit is invalid on the basis of the patentee's acknowledgement. We can learn from this case in addressing the issue of inconsistency

of claim construction in cases of infringement of business method patent.

3. How to construe claims of business method patent

Construction of business method claims also follows the general construction principle, alien technical feature principle and difference claim principle. This writer, not to touch upon the general issues, will be looking into the specific application in the field of business method.

Understanding the meaning of business method terms or words used in the claims

The US court generally understands the terms and wording of the claims according to their common literal meaning. But exceptions do exist. For example, where an invention relates to a new, sophisticated technology and no suitable word is found in the dictionary to describe the technology, or an inventor is unable to properly use the standard terms in the art, the US Patent Act allows the inventor to define the terms himself.

Likewise, a patentee is entitled to choose his own technical terms and expressions in an application for a business method patent, that is, allowing the meaning of words of his own choice to differ from the ordinary meaning of the words under the premise, of course, that the description of the application documents *per se* meets the requirement of clarity and full disclosure.

Similar provisions are set forth in Section 2.2.7 of the Guidelines for Examination in China.

The Chinese provisions, in essence, consistent with the US construction principle, combine merits of the US construction principle with those of the applicant's own definition construction principle. It is justifiable in accommodating the inventor's special needs regarding the invention while construing the terms used in their common sense in the art. Use of common construction is good in that a uniform basis and benchmark are made available to all the parties concerned, including the inventor, the Patent Office, the court and the public at large, to construe the claims. Patentees' special needs are met because the developments of a language and writing system very often do not meet the demands of the invention-creations. When construction of claims according to the common understanding in the art conflicts with that based on the inventor's own definition, account should be first taken of the special interpretation of the meaning of words and expressions used in the claims and description of the patent. Only when such special interpretation is absent and the special meaning of the words and expressions used

in the claims cannot be determined according to the specific embodiments of the description is it possible to assume that the words and expressions have the meaning commonly understood by those skilled in the art.

Interpretation of the functional defining features

A business method patent is characterised by the combination of business method features with technical features of computer network and communication device. In the claims of the patent, the business method features generally describe the use of the technical features they are attached to by way of functional definition. For example, an allowance calculating means for determining the regular allowance of all said employees". But how to determine the extent of protection of the claims of the kind is an issue examiners and judges have to face in both the examination of patent novelty and inventiveness and in the trial of patent infringement lawsuit. China and the U.S. are different in the practice with respect to the use and interpretation of the feature of functional definition in the claims in the patent examination and in patent infringement establishment.

(1) Comparison between the pertinent legislation, examination and position of infringement establishment of China and those of the United States

Law provisions regulating the use of functional definition

Use of the functional definition is expressly confirmed in the US Patent Act, but provisions of the kind are absent in the Chinese Patent Law and the Implementing Regulations of the Patent Law. Such provisions are present only in the Guidelines for Examination as of 2006, under which the use of functional definition is no longer related to the clarity of the extent of protection of the claims, but to the matter of support for the claims. Use of functional definition in product claims is restricted, though not prohibited. The general principle is that "the use should be avoided as much as possible" and the highly necessary use is strictly limited. Also, the Guidelines for Examination do not allow the presence of pure functional claims.

Principle for interpreting functional definition

The two countries are also different in how to determine the extent of protection of the whole claims containing the expressions of functional features. §112.6 of the US Patent Act provides that "... and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof", while the Chinese Guidelines for Examination provides that "functional features of the claims should be construed to cover all

the embodiments performing said function". The USPTO broadly interprets the functional defining features as "covering not only the specific embodiments present in the description, but also all other modes capable for performing said function". Then, there is a debate on the functional defining features. The present interpretation principle has been confirmed according to the ruling made by the US CAFC, namely, the functional defining features are not used to broaden the literal meaning of the wording of the claims, but to narrow down the extent of protection of the claims. The change shows that the US court has made a limiting interpretation of the functional defining features to limit their use. Things are just opposite in China, in which the interpretation principle of being stringent in drafting and giving a broad protection is adopted regarding functional definition.

4. Impact of functional definition on the extent of protection

Within the current patent law system in China, use of functional definition is strictly restrained in the patent examination and approval proceedings, that is, the use is not advocated, and the functional features in the claims are interpreted in "generic terms" in the proceedings of examination and approval for the patent grant and in the infringement procedure. That is, the functional features cover not only the specific embodiments present in the description, but also all other modes capable of performing said function. By contrast, the U.S. has confirmed the use of functional definition in legislation, while in the proceedings of examination and approval for the patent grant and in the infringement procedure, the functional definition features are so limited as to cover only the specific structure, material, or acts described in the description and equivalents thereof.

The effect of our practice seems to be more or less the same as that of the US practice. But this is not the case due to the specific characteristics of business method patent, it is rather difficult to obtain prior art through search within a considerable period of time, which would render the examination of novelty and inventiveness a matter of formality, rather than playing the role of limiting the extent of the functional definition. Besides, due to the specific characteristics of the field of electricity, it is unavoidable to use functional definition in drafting the claims. Once the claims are granted the patent right, it actually results in broadened interpretation of the extent of protection in the proceedings of examination and approval and in patent infringement lawsuit since broadened interpretation is adopted in China, and thus inevitably renders

the extent of protection the patentee obtains in the claims even broader than that in the U.S. and causes prejudice to the public interests. In particular, if a business method patent has too broad an extent of protection, once a foreign rightholder claims his right in China, the history of the 6cDVD event will repeat itself for there lie tremendous industrial and financial benefits.

Therefore, China must squarely face this legislative difference, fully estimate its impact, and find a practical solution. In effect, the issue of functional definition also widely exist in the field of communication and computer. With the rapid development of the computer and communication technology, people find it less possible to modify the hardware but quite possible to develop the software technology. In product claims, software processes or methods are generally embodied in way of functional definition. Of these patents, some are foundational or basic patents, e.g. some granted business method patents. If interpretation of the functional defining features were not attached to the restriction by way of specific embodiments and equivalents, then a patentee would take the advantage of the "generic" position of the functional definition in infringement litigation. On this, this writer believes that China should draw on the US principle for the interpretation of functional definition, and amend the relevant provision of the current Guidelines for Examination to read as "claims drafted by way of functional definition shall be construed to cover the corresponding structure, material, or acts described in the description and equivalents thereof". This principle not only applies to patent examination and grant, but also to infringement decision. This way of interpretation or construction is more beneficial to China.

Proposed amendment to the legislation within the current legal framework in China

1. Establishing the uniform applicable pre-grant and post-grant determination principles

Given that patent infringement cases are judicially heard and cases of request for patent invalidation administratively examined, the principles for determining the extent of protection for business method patent should be uniformly formulated to ensure consistent determination of the extent of protection of business method patents. In doing so, it will be ensured that from the examination proceedings up to the

patent grant proceedings the extent of protection of business method patents is to be defined under the consistent principles and benchmark; and that the examination is performed under the uniform standards for the purposes of determining the right in the patent invalidation proceedings; and that the claims are construed according to the same principle of construction in the infringement procedure. In doing so, the practice is to be avoided that the patent validity is examined in one way and patent infringement heard in another and it would make the basis for the determination of the extent of protection of business method patents available to the public at large.

2. Amending the current Guidelines for Examination

(i) Amending the scope of interpretation of the functional definition

The current practice of broad interpretation of functional definition in both the patent examination proceedings and the patent infringement procedure is detrimental to the protection of business method patents in China. For this reason, the relevant parts of the Guidelines for Examination should be amended to read that “the functional features of the claims shall be construed to cover the corresponding structure, material, or acts described in the description and equivalents thereof”.

(ii) Incorporating the principles for determination of extent of protection of business method patent

We should make clear the meaning of the principles for determination of extent of protection of business method patent right under Article 56, paragraph one of the Patent Law, incorporating the interpretation of the relations of the definition of the business method feature and the field of business application with the extent of protection of the claims; specify that the business method features should not be examined in isolation and that business method features and their attributive technical features be regarded as an inseparable whole; deem the technical features having their business method use to be an integral part of the whole technical solution and to play a role of defining the extent of protection of the claims; and allow the field of business application also to play the role of defining the extent of protection of the patent right.

(iii) Adding provisions on the drafting of the claims of applications for business method patent

It should be first required that technical features embodying the specific combination with computer and network technology be incorporated in the claims. Second, the technical

features incorporated should be closely related to the technical problem the claims are expected to resolve, and of the “three elements” of technical problem, technical means and technical effect, the technical problem and technical means should correspond to each other. Third, for information in the claims which does the definition by way of generalisation, including generalisation of the relevant technical means for achieving the technical effect and that of the information of business exploitation, the description should contain sufficient information to support said claims, and make the disclosure to such an extent as to enable a person skilled in the art to carry it out. ■

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(*The viewpoints presented in this article are by no means the official views of the State Intellectual Property Office.)

¹ State Street Bank & Trust Co. v. Signature Financial Group, Inc., 149 F.3d 1368, 47 U.S.P.Q. 2d 1596 (Fed. Cir. 1998), see <http://law.findlaw.com/fed/961327.html>, recited from Zhang Ping, Review and Analysis: Debate on Patent Protection for Software Containing Business Method among the U.S., Japan and Europe, the Shanghai IP Forum, Shanghai University Press, 2002, P.32.

² See the part on technical nature of inventions of the the Case Law of the Boards of Appeal of the European Patent Office (2001). In T 931/95 (OJ 2001, 441) the boards stated that there was no basis in the EPC for distinguishing between “new features” of an invention and features of that invention which are known from the prior art when examining whether the invention concerned may be considered to be an invention within the meaning of Art. 52 (1) EPC. Thus there was no basis in the EPC for applying the so-called technical contribution approach for this purpose. Indeed, this approach confused the requirement of “invention” with the requirements of “novelty” and “inventive step”. Already in T 1173/97 (OJ 1999, 609) it was held that determining the technical contribution an invention achieved with respect to the prior art was more appropriate for the purpose of examining novelty and inventive step than for deciding on possible exclusion under Art. 52 (2) and (3) EPC.

³ Zhang Rongyan, An Exploration of Issues in Reexamination and Invalidation Proceedings, the China Intellectual Property News, November 2001.