

Revised Patent Examination Guidelines (II): China Relaxing Barriers to Business Method and Software Patents

Effective April 1, 2017, revised Guidelines for Patent Examination ("Guidelines") will take place, which guide patent examination procedures at the State Intellectual Property Office ("SIPO"). Of greatest interest are the facts that the revised Guidelines (i) loosen rules on patent invalidation procedure and (ii) relax barriers to software and business method patents. This short article will offer our updates on the latter. Please refer to our Newsletter distributed in the middle of March for the former.

Revised Guidelines

See Appendix

Our analysis

Revisions to the contents

1. Regarding Business Method Related Patent Applications

SIPO added such provisions that "**[I]f a claim involving business method contains both contents related to rules and methods of business, and technical features, the claim shall not be excluded from patentable subject matter under Article 25 of the Patent Law.**" into Chapter 1 Section 4.2 of Part II of the Guidelines (please refer to part 1 of the above comparison list of revisions).

It is considered that SIPO is more open towards the patent applications relating to business methods than previous practice in contrast to the much stricter examination and adjudication criterion on the issue of patent eligibility (Article 101 of the U.S. Patent Law) during the courses of granting and confirming patent right in the U.S. practice after the *Alice Corp. v. CLS Bank International*.

It is expected to not avoid using the terms such as "finance", "securities", "investment", "payment", "lease" and "advertisement" and the like nor technically "pack" such terms when drafting claims of patent applications involving business methods. What need to do is merely to draft the claim sought for protection in its whole as a technical solution so as to comply with the provisions of Article 2 of the Chinese Patent Law, i.e., the technical solution viewed as a whole includes technical means, solves a technical problem, and can achieve a technical effect.

It is learned from the revisions that SIPO will not make such a decision that a patent right is not grantable only because the technical solution contains business rules or methods. It is believed that the revisions of the Guidelines will provide appropriate protection for technical solutions involving business methods, further to encourage and promote creations and inventions in all types

of business modes.

Of course, how to judge whether a solution involving the business rules or methods in its whole is a patentable technical solution still is a difficult issue in the practice of prosecution and examination. It is suggested that SIPO issues objective and standardized examination regulations under balance of interests between publics and patentees, so that the patent applicants and examiners could grasp the scale in practice.

2. Regarding Software Related Patent Applications

In recent years, by promotion of the "Internet +" national strategy, Internet technologies has penetrated into all walks of life, deeply integrated with various industrial chains, and created various wisdom achievements. In the achievements generated by the "Internet +" mode, software and programs are taken as carriers, and thus appropriate protection for technical solution involving the software becomes very important. It is a positive attempt of SIPO to protect the software-related patent by providing the revisions to the Guidelines.

Expect for deleting [Example 9] "A system for learning foreign language with active selection of learning contents" which did not have any guidance function in practice (please refer to part 3), SIPO made prominent revisions (please refer to part 2 and part 4 of the comparison list of revisions) in the Guidelines for patent applications involving software, mainly focusing on following three points:

- 1) **permitting to draft claims in a manner of "medium + computer program flows";**
- 2) **an apparatus claim involving the computer program may include not only hardware but also the program, to clarify "program" as a component part of the apparatus claim;**
- 3) **modify "function modules" into "program modules" to avoid confusion with "functional limitation".**

As reference to the above items 1) and 2) and other provisions as prescribed in Part II Chapter 9

of the Guidelines, the following are examples of claims of Chinese invention patent applications relating to software.

A technical solution of embellishing the user photos in a mobile device (which could be generalized as “an electronic device” when drafting claims) is provided, which takes advantage of hardware and software of the mobile device to execute the following operations:

acquiring a user photo by using a camera of the mobile device (which could be generalized as “an image acquiring part”);

acquiring a star photo in match with the user photo based on a pre-defined photo database; and

embellishing the user photo according to physical characteristics of the star photo.

By taking this technical solution as an example, four types of claims are allowable as follows after the revisions of the Guidelines:

i) a method claim

a method for embellishing a user photo in a mobile device, comprising steps of:

acquiring a user photo by using a camera of the mobile device;

acquiring a star photo in match with the user photo based on a pre-defined photo database; and

embellishing the user photo according to physical characteristics of the star photo.

ii) an apparatus claim relating to “program modules”

an apparatus for embellishing a user photo in a mobile device, comprising:

a user photo acquiring module for acquiring a user photo by using a camera of the mobile device;

a star photo acquiring module for acquiring a star photo in match with the user photo based on a pre-defined photo database; and

a embellishing module for embellishing the user photo according to physical characteristics of the star photo.

iii) an apparatus claim relating to “hardware + program”

a mobile device, comprising:

a processor;

a camera; and

a memory in which a program is stored,

wherein when the processor executes the program, the processor conduct operations of:

acquiring a user photo by using a camera of

the mobile device;

acquiring a star photo in match with the user photo based on a pre-defined photo database; and

embellishing the user photo according to physical characteristics of the star photo.

iv) a product claim relating to “medium + program”

a storage medium for storing a program, wherein execution of the program causes the mobile device conduct operations of:

acquiring a user photo by using a camera of the mobile device;

acquiring a star photo in match with the user photo based on a pre-defined photo database; and

embellishing the user photo according to physical characteristics of the star photo.

Analysis and Conclusion

As fewer patent infringement litigations involving software patents in China, there is little or no reference for the relevant cases, and there is no specific legal provisions or judicial interpretations to clarify related regulations of adjudication in such kind of patent infringement litigations. Hence, the following analysis is presented only based on my personal opinion and still need to be verified by future cases.

i) Protection scope and infringement judgment of a method claim

The method for embellishing a user photo in a mobile device as given above is a typical method claim relating to client operations, and also the principal type of patent claims that involve the creation and invention for Apps in the current era of mobile internet. Since it could be considered that client operations are at least in part executed by a user, but a user's operations are not usually for production or business purpose, such user operations may not be determined as infringement pursuant to the provisions of Article 11 of the Chinese Patent Law.

Regarding this problem, besides the opinion that “*manufacturer testing product before ex-factory constitutes infringement of method patent*” derived from the judgment of the “*Midea v. Gree*” case (i.e., Guangdong High People's [2011] Third-Tribunal No. 326 Final Judgment) which was frequently taken as judicial precedent, the following opinion that “*manufacturer pre-defining steps implementing patent method constitutes infringement of method patent*” (which is similar with the “*mastermind*” test in the U.S. practice) in the judgment of the “*Woqi v. Hengbao*” case (i.e., Beijing Intellectual Property Court [2015] No. 441 Civil Judgment) is also noteworthy:

The above technical solution depicts that the manufacturer of the electronic device pre-defines the system settings taking reference to functions of the electronic devices with the relevant protocol made with the bank in advance and the communication interfaces generated based on the protocol. Although the user participates in several steps, such steps are performed under the operation steps preset by the manufacturer, and the user cannot participate in or alter the background program. Hence, the manufacturer is obviously the implementer of the technical solution of the authentication method.

Whereas for method claims of software patent relating to operations of the server side, since operations of the server can be normally considered as operations of the software manufacturer for production and business purpose, the software manufacturer's infringement can be established if the server operations performed by the software manufacturer falls within the protection scope of method claim (however, evidence production may be difficult for most cases).

In conclusion, regarding method claims relating to client operations and server operations, there are no more obstacles for determining patent infringement as compared with method claims in other technical areas.

ii) Protection scope and infringement judgment of the apparatus claim relating to "program modules"

SIPO modifies "function modules" into "program modules" this time to avoid confusion with "functional limitation", which is unambiguously in favor of protection scope for the apparatus claim relating to "program modules".

With reference to "Nokia v. Huaqin" case (i.e., Shanghai No. 1 Intermediate People's Court [2011] Fifth-Tribunal No. 47 Civil IP Judgment and Shanghai High People's Court [2013] Third-Tribunal No. 96 Final Judgment), the court rules that Nokia's apparatus claim, which is drafted on the basis of computer program flow and according to the way completely corresponding to the method claim, is a claim of functional limitation, and interprets the protection scope of the claim by applying the provision "[F]or a technical feature in a claim represented by function or effect, the courts shall determine the content of such technical feature by reference to the specific embodiment and its equivalent embodiment(s) of the function or effect as depicted in the description and the appended drawings" as prescribed in Article 4 of Interpretation of the Supreme People's Court on Issues Concerning the Application of Law in the Trial of Disputes over Infringement of Patent

Rights (2009). The court further deems that the embodiments described in relation to method claims in the description cannot support the apparatus claim.

According to the revisions, the technical features contained in the apparatus claim which relates to "program modules" will not be regarded as functional limitation, thereby the protection scope of the claim(s) may not be limited to the specific embodiments of the function or effect as illustrated in the description and the drawings, or to the equivalent embodiments.

In addition, an opinion believes that based on the provisions "each component in the apparatus claim shall be regarded as program modules which are required to be built to realize each step in the said computer program flow or each step in the said method. The apparatus claim defined by such a group of program modules shall be regarded as the program module architecture to realize the said solution mainly through the computer program described in the description rather than entity devices to realize the said solution mainly through hardware" as prescribed in the Guidelines, such apparatus claim relating to the program modules may be equivalent to the computer program product claim which is allowed in some other jurisdictions (for example, a computer program product comprising computer program instructions, when the computer program instructions are executed by an electronic device, following operations are performed: step A, step B, and step C).

Such opinion is helpful when interpreting the protection scope of such apparatus claim relating to the program modules. As compared with the unique criteria for determining infringement of the method claim "using patented method for production and business purpose", determining infringement of the apparatus claim may rely on "making, using, offering to sell, selling or importing the patented product, for production or business purpose", so that the infringing activities of the software manufacturers and distributors could be restricted. However, since there is no precedent, whether such opinion will be accepted by the courts is still yet to be verified.

iii) Protection scope and infringement judgment of an apparatus claim relating to "hardware + program"

An apparatus claim drafted on the basis of "hardware + program" is widely adopted and allowed in major jurisdictions such as Europe and the United States, and is generally recognized as a better choice for drafting the apparatus claim relating to software, mainly because that the technical solution defined by such apparatus claims is relatively similar to the actual internal physical construction of the product than the

technical solution defined by the apparatus claim drafted on the basis of “program modules”. Hence, when determining patent infringement, the apparatus claim relating to “hardware + program” does not have such problem that real hardware modules corresponding to the program modules cannot be found, which happens for the apparatus claim relating to “program modules”. And thus the apparatus claim relating to “hardware + program” is a better choice from this perspective.

However, for such apparatus claim relating to “hardware + program”, only if the manufacturer of the electronic device or apparatus pre-installs the software (for example, App for mobile devices) including relevant programs into the device or apparatus before ex-factory, he or it may be regarded as directly infringing the patent right of the apparatus claim, and the software manufacturer may be regarded as an indirect infringer according to actual situations. But if a user installs an electronic device with the associated software after purchasing the device and the device loaded with the software falls within the protection scope of the apparatus claim, it will normally be difficult to determine that the device manufacturer or the software manufacturer infringes the patent right of such apparatus claim. Of course, Chinese courts may have breakthrough in this problem in future cases.

iv) Protection scope and infringement judgment of a product claim relating to “medium + program”

In the revisions, SIPO introduces a product claim drafted on the basis of “medium + program”, which also has been widely adopted and allowed in those jurisdictions such as the Europe and the United States.

USPTO permitted claims relating to computer readable medium since 1995 after the *Beauregard* case. The case “*Finjan, Inc. v. Secure Computing Corp.*” in 2010 was significant and set precedent for determining patent infringement on claims drafted on the basis of “medium + program”. The plaintiff “Finjan” sued the defendant “Secure Computing” for patent infringement over the three types claims of method, the corresponding system, and computer readable storage medium. Finally, the CAFC (“the United States Court of Appeals for the Federal Circuit”) revoked the judgment on the defendant infringing the method claim against the plaintiff from the District Court, but maintained the judgment on defendant infringing the claim relating to the computer readable storage medium against the plaintiff, and opined that the one who implements all steps of the method claim within the United States could be determined infringing the patent right. In this case, the steps of the method claim are executed in a testing process, but the testing process is performed within Germany, thereby the

defendant did not infringe the plaintiff’s patent right. But defendant’s activities within the United States in relation to the corresponding computer readable storage medium establishes patent infringement on the patent claim of computer readable storage medium.

Hence, the product claim drafted on the basis of “medium + program” has special advantages, even in this era of internet or the mobile internet where medium like optical disk is no longer a mainstream manner for distribution. As for App of mobile devices, such as mobile phones, the customary way for acquiring Apps is to purchase or download the Apps from official software stores such as Apple App Store, Google Play Store, and third-party software stores such as Tencent App Store and Baidu App Market. And these Apps are normally stored on hard drives or other storage mediums of servers of the software store operators. Under such circumstance, if the App could implement the method steps reflected by the program contained in the product claim relating to “medium + program”, the software store operators may be determined to make and use (for example, copying the App uploaded by the App manufacturer to its server hard drive and providing the App to users for free downloading or purchasing) the patented products for production or business purpose, to be suspected infringement of the patent right (but may be ruled as not liable for infringement based on the Safe Harbor Doctrine according to actual situations), and the App manufacturer may be determined to make and use the patented products for production or business purpose by storing the App on its hard drive after development and uploading the App to the software store, to be suspected infringement of the patent right. Still, since there is no precedent, whether such opinion will be accepted by the courts is still yet to be verified.

Summary

To sum up, the revisions on the Guidelines for Patent Examination are helpful in prosecution of patent applications relating to the business method and software and in protection for the granted patents relating to the business method and software.

The patent applicant and its/his attorney shall promptly adjust drafting manners of the patent applications relating to the business method and software. For the patent application that has been filed, the applicant may also introduce the relevant types of claims (for example, the apparatus claim drafted on the basis of “hardware + program” or the product claim drafted on the basis of “medium + program”) or make adaptive amendments by taking advantage

of the procedure of voluntary amendments without exceeding the scope of disclosure contained in the initial description and claims, in

order to obtain more sufficient protection for the granted patent.

[1]SIPO website Newly-amended Guidelines for Patent Examination will Enter into Force on April 1, http://www.sipo.gov.cn/zcfg/zcjd/201703/t20170306_1308646.htm

The newsletter is not intended to constitute legal advice. Special legal advice should be taken before acting on any of the topics addressed here.

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Jacob has high proficiencies in patent invalidity, litigation, and prosecution, patent due diligence and FTO investigation, and IP anti-counterfeiting. He gained rich experience in patent legal services for technical areas of computer, internet, electronic circuit, telecommunication, semiconductor, etc. His representative clients for patent invalidity, administrative and civil litigation cases include Tencent, ZTE, Ninebot, Microsoft, Knowles Electronics, Sony, Samsung, and Decathlon, and his representative clients for Chinese, PCT, European and U.S. patent prosecution cases include Netease, Tencent, Qihoo 360, Microsoft, IBM, Ericsson, Philips, Samsung, Sony, Panasonic, Sharp, etc. Jacob is well recognized by clients for his excellence in services. Before joining in Lung Tin, he worked for Liu, Shen & Associates and China Patent Agent (HK) Ltd. as a patent attorney, and worked for Zhong Lun Law Firm as a partner. Jacob has received bachelor degree of telecommunication in Beijing Institute of Technology, and master degree of microelectronics in National University of Ireland, Cork (1st Class Honors).