

To  
Shri Chaitanya Prasad, IAS  
Controller General of Patents, Designs & Trade Marks  
Bhoudhik Sampada Bhavan,  
Antop Hill, S.M. Road, Mumbai-400037

16/07/2013.

Dear Sir:

Sub : Public Comments on the Draft guidelines for Computer Related Inventions  
Response to be submitted to [birendrap.singh@nic.in](mailto:birendrap.singh@nic.in)

On June 28th, the India Patent Office released draft <Guidelines for Examination of Computer Related Inventions (CRI)> to invite public comments. The Guidelines provide standards/procedures to determine whether the CRI claims are falling under the scope of non-patentable subject matter under Section 3k of the India Patent Act 1970 (as amended). We appreciate the IPO's great efforts in drafting the Guidelines, as well as offering the opportunities for the public to submit comments. The IPO's transparency and openness in IP legislative/policy work is highly applauded. We also appreciate the IPO's desire, by working on the Guidelines, to foster uniformity and consistency in the examination of such inventions.

However, the draft Guidelines have interpreted and applied Section 3(k) in a more restrictive way to conclude as to what is patentable, which is a cause of concern to various stakeholders. The interpretation of Section 3(k) by the IPO on the basis of the re-instatement of the original phraseology of Section 3(k) by the India Patent Act 1970 (as amended) is restrictive in nature. The subject matter eligible for patentability as explained in the Guidelines is inconsistent with the law. The Guidelines should explain the legal standing and implementation of the law, rather than altering the law itself. We have particular concern with the interpretation of Section 3(k) by the IPO to reach a conclusion on patentability of CRI inventions.

As per Section 5.4.5 of the Guidelines, "*The question therefore, is whether a computer program loaded on a general purpose known computer or related devices can be held patentable. Keeping in view the spirit of law the answer is in the negative.*" (Emphasis added.)

Further per Section 5.4.6, "*a computer program which may work on any general purpose known computer does not meet the requirement of the law. For considering the patentability of computer program in combination with hardware features, the hardware portion has to be something more than general purpose machine.*" (Emphasis added.)

Further, the Guidelines provide a number of negative illustrations. Many of these illustrations comply with the requirement of technical effect and technical advancement defined under Section 3.15 of the Guidelines, but they are not patentable subject matter only because the

software is running on a general purpose machine. These illustrations give rise to significant concerns for the various stakeholders.

The answer of “negative” in Section 5.4.5 above is too absolute. For CRI inventions, if the software portion does not comply with statutory requirements of India Patent Act 1970 (as amended) such as pure mental activities or pure mathematics without any technical application, then there is no doubt that the combination of such non-patentable software portion with a general purpose machine should indeed not be held patentable. However, if the software portion does solve a technical problem in a technical field and achieve technical effects, it is our understanding that the combination of such innovative software portion with a general purpose machine should be patentable.

We are pleased to note Section 5.4.1 of the Guidelines state *“Since patents are granted to inventions whether products or processes, in all fields of technology, it is pertinent to ascertain from nature of the claimed method/process whether it relates to technological field”*, Section 5.4.3 states *“any method/process relating to non-technological field shall not be considered patentable”*, and Section 3.15 defines technical effect as *“solution to a technical problem, which the invention taken as a whole, tends to overcome”*. But, “technical effect/technology field” should not be interpreted as “hardware portion has to be something more than a general purpose machine”. In today’s IT industry, much of the technological innovation is achieved through new innovative software development as opposed to hardware innovation due to the fact that innovative software can achieve the same technical effect without the added cost of hardware development or changes, Equalizing “technical effect/technology field” to “combination with hardware features” and “the hardware portion has to be something more than general purpose machine” will substantially and unreasonably exclude those innovation activities in software field from patent protection.

The India Patent Act 1970 (as amended) defines inventions in Section 2(j) as *“a new product or process involving an inventive step and capable of industrial application”*. Thus, a patent may be granted for new products or processes in all fields of technology. Section 2(l) of the Act, defines a new invention as *“any invention or technology which has not been anticipated by publication in any document and or used in any country or elsewhere in the world before the date of filing of patent application and complete specification, i.e., the subject matter has not fallen in public domain or that it does not form part of the state of the art”*. The definition of new invention states any invention or technology. The technical effect brought about by a novel computer program running on a general purpose computer also lends a technical character to the invention which should be considered as a technology and thus patentable, the same as a non-novel computer program running on a computer with novel hardware features, or a novel computer program running on a computer with either known or novel hardware features.

As pointed out in Section 5.4.5 in the Guidelines, *“Essentially, all computer programs need a combination with some hardware for its functionality”*. For considering the patentability of computer program in combination with hardware features, it is the invention as a whole, other

than the hardware portion specifically, that has to be something more than general purpose machines. If the innovation of a computer-program-implemented invention solely lies in the software portion and the software portion is solving a specific technical problem and it achieves a technical effect, then the innovative software portion combined with a general purpose machine, as a whole invention, should not be excluded from being patentable subject matter, just the same as if the novelty exclusively lies in the hardware portion or lies in the combination of both software and hardware. It's not reasonable to exclude pure software innovation from patentable subject matter and put forward a mandatory requirement of "something more than general purpose machine" for the hardware portion. In the current IT industry, it is a technology or business decision about whether to implement the innovative ideas through hardware or software, or the combination thereof, and whether to implement the innovative ideas on general purpose computers or specific usage computers, etc. Such technology choices or business decisions should not affect the substance of subject matter patentability of innovative software. Since patents promote innovation, allowing patents for hardware but not software encourages development and implementation in hardware instead of software, and it is apparent that the growth in terms of the software sector is much larger than the hardware sector. Thus, it is strange to encourage old technology over new technology - the very opposite of the purpose of the patent system.

In addition to the above comments regarding the standard for determining the subject matter issue for computer-related inventions, we also suggest that the IPO allow computer readable program media claims and computer program product claims as long as the program stored on the media could bring out technical effect and advancement to solve a specific technical problem when the program is running. It should not make any difference whether the software program is self-contained or is put on a record carrier. Patent claims related to software inventions stored on the record carrier is the only way for a patentee to exploit and extract the full value for his invention from the manufacturing of the software. The global trend is to extend protection to program claims or program media claims or program signal claims in order to coincide with the way software is actually commercialized and to provide a basis for direct patent infringement. Computer Program Media claims have been allowed in most of the major jurisdictions, like US, EU, Japan, Australia, Korea, Taiwan etc.

Undoubtedly, computer-implemented inventions form the heart of innovations that are created in the Information Age and are on par with the most ingenious inventive acts that mankind has ever known. Software inventions play an important role in countless products and systems, and many of those inventions would likely not have been developed without the protections the patent system provides. Since a substantial portion of exports from India are related to software, it becomes prudent that the IPO encourage patenting of software-implemented inventions, which will protect Indian Industry to a large extent. Also, it should be noted that a substantial portion of the revenue of the software industry is from exports. Since software-implemented inventions are patentable in the US, EU, JP, CN and many other jurisdictions, companies patent such inventions in these jurisdictions and then impose their patents, preventing companies in India from exporting products related to software. The patent ecosystem in India should nurture

the software industry by adopting a more receptive approach, to establish a culture of innovation. This will assist the software industry to prosper by developing new products, have improved technical growth, and become a leader in innovation. Most Indian companies are obtaining patent protection for their products in the US and EU jurisdictions, and it is unfortunate to notice that they do not have a patent on these products in India.

For the IPO's reference, although some of other major jurisdictions also exclude "computer programs as such" (e.g. Europe and China) or require the hardware portion to be recited in claims of software-implemented inventions (e.g., Japan), none of them has adopted the requirement of "the hardware portion has to be something more than general purpose machine". (emphasis added.)

Article 52 (2) and (3) of the EPC only excludes the patentability of "**computer programs as such**". The EPO has interpreted the phrase "**as such**" as limited to those computer-program-implemented inventions which do not have a technical character and technical effect. So the examination of the subject matter issue of computer-implemented-inventions in the EPO is focused on "technicity". The <Guidelines for Examination in the European Patent Office with respect to Programs for Computers> specify that if a computer program is capable of bringing about, when running on a computer, a further technical effect going beyond those normal physical interactions between the program and the computer, it is not excluded from patentability. The technical effect brought about by a computer program lends a technical character to the computer program.

The EPO Board of Appeals states in T 26/86 OJ 1988 that "**a mix may or may not be patentable. If, for instance, a non-patentable (e.g., mathematical, mental or business) method is implemented by running a program on a general-purpose computer, the fact alone that the computer consists of hardware does not render the method patentable if said hardware is purely conventional and no technical contribution to that (computer) art is made by the implementation. However, if a contribution to that art can be found either in a technical problem (to be) solved, or in a technical effect achieved by the solution, said mix may not be excluded from patentability under Articles 52(2) and (3) EPC, following T 38/86, OJ EPO 1990, page 384**". (Emphasis added.) At first glance, this EPO decision also requires "more than general purpose hardware" like the India draft Guidelines. However, the pre-condition is "**If, for instance, a non-patentable method...**", which means only if the method (software portion) is non-patentable, then whether the hardware is general purpose should be further examined.

In China, Article 2 of the China Patent Law provides that "**Inventions mean new technical solutions proposed for a product, a process or the improvement thereof**", which is similar to the definition of "inventions" under Section 2(j) of India Patent Act 1970 (as amended). According to SIPO's Examination Guidelines, if a computer-program-implemented invention is solely a "**computer program per se**", then it is not patentable. And SIPO Examination Guidelines define "computer program per se" as "**coded instruction sequence which can be executed by a computer**", and includes source programs and object programs. For computer-program-

implemented inventions, if they use technical measures to solve a technical problem and obtain corresponding technical effect, they are not a “computer program per se” and should be patentable. It is clear that in China, computer-program-implemented inventions do not need to combine with computer hardware or make changes to computer hardware in order to be patentable. Hardware features are not necessarily required in claims of software-implemented inventions.

In Japan, "invention" means the highly advanced creation of technical ideas utilizing a law of nature (Article 29 of the Japan Patent Law). Although the JPO requires that the "hardware resource usage" needs to be recited in the computer-program-implemented claims, there is no requirement by JPO that the hardware should be something more than a general purpose machine/hardware.

For the reasons mentioned above, we respectfully suggest that the IPO reconsider its interpretation on “computer program per se” under Section 3(k) of the India Patent Act 1970 (as amended). Whether a computer-program-implemented invention is a “computer program per se” should be determined according to the definition of inventions under Section 2(j) of the India Patent Act 1970 (as amended) and technical effect/technology field under Section 3.15 and 5.4.1 of the Guidelines. It is the invention as a whole, other than the hardware portion, that should have something more than a general purpose machine. Replacing the requirement of “hardware portion has to be something more than general purpose machine” with a technical effect/technology field requirement will better comply with the definition of inventions under the India Patent Act 1970 (as amended), better comply with the trend of technology development, better improve the development of the Indian software industry, and better tally with the practice of other major jurisdictions in the world.

Yours Sincerely

Sd/-

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