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## **SUBMISSION ON DRAFT GUIDELINES FOR EXAMINATION OF COMPUTER RELATED INVENTIONS (CRI's)**

This submission is made on behalf of UNITED IPR.

United IPR is recognized as a leading New Delhi intellectual property Law firm. We have extensive experience in patent matters involving computer related inventions and advise a number of patent applicants on the protection of their inventions in India and abroad, including large multinational companies.

We appreciate the opportunity to respond to the Governments invitation for submissions on the Draft Guidelines for the Examination of Patent Applications Involving Computer Programs (the Guidelines).

### **PATENTING OF SOFTWARES**

Software patents are one of the most contentious issues in Intellectual Property Rights. The growing economic significance of computers and computer programs gives software patents this controversial status. It can be noted that after biotechnology patents, it is software patents which really attracts major public discussions on patents. This precisely was one of the reasons for the Indian Parliament to take cautioned steps with regard to software patents, while bringing in amendments to the Patents Act in 2005.

The increasing significance of software patents warrants further discussion about its protection in India. This discussion assumes special significance when we realize that software giants like Microsoft are holding about 6,130 patents till January 2005. As new and new software giants build up their research and develop canter in India we must also think about analyzing the protection given to the software.

A software patent is generally defined as a patent that protects some programming technique. The European Patent Office (EPO) defines a "*computer-implemented invention*" as an expression intended to cover claims, which involve computers, computer networks or other conventional programmable apparatus whereby prima facie the novel features of the claimed invention are realized by means of a program or programs.

Most of the jurisprudence relating to software patents emanate from US, which is considered as the cradle of software patents. Beginning with the landmark decision of US Supreme Court in *Diamond v. Diehr*, which ordered the Patent office to grant a patent on an invention even though computer software was utilized in it, the US Supreme Court has traveled a long distance with regard to software patents. Today there is hardly any doubt about the scope of patenting of computer software and data structures in the US.

When we look at the European Union we see that software is patentable in EU, provided they make a technical effect. Though the European Parliament rejected the Computer Implemented Inventions Directive in July 2005, the position with regard to software patenting remains more or less the same in EU member states.

### **POSITION IN INDIA**

The position on software patents in India is close to that of EU member countries. If we are to search the definition of the term 'software' or 'computer programme' under the Patent laws in India, we shall not succeed. But the Copyright Act, 1957 defines a computer program under Sec.2 of the Act as *"a set of instructions expressed in words, codes, schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or achieve a particular result"*.

The Patents Act refers to computer programs in Section 3, which deals with inventions that cannot be patented. According to S. 3(k), a computer program *per se* is not patentable. This makes us think about what the term '*per se*' stands for in this context.

According to the Webster's Encyclopedic Unabridged Dictionary, the term '*per se*' refers to "by, of, for, or in itself; intrinsically". If we are to use this definition we can well assume that the software as such cannot be patented. But don't the same words of the provision tell us something more- *that if the claimed invention is some thing more than 'mere' software, it is patentable?*

In India an attempt was made through the Patents Amendment Ordinance 2004 to further extend the scope of software patenting to any computer program that has industrial application and to those that are used in combination with hardware. But there was strong opposition within and outside the Parliament and as a result this was deleted from the subsequent Patents (Amendment) Act, 2005.

Still, an invention shall not become unpatentable in India merely because it was implemented with software. Like the EU countries, in India also the gaining of patent

protection for software depends more on the drafting skills of the Patent Engineer. If the claims are drafted in such a way as to reflect that the invention is not software *per se*, it shall qualify for patent protection.

### **GUIDELINES FOR CRI'S – A WELCOME STEP & UNIQUE ASPECTS**

The proposed guidelines aim to foster consistency and uniformity in patent office practice for examination of computer related inventions. A very welcome development, considering the position on computer related applications that are now flooding Indian scene and also considering the fact that India is a patent hub.

#### **Indian patent law: Position on Section 3(k)**

The Patents amendment act **2002** introduced explicit exclusions from patentability with regard to Computer Related Inventions (CRIs) under section 3(k), a mathematical or business method or a computer programme *per se* or algorithms.

Through an ordinance in **2004**, the exclusions under section 3 (k) were divided into two parts and amended as :(k) a computer programme *per se* other than its technical application to industry or a combination with hardware;(ka) a mathematical method or business method or algorithms.

However, through the enactment of Patents amendment act, **2005** which did not include the amended provisions of the ordinance, the position of 2002 amendments, were restored automatically.

Through the 2004 amendments, India was on the brink of widening the scope of protection afforded to computer related inventions, which would have adversely affected its burgeoning software industry. Therefore as the guidelines state, *the re-instatement of the original phraseology of section 3 (k) clearly indicates that the legislature intended to retain the original scope of exclusion and did not approve its widening as attempted through the ordinance.*

#### **Computer programmes “*per se*”:**

It should be noted that, inventions relating to mathematical method, business method or algorithm represent absolute exceptions to patentability in accordance with Section 3(k). Only computer programmes are qualified and suffixed with the term “*per se*”. Therefore inventions related to computer programmes represent limited exception to patentability. Therefore if a claim of an invention is oriented towards a novel, inventive and industrially

applicable computer or related device along with the programme for defining its functionality, then it may be considered to be patentable.

All computer programmes inherently require a combination with some hardware for its functionality. Therefore a computer programme loaded on a general purpose known computer or related devices cannot be held patentable.

### **Means plus Function:**

The guidelines state that *"claims in means plus function form shall not be allowed if the structural features of those means are not disclosed in the specification. Further, if the specification supports implementation of the invention solely by the computer program then in that case means plus function claims shall be rejected as these means are nothing but computer program per se."*

### **INDIAN LEGAL POSITION AND CRI**

Though the section has not been interpreted by the Courts in India so in absence of a clear interpretation by the Courts we can say the Patent protection is accorded when the software is incorporated into a Hardware that has some technical effects.

The Manual of Patent Practice of Indian Patent Office describes the policy for Patent of Program/Software/Algorithms as follows: The relevant portions are underlined.

*"If the patent application relates only to a machine i.e., hardware based invention, the best mode of operation may be described along with the suitable illustrations. However, in the case of a process related inventions, the necessary sequence of steps should clearly be described so as to distinguish the invention from the prior art with the help of the flowcharts. The source or pseudo/object codes may be incorporated in the description optionally.*

In order to distinguish the invention from the prior art, relevant prior art is also required to be given in the Patent Application (specification). It is always essential to analyze the invention in the light of what is described and the prior art, in order to identify the contribution to the art and hence determine whether this advancement resides in, or necessarily includes technological features and technical application or is solely intellectual in its content. A hardware implementation performing a novel function is not patentable if that particular hardware system is known or is obvious irrespective of the function performed.

Applications related to computer inventions may broadly fall under the following categories:

- (a) Method/process:
- (b) Apparatus/system:
- (c) Computer program product.

The examiners of the Patent office have been instructed to look into following aspects while dealing with such applications:-

The method claim should clearly define the steps involved in carrying out the invention. It should have a technical character i.e. it should solve a technical problem.

The claims should incorporate the details regarding the mode of the implementation of the invention *via*. hardware or software, for better clarity.

The claim orienting towards a “process/method” should contain a hardware or machine limitation.

Technical applicability of the software claimed as a process or method claim, is required to be defined in relation with the particular hardware components. Thus, the “software per se” is differentiated from the software having its technical application in the industry. A claim directed to a technical process which process is carried out under the control of a program (whether by means of hardware or software), cannot be regarded as relating to a computer program as such and hence patentable.

Further in case of the apparatus claim it should clearly define the inventive constructional hardware features. The claim for an apparatus should incorporate a “process limitation” for an apparatus, where “limitation” means defining the specific application and not the general application.

As a general rule, a novel solution to a problem relating to the internal operations of a computer, although comprising a program or subroutine, will necessarily involve technological features of the computer hardware or the manner in which it operates and hence may be patentable.

### **CHANGES THAT NEED TO FIND A PLACE**

- An invention consisting of hardware along with software or computer program in order to perform the function of the hardware may be considered patentable, e.g., embedded systems.

- A mathematical method is one which is carried out on numbers and provides a result in numerical form (the mathematical method or algorithm therefore being merely an abstract concept prescribing how to operate on the numbers) and not patentable.

However, its application may well be patentable, for example, in *Vicom/Computer-related invention* [1987] 1 OJEPO 14 (T208/84) the invention concerned a mathematical method for manipulating data representing an image, leading to an enhanced digital image. Claims to a method of digitally filtering data performed on a conventional general purpose computer was rejected, since those claims were held to define an abstract concept not distinguished from a mathematical method. However, claims to a method of image processing which used the mathematical method to operate on numbers representing an image can be allowed. The reasoning was that the image processing performed was a technical (i.e. non- excluded) process which related to technical quality of the image and that a claim directed to a technical process in which the method used does not seek protection for the mathematical method as such. Therefore the allowable claims as such went beyond a mathematical method.

- Further, in case of absolute exceptions to patentability i.e. exceptions which are not qualified (mathematical method, business method), determination of subject matter eligibility should precede determination of novelty and inventive step. This provides an expeditious path and quality time saved thereby may be invested in examining other applications.

### **APPRECIATIVE POINTS IN THE DRAFT GUIDELINES**

In order to interpret the statute, the guidelines referred to other Indian acts – primarily the Information Technology Act 2000 – for the definition of terms generally used in applications for computer-implemented inventions, such as "computer system", "network", "data", "information", "function" and "computer program". If a term is not defined by any Indian statute, the guidelines use the ordinary dictionary definition of the term.

The draft guidelines also define the terms "technical effect" and "technical advancement". "Technical effect" has been defined as a solution to a technical problem which the invention, taken as a whole, overcomes. A non-exhaustive list of examples of technical effect, as provided in the guidelines, includes higher speed, reduced hard-disk access time, more economical memory use, more efficient data search or compression techniques, improved user interface and improved transmission or reception of radio signals. The guidelines define

"technical advancement" as a contribution to the state of art. The guidelines highlight that technical advancement always involves a technical effect, but that not all technical effects need result in technical advancement.

The guidelines also discuss the various types of claim used in computer-implemented invention applications – namely, system claims, method claims and computer-readable medium claims – and provide a number of examples to illustrate the manner of examination of various types of claim. The guidelines state that as per the legislative intent, there is a blanket ban on inventions which are mental acts, aesthetic creations, mathematical or business-related methods, algorithms, methods of playing games and methods of presenting information.

The guidelines also state that the mere combination of a computer program with hardware does not take a computer program outside the purview of Section 3(k). As per the guidelines, a computer program in combination with a general purpose known computer is not patentable. The examiners have been advised to exercise caution in determining the integration of novel hardware with a computer program. The guidelines have further stated that determining whether the hardware is program specific or whether the program is hardware specific is important, as a computer program which may work on any general purpose known computer is not patentable. The hardware associated with the computer must be more than a general purpose machine. If the hardware is novel, claims related to the hardware in combination with a novel or known computer program will be considered patentable when such claims pass the triple test of novelty, inventive step and industrial application. The guidelines seem to encourage novelty in hardware to overcome rejections under Section 3(k).

The guidelines also state that in determining the patentability of computer-implemented invention-related applications, examiners should rely on the substance of the claim rather than its form (i.e. wording used in claims to disguise computer-implemented inventions should not make an otherwise non-patentable claim patentable). Interestingly, the guidelines state that claims in means-plus-function form will be rejected unless the structural features of such means are disclosed in the specification. While this is standard practice in the United States, the guidelines provide no legal basis for such rejection.

It is clear that the draft guidelines are non-binding. In case of any inconsistency between the guidelines and the Patent Act, the Patent Act will prevail. Some of the guidelines may amount to "law-making" considering the limited level of jurisprudence available in India and,

to this extent; the guidelines may appear to make the patentability of the computer-implemented inventions more stringent than intended. Comments from stakeholders and the final version of the guidelines are still awaited. However, the guidance is a welcome attempt to make the examination of computer-implemented invention applications as uniform as possible.

### **CONCLUDING REMARKS**

The Guidelines, when enacted, will bring about a much-needed update to India's patent system. We support this update in so far as it brings about positive change for India's economy.

Clarity in the legislation (and any guidelines accompanying the legislation) is critical to give confidence in, and promote the use of, the patent system to the benefit of Indian economy. While it is important that Indian patent laws are modernized, changes should not be rushed through for the sake of progress without fully considering the implications of those changes.

Thank you for your time and consideration. United IPR appreciates the opportunity to comment on the Guidelines and would welcome the opportunity to expand on any of our concerns in more detail should the need arise.

### **REFERENCES:**

- <http://www.mondaq.com/india/x/36364/IT+Internet/Patentability+of+Softwares+in+India>
- <http://www.iam-magazine.com/issues/article.ashx?g=e4e77833-3286-4d22-8618-549e0806fd70>
- <http://spicyipindia.blogspot.in/2013/07/ipo-publishes-draft-guidelines-for.html>
- <http://www.iam-magazine.com/reports/Detail.aspx?q=43fa3027-262f-45c1-9102-8b1cf8456825>

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