ANAND AND ANAND – COMMENTS TO THE 'GUIDELINES FOR EXAMINATION OF COMPUTER RELATED INVENTIONS (CRIs)

Released by: Office of the Controller General of Patents, Designs and Trademarks

Dated: 28th June 2013

We appreciate the Indian patent office's efforts in drafting and presenting these guidelines for comments. Their transparency and effort to bring about consistency in examination of CRIs in all the four patent offices as well as explain the meaning of the law under section 3(k) among others is commendable. However, we observe the following:

1. There are no examples given that illustrate what would be considered patentable. Examples and case studies of only non allowable subject matter are provided
2. In some sections there seems to be serious alterations of the law rather than explaining the interpretation
3. There seem to be no precedent or legislative intent basis in certain interpretations

We have also given a section by section analysis below of only those sections which seem inconsistent and conflicting:

#	Extract	Comment
1	**3.15 Technical Effect** It is defined for the purpose of these guidelines as solution to a technical problem, which the invention taken as a whole, tends to overcome. A few general examples of technical effect are as follows: - Higher speed - Reduced hard-disk access time…	As mentioned in the beginning of the definitions section, the dictionary meaning of this term should be provided or the meaning should be derived from the individual dictionary meaning of each of these words since this term has not been defined in any statute. However, only a definition as has been interpreted by the Courts can be used No basis has been provided for this definition of 'technical effect'. No significance has been provided for this term anywhere in the guidelines. The term has just been defined and left as it is
2	**3.16 Technical Advancement** It is defined for the purpose of these guidelines as contribution to the state of the art in any field of technology. It is important to divide between software, which has a technical outcome, and that which doesn't, while assessing technical advance of the invention. Technical advancement comes with technical effect, but all technical effects may or may not result in technical advancement	As mentioned in the beginning of the definitions section, the dictionary meaning of this term should be provided or the meaning should be derived from the individual dictionary meaning of each of these words since this term has not been defined in any statute. However, only a definition as has been interpreted by the Courts can be used 'Technical advance' is a general criterion to be fulfilled for inventive step to be fulfilled by inventions in all fields and cannot separately be defined for computer related inventions. The linkage between technical effect and technical advance is absurd and does not have a basis. It is also a direct statement made without any explanation or description of how to determine what qualifies as technical effect and/or technical advance and what does not. No examples have also been given

| 3 | **3.17 Mathematical Methods**

"Mathematical methods" are considered to be acts of mental faculty. The method of calculations, formulation of equations, finding square roots, cube roots and all other methods directly or indirectly involving mathematical methods are therefore, not held patentable. With the developments in computer technologies, these mathematical methods are used for writing algorithms and computer programmes for different applications and the claimed invention is often camouflaged as one relating to the technological development rather than the mathematical method itself. These methods, claimed in any form, if in substance relate to mathematical methods are considered to be not patentable subject matter | It is incorrect to hold that an invention indirectly involving a mathematical method is not patentable. It is also incorrect to say that one directly involving a mathematical method is not patentable since the statute defines exclusion for the mathematical method itself, not its direct or indirect involvement. Unless and an until the invention itself resides in the mathematical method, such a prohibition is not applicable

It is incorrect to hold that an application of a mathematical method in a computer or other related invention is not allowable since the statute is very clear in only not allowing "mathematical methods" themselves – it does anywhere state or in any way imply that applications of these methods are not patentable. This is not the intent of the legislation

For reference, the Symbian case (patent granted), so often cited by the IPAB in their decisions involves a known mathematical method even though it is not directed towards the mathematical method itself.

Similarly, the Diamond v. Diehr case involved mathematical equation but claimed its application and a patent was granted by the US Supreme Court

Also in the Vicom matter, image processing was done using application of a mathematical method but was not directed towards the mathematical method itself |

| 4 | **3.18 Business Methods**

"Business Methods" claimed in any form are not patentable subject matters. The term 'Business Methods' involves the whole gamut of activities in a commercial or industrial enterprise relating to transaction of goods or services. With the development of internet technologies, many business activities have grown by leaps and bounds through e-commerce and related B2B and B2C business. Electronic fund transfers have made banking activities more user friendly than ever before. The claims are at times drafted not directly as business methods but apparently with hitherto available technical features such as Internet, networks, satellites, telecommunication, etc. The exclusions are carved out for all business methods and, therefore, if in substance the claims relate to business method even with the help of technology, they are not considered patentable | It is unfair to state that technological inventions with technical and not business objectives shall not be allowable simply because they are in some manner associated with a transaction like activity. In this scenario, the invention would not be <u>directed towards</u> a transaction like activity even though it may <u>involve</u> a transaction like activity. For example:

- High security mechanism for a transaction which spots and stops illegal activities such as phishing etc
- Efficient money transfer mechanism

In such cases, the manner in which the transaction as a method remains the same, but enhancements are made in the technical aspects and therefore should be allowable

A <mark>clear distinction needs to be made as to what is a software implementing a business method and what is a software relating to the technical aspects of a transaction</mark>

IPAB has taken reference from "ACIP – Report on a Review of the Patenting of Business Systems" in the Yahoo Vs. Controller and Rediff decision to define business method as follows:

"A *business system is a method of operating an enterprise, or of processing* |

		financial or management data, in a field of economic endeavour" It is clear from the above definition that it is not just any method or system in a commercial enterprise but only those which are directed towards the financial or management aspects etc i.e. if the ==invention is in a business-related feature not in a feature related to its technological aspects or technical implementations==
5	**Example 3: Computer program per se** 1. *A method of detecting vulnerabilities in source code comprising:* *analyzing variables in the source code and creating models therefrom in which each model specifies predetermined characteristics about each variable; using the variable models to create models of arguments to routine calls in the source code; and using the argument models in conjunction with pre-specified criteria for the corresponding routine calls to determine whether the routine calls possess vulnerabilities as a consequence of the arguments and known routine behaviour*	A claim for detecting vulnerabilities in a computer program is a technique of assessing a computer program and is not directed towards a computer program itself By the definitions provided in this manual, computer program *per se* translates to the computer program i.e. source code itself. However this is not the case in this claim – it is not a program itself, it is a technique for analyzing the program It also ==possesses a technical effect since it provides a technical solution to the technical problem of vulnerabilities== in a computer program. Just because it relates or involves a computer program or mentions the word "source code" in the claim, it cannot be slated as a computer program per se
6	5.4.5 Essentially, all computer programmes need a	An invention in the field of software can generally be implemented on and

	combination with some hardware for its functionality. Does it imply that all such programmes can be considered as away from the purview of computer programme *per se*? The question therefore, is whether a computer programme 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. In an application for patent for a new hardware system, the possibility of a computer programme forming part of the claims is not ruled out. The examiner is to carefully consider as to how integrated is the novel hardware with the computer programme. Further, whether the machine is programme specific or the programme is machine specific is important to ascertain. This requires critical care of the Examiners	therefore run on all kinds of machines – computers, PDAs, tablets, mobile phones etc. The methodology is explained in the patent specification which can then be implemented onto any device including a general purpose computer in most cases – however the ==implementation does not in any way change the nature or innovation of the invention==. The criteria of how the invention will ultimately be implemented cannot in any way bar it from patentability A patent application for a ==new hardware system in any case does not comprise a computer program let alone computer program per se – it is a new machine with new hardware parts==. Computer programs (the term in the statute) relate to software, not hardware There is ==no basis to state that computer-related inventions which can run on a general purpose computer cannot be held patentable== is in the spirit of law. No case law, legislative intent has been provided for such a strong statement. The statute simply says that a computer program *per se* is not allowed – the phrase *per se* cannot be construed to stretch to such a high degree that it means computer programs that can run on a general purpose computer.
7	5.4.6 A computer programme which may work on any general purpose known computer does not meet the requirements of the law. For considering the patentability of computer programme in combination with hardware	The ==requirement of novel hardware is nowhere specified in the law, statute and has no basis in the intent of legislature==. Neither is the determination of

features, the hardware portion has to be something more than general-purpose machine.

In cases where the novelty resides in the device, machine or apparatus and if such devices are claimed in combination with the novel or known computer programmes to make their functionality definitive, the claims to these devices may be considered patentable if the invention has passed the triple test of novelty, inventive step and industrial applicability

how integrated the invention is with the machine so as to make it machine specific. By this understanding only completely changed new machines and only a new revolution of computers, mobile phones etc will be considered allowable and no inventions in path breaking fields such as mobile communication or faster and more efficient technologies in operating systems will be allowed. That is to say Indian's largest industry – computer software (not hardware) – cannot secure any patents in India. Also, despite India being the second largest and fastest growing telecommunication market in the whole world, cannot secure patents for telecommunication technologies as they do not involve new hardware. This certainly cannot be the intent of the legislature

A new method/ process for performing an invention should be patentable irrespective of whether the device/apparatus used is new or known. All methods are not algorithms and the onus of proving the novelty of structural units involved is frivolous. The fact that it is a method claim implies that the applicant is not seeking protection for a system/apparatus at all.

Also, there is a conflict with the previous sections as follows:

Section 3.15 gives examples of technical effects as 'higher speed', 'reduced disk-access time', 'more economical use of memory', 'more efficient data

compression techniques', 'improved user interface', 'improved reception / transmission of a radio signal'

None of these require novel hardware and can be present in only software inventions as well including those which run on a computer and provide these effects within the computer

Section 5.4 states that "patents are granted to inventions whether products or processes, in all fields of technology", "it is pertinent to ascertain from the nature of the claimed method / process whether it relates to technological field"

It is not necessary for an invention to involve novel hardware or be deeply integrated with hardware or even be hardware specific to be technological in nature. The field of software and computer science is a huge technological field – the software industry is amongst the largest in India. It is therefore the intent of the legislature as specified above to grant inventions in this field as well. By holding novel hardware or hardware integration as a requirement for software-related inventions and baring those inventions from patentability which do not fulfill these criteria despite offering a technological advancement in the field of software is against the spirit of the law. For example, inventions relating to compression which result in high volume data requiring very small storage area which also

does not involve any new hardware and in fact makes it possible to store very large volume data on existing hardware in a smaller area – would not be patentable under the current understanding despite having a technical effect and advancement

Section 5.4.3 states that section 3 lists not allowable categories "considering them as mental, intellectual, aesthetic and / or abstract subject matter not involving technical character"

All software related inventions cannot be considered aesthetic, mental or abstract etc creations. If so, then all 3G protocols – which are do not involve any novel hardware and are transmission, reception techniques on existing mobile devices and network equipment – would come under "mental processes" or "abstract creations" which is not the case

Involvement of novel hardware or integration with hardware or determination of whether or not that software can run on a general purpose computer can definitely not be a criteria to judge whether an invention forms allowable subject matter or not i.e. forms computer program *per se* or not

Section 5.4.7 states that "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" A general purpose computer ceases to remain general purpose when it is capable of and performs an inventive feature. As is stated in this section, a claim has to be read as a whole and compared whether it meets requirements of statutes rather than picking one known element and rejecting the whole claim. Section 3(k) does not ask for novelty in hardware, in fact it does not deal with novelty at all. It is incorrect to selectively pick up individual elements of a claim and test them for novelty
8	Illustration 2 on Page 21 In another matter, the Controller held, that patent system was meant for protecting only one kind of creativity , i.e., technological creativity and since the claimed invention related to business method and method of presenting information, it was not allowed.	The guidelines are not indicative of the subject matter of the application to which such an illustration applies. In order to understand the meaning of "technological creativity", it is necessary that at least the principal claim of the application be given.
9	Illustration 9 on Page 31 The Controller further added that mere using a computer to automate what was previously done manually is not enough for an invention to be said to make a technical contribution. Examples: steps like (i) configuring the data processor to determine which document templates are required, (ii) accessing user input data stored in a	This is not part of the Controller's decision in the concerned patent application referred to in the illustration. The patent application being 1537/DELNP/2004. Therefore, the illustration provided merely confuses a patent applicant as the patent application does not refer to any kind of automation in the first place.

	database and (iii) merging those templates with the user's answers to generate the documents required makes a technical contribution. Although they are "technical" in the sense that they are carried out by technical means within the computer, they are merely programming steps and the interrelationships between them follow naturally from the automation process and may be termed as administrative solutions and cannot be held patentable.	
10	Flow charts on Page 45 and Page 46	The interpretation of algorithms and computer programmes per se doesn't take into account technical effect at all. It refers to technical advance alone and in complete isolation. Additionally, even though there is reference to technical advance, there is no illustration regarding the application or determination of technical advance. The flow chart regarding computer programmes refers to "*claims directed towards simply using a computer to automate what was previously done manually.*" This is extremely broad as there may technical problems associated with automation of a particular task and an application may overcome such problems and provide a technical solution. This may then qualify under technical effect. Therefore, the guidelines should clearly illustrate the application of these flowcharts.