

**TCS Response to Draft Guidelines for Examination of  
Computer Related Inventions (CRI)**

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## RESPONSE SUMMARY

Tata Consultancy Services (TCS) appreciates the initiative taken by Indian Patent Office (IPO) to come up with the draft guidelines for examination of Computer Related Inventions (CRIs) and has put together its observations and suggestions in response to the same. TCS recognizes the significant impact of Information Technology in society, government, business and academic interactions and progress. TCS is happy to note that IPO is taking the right steps in the direction of protecting inventions whereby the computer and computing ecosystem is an integral or key part of the invention.

Moving from the notion of ‘Computer Implemented Invention (CII)’ to ‘Computer Related Invention (CRI)’ itself is a positive shift encompassing broader set of inventions influenced by advent and evolution of the Information Technology (IT).

The draft guidelines are helpful in understanding ‘technical effect’, ‘technical advancement’ and in determining the subject matter relating to CRI that can be included. Adding more examples to Section 3.14 will be helpful.

The draft guidelines have made an attempt to demystify the permissiveness of the patent claims. We observed that some of them appear to have significant departure from the very objective of addressing the ‘CRI’ class of inventions. For example, the hardware limitations proposed through the statements such as “*The apparatus claim should clearly define the inventive constructional/hardware features*” and “*The examiner is to carefully consider as to how integrated is the novel hardware with the computer program*” from the Guideline Sections 4.2 and 5.4.5 address more of the hardware led inventions and not the Software Inventions as intended by the CRI draft guidelines. The statement “*Whether the machine is program specific or program is machine specific is important to ascertain*” in section 5.4.5 also seems to have the leaning towards hardware led inventions.

Primary objective of the CRI guidelines, as expected and understood by the stakeholders, is to deliberate on the meaning of “*per se*” in Section 3(k) for Software Inventions with example pertaining to Software Inventions and not interpret them to be the Hardware led inventions. If the inventive step and novelty were to be looked into the Hardware, the very invention then should not be the subject for discussion under CRI class of inventions.

Further, TCS would like to point out that while examining the technical character of a CRI, mere usage of the words such as ‘enterprise’, ‘business’, ‘business rules’, ‘supply-chain’, ‘order’, ‘sales’, ‘transactions’, ‘commerce’, ‘payment’ etc. in the claims should not lead to conclusion of the CRI being just a ‘Business Method without any technical character’. These terminologies actually qualify the contextual utility and fitment of the inventions.

While the draft guidelines have illustrated several examples of non-patentable inventions, it would be good to also provide more examples of patentable CRIs. This will be of great help to all stakeholders in heading towards a right direction and taking various decisions while creating optimized patent portfolios.

Some additional suggestions pertaining to the sharing of the relevant technology knowledge and technology related developments by TCS/other IT companies with the IPO examiners are also made with an intent to help IPO to deal with CRIs more efficiently and effectively.

## **SPECIFIC DETAILS**

TCS's specific response to different sections of the draft guidelines is also included below.

### **Section 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
- More economical use of memory
- More efficient data base search strategy
- More effective data compression techniques
- Improved user interface
- Better control of robotic arm
- Improved reception/transmission of a radio signal

### **TCS Response:**

Suggest including more examples (indicative examples given below) of technical effect for better clarity

- Improved processing of enterprise data
- Improved processing of data across boundaries
- Efficient solution using simulation system
- Improved system for testing
- Improved infrastructure requirements
- Improved system agility
- Improved system efficiency
- Making the system anticipative
- Making the system adaptable
- Improved sensing/measuring of data and feedback
- Improved software engineering in terms of user experience, system interaction, exception handling, system architecture, self-healing, self-managing, etc.

### **Section 4.2 Apparatus/System**

The other main preamble of patent claims relating to CRIs relates to "Apparatus/system for.....". These claims are often crafted to appear in "means + function" format. It requires the examiners' attention to properly construe whether the claimed subject matter indeed relate to any apparatus which is novel, inventive, having industrial applicability or is just formatted to appear so. The

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

#### Section 5.4 Determination of excluded subject matter relating to CRIs

5.4.5 Essentially, all computer programmes need a 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.

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

#### TCS Response:

The hardware limitations proposed through the statements such as “*The apparatus claim should clearly define the inventive constructional/hardware features*” and “*The examiner is to carefully consider as to how integrated is the novel hardware with the computer program*” from the Guideline Sections 4.2 and 5.4.5 address more of the hardware led inventions and not the Software Inventions as intended by the CRI guidelines. The statements “*Whether the machine is program specific or program is machine specific is important to ascertain*” in section 5.4.5 and “*For considering the patentability of computer programme in combination with hardware features, the hardware portion has to be something more than general-purpose machine*” in Section 5.4.6 also have the same bias against the software inventions.

We recommend that the statements leading to hardware limitation or novelty in the hardware be dropped for a Computer Related Invention. The invention must be viewed and examined for its novelty and inventive step irrespective of the same residing in the software or the hardware. It is prudent to check inventiveness on how the programme is exploiting or leveraging hardware feature and capacity optimally in terms of resource allocation within and across networks covering both static and dynamic mode.

5.4.2 Since the investigation of inventive step involves a check as to whether a feature of invention involves technical advance as compared to existing knowledge, the ‘method/process’ has to be judged on the technical advancement over prior art. Further, since the protection and enforcement of patent rights do contribute to promotion of technological innovations, it is amply clear that for a subject matter to be considered patentable it must relate to the technological innovations.

**TCS Response:**

TCS would like to point out that while examining the technical character of a CRI, mere usage of the words such as 'enterprise', 'business', 'business rules', 'supply-chain', 'order', 'sales', 'transactions', 'commerce', 'payment' etc. in the claims should not lead to conclusion of the CRI being just a 'Business Method without any technical character'. These terminologies actually qualify the contextual utility and fitment of the inventions that helps in appropriate understanding and scope of technical effect.

**Example stressing the need to protect CRI:**

The initiative to release CRI draft guidelines is a clear indication of the urgent need felt by IPO to protect Software Driven Innovations. In light of this very need, TCS would also like to present its views, taking the example of Amazon's 1 Click Patent (US 5960411 A) as below.

**AMAZON 1 CLICK PATENT****US 5960411 A - Method and system for placing a purchase order via a communications network**

**ABSTRACT** - A method and system for placing an order to purchase an item via the Internet. The order is placed by a purchaser at a client system and received by a server system. The server system receives purchaser information including identification of the purchaser, payment information, and shipment information from the client system. The server system then assigns a client identifier to the client system and associates the assigned client identifier with the received purchaser information. The server system sends to the client system the assigned client identifier and an HTML document identifying the item and including an order button. The client system receives and stores the assigned client identifier and receives and displays the HTML document. In response to the selection of the order button, the client system sends to the server system a request to purchase the identified item. The server system receives the request and combines the purchaser information associated with the client identifier of the client system to generate an order to purchase the item in accordance with the billing and shipment information whereby the purchaser effects the ordering of the product by selection of the order button.

**TCS Comment** -The above patent was not granted for online shopping business process which already existed in 1997 when this patent application was filed. It was granted for the novelty of online shopping through just '1 Click' with method and system claims related to the same. Though the invention claims did not involve any novel hardware, the novelty in the method and software was valued while granting the patent. The business impact of the inventions confirms this to be one of the most valuable patents in CRI category. Through this patent, the protection given to the Method, the User Interface, and the Software System leading to a *convenient* and *efficient* way of online shopping (in the time contemporary to when filed) is a good example of considering protection for the Computer related Inventions (CRI).

### **Additional Suggestions:**

1. Illustrative examples of Patent Applications granted by Indian Patent Office in line with these draft guidelines should also be released by the Patent Office for stakeholders to have a clear idea on what sort of patent applications could be granted.
2. TCS appreciates that the Indian Patent Office is constantly keeping abreast of technology advancements in various domains/disciplines in accordance with innovations carried out/patents applied in these areas. To complement these efforts, TCS recommends to IPO to collaborate with Academic Institutions, Research Laboratories and Corporate for active information exchange on cutting edge technology, its advancements and application of technology know-how into innovation.