



An Introduction to Standard Essential Patents Part –III

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Received: 9th May 2023

The modern world is increasingly getting interactive with holistic inter-connectedness; the same is made possible by virtue of standards which in turn sometimes are based on patented technologies. A laptop for instance must have to meet a humongous number of standards and hence requires a patented technology in doing so. But just like the builder doesn't manufacture bricks on its own, he rather purchases them, so is the case with technological building blocks for any product. These aforesaid patented technological building blocks are the ones that are often termed/ categorized as 'Standard Essential Patents'.

What motivated us as student of IP laws to usher this domain is the topical and contemporaneous nature along with increase in relevance of this technical domain of patent law. With the ever advancement of technology, this field is highly debated and is being worked upon in various sectors including academics! We being a part of academics and are engaged into the research of this topic would try to give a thorough discourse through a series of articles spanning across upcoming volumes of this journal. This third installment of yearlong series provides a fundamental overview of SEPs. It explains the concept of SEPs, their role in the patent system, and their importance in the innovation process. It also examines the various types of SEPs, the different licensing models, and the current challenges posed by SEPs. Finally, the article provides an overview of the current legal landscape surrounding SEPs. The article provides a comprehensive introduction to SEPs and their implications in the modern intellectual property landscape.

Keywords: Standard Essential Patents, Standard Setting Organizations, F/RAND, ASI, Bureau of Indian Standards, ETSI

Patent is an Intellectual property having relatively higher industrial applications and it possesses a relatively higher proportion of operational aspects *vis-à-vis* other IPs. The same being coupled with a comparatively Naïve jurisprudence especially in developing economy like India gives birth to lot of issues owing their origin to such deficient naïve jurisprudence. The domain of SEPs is one such arena which is currently choked with multitude of issues, which may not have aroused (or rather been easier to tackle even if aroused) had there been some well equipped provisions under patent laws itself or perhaps some well framed judicial wisdoms dealing with such operational aspects. To quote a few Anti-Anti-Suit Injunction, F/RAND Licensing, Determination of Royalty Rate, Identifying Essentiality, etc are some issues which are not unheard by any practitioner of IPR Laws. These issues are in a gray area i.e. neither completely outside the domain of Patent legislations, nor completely inside it, which the courts, not only in India but throughout the globe, are finding difficult to

deal with. Hence, giving birth to enhanced SEP Litigations in one or another domain. This work is an attempt by present researchers in this very domain. Let's try to understand this highly debated aspect of IP laws from the scratch.

Standard Setting and SSOs

The word 'Standard' might be so common for general parlance, but when it is interpreted from the perspective of Intellectual Property laws it encompasses a multitude of dimensions. The term "Standard" is described as a document created by unanimous agreement and endorsed by a recognized body, which provides, for common and repeated use, rules, regulations or qualities for activities or their results, aimed at achieving of the maximum degree of order in a given context. This is first formal definition of standards Suggested by ISO/IEC Guide 2:2004 Standardization and similar activities. As is known, a standard is a form of enlisting that provides for essentialities for a specific commodity, material, component, service, system or describes in depth a specific method or process. Standards are technical requirements or criteria that aim to give a uniform

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appearance to a product or method.¹ There can be thousands of standards, for instance ETSI (European Telecommunications Standards Institute) alone is parenting around more than 6500 standards, including 2nd Gen or 2G, 3rd Gen or “3G”, and 4th Gen or “4G” standards of telecommunications. One would be surprised to know that a conventional laptop might encompass around more than 200 interoperability standards.² Some key advantages associated with standardization includes,

(i) Create products that are Interoperable and Compatible.³

(ii) Improved performance in devices that comply with standards.⁴

(iii) It stimulates higher competition and drives down the price of goods.

(iv) Support the country GDP expansion.

(v) Improved consumer empowerment and market penetration of standard-compliant devices.

(vi) Educate customers and serve as a function of quality assurance.⁵

(vii) Crucial to the efficient operation of markets and a major element in international trade.

These Standards could be broadly studied under two heads one being *de facto* standard and other being *de jure* standard. Former encompasses the standard which is broadly implemented by the market and hence acknowledged by general public at large but as such they are not acknowledged by any traditional standard setting body. Latter one the other hand are those standards which are set by ‘Standard Setting Organizations’ (hereinafter referred as SSO), some examples of them includes the European Telecommunications Standards Institute (ETSI) or the International Telecommunication Union (ITU).⁶ SSOs have the responsibility of organizing and facilitating a process of standard-setting that includes a variety of stakeholders. Customers want their equipment to comply with generally accepted standards in society, hence products that do not do so typically fail commercially.⁷

SSOs may also be classified as Governmental, Quasi-Governmental or Private in nature. Standards establishment, development, coordination, interpretation, and maintenance are within their purview. To quote a few, the national SSO of India is the BIS (Bureau of Indian Standards). The sole officially acknowledged telecom standards, specification, and type certification authority in India is the ‘Telecom Engineering Centre’, which operates

in the sector of ICT.¹ The ‘Telecommunications Standards Development Society, India (TSDSI)’, the ‘Development Organization of Standards for Telecommunications in India’ and the ‘Global ICT Standardization Forum for India’, are SSOs in the private sector of Indian ICT industry. Significant SSOs in the cellular and Wi-Fi sectors are the International ‘Telecommunication Union and the Institute of Electrical and Electronic Engineers’. The TSDSI is the country's first SSO and was founded in 2013 with the goal of creating and promoting telecom standards unique to Indian Requirements.⁸

Building upto the Concept of SEPs!

The modern world is increasingly getting interactive with holistic interconnectedness, the same is made possible by virtue of standards which in turn are based on patented technologies.⁹ These standards enable the machines to interact amongst themselves. A laptop for instance must have to meet a humongous number of standards and hence requires a patented technology in doing so. But just like the builder doesn’t manufacture bricks on its own, he rather purchases them, so is the case with technological building blocks for any product. These aforesaid technological building blocks are the ones that are often afforded protection by ‘Standard Essential Patents’ (hereinafter referred as SEP). It can also be said that a Patent which protects any technology which is necessary or rather ‘Essential’ for any standard is called a SEP.

Some recent developments like tussles between smartphone tycoons regarding the patent affairs have casted a new light on the importance of SEPs. In layman terms it can also be said that the Patents that are essential to any set standard and have been acknowledged by any SSOs are known as SEPs.¹ Also SEPs are the patents which are essential to implement a specific standard in any industry.¹⁰ Standard Essential Patent as defined by Thomson Reuters Practical Law implies “A patent asserting technology necessary for the adoption of an industry standard,” Or, to put it more simply, SEPs are the patents guarding an industry's fundamental technology—the norm that the entire sector must adhere to in order to keep innovating in significant ways. In actuality, SEPs are decided by industry-specific SSOs and are crucial to the standard. So it can be said that for manufacturing any standard compliant product, manufacturers mandatorily has to go through the

technologies which are under the ambit of one or more SEPs.¹¹

Indian IP fraternity witnessed the evolution of the understanding of SEPs in 2011 when Ericson raised an objection concerning the importation of mobile telephones by Kingtech Electronics (India), alleging that the phones in issue, inter alia infringed numerous of their SEPs concerning technology of AMR Codec (Adaptive Multi-Rate). This is when the litigation of SEP in India saw its dawn. As far as Indian legal framework is concerned, there are no special provisions which specifically deal with SEP in any manner in Indian Patents Act¹², even there are no specific procedural criteria and or terms or conditions that need to be adhered with, while licensing any SEP technology.

SEPs and Non-SEPs

SEPs must not be confused with the patents which are 'Non Essential to any Standard' (hereinafter referred as Non-SEPs) for instance, design patents which grants protections to design aspects of any invention can be said to be a Non-SEP.¹³ This is due to the fact that businesses may invest in creating a substitute solution which do not violate or infringes a non-SEP (while they cannot do so in designing around an SEP). For example, a non-SEP protects the "slide to unlock" technology. The majority of Smartphone makers were able to create alternative unlocking methods that do not violate or infringe the "slide to unlock" patent. If there had been a SEP, this would not have been conceivable. SEPs are distinct from patents which are not necessary to a standard (non-SEPs).¹⁴ SEPs often differ from non-SEPs in one aspect as they include more declaration details, such as:

- (i) SEPs that have been declared by SSOs will contain a declaration number;
- (ii) The technology that SEPs cover should be able to be mapped to its stated technical standards or specifications.¹⁴

Working of SEPs

So how does SEPs work? A brief chronology as to how the SEP Ecosystem functions might come handy in understanding the same.

- (i) The representatives of various industries come together under the roof of SSOs¹⁵ (aka Standard Developing organizations) to develop certain technical specifications pertaining to a standard. They

also commits to make available their patented technology under the F/RAND terms

- (ii) Now anyone who wants to manufacture any standard compliant products requiring one or more SEPs has to negotiate the conditions of using that aforesaid technology with the SEP holders.

- (iii) This aforesaid negotiation that is formalized by virtue of license agreement often based on F/RAND terms.¹⁶

Numerous SEPs are reading up on the technology used in the various standards established by the SSOs. For instance, there are 1,55,474 SEPs that had been declared to ETSI. The GSM & "3G" also known as UMTS standards generated by ETSI have more than 23,500 patents that have been hold as essential. Almost all smart phones and tablets marketed in Europe must adhere to these standards.

The IPR policies of the SSOs compel the patent holders to disclose any patents as SEPs that would be necessary to standards, without further SSO review of the truth of the claims of essentiality. Because of over-declaration, which is a phenomena, existing declaration methods fail to provide accurate information on the essentiality of claimed patents, even though disclosures against particular technological requirements of the standards are indicators of essentiality.¹⁷

Understanding SEP's Panorama

Due to SSOs' failure to do essentiality checks, disagreements over whether a patent actually claims an innovation that reads on a certain standard must be settled prior to or during bilateral discussions¹⁸ (where the claims are linked to matching product attributes and, optionally, standard features, and the parties may normally develop and debate claim charts). Ultimately, only a court can determine whether a patent is necessary or not for a specific standard implementation and for a specific use of this standard in a particular product.⁶ Hence, SEP declarations should not be interpreted as proof of claimed SEPs' real essentiality, and essentiality tests for the claimed SEPs should be carried out prior to entering or during the negotiation for the licensing. SEPs are significant for businesses since they are essential for standards. In addition, they are contested more frequently than non-SEPs.¹⁹

The traditional patenting framework is based on the statutory right that owner of patent has for a set amount of tenure to prevent others from

appropriating, selling, or developing his invention, and to commercially exploit it, as well as to disclose & practice that invention, and make it workable in order to motivate scientific research and novel technology, and to pass the invention into the public domain after the fixed tenure of that very monopoly. The SEPs, which are the patents required to implement a particular industry standard, are a step forward in this direction.¹⁹

This means that producers will need to employ technologies which are covered by one or other SEPs, such as those in electronics sector, telecom sector, and digital world in order to develop products that are standard compliant. These Standards are nonetheless more than the technological specifications or standards that aim to establish a standard design for any process or product, lowering the price of the product for the ultimate user. SEPs are not specifically mentioned in the Indian Patents Act, 1970, and no explicit requirements or terms and conditions are included when licensing patented technology. Technology is increasing tremendously in this era and the legal system urgently has to catch up with technology in the modern period, protect the rights of the creators, & use technology for benefit of society.

The phrases "Standard" and "Essential" distinguish the term "SEP" from a common patent. As it relates to a specific standard intended to create a uniform feature for either a process or any product, the term "Standard" connotes uniformity.²⁰ The second word, "Essential," as propounded by ETSI, means the elements that, when applied to intellectual property rights, formulates that it's not possible to look into consideration the common technical custom or the state of art which are generally accessible during the time of standardization for producing, selling, leasing, or otherwise disposing of, repairing, using, or operating equipment or procedure that comply with a "Standard" without the infringement of IPR. After SEP has been validated by an SSO, the patentee gives a constrained heads of rights under F/RAND terms, which the manufacturer must abide by. Hence, it is the responsibility of SSO to create standards to make sure that such technology performs a useful and advantageous function for society as a whole. Essentially, the purpose of SEP is to increase consumer advantages while preventing patentee monopolization. It has been noted that giving a patentee exclusive rights might undermine the primary goal of granting SEP.²⁰

Hence, in order to ensure a equity between the rights of the producers and the patentee, it is responsibility of SSO to make sure that the patent holder must provide license on F/RAND terms & help the producers to bargain with the patent owner such that the patent owner gets paid for his R&D and investment and the ultimate consumer gets the standardized technologies at an affordable cost, creating win-win situation.

Entire patenting ecosystem works on the system of licensing, SEPs being a special type of patent are no different either and hence for a fair play in this domain, everyone must be permitted to use that technology which is essential for any set standard, and this is where the licensing of aforesaid technology at 'Fair Reasonable and Non Discriminatory' (hereinafter referred as F/RAND), terms comes into picture.²¹

SEPs are gaining importance with advancement in innovation, as for execution of any standardized technology; they are something which cannot be dispensed away with. SEPs represents core innovative platform on which the entire industries are built upon. The technical standards ensuring the interoperability and interconnectivity of almost all electronic devices that is used by modern world are often set by SSOs which in turn often a times require the owners of these patents i.e. SEPs to pledge to a licensing framework on F/RAND Terms.²² It is this prospect of licensing of SEPs on industrial scale giving incentives to big business houses to invest in activities pertaining to standardization.

The SEP holder has a considerable authority, thanks to the SSO-SEP system. Permission must be obtained from an SEP holder, if a manufacturer wishes to utilize a technical standard, however this authorization might be withheld if the SEP owner chooses not to license its Patent. With the premise that entities should have right to acquire a license to preferred technology on the F/RAND terms, the F/RAND terms seeks to equalize disparities. However, defining a F/RAND practice and formulating a F/RAND-encumbered agreement are debatable. Furthermore, it is practically hard to estimate the true cost of a F/RAND royalty.

The essential conditions for the adoption of the SEPs are that,

1. Prior to adoption of any set standard, members must first disclose any intellectual property rights which are essential for proposed standard's implementation.

2. Secondly, members must agree to provide licenses to third parties for their SEPs at F/RAND terms.

To promote universal acceptance of standards, which is the entire reason an SSO is created, these principles must be followed. As a result, the SSO and SEP holder have entered into a voluntary agreement to license SEP on F/RAND terms. However, SSOs have not yet established what F/RAND actually means; instead, it is determined by the specifics of the agreements between the SEP holder (also known as the "licensor") and the SEP implementer (also known as the "licensee").²³

The procedural jurisprudence of SEPs is filled with multitude of issues that have troubled nearly every stakeholder of this field, but due to want of paraphernalia associated with publication a comprehensive discourse at once is avoided. So with this understanding of SEP panorama, this present article concludes. And with our next article in continuation of this one in the next upcoming issue of this journal, we would attempt to shed some light on the issues surrounding this intrigue domain of SEPs.....!

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