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**JIRICO**  
Jindal Initiative on Research in IP and Competition

**RESPONSE TO THE QUESTIONS RAISED IN THE 'CONSULTATION PAPER ON  
PROMOTING LOCAL TELECOM EQUIPMENT MANUFACTURING' RELEASED  
BY TELECOM REGULATORY AUTHORITY OF INDIA (TRAI)**

27<sup>th</sup> November, 2017

**SUBMITTED BY  
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## Foreword

Jindal Initiative on Research in IP and Competition (JIRICO) is a research initiative of O. P. Jindal Global University (JGU). It focuses on initiating and complementing well-informed policy related deliberations that can result in concrete reforms. Towards this end, JIRICO seeks to become a leading think-tank that engages in inter– disciplinary and high–impact work. This involves contributions from experts in the fields of intellectual property law, competition law, economics, and management. Further, JIRICO focuses on global developments, with a special emphasis on the Indian policy environment, which can inform stakeholders about the issues in this niche area. JIRICO provides a platform to facilitate dialogue amongst industry partners, policy makers, regulators, practitioners, and academicians.

The members of JIRICO welcome the consultation paper published by the Telecom Regulatory Authority of India (TRAI), Government of India. We appreciate the initiative taken by TRAI to create awareness on topical issues relevant to the Indian ICT sector, and to seek comments from the public on the consultation paper. This reproduces some of the questions raised in the TRAI consultation paper and provides our comments to them. The comments are in continuation to our response paper submitted on 25<sup>th</sup> March, 2016 to the Discussion paper on ‘Standard Essential Patents, and their availability on FRAND terms’ released by the Department of Industrial Policy and Promotion, Government of India. We hope that TRAI will find these comments helpful. We will be happy to provide the department, and the Government of India, with any assistance it may require from us.

**Disclosure** – *Opinions expressed in this document are independent of any research grants received from governmental, intergovernmental and private organisations. The opinions are of JIRICO members and are based on their research findings and do not reflect the opinions of their institutional affiliations.*

**1. What policy measures are required to be instituted to boost Innovation and productivity of local Telecom manufacturing in our country? Please provide details in terms of Short-Term, Medium-Term and Long-Term objectives.**

The drivers of growth in the Indian telecom sector include, inter alia, a steadily expanding user base, combined with the rise of indigenous companies that are competing with established manufacturers. However, the growth in the telecom sector has been achieved by importing fully built devices and components of devices that, in turn, have patented technologies embedded in them.<sup>1</sup> Therefore it is imperative that Indian companies dealing in manufacturing in telecom industry contribute by devoting their resources towards sustained research and development. In the long run, this would help to lessen the reliance on technologies held by foreign companies. There would also be new avenues in terms of cross-licensing arrangements.

The National IPR policy was drafted with the vision of enhancing creativity and innovation by IP for the advancements in science and technology and economic development in India.<sup>2</sup> The National IPR policy is entrusted with the mission of ‘stimulating a dynamic, vibrant and balanced intellectual property rights system in India’ which would lead to among other things, fostering innovation and promoting entrepreneurship.<sup>3</sup> Towards this end, the National IPR Policy which was launched in 2016 has suggested multiple steps for increasing the generation of IPRs including patents, reviewing laws and legal framework, improving IPR administration and management, facilitation of commercialization of IPRs and providing clarity on enforcement and adjudication of IPRs.<sup>4</sup> Accordingly, it has suggested for reviewing the existing laws and other guidelines from time to time for necessary amendments in consultation with the

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<sup>1</sup> Report on Telecom Sector Roadmap for Innovation 2010-2020: India’s telecom import bill is second only to oil import bill, and it is predicted that the current rate of the penetration of mobile phones, telecom imports bill may soon overtake oil imports, <http://initiatives.sampitroda.com/iii/images/stories/sectoral/tsic.pdf>, last accessed November 22, 2017.

<sup>2</sup> National Intellectual Property Rights Policy (henceforth ‘National IPR Policy’), 12<sup>th</sup> May, 2016, Government of India, Ministry of Commerce and Industry, Department of Industrial Policy & Promotion.

<sup>3</sup> National IPR Policy.

<sup>4</sup> “Take steps to increase domestic filings of patent applications”, Step 2.29, National IPR Policy.

stakeholders.<sup>5</sup> It has also proposed to modernize the IPO in order to accelerate e-filings, e-processing and other services.<sup>6</sup>

Indian telecom sector has, till date, adopted standards that are developed and promulgated by international standard setting bodies, such as IEEE, ITU, and ETSI. In a recent and welcome step, the Telecommunications Standards Development Society, India (TSDSI) - an Indian telecom standard setting organization established in 2014 - decided to adopt an IPR policy consistent with policies of ETSI, which is responsible for the popular GSM and the LTE mobile communication standards. The objectives of TSDSI are to develop and promote India-specific requirements related to telecommunication standardization, contribute to global telecommunication standardization, safe-guarding the underlying patents, help create manufacturing expertise in the country and providing leadership and guidance to the developing countries.<sup>7</sup> These objective of TSDI are in line with boosting innovation and productivity of local telecom manufacturing in India. TSDSI's decisions to become an organizational partner of the 3GPP<sup>8</sup> consortium, and to subsequently emulate the IP policies of ETSI (European organizational partner) are noteworthy.

TSDSI comprises of local mobile manufacturers, holders of patents on mobile technologies, academic institutions, network providers and the Department of Telecom (DoT) and Centre for Development of Telematics (C-DoT) of Government of India. TSDSI should strike a balance between adequately rewarding the patent holders that contribute and help create the standard, and the adopters implementing these standards in

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<sup>5</sup> “Review existing IP laws, where necessary, to update and improve them or to remove anomalies and inconsistencies, if any, in consultation with stakeholders”, Step 3.1, National IPR Policy; “Existing guidelines published by the Patent Office shall be reviewed periodically and revised to reflect legislative provisions”, Step 4.16.13, National IPR Policy.

<sup>6</sup> “Modernize further the physical and ICT infrastructure taking into account the expanding needs of the IPOs and to accelerate e-filings, e-processing and other e-services” Step 4.6, National IPR Policy

<sup>7</sup> <http://www.tdsi.org/>, last accessed November 22, 2017

<sup>8</sup> 3GPP is responsible for development and maintenance of some of the most widely adopted mobile communication standards in telecom history, including GSM (and related 2G, GPRS and EDGE), UMTS (and related 3G and HSPA), and LTE (and related 4G) specifications.

devices. TSDSI, in line with ETSI, mandates all members to license their SEPs on terms that are fair, reasonable and non-discriminatory (FRAND).<sup>9</sup>

Factors such as essentiality, disclosure, good faith negotiations have a direct bearing on ensuring access and penetration of mobile technologies through FRAND licensing. However, the absence of sufficient patents in the telecom sector and consequently their lack of participation in the SSOs would not allow the Indian manufacturers to influence the debates around FRAND happening at a global level.

**2. Are the existing patent laws in India sufficient to address the issues of local manufacturers? If No, then suggest the measures to be adopted and amendments that need to be incorporated for supporting the local telecom manufacturing industry.**

The existing patent laws cover aspects beginning from filling of patents at the Indian Patent Offices, provisions for revocation of patents before the Intellectual Property Appellate Board, and provisions in case of infringement. This ensures a strong institutional support for the lifetime of patents. Moreover, the Supreme Court and High Courts of India are empowered for a liberal interpretation of laws. All of this leads to a balanced enforcement of the patent laws. The patent holder, as well as the implementers, are equally entitled to approach the appropriate legal forum for redressal of their grievance.

In our opinion, the existing Indian patent laws are sufficient to address the issues of local telecom manufacturers. There is no need to make amendments in the current Indian laws that deal with issues related to SEPs and their availability on FRAND terms. Instead, there is a need for more clarity in jurisprudence. Standards provide common platforms that allow implementers to use and rely on several different devices that can work together. Effective working of a standard is dependent on patent holders who are

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<sup>9</sup> Clause 6.1, ETSI IPR policy available at: [www.etsi.org/images/files/ipr/etsi-ipr-policy.pdf](http://www.etsi.org/images/files/ipr/etsi-ipr-policy.pdf), last accessed November 22, 2017.

willing to license their patents, and on the implementers who incorporate them in products, such as smartphones and other communication devices.

Moreover, the competition concerns that the parties might face in the market may be brought before the Competition Commission of India.<sup>10</sup>

### **3. Please suggest a dispute resolution mechanism for determination of royalty distribution on FRAND (Fair Reasonable and Non Discriminatory) basis.**

Determination of royalty rates on FRAND terms is one of the contentious issues gripping the smartphone industry the world over. The Delhi High Court in *Ericsson v CCI*, has also pointed to the existing jurisprudence relating to the debates in different jurisdictions.<sup>11</sup> In India, the courts and the competition authorities have taken divergent views in fixing royalty base, wherein the court has adopted the net price of the downstream product (EMVR)<sup>12</sup> rule to determine damages, the Competition Commission of India has leaned towards the smallest saleable patent practicing unit (SSPPC)<sup>13</sup> while holding EMVR licensing practices to be prima-facie abusive.

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<sup>10</sup> “Licensing practices or conditions that may have an adverse effect on competition will be addressed through appropriate measures, including regulation of anticompetitive conduct in the market by the Competition Commission of India”, step 6.9, National IPR Policy; Recently, the Delhi High Court has looked at the jurisdiction of the Competition Commission of India to investigate abuse of dominance complaints against the holder of SEPs, *Telefonaktiebolaget LM Ericsson (Publ) v. Competition Commission of India*, Case W.P.(C) 464/2014 & CM Nos.911/2014 & 915/2014 and W.P.(C) 1006/2014 & CM Nos.2037/2014 & 2040/2014 dt. 30.03.2016.

<sup>11</sup> *Telefonaktiebolaget LM Ericsson (Publ) v. Competition Commission of India*, Case W.P.(C) 464/2014 & CM Nos.911/2014 & 915/2014 and W.P.(C) 1006/2014 & CM Nos.2037/2014 & 2040/2014 dt. 30.03.2016

<sup>12</sup> *Telefonaktiebolaget Lm Ericsson (Publ) vs. Intex Technologies (India) Limited*, MANU/DE/0774/2015, para 156; See also Anne Layne-Farrar, A. Jorge Padilla and Richard Schmalensee, Pricing Patents For Licensing In Standard Setting Organizations: Making Sense Of FRAND Commitments 74(3) ANTITRUST LAW JOURNAL 671 (2007), J. Gregory Sidak, The Meaning of FRAND, Part I: Royalties, 9 J. COMPETITION L. & ECON. 931 (2013), <https://www.criterioneconomics.com/meaning-of-frand-royalties-for-standard-essential-patents.html>, J. Gregory Sidak, The Proper Royalty Base for Patent Damages, 10 J. COMPETITION L. & ECON. 989 (2014), <https://www.criterioneconomics.com/the-proper-royalty-base-for-patent-damages.html>, last accessed November 22, 2017.

<sup>13</sup> *In re Intex v. Telefonaktiebolaget LM Ericsson*, Case No 76/2013, Competition Commission of India, para 15.

SSPPC theory was proposed by Judge Radar in *Cornell II*<sup>14</sup> as a narrow evidentiary safeguard to avoid jury confusion considering the particular facts presented in the case. It was developed as an evidentiary principle and not as a substantive rule, to offset the perceived tendency of jurors to overestimate while apportioning damage claims. The term smallest saleable patent practicing unit (SSPPC) was proposed as a solution to jury anchoring problem<sup>15</sup> i.e. if the royalty base is high, then the jury is in danger of deciding upon an excessive royalty, because the jury may not be capable of determining an appropriate royalty rate to be applied to that base.<sup>16</sup>

In the realm of mobile communications technology, SEP holders have devoted substantial resources and have vastly improved communication capability and speeds. New technologies such as 4G and 5G have greatly improved spectral efficiency and have enabled varied data intensive applications to function, enhancing the overall value of the end device. Sharing audio, and high-resolution video data would not be possible in the absence of 3G and 4G technologies. Limiting the value of SEPs to SSPPC would be ignoring the vast functional benefits contributed by these SEPs to the end device. The functional value added by SEPs is glaringly apparent in the prices for a non-communicable device such as an iPod Touch (lacks cellular capability) when compared with an iPhone (with cellular capability), though both have similar hardware specifications.<sup>17</sup> The net sale price of the end device or Entire Market Value Rule (EMVR) would be the right measure to quantify the functional value added by the SEP to an end-device.

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<sup>14</sup> *Cornell University v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279 (N.D.N.Y. 2009): Cornell claimed that Hewlett Packard sold servers, which had CPU-bricks, which further incorporated CPU modules, which had Processors which read on Cornell's patent "*method for instruction issuance within a computer processor*". Cornell claimed the royalties be based on the entire market value of servers. Judge Radar concluded that the appropriate royalty base was the processor itself, to avoid jury confusion and resulting in inflated damages award. *See also* Mark Snyder, SSPPU: A Tool For Avoiding Jury Confusion, The Sedona Conference (2015).

<sup>15</sup> According to Tversky and Kahneman, "[d]ifferent starting points yield different estimates, which are biased toward the initial values". Amos Tversky & Daniel Kahneman, Judgment under Uncertainty: Heuristics and Biases, 185 *SCIENCE* 1124-31 (1974). *See also* *Cornell University v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279 (N.D.N.Y. 2009). *See also* Richard Stark, Debunking the Smallest Saleable Unit Theory, *CPI ANTITRUST CHRONICLE* 2 (2015).

<sup>16</sup> During Apportionment process, the jury decided royalties by multiplying royalty base (to reflect the value added by the patented feature) with royalty rate (so as to discount the value of a product's non infringing features.) *Ericsson Inc. v. D-Link Systems Inc.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014)

<sup>17</sup> iPod Touch retailed in the United States for \$249, as compared to \$649 for an unlocked 32GB iPhone 5c (2014)

Further, SSPPC is inept in handling portfolio licensing. Licensors typically offer a license to their entire portfolio. These patent portfolios include SEPs and non-SEPs reading on varied technologies and components incorporated in a smartphone. SSPPC should not be applied to portfolios, as it would fail to account the value addition of the entire portfolio on the end device.<sup>18</sup> The net price of the end product would consider the value addition of the portfolio in the entire device.

Considering these above factors, EMVR would be the preferred measure<sup>19</sup> to determine royalties as it would account for the functional value of a SEP and it would also take into account the value added by the portfolio to an end device. It is cost effective as it reduces transaction cost by reducing uncertainty during the negotiation process.

With respect to the ‘asymmetric bargaining capacity between licensor and licensee’ we would like to point out that a comparative advantage due to the market power can be held by both licensors and licensees equally.<sup>20</sup> It has been a common view that licensors tend to hold-up due to the inherent monopoly, however, recent Indian cases have proved that there has been an increasing and steady trend of licensees indulging in holding-out by implementing the SEPs before obtaining a licence, delays, and latches in pre-licensing negotiations, and through other wrongful conduct.<sup>21</sup> Many courts have through their judgments have enforced FRAND and therefore FRAND undertaking operates as a practical constraint on a SEP owner’s market power. Globally, there has been a reduction in royalty rates after 2013.<sup>22</sup>

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<sup>18</sup> Supra 12.

<sup>19</sup> Supra 12.

<sup>20</sup> *Unwired Planet International Ltd v (1) Huawei Technologies Co. Ltd (2) Huawei Technologies (UK) Co. Ltd.*, High Court of England and Wales, [2017] EWHC 711 (Pat), para 656.

<sup>21</sup> “[t]he defendant despite of many meetings and negotiation for the purpose of execution of a FRAND license, the defendant was evidently avoiding the same and became unwilling licensee as per its overall conduct”, *Telefonaktiebolaget LM Ericsson (Publ) v Intex Technologies (India) Limited*, CS (OS) No. 1045/2014, order dt. 13.03.2015, para 147.

<sup>22</sup> *Unwired Planet International Ltd v (1) Huawei Technologies Co. Ltd (2) Huawei Technologies (UK) Co. Ltd.*, High Court of England and Wales, [2017] EWHC 711 (Pat), para 656.



As per chapter II (1) (e) (iv), NDAs have been perceived to be hindering the transparency prong of FRAND. Non-Disclosure Agreements (NDAs) are antecedent to any negotiation process and are a versatile and valuable tool for both licensor and licensee to protect confidential information. NDAs provide firms a method to collaborate yet maintain their competitive strategy and advantage with respect to others.

NDAs per se do not lead to abusive conduct. Courts in other jurisdictions have also held NDAs to be per se non-discriminatory.<sup>23</sup> However, Indian jurisprudence on NDAs has been skewed as antitrust authorities have held NDAs to be abusive.<sup>24</sup> NDAs are the vital tool in the hands of patentees and implementers to protect their confidential information (claim chart mapping, infringement analysis, business models, import-export strategies etc.)<sup>25</sup> Public disclosure of confidential information would bring down competitive and strategic advantages for all parties involved and would dis-incentivize innovation. Therefore, India needs to evolve a more nuanced approach towards NDAs that can protect the interests of the innovators.

More recently companies have been disclosing the range of royalties to be charged by them to the prospective licensees.<sup>26</sup> However, these are voluntary disclosures and are not mandated by any law.

FRAND and SEP related cases involve various disciplines and fields of study. For instance, patents bring with them engineering and scientific aspects, determination of

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<sup>23</sup> Case T-201/04, *Microsoft Corp. v. Comm'n*, 2007 E.C.R II-3601, at 811 (“[N]on-discriminatory does not mean that Microsoft must impose the same conditions on every undertaking seeking such licenses.”)

<sup>24</sup> “Charging of two different license fees per unit phone for use of the same technology prima facie is discriminatory and also reflects excessive pricing vis-a-vis high cost phones. NDA thrust upon the consumers by OP (opposing party) strengthens this doubt as after NDA, each of the user of SEPs is unable to know the terms of royalty of other users. This is contrary to the spirit of „applying FRAND terms fairly and uniformly to similarly placed players...”, *Intex v Telefonaktiebolaget LM Ericsson*, Case No 76/2013 See also *Micromax Informatics Limited v Telefonaktiebolaget LM Ericsson*, Case No 50/2013, Competition Commission of India

<sup>25</sup> A sample NDA : Centre for Development of Telematics (C-DOT), a telematics technology development center administered by the DoT, uses NDAs as a valid tool to protect critical and confidential information : ‘any information on design, fabrication & assembly drawings, know-how, processes, product specifications, raw materials, trade secrets, market opportunities, or business or financial affairs or their customers, product samples, inventions, concepts and any other technical and/or commercial information’, [http://www.cdote.in/partnership/mode\\_of\\_co-operations.htm](http://www.cdote.in/partnership/mode_of_co-operations.htm), last accessed November 22, 2017.

<sup>26</sup> Ericsson’s FRAND licensing terms for 5G/NR in 3GPP Release 15, <https://www.ericsson.com/assets/local/networked-society/innovation/patents--licensing/frand-licensing-terms-for-5g-nr-in-3gpp-release-15.pdf>, last accessed November 22, 2017.

royalties bring forth economic and financial concerns and aspects of market dominance and public good bring forth legal and societal concerns. Hence, adjudication of issues would require subject matter experts from various sectors.

An arbitration process that complies with national laws and policies would provide flexibility and means for parties to arbitrate and resolve issues mutually by engaging experts in various subject matters. Judicial or quasi-judicial processes can be burdensome (procedural nature) and time consuming. Therefore, such processes should be sought out as the last resort.

This option connects with the suggestions and views from the National IPR policy.<sup>27</sup> The National IPR policy has suggested promoting the platform of alternative dispute resolution mechanism for resolution of IP disputes. For this purpose, it has recommended for capacity and skill development for such avenues.

Membership of technology providers in SSOs is on a voluntary basis, and the commitments made by them to license their patents on FRAND terms are made under a private contract between the standards body and the members. As a result, laws governing patents and contracts in India are relied upon to settle disputes between the technology providers and the technology implementers. Such arrangements do not seem outside the purview of our existing systems and established frameworks. Existing judicial bodies in India have the competence and requisite jurisdictional powers to adjudicate SEP and FRAND related issues. A new independent body would add a further layer of bureaucracy increasing procedural and transaction costs and can potentially create deadweight loss resulting in an ineffective adjudicating system.

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<sup>27</sup> “Promoting ADRs in the resolution of IP cases by strengthening mediation and conciliation centers, and developing ADR capabilities and skills in the field of IP”, step 6.10.3, National IPR Policy.