
**GUIDE TO LICENSING NEGOTIATIONS
INVOLVING
STANDARD ESSENTIAL PATENTS**

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I. Purpose of the Guide

A. SEP Issues and Background

(Changes in Relation to Standards and Patents)

The Guide to Licensing Negotiations involving Standard Essential Patents (“this Guide”) aims to enhance transparency and predictability, facilitate negotiations between rights holders and implementers, and help prevent or quickly resolve disputes concerning the licensing of standard essential patents (“SEPs”), which are the patents essential in implementing standards in the field of wireless communications and the like.

While a patent granting exclusive rights to a technology as compensation for disclosing an invention and a standard designed to spread a technology as widely as possible both help to promote innovation, the seeming contradiction between them also often gives rise to tension. That tension first became evident in the 1990s when telecommunications technologies started shifting to digital formats, accompanied by a trend toward standardizing the latest technologies even while protecting them with patents, resulting in SEP disputes.

With respect to SEP disputes, two issues which many are concerned about are “hold-up” and “hold-out,” and there is controversy between rights holders and implementers over which of the two is more serious.

“Hold-up” is a situation whereby businesses providing key social infrastructure or services using SEPs that are essential to the operation of those businesses are faced with the threat of injunction. Legal precedents across the world seem to be converging toward permitting injunctions concerning FRAND-encumbered SEPs (i.e., SEPs for which a FRAND declaration has been made) only in limited situations. Nevertheless, with courts continuing to grant injunctions, hold-up remains an issue for implementers.

On the other hand, rights holders point to the issue of “hold-out,” whereby the implementer receives an offer for licensing negotiations from the rights holder, but fails to engage in negotiations in good faith in anticipation that an injunction will be denied on SEPs.

Standards setting organizations (“SSOs”) have formulated policies concerning SEPs (“IPR policy”) designed to prevent disputes and promote the

widespread use of the SEPs necessary for implementing technical standards. Part of this endeavor has included developing policies to ensure that SEP licenses are “fair, reasonable and non-discriminatory” (“FRAND”). This has encouraged companies and other parties participating in standardization to propose high-quality technologies to SSOs and has made a substantial contribution to the widespread adoption of standard technologies.

At the same time, there is a strong call for enhancing transparency in relation to the essentiality and validity of SEPs. Some rights holders might deliberately overdeclare their patents as SEPs to SSOs when they are not actually essential, and in any event, it is normal to declare patents as essential when they are still in the application phase and when the standard is not itself settled. A certain amount of overdeclaration is therefore inevitable, and much better than underdeclaration. Some point out that such overdeclaration has been encouraged by the industry practice of determining royalties at least partly in proportion to the number of SEPs held in relation to a certain standard.

SSOs typically do not check whether the patents declared by the rights holder as essential are in fact essential, or whether changes made to technical specifications during the standard creation process have made a patent inessential. In addition, there is no routine third-party review process at the SEP listing stage.

(Paradigm Shift in Licensing Negotiations)

The spread of the Internet of Things (“IoT”) in recent years has spurred a fourth industrial revolution across the world whereby various types of infrastructure and devices are connected via the Internet, and this trend is transforming licensing negotiations for the SEPs required to implement standards related to wireless communication among devices.

SEP licensing negotiations in the Information and Communication Technology (“ICT”) field traditionally took place chiefly among ICT companies. Therefore, issues were commonly resolved through cross-licensing, and the practice was to conduct negotiations as necessary after the start of a service. In addition, coming from the same industry made it easier for the parties to assess the scope, essentiality, and value of each other’s patents, so they tended to share a similar perspective on reasonable license rates.

With the spread of IoT, however, companies from a whole spectrum of different industries have begun using ICT standards, raising the possibility that they

too will be brought to the negotiating table. For example, in addition to those telecommunications companies holding SEPs, negotiations may now involve end-product manufacturers such as automobile makers as well as businesses providing services and infrastructure which do not hold strong SEPs themselves but do need to use them.

Further, there are now cases in which Patent Assertion Entities (“PAEs”) that are not engaged in business operations but rather generate revenue solely by asserting patents also become party to negotiations and disputes concerning SEPs.

As the parties to licensing negotiations become more diverse, various aspects of those negotiations too are changing. As noted above, with licensing negotiations now taking place between ICT companies and companies in other industries, it is becoming harder to resolve disputes through cross-licensing. In addition, divergent perspectives on essentiality and licensing rates are fostering unease over SEP-related negotiations and disputes.

(Motivations for Creating this Guide)

With companies from a broad spectrum of industries now finding themselves involved in SEP licensing negotiations, there is a call for appropriate information to be provided to enable businesses not familiar with such negotiations to feel confident taking a seat at the negotiating table.

A considerable body of domestic and international legal precedents has begun to accumulate in relation to SEP disputes, and government agencies around the world are developing guidelines and policy documents.¹ The concept of FRAND royalties too has been examined in a number of legal cases.

It would be useful to analyze these developments and identify elements that should be considered to achieve a balance between the interests of rights holders and implementers with respect to negotiation procedures and methods of calculating royalty rates.

¹ In November 2017, the European Commission announced the European Commission Communication on Standard Essential Patent (SEP) Licensing (below, European Communication), urging SSOs to increase SEP transparency and indicating general principles in relation to FRAND licensing terms for SEPs.

B. Nature of this Guide

The SEPs addressed in this Guide are those which the current or original rights holder has presented to an SSO as a FRAND-encumbered SEP.

This Guide is not intended to be prescriptive, is in no way legally binding, and does not forejudge future judicial rulings. It is intended to summarize issues concerning licensing negotiations as objectively as possible based on the current state of court rulings, the judgment of competition authorities, and licensing practices, etc.

While the legal basis for limiting an injunction concerning a FRAND-encumbered SEP varies from country to country according to their respective legal systems, in many cases, it seems to have been different factual situations that have led courts in different countries to reach different conclusions. Recent years have seen increasing cross-border convergence in case law as to how parties should behave in SEP licensing negotiations based on the dedication to a factual inquiry into good faith negotiations.

In these circumstances, this Guide aims to offer an explanation of what actions companies can take to make it more likely for them to be recognized as “negotiating in good faith,” helping implementers to avoid an injunction and rights holders to secure appropriate compensation. This Guide also discusses how to engage in such negotiations efficiently.

This Guide presents factors to be considered when determining a reasonable royalty, not “recipes” which can be used to automatically calculate an appropriate royalty. In other words, a solution cannot mechanically be produced by simply following this Guide. Given the diversity of SEP licensing negotiations and of the circumstances in which the parties to such negotiations are placed, a solution has to be worked out in each particular case. Not all the issues noted in this Guide will apply to all negotiations.

Our hope is therefore that this Guide might be used by qualified experts when advising small and medium enterprises (SMEs) and other parties with limited experience in dealing with SEP issues.

In formulating this Guide, we invited the submission of proposals between September 29 and November 10, 2017, receiving around 50 responses from Japan and abroad. We also called for public comments between March 9 and April 10,

2018, receiving around 50 comments from Japan and abroad. In addition, we engaged in discussions with experts from industry, academia and law, who offered many valuable comments and insights. The content of this Guide owes much to these inputs.

With the environment surrounding SEP licensing negotiations continuing to transform, we plan to review and revise this Guide as appropriate in an open and transparent process so that it continues to evolve and remains “living.”

II. Licensing Negotiation Methods

A. Good Faith

Although FRAND means “fair, reasonable and non-discriminatory”, there are two aspects to FRAND: (1) the negotiation process itself and (2) the terms of the resulting license. While the purpose of licensing negotiations is to determine whether a license is necessary, and, if so, the appropriate licensing terms, it is the negotiation process that impacts on whether or not an injunction is justified. Therefore, this chapter will address the first aspect of FRAND.

When patent rights are infringed, rights holders may in principle exercise their right to seek an injunction. When implementers intend to obtain a license on FRAND terms in good faith, however, court decisions around the world are consistent in imposing limitations on granting injunctive relief to owners of FRAND-encumbered SEPs.² There are independent and overlapping legal mechanisms by which this is achieved.

One is contracts. The rights holder gives a commitment to the SSO to grant licenses on FRAND terms. In some countries, that commitment, is contractually binding between the SSO and the rights holder, and the contract will be governed by a particular law (e.g. French law in the case of a contract with ETSI³). The laws of those countries permit a third party to enforce a contract where it is for the benefit of that party, so a third-party implementer can insist upon a rights holder granting it a license on FRAND terms. If the rights holder does not do so, or does not offer

² However, some court rulings have allowed an injunction (*St. Lawrence v. Deutsche Telekom and HTC* (Germany, district court, 2015), *NTT DoCoMo v. HTC* (Germany, district court, 2016), *St. Lawrence v. Vodafone and HTC* (Germany, district court, 2016), *Unwired Planet v. Huawei* (UK, high court, 2017)).

³ European Telecommunications Standards Institute

FRAND terms, it is in breach of contract, and it will be prevented from enforcing its patent accordingly.

Another is competition law. Where it is found that a rights holder has abused a dominant position, this constitutes a violation of competition law.

There is also a mechanism that draws on the legal principle of the abuse of rights.⁴

What, then, is regarded as a demonstration of good faith? While the way in which licensing negotiations are progressed needs to be determined among the parties on a case by case basis and with regard to the laws and rulings of the country or countries in which the patent will be implemented, the 2015 decision by the Court of Justice of the European Union (“CJEU”) in the case between Huawei and ZTE⁵ in particular has attracted wide attention. It provided a framework for good faith negotiations between rights holders and implementers by identifying actions which each of the parties should take at each stage of the licensing negotiations. This framework details the rules of negotiations from the perspective of competition law in Europe, and not every court decision in each country follows this framework. Nevertheless, the framework is considered to be a useful approach in terms of encouraging good faith negotiations whereby rights holders may fulfill their FRAND obligations and implementers may minimize their risk of an injunction, regardless of the differences among jurisdictions in the legal bases for stipulating the negotiation rules for FRAND-encumbered SEPs.

The framework, however, does not provide specific details about negotiations, such as the scope of information that the parties should submit at each stage of the negotiation and the period given to make a response. While some parties regard the lack of specific detail as increasing the flexibility of negotiations, others suggest that it undermines the predictability of licensing negotiations.

⁴ In Japan, a FRAND declaration made by an SEP rights holder to an SSO is not regarded as a contract for a third-party beneficiary (i.e., an implementer), and the rights holder is regarded as having the obligation to negotiate in good faith with the third party (the implementer) under the principle of good faith prescribed by civil law. If this obligation is not met, the exercise of injunction rights may be restricted as an abuse of rights (*Apple v. Samsung* (Japan, IP high court, 2014)).

⁵ *Huawei v. ZTE* (EU, CJEU, 2015)

Under these circumstances, this Guide has drawn on the framework presented by the CJEU and informed by court decisions in various countries and actual practices in SEP disputes in listing more specific issues relating to actions that parties may take at each stage of licensing negotiations. Framework details should eventually emerge through the accumulation of rulings over the coming years.

It should be noted that simply satisfying the various elements noted in this Guide provides no guarantee of recognition of good faith. Rather, a comprehensive assessment of the negotiating process as a whole needs to be made in each case.

Once again, this Guide is not intended to be prescriptive, and the manner in which negotiations are progressed should be determined among the parties on a case by case basis.

[*Steps of the Licensing Negotiation Process*]⁶

Step 1: Licensing Negotiation Offer from Rights Holder

Step 2: Expression from Implementer of Willingness to Obtain a License

Step 3: Specific Offer from Rights Holder on FRAND Terms

Step 4: Specific Counteroffer from Implementer on FRAND Terms

Step 5: Rejection by Rights Holder of Counteroffer/Settlement of Dispute in Court or through ADR

1. Step 1: Licensing Negotiation Offer from Rights Holder

(*Overview*)

In general, if an implementer is suspected to have infringed patent rights, the rights holder may initiate negotiations with the implementer by specifying the relevant patents and identifying how those patents have been or are being infringed.⁷

⁸ In some cases, an entity that manages a framework enabling patents held by

⁶ The list below is not intended to suggest that each of the five steps is necessarily mandatory in every case. Steps may vary according to the particular case.

⁷ The framework in *Huawei v. ZTE* (EU, CJEU, 2015) suggests that the rights holder first alerts the alleged infringer of their infringement by identifying the patents and specifying the way they have been infringed.

⁸ In the field of telecommunications, although implementers often start a negotiation only after receiving an invitation to license from a rights holder, because of the large number of SEPs

multiple rights holders to be licensed efficiently in a single transaction (“patent pool”) may negotiate in place of the rights holder.

It is common for the rights holder to substantiate the infringement by providing to the implementer, among other things:^{9 10}

- (1) Documents identifying the SEPs (list of patent numbers,^{11 12} the names of the standards at issue, the geographical scope of patents, etc.); and
- (2) Documentation mapping claims of the SEPs to the standards and/or products (claim charts,¹³ etc.).

When a rights holder holds large numbers of SEPs, the parties sometimes discuss limiting the negotiations to key patents so as to rationalize the negotiation process (refer to II.B.4.).

(Documentation Mapping Claims of the SEPs to the Standards and/or Products)

Rights holders provide documentation to implementers at the start of negotiations so that implementers can see how the SEP claims map to standards and/or their own products. It is common for rights holders to use claim charts to indicate the correlation between products that are actually manufactured and patent claims.

and/or patentees, it may be useful for parties to refer to the framework of this Guide even if such negotiations are initiated by the implementer before it launches business operations.

⁹ Besides these, there is a view that rights holders may demonstrate their good faith by, for example, presenting evaluations by third-party experts and examples from past cases, etc.

¹⁰ In some cases including where the SEP has a substantial licensing history, the implementer may decide that such substantiation is unnecessary.

¹¹ In *NTT DoCoMo v. HTC* (Germany, district court, 2016), the court stated that it is necessary to at least indicate the patent number. In *Sisvel v. Haier* (Germany, high court, 2016), the court stated that it is an industry practice to present 10 to 15 representative patents as a “proud list.”

¹² In *NTT DoCoMo v. HTC* (Germany, district court, 2016), the court stated that rights holders need to inform the implementer that the patent is declared standard essential to an SSO.

¹³ In *Sisvel v. Haier* (Germany, high court, 2016), the courts stated that at this stage of the licensing procedure, it was not yet necessary to explain the infringement act by providing claim charts. Meanwhile, in *NTT DoCoMo v. HTC* (Germany, district court, 2016), the courts stated that claim charts based on practices are sufficient for substantiating the infringement.

Claim charts may be useful for implementers in analyzing whether they are infringing the SEPs. Meanwhile, by presenting claim charts, the rights holders may demonstrate that they are providing information in good faith to implementers.

When patents are SEPs and the details of patent claims are consistent with standards documents, and if the implementers advertise that their products conform to the applicable standards, the act of indicating the correspondence between patent claims and standards may be sufficient. Thus, mapping patent claims to actual products may not always be necessary.¹⁴

Some claim charts explain the connection between claim terminology and the corresponding features of the standards documents or products. In some cases, rights holders may claim that the explanation includes confidential information. In such situations, the parties may conclude a confidentiality agreement (non-disclosure agreement) in licensing negotiations. (Refer to II.B.3.)

While both claims and standards documents are made public and are not in themselves confidential, rights holders tend to require the conclusion of confidentiality agreements as a condition for providing claim charts on the grounds that the correspondence between claim terminology and standards documents and the interpretation thereof constitute confidential information. Implementers, on the other hand, tend to argue that in cases where claim charts only provide a simple comparison between claim terminology and standards documents, the charts do not constitute confidential information and should not be subject to a confidentiality agreement.

If a rights holder demands that an implementer enter into a confidentiality agreement as a condition for providing claim charts even when the rights holder can prepare claim charts that do not include confidential information, this may increase the likelihood of the rights holder being perceived as acting in bad faith. On the other hand, if an implementer demands that a rights holder provide detailed claim charts that do include confidential information while refusing to conclude a confidentiality agreement, this may increase the likelihood of the implementer being perceived as acting in bad faith.

¹⁴ In *Fujitsu v. Netgear* (U.S., CAFC, 2010), the court stated that if an accused product operates in accordance with the standards, then comparing the claims to the standard is the same as comparing the claims to the accused product. The court also stated that if the relevant section of the standard is optional, standards compliance alone would not establish that the accused infringer chooses to implement the optional section.

(Documents Demonstrating the Essentiality of SEPs)

When a rights holder and an implementer cannot agree on the essentiality of a patent, they may obtain an analysis from an independent evaluator (an independent company or organization that provides the service of reviewing patents for essentiality). The JPO has a system in which a panel in the Trial and Appeal Department provides an advisory opinion with no legally binding force in relation to the technical scope of a patented invention, and from April 2018 started offering a determination of the essentiality of a patented invention. .

Declaration documents, in which rights holders made a FRAND declaration to SSOs, are based on the rights holders' technical assessment that the patents are essential, but not assessment by a neutral third party.

(Notes on Rights Holders' Actions)

The following are examples of actions by a rights holder that may increase the likelihood of the rights holder being perceived as acting in bad faith:

- (1) Demanding injunctive relief before or immediately after sending a warning letter to the implementer, or immediately after opening a negotiation;
- (2) Not disclosing its documents identifying the SEPs and documentation mapping SEP claims to the standards and/or products such as claim charts, when offering licensing negotiations to an implementer, such that the implementer can understand the rights holder's claims;
- (3) Claiming that it will not provide documentation mapping SEP claims to the standards and/or products such as claim charts to the implementer unless the implementer concludes a confidentiality agreement, even though the documentation does not include confidential information;
- (4) Making an offer that sets a time limit that does not allow a reasonable period of time for consideration; or
- (5) Not disclosing the content of a portfolio to the implementer (the technologies, number of patents, regions, etc., covered by the portfolio).

Some argue that the information which the rights holder needs to provide additionally so that the implementer can garner the necessary information for negotiations is less extensive in the case of a patent license once granted to the

implementer that has since expired than in the case of concluding a new licensing agreement.^{15, 16}

2. Step 2: Expression from Implementer of Willingness to Obtain a License

(Overview)

When an implementer receives an offer from a rights holder for licensing negotiations, it may help to mitigate risk for the implementer not to leave that offer unanswered even if it does not agree with the rights holder's offer, but instead to respond in good faith.¹⁷

After receiving documents including those identifying the SEPs and claim charts from the rights holder, if the implementer concludes that it needs to obtain a license for the SEPs, it may express its willingness to conclude a licensing agreement with (that is, to obtain a license from) the rights holder. Some argue that this willingness should be gauged by the implementer's actions rather than words—in other words, not just the expression of willingness but evidence of this in the way that the implementer approaches negotiations.

Some hold the view that, when an implementer receives an offer from a rights holder for licensing negotiations, the implementer should promptly express its willingness to obtain a license even if discussions are still being conducted about essentiality, validity, and infringement, reserving the right to challenge these issues. Others take the view, however, that parties should first conduct discussions about essentiality, validity, and infringement before the implementer expresses its willingness to obtain a license.

¹⁵ *Unwired Planet v. Huawei* (UK, high court, 2017)

¹⁶ There is a view, however, that it may require attention because the patent portfolio of the SEP licensor may have changed significantly (e.g., patents have been added to the portfolio or have expired).

¹⁷ In *Huawei v. ZTE* (EU, CJEU, 2015), the court stated that the alleged infringer should diligently respond to the SEP holder's offer, in accordance with recognized commercial practices in the field and in good faith, this being a matter that must be established on the basis of objective factors and which implies, in particular, that there are no delaying tactics.

(Countermeasures by Implementers)

In practice, a rights holder and an implementer in licensing negotiations may not see eye-to-eye, and may fail to reach an agreement on essentiality, validity or infringement. In such cases, the implementer can express its willingness to obtain a license without waiving its right to challenge these issues.^{18 19}

An implementer may still challenge, for example, the following issues on patent rights for which it intends to obtain a license:

- (1) Whether the patents are truly essential;
- (2) Whether the patents are valid;
- (3) Whether the implementer has infringed these patents;
- (4) Whether the patents are enforceable²⁰;
- (5) Whether the entity who has exercised its rights is the true holder of the patents; and
- (6) Whether the patents have not been exhausted.

When implementers challenge the issues identified above, they may be required to provide specific grounds of such positions. For example, it is useful for them to provide, among other things:

- (1) Documents that provide the basis for the implementers' refutation that they do not infringe the subject patents;
- (2) Prior art that serves as grounds for invalidating the patents;
- (3) Technical information that provides the basis for the argument that patents are not essential; and

¹⁸ In *Huawei v. ZTE* (EU, CJEU, 2015), the court stated that an implementer “cannot be criticized either for challenging, in parallel to the negotiations relating to the grant of licenses, the validity of those patents and/or the essential nature of those patents to the standard ... or for reserving the right to do so in the future” and the court did not cause implementers to waive their defenses, even while indicating their willingness to take a license.

¹⁹ In *Apple v. Samsung* (Japan, IP high court, 2014), although the implementer Apple insisted that its product did not infringe and argued that the patent was invalid, the court found Apple to be willing to obtain a license.

²⁰ Under U.S. law, patents can be held unenforceable if the rights holder engages in inequitable conduct before the United States Patent and Trademark Office by, for example, withholding material information with the intent to deceive (*Therasense v. Becton* (U.S., CAFC, 2011)).

- (4) Documentation that provides the basis for the argument that patents are not enforceable.

(Reasonable Amount of Time for Response)

When reference materials provided by rights holders to implementers are not sufficient, such as not identifying the SEPs or including claim charts, it may serve to mitigate risk for the implementers to promptly request the rights holders to provide such materials.

The reasonable amount of time needed for the implementer to express its willingness to obtain a license after receiving such information from the rights holder may vary depending on various factors, such as the number of patents at issue, the complexity of the technology, the level of knowledge the implementer may have about the technology, any prior relationship, business transactions, and the state of a dispute on essentiality, validity, and infringement between the parties.

If there are relatively few patents at issue and the implementer is familiar with the technology, it may be reasonable, in some cases, for the implementer to express its willingness to obtain a license in a relatively short period of time.

On the other hand, if there are a significant number of patents at issue and the implementer is unfamiliar with the technology, several months or more may be a more reasonable time frame. For example, when a SEP-implementing component supplied by a third party is used in an end product, the end product manufacturer, if involved in the negotiations on the implementers' side, may need to obtain technical details about that component from the third-party supplier and thus may need more time to respond. If the initial substantive response requires more time, it may help to mitigate risk for the implementer to notify the rights holder and explain the specific reasons for the extra time needed so that it is not perceived as a deliberate delay (refer to II.B.1.).

(Notes on Implementers' Actions)

The following are examples of actions by an implementer that may increase the likelihood of the implementer being perceived as acting in bad faith:

- (1) Not giving any reason for a very late reply or refusing to negotiate at all, even while continuing to use the infringing (or potentially infringing) technology²¹;
- (2) Claiming it will not start negotiation unless all grounds for essentiality and validity of the SEPs are first provided;
- (3) Unreasonably delaying negotiations by, for example, persistently demanding that the rights holder provide information that cannot be disclosed due to a confidentiality agreement(s) with others;
- (4) Completely refusing to conclude a confidentiality agreement, while demanding that the rights holders provide claim charts, including detailed claim interpretations containing confidential information, or making repeated revisions to confidentiality agreement conditions to delay negotiations;
- (5) Repeatedly making meaningless responses; or
- (6) Colluding with multiple other implementers in obstinately refusing to obtain a license on the grounds that others have not obtained it.

Even when the implementer deems that the reference materials provided by the rights holder are insufficient, making no response at all may increase the likelihood of the implementer being viewed as acting in bad faith. In such a case, it may help to mitigate risk for the implementer to respond to the rights holder at least by, for example, requesting specific and necessary reference materials.

When discussions about essentiality, validity, and infringement of the SEPs are still ongoing, it may not necessarily be viewed as acting in bad faith if an implementer does not promptly express its willingness to obtain a license. On the other hand, some courts have ruled that implementers should promptly express their willingness to obtain a license while reserving their right to challenge issues of

²¹ U.S. Dept of Justice and U.S. Patent and Trademark Office, Policy Statement (2013); In *Apple v. Motorola* (U.S., CAFC, 2014), the court stated that an injunction may be justified where an infringer unilaterally refuses a FRAND royalty or unreasonably delays negotiations to the same effect.

essentiality, validity, and infringement of SEPs.^{22 23} Thus, from the perspective of minimizing the risk of injunction, it would be safer for an implementer to express its willingness to obtain a license at an early stage of the negotiations while reserving its right to challenge issues of SEP essentiality, validity, and infringement.

3. Step 3: Specific Offer from Rights Holder on FRAND Terms

(Overview)

If an implementer has expressed its willingness to obtain a license, the rights holder may promptly present to the implementer a written offer for a license on FRAND terms. In addition to indicating its royalty calculation method (refer to III.), the rights holder normally presents specific grounds explaining why the offer is on FRAND terms. This is done for an implementer to determine whether the presented terms are reasonable and non-discriminatory.²⁴

For portfolios containing a large number of SEPs, even in cases where a rights holder presents a royalty offer based on comparable licensing terms accepted by the market, it may still be helpful for that rights holder to provide an explanation with specific grounds sufficient for the implementer to determine whether the terms are reasonable and non-discriminatory.

Such specific grounds may include²⁵:

²² In *St. Lawrence v. Vodafone and HTC* (Germany, district court, 2016), the court stated that five months is too long to express its willingness to obtain a license after the initial warning by the rights holder, even taking into account that the implementer was a network operator and was to be allowed a certain period for consultation with the manufacturers of the challenged mobile phones. In *St. Lawrence v. Deutsche Telekom and HTC* (Germany, district court, 2015), the court stated that, considering that the implementer was a mobile phone manufacturer, three months was too long to express its willingness to obtain a license after the filing of an infringement lawsuit.

²³ *Huawei v. ZTE* (EU, CJEU, 2015).

²⁴ In *Philips v. Archos* (Germany, district court, 2016), since the royalty calculation method was not included in the FRAND offer, the right to seek injunctive relief was not upheld.

²⁵ For example, rights holders may also be able to present prices of products or components that are used as the basis of the royalty calculation, the ownership ratio of the rights holders relative to the total number of SEPs related to the standard, and the date of expiration of patents.

- (1) An explanation of how the rights holder calculates royalties²⁶ (sufficient for the implementer to objectively understand that the terms presented satisfy the FRAND obligation.²⁷) ; or
- (2) A list of comparable licenses and their terms, if any,²⁸ (including royalties paid to, or received from, other companies for equivalent technologies, royalties by patent pool, etc., which may or may not be disclosed depending on the terms of confidentiality agreements) (refer to II.B.3. and III.A.3.a.).

(Notes on Rights Holders' Actions)

The following are examples of actions by a rights holder that may increase the likelihood of the rights holder being perceived as acting in bad faith:

- (1) Seeking an injunction against an implementer who has expressed its willingness to obtain a license on FRAND terms before offering a license on those terms, for the purpose of gaining leverage in the licensing negotiations,^{29 30}
- (2) Sending letters warning that the rights holder will seek injunctive relief (cease-and-desist letters) to business partners of an implementer who has expressed its willingness to obtain a license on FRAND terms, despite ongoing negotiations³¹;

²⁶ In *Sisvel v. Haier* (Germany, high court, 2016), the court stated that the rights holder needed to show the factors that formed the basis of its royalty calculation.

²⁷ In *NTT DoCoMo v. HTC* (Germany, district court, 2016), the court stated that the rights holder needed to make it possible for the implementer to understand that the offer satisfied FRAND terms based on objective criteria.

²⁸ In *Sisvel v. Haier* (Germany, high court, 2016), the court stated that if there is a license program of the same quality and scope as the portfolio, it is necessary to make a comparison with that program.

²⁹ In *Realtek v. LSI* (U.S., federal district court, 2013), the court stated that seeking injunctive relief before offering a license on FRAND terms is a breach of contractual obligations.

³⁰ In *Microsoft v. Motorola* (U.S., court of appeals for the ninth circuit, 2012), the court stated that seeking injunctive relief in a related case in Germany before the decision of the U.S. court is “vexatious or oppressive”.

³¹ In *Imation v. One-Blue* (Japan, district court, 2015), the court stated that it is an announcement of a falsehood and falls under unfair competition to notify a customer of the

- (3) Presenting an initial offer that is clearly unreasonable given court rulings and comparable licensing terms, and sticking to that offer during the negotiation process³²; or
- (4) Not explaining how the royalty is calculated or not demonstrating that the license offer is on FRAND terms.

4. Step 4: Specific Counteroffer from Implementer on FRAND Terms

(Overview)

If an implementer disagrees with the proposed FRAND terms presented by a rights holder, the implementer may provide a FRAND counteroffer. When presenting such a counteroffer, in addition to indicating the royalty calculation method (refer to III.), the implementer normally indicates specific grounds demonstrating that its counteroffer is on FRAND terms. This is done for a rights holder to determine whether the presented terms are reasonable and non-discriminatory.

Such specific grounds may include:

- (1) An explanation of how the royalty presented by the implementer is calculated (sufficient that the rights holder can objectively understand that the terms presented satisfy the FRAND obligation); and
- (2) A list of comparable licenses and their terms, if any (including royalties paid to, or received from, other companies for equivalent technologies, royalties by patent pool, etc. which may or may not be disclosed depending on the terms of confidentiality agreements) (refer to II.B.3. and III.A.3.a.)

implementer who expresses its willingness to obtain a license on FRAND terms that the rights holder can seek injunctive relief.

³² In *Microsoft v. Motorola* (U.S., federal district court, 2012), the court stated that since a FRAND declaration anticipates that the parties will negotiate toward a FRAND license, it logically does not follow that the initial offers must be on FRAND terms but must comport with the implied duty of good faith and fair dealing inherent in every contract. In *Unwired Planet v. Huawei* (UK, high court, 2017), the court stated that offers in a negotiation that involve rates higher or lower than the FRAND rate, but do not disrupt or prejudice the negotiation, are legitimate.

(Reasonable Amount of Time for Response)

The reasonable time period from when an implementer receives an offer on FRAND terms from a rights holder until the implementer presents a counteroffer is determined on a case by case basis. When the technologies of the SEPs are not complicated, the implementer may present its counteroffer in a relatively short period of time. When technological complexity or other issues require a certain amount of work to prepare a response, it may be deemed reasonable for an implementer to respond in several months or more.

Factors that may determine what constitutes a reasonable amount of time to provide a counteroffer include: the number of patents at issue, the complexity of the technology, the number and type of products at issue, whether any comparable royalty rate exists, and whether the parties are negotiating a worldwide license or regional license (refer to II.B.1).

(Notes on Implementers' Actions)

The following are examples of actions by an implementer that may increase the likelihood of the implementer being perceived as acting in bad faith:

- (1) Not providing any counteroffer on FRAND terms after a rights holder has presented specific grounds showing that its proposed licensing terms are FRAND³³;
- (2) Presenting an initial counteroffer that is clearly unreasonable given court rulings and comparable licensing terms, and sticking to that counteroffer during the negotiation process³⁴; or
- (3) Not explaining how a proposed royalty is calculated or not demonstrating that the counteroffer is on FRAND terms.

An implementer who does not provide a counteroffer on FRAND terms may not immediately be viewed as being in bad faith when further discussions are needed to determine the technical relationship between the subject patents and the standards

³³ In *Apple v. Motorola* (U.S., CAFC, 2014), the court stated that an injunction may be justified when an implementer unilaterally refuses a FRAND royalty or unreasonably delays negotiations to the same effect. In *NTT DoCoMo v. HTC* (Germany, district court, 2016), the court granted injunctive relief where the implementer did not respond or make a counteroffer for 1.5 years after receiving the FRAND offer and six months after the filing of the court action.

³⁴ See Footnote 32.

as well as the validity of the patents, or when a rights holder does not provide any specific offer on FRAND terms or the basis thereof.

5. Step 5: Rejection by Rights Holder of Counteroffer/Settlement of Disputes in Courts or through ADR

(Overview)

Generally, negotiations proceed through a process of offer and counteroffer between rights holders and implementers, but if a rights holder rejects a counteroffer from the implementer and the parties fail to reach an agreement, and if one or both parties does not wish for time to go by without agreement being reached, they may be able to address their dispute in court.³⁵

As an alternative to litigation, the parties may agree to settle their disputes through Alternative Dispute Resolution (ADR), such as mediation or arbitration.

(Utilization of ADR)

Since it may be unrealistic for a court to determine the essentiality, validity, and infringement of dozens, or potentially even hundreds, of SEPs, a rights holder may choose several of its important patent rights to bring to court. Some argue that the greater procedural flexibility of ADR such as mediation and arbitration makes it more effective in terms of promptly settling SEP disputes over a large number of domestic and international patents.

Unless used as a tool to intentionally delay negotiations or increase cost, ADR may be a more prompt and more cost-effective approach, compared to a lawsuit.³⁶ In addition, parties have more flexibility in setting their own rules and procedures. As an example, parties can agree that arbitrators will make decisions only on

³⁵ In *Realtek v. LSI* (U.S., federal district court, 2013), the court stated that if a putative implementer refuses to pay what has been determined to be a FRAND royalty, or refuses to engage in a negotiation to determine FRAND terms, an injunction could be appropriate.

³⁶ Although forms of ADR such as arbitration may not be quicker and more cost effective than litigation in every case, there is a view that arbitration has numerous benefits over litigation with respect to efficiency (*Benefits of Arbitration for Commercial Disputes*, American Bar Association).

royalties for SEPs on FRAND terms, without considering the essentiality and validity of the SEPs.³⁷

In particular, an international arbitration process may be used to reach a single settlement globally as arbitral awards overseas are recognized and enforced under the New York Convention.

Some consider, however, that there are demerits to the use of ADR. For example, ADR requires prior agreement between the disputing parties, which means that disagreements over procedures can become protracted; it is difficult to determine the validity of patent rights through ADR; and the content of ADR is undisclosed and thus lacking transparency.

Some argue that proposing or accepting the use of ADR could be considered as evidence of good faith in negotiations, while others regard it as a rather weak indicator of good or bad faith in most cases. Either way, while the refusal of ADR options may not immediately be viewed as bad faith, continuing to do so may be seen as bad faith in some cases.³⁸

(Security Offered by Implementers)

Under the framework presented in the CJEU decision in the case between *Huawei v. ZTE*, the court stated that when an alleged infringer has used SEPs before concluding any licensing agreements, from the time its counteroffer is refused, the alleged infringer is required to provide appropriate security in accordance with recognized commercial practices in Europe, for example by providing a bank guarantee or by placing the necessary amounts on deposit. It also stated that “[t]he calculation of that security must include, inter alia, the number of the past act of use of the SEP, and the alleged infringer must be able to render an account in respect of those acts of use.” This is based on the idea that it would be contradictory and therefore unfair for the implementer to assert its willingness to pay the license fee but actually fail to do so even while using the product.

Although providing such security may be a factor in considering good faith, an implementer’s failure to offer security may not necessarily increase the likelihood

³⁷ There are many ways parties can structure ADR, including authorizing a neutral (or panel of neutrals) to decide certain discrete issues or make non-binding recommendations as to those issues.

³⁸ In *Huawei v. Samsung* (China, intermediate court, 2018).

of being viewed as bad faith in regions outside Europe, such as Japan and the United States. There is a view, however, that where an implementer lacks the financial capability to meet its financial obligations under a license ultimately to be concluded, the implementer could be viewed as acting in bad faith for not providing appropriate security.

There is also a view that the provision of security gives both parties the incentive to negotiate in good faith.

(Exercise of Right to Seek Injunction)

Around the world, there has been an accumulation of legal precedents concerning SEP-related injunctions. Most courts have imposed limitations on the exercise of the right to seek an injunction against implementers who have responded in good faith, and have determined that it would be appropriate for a rights holder to be allowed to exercise its right to seek an injunction when implementers have responded in bad faith during the negotiation process.

Nonetheless, grounds for restricting the rights of SEP owners to seek injunctions vary by country. For example, there have been cases in which the exercise of the right to seek an injunction was restricted based on, in the United States, the requirements for seeking injunction, as detailed in the decision by the Supreme Court in the *eBay* case and the contractual effects of FRAND declarations to SSOs on third parties³⁹; in the U.K., the contractual effects of FRAND

³⁹ In the United States, in general, an injunction (35 U.S.C. 283) takes into account the four requirements identified in *eBay v. MercExchange* (U.S., Supreme Court, 2006). A plaintiff must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction. Regarding SEPs, in both *Microsoft v. Motorola* (U.S., federal district court, 2013) and *Apple v. Motorola* (U.S., CAFC, 2014), the court regarded the FRAND commitments to the SSO as a contract between the rights holder and the SSO for a third-party beneficiary, and did not grant injunctive relief because the rights holder did not satisfy one of the factors in *eBay* (U.S., Supreme Court, 2006), namely “that it has suffered an irreparable injury,” because the contract between the two parties enabled the rights holder to obtain relief via the royalty paid by the implementer. In *Apple v. Motorola*, parties’ attitudes toward negotiations are also considered as a factor.

declarations to SSOs on third parties⁴⁰; in Europe, a violation of the Competition Law by the rights holder's abuse of its dominant position⁴¹; and in Japan, the rights holder's abuse of patent rights.⁴²

Also, competition authorities in Japan and Europe suggest that demanding an injunction against an entity that is willing to obtain a license on FRAND terms may be a violation of competition law.⁴³ The competition authority in the United States does not agree that this conduct comprises the basis for a competition violation.⁴⁴

B. Efficiency

To conduct licensing negotiations smoothly, it is also important to consider efficiency along with good faith. The following sections address key points that should be considered for the efficient conduct of FRAND-based negotiations.

[Factors for Efficient Negotiation]

1. Notification of a Timeframe
2. Parties to Negotiation in Supply Chain
3. Protecting Confidential Information
4. Choice of Patents subject to Negotiation
5. Geographic Scope of License Agreement

⁴⁰ In *Unwired Planet v. Huawei* (U.K., high court, 2017), the court stated that the contractual effect of the FRAND declaration to an SSO will extend to third parties.

⁴¹ In *Huawei v. ZTE* (EU, CJEU, 2015), the court identified the steps that the rights holder must take before seeking injunctive relief, such as alerting the implementer or presenting a specific, written offer for a license on FRAND terms. The court held that if the implementer improperly delays after these steps are taken by the rights holder, an injunction will not violate competition law and seeking injunctive relief will be justified.

⁴² In Japan, there is no provision that limits an injunction in general, but regarding SEPs, in *Apple v. Samsung* (Japan, IP high court, 2014), seeking injunctive relief against a person who is willing to obtain a license was deemed to be an abuse of rights.

⁴³ See, for example, *Motorola v. Apple* (EU, EC, 2014); *Samsung v. Apple* (EU, EC, 2014); “Guidelines for the Use of Intellectual Property under the Antimonopoly Act” (The Japan Fair Trade Commission, 2016).

⁴⁴ Makan Delrahim, Assistant Attorney General, Antitrust Division, U.S. Department of Justice (DOJ), stated as a view of the DOJ that “it is just as important to recognize that a violation by a patent holder of an SSO rule that restricts a patent-holder’s right to seek injunctive relief should be appropriately the subject of a contract or fraud action, and rarely if ever should be an antitrust violation.”

6. Patent Pool Licensing
7. Greater Transparency of SEPs

1. Notification of a Timeframe

For negotiations to proceed smoothly, it is desirable for the parties to notify each other of the overall expected timeframe as well as the timeframe required for each of the stages identified in II.A above.

The negotiation timeframe may vary widely. Factors that may be considered in setting reasonable expectations for a timeframe may include, but are not limited to: the number of patents at issue, the complexity of the technology, the number of different products and types/nature of the products at issue, matters pending in the courts or patent offices that relate to issues underlying the negotiation (e.g., essentiality and validity), and the number of licenses the patent owner has already granted for the SEPs.

In the case that an implementer seeks to secure a relatively long negotiation timeframe, there is a view that the specific grounds need to be explained to the rights holder to gain their understanding.

Naturally, as discussions proceed, there may be events that require the timeframe to be changed. Nonetheless, discussing and clarifying the expected timeframe early on can enable both parties develop a shared sense of the likely negotiation timeframe.⁴⁵

In particular, with product lifecycles becoming shorter, there is some concern that prolonged negotiations could prevent the timely recovery of the investment that would allow for investment in next-generation technologies. Some argue that protracted negotiations may also lead to engineers and other resources that should have been channeled into R&D instead being used for negotiations, creating a major burden.

⁴⁵ While the overall negotiation timeframe will vary by case, some suggest as a rough reference to what prompt completion might look like that complex cross licenses with vast portfolios might complete in 12 months, one-way licenses with fewer SEP families at stake in 9-12 months, and simple one-way licenses with a few patents in 6-9 months. Others, however, do not like the idea of any numerical benchmark for negotiation timeframes.

While some consider that notifying the estimated length of time for licensing negotiations may increase the likelihood of that party being perceived as acting in good faith, others suggest that not doing so will not necessarily be perceived as bad faith.

2. Parties to Negotiation in Supply Chain

(Overview)

With the spread of IoT, the use of standards has become more common. One issue often arising during negotiations is which entities in the manufacturing supply chain should be parties to licensing negotiations (e.g., component suppliers versus end-product manufacturers). There may not be a problem in selecting the parties to a negotiation as long as the parties can agree based on industry practices. Problems may arise, however, if, for example, a component installed in the end product implements a SEP.

While the level of the main parties to negotiations should be determined on a case by case basis, in the interests of, for example, making license management easier, rights holders generally tend to want to conclude license agreements with the end-product manufacturer.⁴⁶ On the other hand, the end-product manufacturer tends to want the supplier that has the most technical knowledge on the subject component to be the party involved in negotiating and concluding the licensing agreement. This tendency is especially evident in industries where the general practice is for the supplier to accept a patent indemnification agreement that puts the burden of licensing fees on the supplier.

(Implementer Who Will be the Party to Licensing Negotiations)

In general, the rights holder is in the position to decide with which party in the supply chain it signs an agreement, e.g., end-product manufacturer, component manufacturer, or sub-component manufacturer.

⁴⁶ While some argue that the reason that rights holders want to negotiate with end-product manufacturers is that they hope they will be able to gain more royalties that way, just as licensing rates change according to the basis of calculation (refer to III.A.2.), licensing rates too change according to where the main parties to the negotiation stand in the supply chain (lower for end-product manufacturers and higher for component suppliers), leading some parties to suggest that negotiating with end-product manufacturers does not necessarily produce more royalties.

Meanwhile, there is some debate globally on whether FRAND-encumbered SEPs should be licensed to anyone who desires to obtain such a license.^{47 48}

There are some end-product manufacturers that consider it discriminatory and contrary to FRAND commitments if the rights holder refuses to negotiate with the supplier manufacturing the component when it requests to be the party to the licensing negotiations. On the other hand, some consider it inappropriate for the end-product manufacturer to refuse all negotiations when the rights holder requests it to be the party to the licensing negotiations.

In addition, some argue that if the essential part of the patented invention is used only in the components provided by the supplier, it is appropriate for the supplier to be the party to the licensing negotiations. Others argue that if the essential part of the patented invention contributes to the end product, it is appropriate for the end-product manufacturer to be the party in licensing negotiations.

In any case, since there is a risk that injunctive relief against infringement may be granted against entities regardless of whether they are suppliers or end-product manufacturers if no entity in the supply chain obtains the license, all supply chain entities need to be aware of the status of conclusion of licensing agreements.

(Arguments from the Standpoint of Number of Players)

Some argue that having the end-product manufacturer involved in negotiations is most efficient, in that the licensing negotiations can then cover all the components contained in a product and consequently minimize the number of

⁴⁷ The idea that rights holders must license all entities wishing to obtain licenses regardless of the level in the supply chain is commonly referred as “license to all.” On the other hand, the idea that the FRAND declaration is not a requirement for licensing to all parties using standard technology, but is rather a mechanism to ensure that those who want to use standard technology can access that technology is commonly referred as “access for all.”

⁴⁸ In 2015, the Institute of Electrical and Electronics Engineers (IEEE) amended its patent policy to state that rights holders should be willing to make licenses available to anyone who requests a license. Objections to this amendment have been made by rights holders (IEEE-SA Standards Board Bylaws (2015)).

necessary negotiations as well as reduce negotiation costs, while also avoiding issues such as discrepancies in the licensing terms between suppliers.⁴⁹

On the other hand, others suggest that there may also be cases in which including suppliers in the negotiations is more efficient, such as when a small number of suppliers are supplying components to a large number of end-product manufacturers, and the rights holders can minimize the number of negotiations by conducting licensing negotiations with such suppliers.

(Arguments from the Standpoint of Exhaustion and Double Earnings)

It is generally considered that when a product that is protected by a patent is placed legitimately on the market by a rights holder or a licensed implementer, the patent is exhausted, so the rights holder may not exercise its rights against someone who has purchased the product.⁵⁰ In this connection, if a rights holder concludes licensing agreements with multiple suppliers within a single supply chain, some are concerned that it may become unclear which right has been exhausted, and could more readily lead to the issue of double earnings by the rights holder or underpayment to the rights holder. Others argue that such issues may be avoided by conducting licensing negotiations with the end-product manufacturer.

Another view, however, is that end-product manufacturers face difficulties in ascertaining the status of licensing agreements concluded upstream and in identifying a double-earnings issue, and therefore that the involvement in negotiations of those parties manufacturing components included in the technical scope of patent rights is valuable in terms of avoiding the double-earnings issue.

⁴⁹ One view is that where SEPs are not limited to a component (i.e., a portfolio of SEPs covering more than just one component), it may be unnecessarily complicating to include component suppliers in negotiations because that will result in splitting up or sub-categorizing the portfolio.

⁵⁰ In the United States, when a component manufacturer has a patent license and an end product incorporating the licensed component is sold, it may not be possible to obtain a royalty from the end-product manufacturer because the patent is exhausted by the first sale of the component (*Quanta v. LG* (U.S., Supreme Court, 2008)). That is, a sold component may exhaust patents to a larger product when the component “substantially embod[ies] the essential features of the patent when the only reasonable and intended use [of the component] is to practice the patent [in the larger product].” On the other hand, in *Apple v. Samsung* (Japan, IP high court, 2014), the court stated that when rights holders sell components used only for the manufacture of a patented product, the patent is exhausted while when a third party does not even have an implied license and is manufacturing the end-product using that component, the patent is not exhausted.

(Arguments from the Standpoint of Technical Knowledge)

Some argue that where an end-product manufacturer without detailed knowledge of the technologies involved is the main party to the negotiation, they will need to coordinate with all their suppliers throughout the negotiation process, which may lengthen the process and also push up the cost. Accordingly, they argue that it may be more efficient for those suppliers of technologies that fall within the scope of the patent claims, who consequently have the necessary technical knowledge, to be party to licensing negotiations.

Conversely, there is also a suggestion from the perspective of rights holders wishing to negotiate with end-product manufacturers that it is possible to acquire information on the technical content from the suppliers without involving them in the negotiations.

(Sharing the Burden of Licensing Fees)

When the rights holder requests payment of licensing fees after the product is sold, how this payment burden should be distributed within the supply chain sometimes becomes an issue. In particular, in the ICT industry, this issue tends to occur because entities commonly start licensing negotiations after the service is launched.

There are certain industries in which a patent indemnification agreement may be concluded whereby the supplier shoulders the payment of licensing fees. In such situations, even when the license fee negotiated by the end-product manufacturer as the party is excessive and disproportionate to the price of the component, the supplier may be requested to bear the burden.⁵¹

To avoid such a situation, some patent indemnification agreements exempt SEPs. Some argue that, in order to avoid an excessive burden on suppliers, licensing fees should be apportioned out across the supply chain according to the essential parts of the invention within the scope of the patent claim.

⁵¹ There has been a ruling that where suppliers party to patent indemnification agreements do not meet their obligation to provide end-product manufacturers with the necessary documents, etc., they should shoulder part of the licensing fee paid by the end-product manufacturer to the rights holder (*Softbank v. Kanematsu* (Japan, IP high court, 2015)).

Others suggest that it may be reasonable to incorporate in a patent indemnification agreement a provision to exempt the supplier from responsibility to pay the licensing fee if the supplier was not given the chance to be involved in the licensing negotiations. Some have also suggested that it might be reasonable to include a provision that exempts suppliers from the responsibility to pay more than an amount corresponding to the price of the component. Another opinion is that if suppliers are required to shoulder licensing fees, the price for their components should reflect the technical value of the SEP.

3. Protecting Confidential Information

(Overview)

A confidentiality agreement (non-disclosure agreement) ensures that information that is sensitive from a business or technical perspective and that is disclosed during negotiations is not disclosed in turn to a third party. By concluding a confidentiality agreement, the parties may find it easier to disclose sensitive information, thus leading to a more efficient licensing negotiation.

On the other hand, a party should take care in the wording of a confidentiality agreement to avoid the risk of being prevented from presenting information later in court as proof of good faith negotiations.

(Confidential Information of the Implementers)

Potentially confidential implementer information might include business-related information (e.g. market forecasts and sales information, etc.), and technical information about the implementer's products that is not publicly available.

If the rights holder exercises SEPs over products or methods of manufacture not open to the public, an implementer may want to consider whether to disclose proprietary technical information (such as blueprints of semiconductors or software source code) in order to counter effectively the specific grounds for infringement presented by the rights holder.

By contrast, if the allegedly infringing product which is the subject of the negotiations is one which the rights holder can obtain to assess whether there is an infringement of its patents, such as a general-purpose mechanical invention, it may be apparent from inspection of the product whether it practices the patent(s), and the

disclosure of confidential technical information by the implementer may not be required.

When the subjects of discussion are centered on the correspondence between patent claims and the standard documents, there may be cases where the implementer does not need to disclose confidential technical information regarding the product.

(Confidential Information of Rights Holders)

Potentially confidential rights holder information might include an explanation of claim terminology and the corresponding sections in the standard documents (refer to II.A.1.), and the terms of comparable licenses, such as the rate or the amount used to explain and support a FRAND offer.

(Provisions for a Confidentiality Agreement)

When concluding a confidentiality agreement, the following are examples of provisions that may be discussed depending on the circumstances of each negotiation:

- (1) Which information needs to be kept confidential
- (2) Who will receive confidential information
- (3) How will confidential information be marked
- (4) Whether orally communicated information will be covered
- (5) The duration of the agreement
- (6) Whether information can later be used in litigation as a defense
- (7) The duration of the confidentiality obligation
- (8) Information exempted from confidentiality (information within the public domain and legitimately acquired information, etc.)

(Maintaining Confidentiality of the Process, Content, and Result of the Licensing Negotiations)

The parties may also consider setting forth confidentiality provisions applicable to the process, content, and result of the licensing negotiations. On the one hand, facts such as what kind of information has been disclosed at what point in a series of negotiations is often important in reading other parties' thinking on and approach to business and to patents, and parties often want complete confidentiality, to the extent that even the existence of a resulting license agreement is confidential,

so as to ensure against, for example the deliberate choice of only certain parts of the negotiation proceedings for disclosure.

On the other hand, often the existence and the content of the licensing agreement are not treated as confidential so that the agreement may be assessed as a “comparable license” in the future. The parties may want to consider, in view of the above, for example, whether all terms and the existence of an agreement will be confidential, whether only its monetary terms will be confidential, or whether only sales volume information (e.g., past sales) will be confidential, etc.

4. Choice of Patents Subject to Negotiation

Whether licensing negotiations are conducted on a portfolio basis or by patent is determined by the parties on a case by case basis. SEP licensing negotiations are often conducted as portfolio negotiations from the standpoint of a comprehensive settlement.

When rights holders possess a large number of SEPs, however, the parties may discuss limiting the subject of the negotiation to “representative” patents so as to streamline the negotiation process. When doing so, there is a view that it may be desirable for the parties to explain the reason for selecting the patents as representative.

As an example, in a case involving several hundred SEPs, the parties may hold discussions on just those patents deemed the most valuable (generally 30 at most),⁵² or select random samples to efficiently assess the total value. They might also independently categorize the patents into tiers, analyze the top few from each tier to get an idea of the topology of the overall portfolio’s quality, and get together to compare results. In such cases, one view is that concluding all licensing agreements, including those SEPs that were not the subject of discussion, as a single package is an efficient approach in terms of administration.

⁵² In *Sisvel v. Haier* (Germany, high court, 2016), the court asked the rights holder to present a “proud list” of 10-15 patents from a portfolio of over 400 patents and to explain the reason for choosing them.

The parties may also discuss whether the negotiations will include non-SEPs in addition to SEPs.⁵³ While it is up to the parties to choose which particular patents will be included, it may, for example, be efficient to include in the negotiation a commercially essential patent (a patent for which there exists a technical alternative but which is practically inescapable due to cost/performance issues)⁵⁴ or non-SEPs. There are also cases of licensing through frameworks whereby implementers can choose which SEPs they wish to license.⁵⁵

5. Geographic Scope of Licensing Agreement⁵⁶

With regard to the geographic scope of a license, parties generally consider whether a license will be limited to particular regions or globally applicable. When setting the geographic scope, the parties may want to consider on a case by case basis whether the implementer is producing or selling products in multiple regions throughout the world, as well as how many patents the rights holder holds and the strength thereof, in those jurisdictions.

Some argue that, given the international distribution of ICT and other standardized technologies, it would be more efficient to address SEPs in all countries and regions in which an implementer may produce and/or sell its products in future

⁵³ It should be kept in mind that licensing negotiations where rights holders seek to cover non-SEPs in addition to SEPs do not conflict with the “tying” of competition law, provided that rights holders do not use their market power to coerce payment for non-SEPs. There is a view that portfolio licensing can be efficient under competition law principles and that such licensing efficiencies have the potential to outweigh competition concerns associated with tying. (U.S. Dep’t of Justice and Federal Trade Commission, Antitrust Guidelines (2017))

⁵⁴ Certain SSOs explicitly rule out the concept of commercial essentiality in their IPR policies, defining essentiality solely on a technical basis (patents covering a technology must be a technical or engineering matter).

⁵⁵ For example, in some patent pools, SEPs are divided into basic functions and options, and the implementer can choose the scope of the SEP which they wish to license.

⁵⁶ There are various discussions about courts setting licensing terms globally. In *Unwired Planet v. Huawei* (U.K., high court, 2017), although Huawei as the implementer refused to allow the court to set global licensing terms, the court set the licensing terms globally. Meanwhile, in *TCL v. Ericsson* (U.S., federal district court, 2017), the court set the licensing terms globally, because of the fact that the TCL, the implementer, had already agreed to allow the court to set global licensing terms.

in addition to those countries and regions where it currently does so.⁵⁷ There is also a view that global licensing agreements allow easier and more efficient license management, as, for example, they do not require agreements to be amended if the implementer expands its business geographically. Others argue that an implementer may well conclude a licensing agreement covering only those countries or regions where it is operating or has a concrete plan to operate.

Also, there are some cases of global licenses granted on different licensing terms for different regions.⁵⁸

If the implementer is producing and/or selling its product in multiple regions, there is a view that where the implementer requests a licensing agreement for patent rights only in such specific countries/regions with consideration to the specific circumstances of the patents in each, care should be taken to prevent this from turning into a delaying tactic in the negotiations.

6. Patent Pool Licensing⁵⁹

In patent pools, wide participation by rights holders and implementers may produce licensing terms that balance the interests of both, which may boost the efficiency of licensing negotiations compared to individual bilateral negotiations amongst multiple parties.

Where a rights holder participates in a patent pool, the general practice is for that rights holder to approach licensing negotiations with implementers through the body managing the patent pool.

⁵⁷ In *Unwired Planet v. Huawei* (U.K., high court, 2017), the court found it reasonable to address SEPs in all countries and regions in which the implementers currently produce and/or sell and/or may do so in future.

⁵⁸ In *Unwired Planet v. Huawei* (UK, high court, 2017), the court found that licenses granted on FRAND terms are global, while taking regional differences into consideration, it showed different royalty rates among different markets. In *TCL v. Ericsson* (U.S., federal district court, 2017), the court divided regions into the United States, Europe, and the rest of the world and set the royalty rates globally. It should be noted that certain entities disagree with the authority of a court to set license terms outside of its jurisdiction when one of the parties questions whether it is within the court's authority to set such terms.

⁵⁹ Refer to III.A.3.a.(c) on the licensing terms for pooled patents.

Additionally, patent rights that are registered in a pool are normally checked to some extent for essentiality by a third party. Although this does not necessarily guarantee essentiality, it is expected that it may lead to greater SEP transparency.

On the other hand, there are some cases where standard-related licensing issues cannot be resolved in one patent pool, such as where there are rights holders granting licenses individually, where there are multiple patent pools, or where there are companies holding other patents such as commercially essential patents.

Some point out that patent pools do not necessarily improve efficiency if rights holders who grant licenses individually participate in the patent pool, as this may cause double royalty earnings on the part of such rights holders. Because of this, some patent pools establish mechanisms to prevent double royalty earnings.⁶⁰

Implementers aiming to resolve disputes through cross licensing must bear in mind that this will not be possible with bodies managing patent pools that are not implementing the invention. There is also a view that patent pool participation does not rule out cross licensing, and that an implementer can simply pay the royalties of those pool members with which it does not have a cross licensing agreement.

7. Greater Transparency of SEPs

Enhancing transparency in regard to the essentiality and validity of SEPs leads to more efficient licensing negotiations. The European Communication expects SSOs to promote the development of databases with information on SEPs.⁶¹ It also expects rights holders to provide information on SEPs to SSOs, so the SSOs can then update their information.

With SSOs building up databases and widely providing information on SEPs, it will become easier for rights holders to obtain the necessary documents when presenting offers for licensing negotiations or FRAND licensing terms. It will also become easier for implementers to obtain information on SEPs related to relevant standards.

⁶⁰ For example, in the case that an implementer already has a licensing agreement with a rights holder, there are agreements whereby the royalty amount that is already agreed is subtracted from the royalty amount set for the pool.

⁶¹ The European Communication urges SSOs to improve the quality of their SEP database in order to enhance transparency on SEPs and refers to launching a pilot project on the standard essentiality of SEPs.

On the other hand, there is also a view that rights holders may need to be compensated for the cost of boosting transparency and the possibility of their own patents being deemed inessential or invalid that is inherent in enhancing SSO databases, so as not to reduce the motivation to participate in standardization.

III. Royalty Calculation Methods

As mentioned earlier, there are two aspects of FRAND: (i) the negotiation process itself and (ii) the terms of a license. This chapter will address the second aspect of FRAND.

FRAND licensing terms include not only royalties but also non-monetary aspects such as cross-licensing, but because there are no established criteria for reasonable and non-discriminatory royalties in SEP licensing negotiations, the parties often disagree on the appropriate FRAND terms.

Therefore, this chapter will address royalty calculation methods in detail, based on standard practices and the framework indicated by past court rulings. It should be noted, however, that this Guide only identifies issues that may be considered in relation to calculation methods and does not direct any particular way for parties to arrive at a specific royalty rate or amount. Royalty rate calculation methods should be determined flexibly by the parties on a case by case basis, and the calculation methods outlined in this chapter may not necessarily be used.

A. Reasonable Royalties

1. Basic Approach

Royalties reflect the value that the patent has contributed to the product and therefore is obtained by:

(1) Royalty base (Calculation base) x (2) Royalty ratio (Rate)

This approach may also be applied to the calculation of SEP royalties. There has been intense discussion, however, on issues such as how to handle the value added after a technology has been incorporated into a standard, how to identify the

calculation base, and how to calculate the royalty rate. These issues are discussed further below.⁶²

(Value Added after Incorporation into a Standard)

There is a view that SEP royalties should reflect only the value of the patented technology before the standard is widely adopted in the market (generally called “ex ante”). This is based on the idea that, when a technology is being considered to form part of a standard, it is selected from multiple technological options, while once it is incorporated into the standard, it is used only out of necessity to adhere to the standard.⁶³

Based on this premise, there are cases where the royalty is assessed at a point in time before the standard is widely used and set promptly after the standard is announced, then kept at that level regardless of the success or failure in the markets of the products implementing the SEPs.

On the other hand, there is a view that the “ex ante” approach is not practical in calculating the damages for infringement of patent rights because the amount of damages should incorporate the value of the patented invention at the time of implementation, and a part of such value is created by the technology successfully becoming the standard. Furthermore, there is also a view that it is inappropriate to adopt the “ex ante” approach because it would lead to the profit from standardization being distributed only to implementers and not to rights holders.⁶⁴

⁶² For example, U.S. courts often apply the fifteen Georgia-Pacific factors (referred to as “GPF”) for calculating the royalty. With FRAND-encumbered SEPs, modified GPFs have been adopted. (*Microsoft v. Motorola* (U.S., federal district court, 2013))

⁶³ See *Ericsson v. D-Link* (U.S., CAFC, 2014).

⁶⁴ In *Unwired Planet v. Huawei* (UK, high court, 2017), the court stated that the rights holder could appropriate some of the value that is associated with the inclusion of the technology into the standard and the value of the products using the standards.

2. Royalty Base (Calculation Base)

(Identification of the Problem)

As for the calculation base, debate has centered on whether the smallest salable patent practicing unit (“SSPPU”)⁶⁵ or the entire market value (“EMV”)⁶⁶ should be adopted.⁶⁷

The SSPPU approach is based on the premise that if a SEP technology is used only in the component that is the SSPPU, the price of that component to which the SEP is considered to contribute will then be the calculation base. Meanwhile, the EMV is an approach taken when the SEP technology is considered to contribute to the function of the whole end product and to drive demand for the product, and the price of the whole end product will be the calculation base.

While these are approaches devised by courts in calculating damages equivalent to a reasonable implementing fee in patent infringement cases, they could also be used in actual licensing negotiations as a reference in determining reasonable royalties.

There are many cases in which the rights holder has insisted on the adoption of the EMV approach based on its view that the SEP technology contributes to the function of the entire end product and drives product demand. Likewise, there are many cases in which the end-product manufacturer has insisted on adoption of the

⁶⁵ In *In re Innovatio* (U.S., federal district court, 2013), the court stated that the top-down approach starts with the average price of a Wi-Fi chip. In *Virnetx v. Cisco* (U.S., CAFC, 2014) the court stated that “[w]here the smallest salable unit is, in fact, a multi-component product containing several non-infringing features with no relation to the patented feature..., the patentee must do more to estimate what portion of the value of that product is attributable to the patented technology.”

⁶⁶ In *CSIRO v. Cisco* (U.S., CAFC, 2015), the court stated that if a party can prove that the patented invention drives demand for the accused end product, it can rely on the end-product’s entire market value as the royalty base.

⁶⁷ In *LaserDynamics v. Quanta* (U.S., CAFC, 2012), the court stated that it is generally required that royalties be based on the SSPPU approach, citing the concept of “the smallest salable infringing unit” in *Cornell University v. Hewlett-Packard* (U.S., federal district court, 2009), but stated that if it can be shown that the patented feature drives the demand for an entire multi-component product, the entire product could be used as the royalty base, and rights holders may be awarded damages as a percentage of revenues or profits attributable to the entire product.

SSPPU approach based on its view that the contributions of the SEP technology are confined to just a portion or component of the overall end product.

In the days when debate focused on cellular phones, where communication technology was central to functionality, many parties supported the use of EMV. The emergence of products such as smart phones and self-driving cars for which communications technology accounts only for a part of the product's functions, however, has raised debate over the use of SSPPU or EMV.

(Approach to the Calculation Base)

A feature shared by both approaches (SSPPU and EMV) is the attempt to identify the calculation base according to where the contribution of the essential part of the SEP lies.⁶⁸

In addition, the SSPPU and the EMV methodologies are not the only possibilities for considering a royalty base. The point is that a suitable calculation base for each individual case should be considered.

For example, some argue that when the essential part of the SEP technology supports the operation of functions of a device larger than a chip and contributes to the functions of the device beyond the chip itself, using the price of the chip as the SSPPU may not reflect the real value provided by the SEP technology.

On the other hand, other suggest that when the contribution of the essential part of the SEP technology is confined to the chip itself and the chip is independent and has an objective market value, the price of the chip may be deemed appropriate as the calculation base.

Even when the SEP technology goes beyond a particular chip, there is a view that the SSPPU is an effective starting point for discussion in accumulatively and elaborately analyzing the product portions to which the SEP technology contributes. This view emphasizes that the basis of the calculation should not exceed the scope of the contribution of the essential part of the SEP technology for which a license is being sought.

⁶⁸ In *Ericsson v. D-Link* (U.S., CAFC, 2014), the court stated that the ultimate reasonable royalty award must be based on the incremental value that the patented invention adds to the end product.

Contrarily, there is an approach using the EMV as the starting point of discussion and determining the calculation base by multiplying the end product by the ratio of the contribution to the end product of all the SEPs that cover the technical standard.⁶⁹

There is a view that the EMV approach may lead to a high calculation base with a fixed rate, resulting in a high royalty. Conversely, there is another view that the SSPPU approach may reduce the base with a fixed rate, resulting in a low royalty.

Some argue, however, that when the calculation base is small, the rate will be high, while a large calculation base causes the rate to be low, selecting the calculation base not directly relevant to the resulting royalty amount in theory.

3. Royalty Rate

(Approaches to Rate Determination)

Of the many different approaches to determining an appropriate royalty rate, two frequently identified in court decisions are (i) determining the share of contribution of a particular SEP, by referencing, for example, existing comparable licenses (bottom-up approach); and (ii) calculating the share in the calculation base of the contribution of all SEPs for a given standard and then allotting a share to individual SEPs (top-down approach).

These two approaches are not contradictory. Both approaches may be combined to calculate the rate so as to ensure a more reliable rate through comparison of the results.⁷⁰

⁶⁹ In *Apple v. Samsung* (Japan, IP high court, 2014), because the design, use interface, camera, audio function, etc. contribute to the product in addition to the wireless communication function, the court stated that the basis of the calculation should be multiplied by the rate that it is deemed was contributing to the product by complying with the standard (contribution rate).

⁷⁰ In *Unwired Planet v. Huawei* case (UK, high court, 2017), while adopting a bottom-up approach, the court double-checked whether royalty stacking has occurred with a top-down approach. On the other hand, in *TCL v. Ericsson* case (U.S., federal district court, 2017).), while adopting a top-down approach, the court double-checked with a bottom-up approach.

When there is an existing comparable license, some argue for referring to it,⁷¹ whereas others argue for taking the top-down approach that first considers the contribution of all SEPs even in that situation.

a. Bottom-Up Approach

Examples of comparable licenses include those of patents owned by the same rights holder and patents owned by others essential to the same standard or a similar standard.

The following are examples of factors that have been considered in court cases and practice in determining whether a license is comparable:

- (1) Whether the license is for the same or similar patents,
- (2) Whether the license covers unrelated technology or different products⁷²,
- (3) Whether the license has a similar fee structure (e.g., lump-sum or running royalty)
- (4) Whether the nature of the license is the same in terms of exclusivity⁷³
- (5) Whether the license applies to similar territories (e.g., a regional or global license)
- (6) Whether the terms of the license are widely accepted
- (7) Whether the license has been achieved through a court settlement or through normal negotiations
- (8) How recent the license is, and
- (9) Whether the licensee has a sufficient negotiating strength to enable balanced negotiations.

⁷¹ In *Laser Dynamics v. Quanta* (U.S., CAFC 2012), the court stated that actual licenses for the patented technology are highly probative as to what constitutes a reasonable royalty for those patent rights, because such actual licenses most clearly reflect the economic value of the patented technology in the marketplace.

⁷² In *ResQNet v. Lansa* (U.S., CAFC, 2010), the court stated that the trial court should not rely on unrelated licenses to increase the reasonable royalty rate above rates more clearly linked to the economic demand for the claimed technology.

⁷³ In *Lucent v. Gateway* (U.S., CAFC, 2009), the court stated that GPF3 (exclusive or nonexclusive) is applicable as a consideration factor.

(a) Comparable Licenses Held by the Same Patent Holder

In practice, it is often difficult to identify existing licenses that are identical or sufficiently similar to a potential license under discussion. On the one hand, when existing licensing agreements were concluded under circumstances that differ from the parties' present circumstances, the existing licenses may generally be referenced when the parties determine the royalty rate if they can account for the differences, but the effectiveness of such references may vary depending on the level of difference.^{74, 75}

When there are great differences between the circumstances of an existing license and present circumstances and it is difficult to reasonably account for such differences, it may then be difficult to consider the existing license as being comparable and it will have less value in determining an appropriate royalty rate.⁷⁶

(b) Comparable Licenses Held by Third Parties

In referring to the existing licensing terms of third parties who hold SEPs for the same standard, it may be possible to calculate an appropriate rate by comparing the number of SEPs owned by the rights holder to those held by the third party and multiplying the ratio obtained.

In this case, the rate may be adjusted taking into account the value of the specific SEPs. It should also be noted that some third parties inflate the number of SEPs through divisional patent applications.

Some view the limited availability of comparable licenses held by third parties and the difficulty of evaluating other parties' portfolios as standing in the way of making comparisons of licensing terms.

⁷⁴ In *Ericsson v. D-Link* (U.S., CAFC, 2014), the court stated that allegedly comparable licenses may cover more patents than are at issue in the action, include cross-licensing terms, cover foreign intellectual property rights, or, as here, be calculated as some percentage of the value of a multi-component product.

⁷⁵ In *Virnetx v. Cisco* (U.S., CAFC, 2014), the court stated that the "degree of comparability" of the license agreements is applicable as a consideration factor.

⁷⁶ In *Laser Dynamics v. Quanta* (U.S., CAFC 2012), the court stated that the propriety of using prior settlement agreements to prove the amount of a reasonable royalty is questionable. On the other hand, there are some arguments that licenses in litigation could also be referred to as comparable licenses.

(c) Patent Pools

As a reference in determining a FRAND rate, parties may compare the rate charged by a patent pool for the same standard. If the degree of contribution to the standard of SEPs owned by the rights holder is higher than that to the patents in the patent pool, the rate for the SEPs may be higher than that for the patent pool. Meanwhile, if the degree of contribution to the standard of SEPs owned by the rights holders is lower than that to the patents in the patent pool, the rate for the SEPs may be lower than that for the patent pool.

It may also be necessary to note that, a relatively low royalty is set as a result of taking into account the fact that negotiations, contracts, and the management of royalties are streamlined in many patent pools,⁷⁷ while some pools choose to set a relatively high royalty by including non-essential patents.

The licensing terms of a patent pool are not always comparable. The coverage rate and licensing record of the patent pool may be considered to assess whether there is comparability.⁷⁸

There may also be cases where the patent pool situation differs from that of licenses negotiated bilaterally because the rate is set by multiple rights holders. It should also be noted that some rights holders are inflating SEP numbers through divisional patent applications.

b. Top-Down Approach

(Overview)

Determining an appropriate rate by calculating the ratio of the contribution of all the SEPs for the standard in the calculation base is generally known as the top-down approach. In this approach, the aggregate royalty rate is calculated as the extent

⁷⁷ In *Microsoft v. Motorola* (U.S., federal district court, 2013), the court concluded that the royalty was triple the pool royalty.

⁷⁸ In *Microsoft v. Motorola* (U.S., federal district court, 2013), the court stated that the problem with using patent pools as the de facto RAND royalty rate is that the patent-counting royalty allocation structure of pools does not consider the importance of a particular SEP to the standard or to the implementer's products as the court's hypothetical negotiation requires.

of the contribution of all SEPs to the standard (total royalty rate for all SEPs that cover the standard), then allotted to individual SEPs.⁷⁹

(Avoiding Royalty Stacking)

When many rights holders individually demand royalties, there may be cases in which each royalty “stacks up,” making the cost for practicing the standard excessively high. This is called royalty stacking, and is an issue that may occur when there are many rights holders that hold SEPs for the same standard.

As the extent of the contribution of all SEPs to the standards defines the total rate, there is a view that the top-down approach is effective in avoiding such royalty stacking. From this standpoint, when the bottom-up approach is used, it may be beneficial to check for royal stacking by also making a calculation using the top-down approach.

While some parties believe that royalty stacking is occurring in practice, others suggest that there is no concrete proof of this.

4. Other Factors to Consider in Determining Rates

In addition to the calculation base and the rate described above, other factors may also be considered in practice, as identified below.

a. Number of Licensees that Agreed to the Royalty Rate

The more licensees have agreed to a particular rate, the easier it may be to show that it is an established royalty rate and FRAND. Therefore, the number of existing licensees may be taken into consideration.

On the other hand, some point out that the number of licensees may not be relevant in the initial phase of licensing activities.

⁷⁹ In *Apple v. Samsung* (Japan, IP high court, 2014), the court adopted a top-down approach and set the aggregate royalty rate at 5% for 3G based on the claims of the parties. In addition, in *TCL v. Ericsson* (U.S., federal district court, 2017), the court set the aggregate royalty at 5% for 2G/3G and at 6% or 10% for 4G.

b. Scope of License⁸⁰

In determining the appropriate royalty, the parties may also consider whether there is a restriction on where or to whom to sell the products.

c. Essentiality/Validity/Infringement of Patent

If a patent turns out to be inessential to a standard or invalid, or if there is no infringement, there is normally no need to obtain a license for the patent in order to implement the standard. An implementer, however, may make a business judgement to sign licensing agreements, even if it not convinced of essentiality, validity, or infringement, because of the risks and costs of litigation, or in view of future implementation of the standard. In such cases, the implementer may seek a suitable discount to the royalty.

The number of existing patents changes over time. Where there are patent rights which expire, patent rights which are acquired or divested, or patent rights which are newly registered, the number of patents subject to licensing will change.

d. Value of Individual Patents

Since the value of individual SEPs is inherently different, in calculating an appropriate royalty, sometimes weights are used rather than a simple ownership ratio to reflect the value of individual patents more accurately.⁸¹ In such cases, some argue that patents that are extremely important to the standard should command a higher rate, while patents that are less important should command a lower rate. Others suggest that patents that have been inflated through divisional patent application should command a lower rate.

⁸⁰ Corresponding to GPF3.

⁸¹ In *In re Innovatio* (U.S., federal district court, 2013), for example, the rights holder's patents were all of moderate to moderate-high importance to the standard, and therefore warranted a higher rate as compared to other patents essential to the standard. In *Unwired Planet v. Huawei* (UK, high court, 2017), the court allowed both parties to call expert witnesses to weigh the value of each patent. In *Apple v. Samsung* (Japan, IP high court, 2014), the court took patent weighing into consideration in determining that the contribution of the patent subject to litigation was not large.

In cases where the parties involved find it not practical to accurately analyze the value of individual patents, however, the value of individual patents is treated as equal (pro rata).⁸²

e. Negotiating History

The negotiation history between the parties is another factor that influences the determination of an appropriate royalty. If there is no difference in the royalty agreed with an implementer who has engaged in negotiations in good faith and that with an implementer who has acted in bad faith, there will be little incentive to negotiate in good faith. From that perspective, one approach is to give a suitable discount to a licensee who concludes a license soon after receiving a license offer, or one who requests a license before an offer is made.

In this way, the length of the negotiating period for an implementer compared to that for other implementers in similar situations may be a factor in determining an appropriate royalty. There is a possibility that an implementer who delays or impedes negotiations will pay a substantially higher royalty.

Likewise, the royalty may become higher after a lawsuit has been initiated, as compared to a case in which the parties came to an agreement in the negotiations. In license negotiations, a rights holder may offer pre-litigation licensing rates at a discount. This indicates that once litigation starts, what is considered a reasonable royalty may become higher.⁸³

On the other hand, some argue that because FRAND terms require rights holder to license SEPs to a wide range of parties, it is not suitable to give discounts to parties acquiring licenses early, or to demand high royalties from parties who delayed negotiations or took the rights holder to court.

⁸² In addition, one royalty allocation method is based on the number of technologies adopted among contributions at the standard formulation stage, not the number of declared patents. This method can eliminate the influence of non-essential patents.

⁸³ In *Laser Dynamics v. Quanta* (U.S., CAFC 2012), the court recognized that licensing rates in settlement agreements entered into during litigation may be higher than the rate that would have been reached outside of litigation due to the coercive nature of litigation itself.

B. Non-discriminatory Royalties

SEP holders can demand royalties at FRAND terms from implementers, but those royalties have to be non-discriminatory. There are disputes regarding what constitutes non-discriminatory.

1. Concept of Non-Discrimination

Although FRAND licensing terms have to be non-discriminatory, this does not mean that all potential licensees must obtain licenses at the same royalty rate and amount. It is instead considered to mean that similarly situated licensees should not be treated differently.⁸⁴ Factors in considering whether licensees are similarly situated include whether the standard technology is used in the same way, the level of the company in the supply chain, and the geographic scope of the licensees' business activities.^{85 86}

2. Royalties for Different Uses

In an IoT era, ICT is being used in various industries, and some rights holders consequently argue for different royalty rates and amounts for the same standard technology according to the particular use of that technology in the end product.

Specifically, in the ICT field, there is a view that it is not discriminatory for a rights holder to apply different royalties for the same standard technology for

⁸⁴ In *Unwired Planet v. Huawei* (UK, high court, 2017), the court stated that it is discriminatory if the difference in the royalty rates distorts competition between the two licensees in the market. In *TCL v. Ericsson* (U.S., federal district court, 2017), regardless of whether it generally distorts the development of competition or standards, even if the implementer is alone, the court stated that it is discriminatory if the difference in the royalty rates causes damage.

⁸⁵ In *TCL v. Ericsson* (U.S., federal district court, 2017), the court concluded that the following factors could be considered in determining whether two companies are similarly situated: the geographic scope of the companies, the licenses required by the companies, and sales volumes. The court also concluded that the following factors should not be considered in determining whether two companies are similarly situated: overall financial success or risk, brand recognition, the operating systems of their devices, and the existence of retail stores.

⁸⁶ Courts are divided on whether or not the FRAND rate should be a range. In *Microsoft v. Motorola* (U.S., federal district court, 2013), the court determined an upper and lower bound of the FRAND range for Motorola's SEP portfolio. On the other hand, in *Unwired Planet v. Huawei* (UK, high court, 2017), the court determined that each region has only one FRAND royalty rate apiece.

products that fully utilize the functions of the technology (e.g., high-speed, high-capacity; low latency) and those that only use some of the functions of the technology.

On the other hand, some implementers argue that the same royalty rates and amounts should be applied for the same standard technology regardless of the means by or extent to which it is used.

Specifically, they argue that if different rates and amounts are allowed according to the means of utilization of a technology, it could lead to the value created by downstream inventors being allotted to rights holders, running counter to the “ex ante” principle.

In addition, there is one view that where suppliers are granted licenses based on SSPPU, because the application of the suppliers’ components is unknown, it can be difficult to apply different royalties depending on the end-product.

C. Other

There are several methods for paying royalties, and different methods will be selected depending on the circumstances.

1. Fixed Rate and Fixed Amount

There is a fixed royalty rate and a fixed royalty amount. A fixed royalty rate is determined as a ratio of the price of the whole product and the price of product components. It is necessary for implementers to know the price of products at all times when the price fluctuates according to market conditions, involving complicated procedures.

In order to reduce such complications, in practice, a method of deciding on a fixed amount of royalties per unit regardless of fluctuations in the price of a product may be used. Although it then becomes relatively simple to collect royalties in such a case, when the price of a royalty-bearing product varies over time, this may result in the royalties on product prices becoming too high or low for implementers.

2. Lump-Sum Payment and Running Royalty Payments

There are lump-sum payments and running royalty payments for paying royalties.⁸⁷

For lump-sum payments, there are advantages in being able to avoid the risks of non-payment of royalties and the burden of monitoring whether the technology is being used. At the same time, with the royalty fixed and paid before the future sales performance of the implementer's product (the actual usage of the technology in the market) has been established, royalties may in hindsight be too high or too low. Consequently, where both the rights holder and the implementer seek to conclude a lump-sum royalty agreement, they generally set terms that take into consideration predicted product sales.

For running royalty payments, although it is possible to calculate royalties that reflect the actual usage of the technology, this adds the cost of monitoring to make sure the amount to be paid will increase or decrease appropriately in response to changes in sales.

3. Past Component and Future Component

Royalties paid by those implementing SEPs from the past into the future can be calculated by considering both past and future implementation. In such cases, different formulas are used to calculate past and future royalties. For example, there are cases where the past royalty component has been calculated as a lump sum while the future component is calculated using a fixed-rate running formula.

4. Volume Discounts and Cap (Paid-up)

As an incentive to large-scale implementers, a discount rate may be applied for royalty payments over a certain level, or a ceiling set for royalty payments.

⁸⁷ In *Lucent v. Gateway* (U.S., CAFC, 2009), the court stated that a running royalty is risky to rights holders because such a royalty is subject to the sales of the implementer, while a lump-sum payment does not require monitoring of sales. On the other hand, the court stated that a lump-sum payment has the benefit of being easy to calculate but may not accurately reflect the value of the patent to the technology.

Postscript

Why has the Japan Patent Office engaged with the issue of SEP licensing negotiations? A year ago, it was proposed that JPO look into the introduction of an administrative adjudication system to determine SEP licensing terms. We concluded that a system based on implementer petitions would upset the balance between rights holders and implementers. We were also concerned that introducing such a system would send the wrong message at home and abroad that JPO is dismissive of rights holders' concerns.

How, then, could we address implementers' concern that the smooth introduction of new technologies could well be blocked depending on the way in which SEPs were exercised? Our answer was to provide information that would help implementers without experience in this field to engage in licensing negotiations more effectively and efficiently, forestall disputes, and achieve early dispute resolution.

From fall 2017 through to spring 2018, we sought the views of experts here and abroad to gain a sense of the debates underway around the world. There was no way to absorb such a massive amount of constantly evolving information. We decided to concentrate on setting up the most open process we could manage to garner a broad range of information and opinions, identify the key issues, and present these in a balanced and straightforward manner.

This Guide was compiled by a small team in a limited amount of time, and is consequently far from perfect. Our presentation of both sides of the debate may also be difficult to follow in some places, but it does reflect the heat of the discussion and the lack of convergence over certain points.

That convergence will eventually emerge as technologies and markets continue to evolve and cases of dispute resolution accumulate, while new issues too will inevitably emerge. We look forward to updating this Guide as appropriate with reference to advice from experts here and abroad.

Naoko Munakata
Commissioner

Reference

<Japan>

- *Apple v. Samsung* (Japan, IP high court, 2014)
Case No. 2013 (Ne) 10043
- *Imation v. One-Blue* (Japan, district court, 2015)
Case No. 2013 (Wa) 21383
- *Softbank v. Kanematsu* (Japan, IP high court, 2015)
Case No. 2015 (Ne) 10069

<U.S.>

- *Apple v. Motorola* (U.S., CAFC, 2014)
Apple, Inc. v. Motorola, Inc., 757 F.3d 1286 (Fed. Cir. 2014), *overruled on other grounds by Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015).
- *CSIRO v. Cisco* (U.S., CAFC, 2015)
Commonwealth Scientific and Indus. Research Organization v. Cisco Sys., Inc., 809 F.3d 1295 (Fed. Cir. 2015).
- *Cornell University v. Hewlett-Packard* (U.S., federal district court, 2009)
Cornell University v. Hewlett-Packard Co., 609 F.Supp.2d 279 (N.D.N.Y. 2009).
- *eBay v. MercExchange* (U.S., Supreme Court, 2006)
eBay Inc. v. MercExchange, LLC, 547 U.S. 388 (2006).
- *Ericsson v. D-Link* (U.S., CAFC, 2014)
Ericsson, Inc. v. D-Link Systems, Inc., 773 F.3d 1201 (Fed. Cir. 2014).
- *Fujitsu v. Netgear* (U.S., CAFC, 2010)
Fujitsu v. Netgear, 620 F.3d 1321 (Fed. Cir. 2010).
- *In re Innovatio* (U.S., federal district court, 2013)
Innovatio IP Ventures, LLC Patent Litigation, No. 11-c-9308, 2013 WL5593609 (Oct. 3, 2013).
- *LaserDynamics v. Quanta* (U.S., CAFC, 2012)
LaserDynamics, Inc. v. Quanta Computer, Inc., 694 F.3d 51 (Fed. Cir. 2012).
- *Lucent v. Gateway* (U.S., CAFC, 2009)
Lucent Technologies, Inc. v. Gateway, Inc., 580 F.3d 1301 (Fed. Cir. 2009).
- *Microsoft v. Motorola* (U.S., federal district court, 2012)
Microsoft Corp. v. Motorola, Inc., 864 F. Supp. 2d 1023 (W.D. Was. 2012).
- *Microsoft v. Motorola* (U.S., court of appeals for the ninth circuit, 2012)
Microsoft Corp. v. Motorola, Inc., 696 F.3d 872 (9th Cir. 2012)

- *Microsoft v. Motorola* (U.S., federal district court, 2013)
Microsoft Corp. v. Motorola, Inc., No.c-10-1823JLR, 2013 WL 2111217 (W.D. Was. Apr. 25, 2013).
- *Quanta v. LG* (U.S., Supreme Court, 2008)
Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617 (2008).
- *Realtek v. LSI* (U.S., federal district court, 2013)
Realtek Semiconductor Corp. v. LSI Corp., 946 F. Supp. 2d 998 (N.D. Cal. 2013).
- *ResQNet v. Lansa* (U.S., CAFC, 2010)
ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860 (Fed. Cir. 2010).
- *TCL v. Ericsson* (U.S., federal district court, 2017)
TCL Comm. Tech Holdings, Ltd v. Ericsson, No.8-14-cv-00341 (C.D. Cal. Dec. 21, 2017).
- *Therasense v. Becton* (U.S., CAFC, 2011)
Therasense, Inc. v. Becton, Dickinson and Co., 649 F.3d 1276 (Fed. Cir. 2011) (*en banc*).
- *Virnetx v. Cisco* (U.S., CAFC, 2014)
Virnetx, Inc. v. Cisco Sys., Inc., 767 F.3d 1308 (Fed. Cir. 2014).

<EU>

- *Huawei v. ZTE* (EU, CJEU, 2015)
Case C-170/13, *Huawei Technologies Co. Ltd v ZTE Corp.*, *ZTE Deutschland GmbH* [2015] CJEU
- *Motorola v. Apple* (EU, EC, 2014)
European Commission, DG Competition, Decision of 29 April 2014, C(2014) 2892 final, *Motorola Mobility Inc.*
- *NTT DoCoMo v. HTC* (Germany, district court, 2016)
LG Mannheim, Case 7 O 66/15, Order of 29 January 2016
- *Philips v. Archos* (Germany, district court, 2016)
LG Mannheim, Case 7 O 19/16, Order of 17 November 2016
- *Samsung v. Apple* (EU, EC, 2014)
European Commission, DG Competition, Commitment Decision of 29 April 2014, C(2014) 2891 final, *Samsung Electronics Co., Ltd., et. Al.*
- *Sisvel v. Haier* (Germany, high court, 2016)
OLG Düsseldorf, Case I-15 U 66/15, Order of 17 November 2016
- *St. Lawrence v. Deutsche Telekom and HTC* (Germany, district court, 2015)
LG Mannheim, Case 2 O 106/14, Order of 27 November 2015
- *St. Lawrence v. Vodafone and HTC* (Germany, district court, 2016)
LG Düsseldorf, Case 4a O 73/14, Order of 31 March 2016

- *Unwired Planet v. Huawei* (UK, high court, 2017)
Unwired Planet v. Huawei ([2017] EWHC 711 (Pat), 5 Apr. 2017)

< China >

- *Huawei v. Samsung* (CN, intermediate court, 2018)
Case No. 816 of 2016

< Other >

- “Benefits of Arbitration for Commercial Disputes”, American Bar Association
https://www.americanbar.org/content/dam/aba/events/dispute_resolution/committees/arbitration/arbitrationguide.authcheckdam.pdf
- European communication
Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee: Setting out the EU approach to Standard Essential Patents
- IEEE-SA Standards Board Bylaws (2015)
<http://standards.ieee.org/develop/policies/bylaws/approved-changes.pdf>
- Makan Delrahim, Assistant Attorney General, Antitrust Division, U.S. Department of Justice, “Take it to the Limit: Respecting Innovation Incentives in the Application of Antitrust Law,” Remarks as prepared for delivery at USC Gould School of Law – Application of Competition Policy to Technology and IP Licensing (Nov. 10, 2017) (“Innovation Incentives Speech”)
<https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-usc-gould-school-laws-center>
- New York Convention
<http://www.newyorkconvention.org/>
- The Japan Fair Trade Commission the “Guidelines for Use of Intellectual Property under the Antimonopoly Act”
http://www.jftc.go.jp/en/legislation_gls/imonopoly_guidelines.files/IPGL_Frand.pdf
- U.S. Dep’t of Justice and Federal Trade Commission, Antitrust Guidelines (2017)
U.S. Dep’t of Justice and Federal Trade Commission, Antitrust Guidelines for the Licensing of Intellectual Property (Jan. 12, 2017)
- U.S. Dep’t of Justice and U.S. Patent and Trademark Office, Policy Statement (2013)
U.S. Dep’t of Justice and U.S. Patent and Trademark Office, Policy Statement on Remedies for Standard-Essential Patents Subject to Voluntary FRAND Commitments (Jan. 8, 2013)

