Compulsory Licenses for Essential Patents  
- Emerging Need in the ICT Sector -  

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>> ABSTRACT

Compulsory licenses have long been a target of hate for developed countries. The issue of compulsory licenses often provoked heated arguments in bilateral negotiations as well as multilateral negotiations for international trade. In the era of open innovation, however, circumstances around compulsory licenses have changed significantly. In technologies in which a large number of relevant patents exist, some patent holders enforce their patents for money. In such field of technologies, the compulsory license may work as an interface between patents and standards. This paper analyses the changes of circumstances around the compulsory license and discusses its availability for the essential patents in the modern ICT sector.

Keywords Compulsory license, ICT, interface, software patent, technology standards

1. Introduction

An independent non-governmental organization is active in analyzing the relationship between intellectual property and innovation. The organization is the International Centre for Trade and Sustainable Development (ICTSD), in Geneva, Switzerland. ICTSD has so far produced a series of policy briefs on intellectual property issues jointly with the United Nations Conference on Trade and Development (UNCTAD)1).

Among other briefs, the policy brief, number 3, which was published in February 2009 (hereinafter "policy brief"), focuses on the relationship between patents and technology standards2). It observes that technology standards facilitate the harmonization of design and production processes for products and services. Technology standards seek to facilitate a common understanding of qualitative and technical aspects of particular products and services, and to facilitate convergence, adaptability and interoperability among them. To accomplish these roles,

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2) UNCTAD-ICTSD Project on IPRs and Sustainable Development, Policy Brief Number 3, February 2009, entitled "Addressing the Interface between Patents and Technical Standards in International Trade Discussions"
technology standards provide a public, free and collective tool for producers and consumers.

The policy brief also points out that technology standards have an important economic function through the so-called "network effect," which allows the benefit of a single user to be extended to an unlimited number of users. The network effect eventually leads to reduction of the cost of the learning process and affording economies of scale. According to the policy brief, while technology standards are not meant to promote innovation directly, they can indirectly affect innovation in various ways. It may be possible to innovate around the standards, and thus set to a path for new and better ones.

The policy brief categorizes the function of patents. Patents seek to promote innovation and investment through rewarding inventors for their intellectual and economic efforts. The most important function of patents, according to the policy brief, is to promote technology diffusion through the disclosure of technical information on the invention. The disclosure is assured by a systemic publication system in which technical information on the invention is laid open to public 18 months after a patent was filed. Thus disclosed information helps other people design around or create new inventions. Patents in complex fields of technology, such as electronics and computers, often have relatively poorly defined boundaries, leading to disputes and litigation which are generally costly. The current patent landscape in sectors such as information and communications technology (hereinafter referred to as "ICT") is particularly dense and complex. It has become extremely difficult to innovate without risking to stepping on someone’s patent, even when serious patent searches have been undertaken.

Therefore, tensions between standards and patents take place when the implementation of technology standards calls for the use of technology covered by one or more patents. A difficult problem arises when compliance with a particular standard requires access to patented technologies. To witness this, conflicts between the two surfaced in the United States in 1990's. Since then, several high-profile cases in the ICT sector have been brought before the US competition authority. They have a common feature that patent holders attempt to hide their patents in standardization processes and enforce their patents after relevant standards have been adopted. One of their incentives for doing so was patent royalty from a large number of standard users.

2. Changing Landscape

As ICTSD observes, while patents are designed to contribute to innovation, standards’ contribution to innovation is indirect. On the other hand, while practices of patent holders may adversely affect innovation, standards can increase benefits of consumers due to their network effects.

Theoretically, patents should be weighed and respected more than standards in view of intended

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4) For more details, see, the policy brief.
Contribution to innovation. However, the adverse affect of patents against innovation has often been found in the field of, among others, the ICT sector. Therefore, in view of the negative side of patent practices, arguments could be raised that patent rights should be restricted in view of equity or justice. There have been an increasing number of court cases in which wrong-doings by the patent holder were argued. In these cases, however, a critical issue before the court is patent validity but not illegality of wrong-doings. Almost all cases take the form of challenging the validity of a concerned patent.

As a background, there is a trend of reviewing the pro-patent policy by U.S. courts. In recent years, U.S. courts have ruled to lift up the level of patentability, more specifically, non-obviousness standard, thereby to maintain the quality of patents. One representative case is a 2006 United States Supreme Court decision, in which the court denied the strict application of the "TSM test" for determination of non-obviousness. Under the strict TSM test, the level of patentability has tended to lower and a number of patents whose patentability was questionable have been issued.

Another example is a U.S. Supreme Court decision in the *e-Bay* case, in which arguments were made as to patentability of business method inventions. The U.S. Supreme Court did not directly address this issue but concluded that legal effects of business methods patents might be restrained by way of making it harder for patent holders to obtain injunction relief.

In general, software constitutes a basis for technical advancement. Basically, software is a technical idea which cannot be patented. Therefore, it deserves value when it is open and commonly shared. However, patents relating to software (hereinafter referred to as "software patents") have been gradually granted when and if software is somehow combined with hardware, most frequently, computers.

Software patents changed the patent landscape significantly. Software was an important component of business methods in the computer age. Generally, business methods are not patentable. They have been implemented in businesses and known to people working there. But, patents were granted when and if they were combined with different kinds of known processes via computers. This is the situation which ICTSD describes in its policy brief: "[w]hen inventions on software and business methods are incorporated in tangible goods and patented, such patents in the ICT sector, often have relatively poorly defined boundaries."

Poorly defined boundaries reduce the incentive of players in the market to be nervous for legal risk. As results, competition is hampered. Patent holders, even with a smallest possibility of infringement, may attempt to enforce their patents expecting settlement fees from players in the

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6) One of the patents whose patentability was questionable is U.S. Patent 6,368,227 entitled: Methods of swinging on a swing. This patent was reexamined and eventually decided to be invalid.


8) In the United States, a basis for software patents were set by the Supreme Court in the case of *Diamond v. Diehr* 450 U.S., 175, 101 S.Ct. 1048 (1981).

market. This will inevitably lead to disputes including costly litigations. Under litigious circumstances, patents may adversely affect innovation because innovation is driven when there is competition in the market. But patents sometimes disturb competition. It is ironic that the consequence is to be contrary to the designed role of patents.

Software is a component for innovation in the field in which standard-setting is active. Software is also indispensable for interoperability and interconnectivity which are common features in the ICT sector. If software is patented, there is a strong concern that innovation would be hampered. Voices calling for restricting patent rights are emerging and getting stronger in this sector.

To witness this, citing a few examples may suffice. In 2005, IBM announced that IBM’s 500 software patents were open for free for use by open source software developers\(^{10}\). Other global ICT companies follow IBM and take open license policies for their software patents.

3. Particularities of ICT

3.1 Patent Thickets

In a traditional or closed model of innovation, many firms relied on their own research and development to create the products they market. Patents deserve value when they protect their products. Consequently, companies have filed a flood of patent applications for outcomes of their own research and development. This was a trend commonly found in the ICT sector.

In the case of a code division multiple access (CDMA) technology, for example, a number of patent applications has been filed. CDMA is well known as a three generation (3G) technology which is indispensable for mobile telephone communications. The CDMA technology was pioneered by an American venture company, Qualcomm Inc. Qualcomm has obtained thousands of patents relating to the CDMA technology worldwide. Such companies as Nokia, a Scandinavian mobile giant and Broadcom, an American IT venture, also have a large patent portfolio relating to the CDMA technology\(^{11}\).

The following discussion focuses on these three companies. Assuming that a ratio of granting patents is somewhere between 50-60%, the number of patents granted to the applications filed by the three companies would be two to three thousands. Even if all of themare not necessarily essential patents to the CDMA technologies, they would be potential concerns for companies doing business using the CDMA technology in the wireless communications market. Companies have to clear these patents before they enter into the market. In actuality, however, patent clearance would be a big burden for communications vendors and mobile phone manufacturers.

\(^{10}\) www.eetimes.com/electronics-news/4051403/IBM-plan-to-open-software-patents-seeds-IP-debate

\(^{11}\) According to a keyword search conducted by the author using a patent database, Qualcomm filed 2026 PCT applications for 20 years from 1989 through 2008, while Nokia filed 973 and Broadcom 334. The database used is a WPI provided by Derwent Publications, called "DWPI." It should be noted that the figures used in the paper are for discussion purposes and they may likely be different from the actual numbers of patents and patent applications filed by the parties.
Each licensee has to seek, whenever necessary, a license from each licensor. Such burden is extraordinary in the "patent thickets" where thousands of relevant patents exist.

3.2 Open Innovation

In recent years, many companies have increasingly launched an "open innovation" policy, which can be contrasted with the traditional, closed model of innovation. They recognize that valuable ideas can originate with others and seek to acquire those inventions that fit their business models.

As technology transfer grows, an efficient merger takes place between those who invent and those who manufacture. This division of labor speeds up the rate of innovation and results in broader, faster distribution of new products to consumers. In this way, a pathway is given to inventors who do not have access to the capital required to build manufacturing facilities and establish distribution channels.

Easier entry into the market supports additional sources of inventions, which increases competition among technologies to be further developed and incorporated into products. Competition benefits consumers by generating better, cheaper products.

However, recent problems are practices of patents which consequently hamper competition. Some patent holders do not agree to transfer at a reasonable basis and are inclined to enforce their patents as a tool to make money.

3.3 Patent Pools

Patent pools are an effective means of obtaining to a package license. If relevant patents are pooled and licensed in a package, it would reduce the burden of companies for patent clearance. The role of patent pools would maximize in the field where relevant patents are many. This is because they allow companies to reduce the risk of patent infringement under a package license.

Patent pools have to be consisting of "essential" patents. When patent pools include non-essential patents, a question may arise as to the violation of the competition law. In order to avoid such problems, it is important to ensure that patent pools consist only of essential patents.

12) Qualcomm, for example, announced a package license scheme under which payment of a 5% royalty would allow licensees to use all patents which Qualcomm holds. Qualcomm settled its patent disputes with Nokia in 2008 and with Broadcom in 2009 respectively and the settlement agreements do not affect, according to its press release, the royalty arrangements between these three and their licensees.


14) There is a case in the U.S. in which arguments were made if binding a non-essential patent into a patent constituted a violation of the antitrust law. The case relates to CD-R/RW technologies, in which Philips and Sony engaged in joint research and development. Philips worked on analogue technology while Sony on digital technology. The Orange Book standards related to analogue technologies. Essential patents were pooled and licensed in a package on a RAND (reasonable, non-discriminately) condition. Pooled patents included one Sony’s U.S. patent. One of the licensees brought a charge before the U.S. International Trade Commission (ITC) against Philips. The licensee argued that Philips bound a Sony's digital patent into a pool of analogue patents which caused an unlawful "binding."The ITC found a violation of the antitrust law by Philips. On appeal, the Federal Circuit reversed the case to the ITC for rehearing. After rehearing, the case was appealed to the Federal Circuit again, which finally decided that there was no violation of the anti-trust law. The court stated that although there was a contractual separation for fields of research between Phillips and Sony, licensees of the pooled license may understand that Sony’s patent is necessary to implement the manufacture.
to clarify the compliance with the completion law, authorities in the developed countries have announced guidelines for companies\(^\text{15}\).

What happens if patent holders conduct wrongdoings in standard-setting processes or if they enforce hidden patents against standard users\(^\text{16}\). Administrative guidelines have been published by the competition authority to streamline potential conflicts between patent and competition law\(^\text{17}\). In the administrative guidelines, analysis is made regarding the issue of how patent enforcement can be limited in its exclusivity when it unreasonably blocks the diffusion of technology standards.

There are patent pools presently in operation. For example, it is reported that there are 12 patent pools schemes in the ICT industry worldwide. A representative example is the MPEG2 for data-compression technologies\(^\text{18}\).

Among other patent pools, one of the notable examples is a patent pool operated by ULDAGE Inc., a private company in Japan. The license available from ULDAGE covers technology standards relating to digital TV, including the license for ARIB, CATV and MPEG2 System patent portfolio. ULDAGE’s coverage of essential patents is quite high. In these digital TV standards, ULDAGE pools nearly 100% of essential patents owned by the Japanese companies\(^\text{19}\). With such a high capture ratio, unexpected enforcement of “holdup” patents may not take place.

3.4 Patent Strategies

In the case of the CDMA wireless standard, Qualcomm, Nokia and Broadcom are major players in the world. In a keyword search based on a patent database, they would have accumulated a few thousands patents in total. Their patents must be directed to various key components and features of the CDMA technology. Their patent coverage should be in physically duplicative or overlapped relationship, partly or entirely.

Technically speaking, it is likely that a fairly good number of these patents may interfere with each other. This can be partly explained by the fact that a defendant, when being sued for patent infringement, promptly sues back alleging patent infringement of its patents by the plaintiff. In of the licensed CD-R/RW. In fact, the court stated, Claim 6 can be read so as to apply for analogue technologies as well as digital technologies.

\(^\text{15}\) See, for example, the Japan Fair Trade Commission’s Guideline (Guidelines on Standardization and Patent Pool Arrangements) (June 29, 2005)

\(^\text{16}\) Comparatively, court cases are many in the United States of America, including issues are inequitable conducts, violation of antitrust laws, and breach of patent policies. The author has already researched US patent cases in which technology standards are involved. A paper on the issue was published in Japanese in the "Chizai Kanri" (Management of Intellectual Property), Japan Intellectual Property Association, Vol. 59, No. 3, 2009, pp 297-307. See also, Jinzo Fujino "Hyojunka Bijinesu" (Standardization and Business), Hakuto Shobo, 2009.

\(^\text{17}\) See, for example, the Japan Fair Trade Commission’s guideline (Guidelines on Standardization and Patent Pool Arrangements) (June 29, 2005, see footnote 3), and another guideline (Guidelines for the Use of Intellectual Property under the Antimonopoly Act). See, "Antitrust Guidelines for the Licensing of Intellectual Property" (US Department of Justice/Federal Trade Commission, April 1995).


\(^\text{19}\) Relevant information was obtained through an author’s interview with Mr. Yoshihide Nakamura, president of ULDAGE, on March 31, 2010.
fact, in the business of wireless communications in the U.S.A., fierce patent litigations arose among various companies in which challenges to patents called for counter-challenges. The main issues of such cases were the invalidity or unenforceability of the opponent’s patents20).

What happens if a similar situation takes place in Japan. The following section discusses the compulsory licenses system in Japan and its availability as an interface between patents and standards.

4. Compulsory Licenses

4.1 Legal Framework

The Japanese patent law defines in Section 1 that the purpose of the patent law is to contribute to the development of industry by encouraging inventions and promoting their protection and utilization21). The terms "development of industry" can be rephrased as a form of innovation. Under the patent law, a person who makes a new invention may be granted a patent for a limited period, in exchange for the publication of his/her invention. The publication is made on the official gazette and written information on the invention becomes public through the publication. Thus published information allows competitors to design around or improve it. After the expiration of the concerned patent, the invention becomes publicly available. This is the mechanism that the patent law is designed for contribution to innovation.

A patent holder has an exclusive right to use a patented invention commercially. To enjoy such exclusivity, however, the patent holder has four obligations to carry out: (i) paying patent maintenance fees, (ii) exploiting the patented invention, (iii) due exercise of its right, and (iv) marking of its patent number. When and if either of these obligations is not completed, an award of a non-exclusive license under a certain patent could be issued to a party who has requested the license. Such award can be issued even without the consent of the patentee. This is the reason why the award system is called the "compulsory license" system.

If implementation of a patented invention has not taken place at all or if it is still insufficient, a statutory measure can be taken to ensure the use of a patented invention to a sufficient extent. The patent law specifies three grounds for the awards as follows: (1) non-use of the concerned patent; (2) use for the licensee’s own patent; and (3) use for the public interest. Now that the purpose of this paper is to discuss the compulsory license as an interface between patents and standards, the following discussion focuses on the latter two22).

20) In fact, there were 11 patent litigations pending between Qualcomm and Nokia worldwide. Also, there were 7 patent litigations between Qualcomm and Broadcom worldwide. They started in 2005 and were settled in 2008 and 2009.
21) Section 1 of the Japanese Patent Act provides for: "The purpose of this Law shall be to encourage inventions by promoting their protection and utilization as to contribute to the development of industry."
22) The compulsory license system in Japan were discussed in detail in author’s article entitled "Compulsory License: Potential Interface between Patents and Technology Standards" which was read at the "5th International Conference on IP Protection of High Technology: Knowledge Sharing and Balanced IP
4.2 Section 92 License

The patent law assures that a holder of a later granted patent may ask the patentee of an earlier granted patent for a non-exclusive license to the earlier granted patent that could otherwise be infringed (Section 92, Para. 1). When the patentee of the earlier patent disagrees to license, then, the holder of the later patent can request the Commissioner of the Patent Office to issue an award of a non-exclusive license under the earlier patent. Section 92, Para. (3), provides as follows.

"If no agreement is reached or no consultation is possible under subsection (1), the patentee or exclusive licensee may request the Commissioner of the Patent Office for an arbitration decision." This type of award is called a license for a patent of "dependent utility" (Section 92, Para. 3).

However, this type of compulsory license has not been used so far. In the past, seven applications have been filed to request an award under Section 92. Eventually, they were all withdrawn, and none of them proceeded to the final stage of issuing an award.

One of the reasons of no issuance was the presence of a bilateral arrangement between the Japanese government and the U.S. government. In this agreement, the two governments agreed to ban the award of the compulsory license as set forth in Section 92 of the Japanese patent law. The bilateral agreement was signed by the commissioner of the Japanese Patent Office and that of the US Patent and Trademark Office in August 1994.

The Japan-U.S. agreement itself intended to cover a wide variety of issues to resolve the trade frictions emerging in early 1990s between the two countries. One of the areas for which specific measures were sought was the patent system. The U.S. concerned that the Section 92 license would adversely affect the trade of semiconductors in disfavor of the U.S. industries. Both countries agreed that on and after July 1, 1995, each country should not allow an award to grant a non-exclusive license for the use of a patented invention in using another person’s patented invention. In view of the fact that there is no counterpart of the compulsory license in the U.S.A., this obligation is substantially one-sided to Japan.

Legally stated, the binding effect of the 1994 bilateral agreement seems to be questionable. Any agreement by a representative of governmental agencies cannot adversely affect a right and duty which is set forth under the legislated law. The validity of this agreement has not been

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23) Section 92, Para. (1), sets forth as follows.

"Where a patented invention falls under any of the cases provided for in Section 72, the patentee or exclusive licensee may request the other person referred to in that section to hold consultations on the grant of a non-exclusive license to practice the patented invention or of a non-exclusive license on the utility model right or the design right."

24) The purpose of Section 92 is to provide the opportunity for the use of later patents under such conflicting situations. See, Nobuhiro Nakayama, "Chuukai Tokkyohou" (Notes of Patent Law) Vol. 1, Ver. 2, Seirin Shoin (1989), pp. 711.

25) Reportedly, the Korean government received a request for the freeze of the compulsory license in 2005. It was raised in connection with the free trade negotiation between the two countries. But the U.S. eventually waived its request.

26) For example, see Shigetoshi Matsumoto "Tokkyoken no Honshitsu to Sono Genkai" (The essence and limit of
changed before the court yet.

4.3 Section 93 License

Where implementation of a patented invention is particularly necessary for the public interest, a person who wants to use the patented invention may ask its holders for a non-exclusive license under its patent. Where the patent holder refuses negotiations for such a license or no agreement is reached through negotiations with the patentee, the contacting person may further request the Minister of Economy, Trade and Industry (METI) for an award of a non-exclusive license (Section 93)\(^{27}\)

A patent carries exclusive effects. Therefore, a patent, when wrongly practiced, may interfere with the interest of the public. Such interference has been nonetheless justified on the premise that the patent system as a whole advances the development of technology and industry. If a patent is practiced in a manner adversary to the expected technological advancement, it is a likely consequence that arguments take place for possible limitation of its exclusivity.

Section 93 of the Japanese patent law does not describe the definition of the public interest. According to guidelines or legislative history, the public interest would be interfered, if an epidemic disease spreads but a pharmaceutical company does not grant a license under its patent to cure the disease. A possible law interpretation at this point in time is that Section 93 license may be available for the drug sector but not the ICT sector.

Records show that there were no awards issued under Section 93\(^{28}\). There are several conceivable reasons for the absence of Section 93 awards. First, the award system under Section 93 was originally proposed as a measure to protect domestic industry from foreign capitals. Second, and most importantly, this matter easily becomes a diplomatic issue\(^{29}\).

The compulsory license system embraces a risk of a tense diplomatic confrontation with other industrially advanced countries. It can be witnessed by negotiations for the GATT/TRIPS in which the U.S. expressed a strong objection to the introduction of compulsory license clauses into the agreement. With such background, Japan, even if the requirements for the compulsory license

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\(^{27}\) Section 93 sets forth as follows.

\"(1) Where the practice of a patent invention is particularly necessary for the public interest, a person who intends to practice the invention may request the patentee or exclusive licensee to hold consultations on the grant of a non-exclusive license.

(2) If no agreement is reach or no consultation is possible under the preceding subsection, a person who is interested to practice the patented invention may request the Ministry of Economy, Trade and Industry for an arbitration decision.\" (Citation of sub-paragraph (3) is omitted here.)

\(^{28}\) There were 11 application filed for the Section 93 license, but they were eventually withdrawn on halfway.

\(^{29}\) In 1975, METI, a central government ministry governing trade issues, announced another guideline to help businesses understand how the Section 93 award system should be operated. The guideline, basically elaborating on procedures for and requirements of the award, rephrased the occasions where a Section 93 award might be available as when (i) it was particularly necessary in the field directly related to people’s life, preservation of people’s properties, and construction of public facilities, or (ii) failure in obtaining an award would significantly harm the sound development of relevant industry. It remarked, however, that any award shall be subject to the TRIPS Agreements and other international commitments.
were met under the domestic law, would have been reluctant to issue an award under Section 93 for diplomatic consideration. It will be a sensitive political issue, but not legal.

4.4 Negative Reactions

As noted above, what made Japan concerned is a strong reaction from the U.S. This concern is not groundless. For example, there were vigorous campaigns by American companies against the revision of the patent policy of the European Telecommunications Standard Institute (ETSI). ETSI’s draft patent policy included a limitation of blocking patents by requiring each holder of essential patents to give a 180 day notice. Patent holders failing to provide notice were required to grant an open license. American companies strongly objected to the introduction of a compulsory license-type of concept into the ETSI’s patent policy. As a result, in 1993, the ETSI gave up the inclusion of the controversial provision into its patent policy.

Another example is a competition case reported in Taiwan. The case involved essential patents relating to the Orange Book standard for CD-R/RW technology. In early 2000s, the Fair Trade Commission of Taiwan (FTCT) charged Phillips Electronics and several others with the violation of local fair trade law. In this case, the FTCT found that Philips was abusively used its dominant position to compel licensees to accept a licensing agreement. Phillips was fined and ordered to cease illegal practices. Later, a Taiwanese company requested the Taiwanese Patent Office to issue a compulsory license under certain patents owned by Phillips for the use of the CD-R technology. The compulsory license was granted in 2004. But this caused concerns in EU and threats were made by EU to bring a complaint to WTO. In 2008, an administrative high court of Taiwan ruled against the compulsory license. In late 2008, the requesting party and Philips settled and withdrew all the relevant proceedings 30).

5. Conclusion

Unlike the civil right, patent rights are directed to intangible properties. Strength of patents is subject to the economic conditions. When economy is good, patent protection can be strong. When economy is bad, patent protection can be narrower to balance the interest of the public.

Thus, patent rights are not necessarily stiff in their strength and protection. Their strength and protection is influenced by the economic conditions and social policies. So-called the "pro-patent" policy is justifiable when the economic growth is enough to support that the enforcement of the policy. However, when economy is in downturn, the pro-patent policy can no longer be pursued as it used to be. It has to be in mind that the patent system is a very costly system 31).

Changes in the economic policy are not drastic. They are creeping and usually unnoticeable for the general public. However, they can be easily understood from the attitude of the U.S. in

30) Gigastorage v. Phillips, See, the Policy Brief Number 3, Box 3.
31) Joseph E. Stiglitz, "Stiglitz Kyoju no Keizai Kyoshitu" (Ecnomic Class of Prof. Stiglitz), Diamond Sha (2007), pp 199-200
bilateral negotiations with Japan and Korea.

As discussed above, the U.S. strongly requested Japan to freeze a statutory compulsory license which could be applicable to semiconductor products. Negotiations took place when the pro-patent atmosphere was at peak in the U.S. However, since the burst of the IT bubble, American economy has not been in upturn. Even global companies suffered from defending from enforcement of third parties’ patents. The pro-patent policy is favorable for offence but not for defense. This means that the U.S. is no longer sticking to the rejection of compulsory license.

In 2005, in Korea, the diplomatic U.S. delegation was in negotiations with the Korean government for the free trade agreement. The initial proposal from the U.S. included the ban of the compulsory license under the Korean Patent Law. Reportedly, however, the Korean government refused this request and eventually the U.S.delegation waived the request. It is apparent that the U.S.was not interested in the deal of the compulsory license because the American industry was no longer enthusiastic about the compulsory license matter.

There is a compulsory license system in Japan. The Section 92 license has been frozen under the bilateral trade agreement. But, patent landscape has been significantly changed, in particular, in the ICT sector. Pro-patent atmosphere has gone. It is the right time to seriously consider the use of an existing system which can be used effectively as an interface between patents and technology standards which are driving forces to promote innovation in the modern society.