

Research on Appropriate Protection of Rights against Cross-Border Infringement Involving Network-Related Inventions

I. Purpose of the Research

Along with the advancement of digital networks, intellectual property infringement is taking place on the internet through increasingly sophisticated and complicated schemes, exacerbating cross-border infringement of intellectual property rights. The Intellectual Property Strategic Program 2016 calls for further strengthened measures to address this problem.

Focusing on the patent system, among Japanese intellectual property systems, when a network-related invention is used in the technology for providing a service for Japanese users via a server located abroad, for example, even if the service provider holds a Japanese patent right for that technology, the Japanese Patent Act might not be applied to an act that is suspected of infringing the patent right. Furthermore, even if the Japanese Patent Act is applied, the act in question might not be found to constitute direct or indirect infringement in the meaning under the existing law. There may be other cases in which a Japanese patent right cannot be enforced against infringement, such as where the patent right is being infringed beyond the national border by multiple parties.

We conducted this research with the aim of collecting basic data helpful for discussing appropriate protection of Japanese patent rights for the future with regard to network-related inventions.

II. Contents of the Research

(1) Public information survey

The advancement of digital networks is making on-line infringement of intellectual property rights more complicated. In order to appropriately ascertain the essence of this problem, it is necessary to deal with a wide range of inventions being practiced via networks.

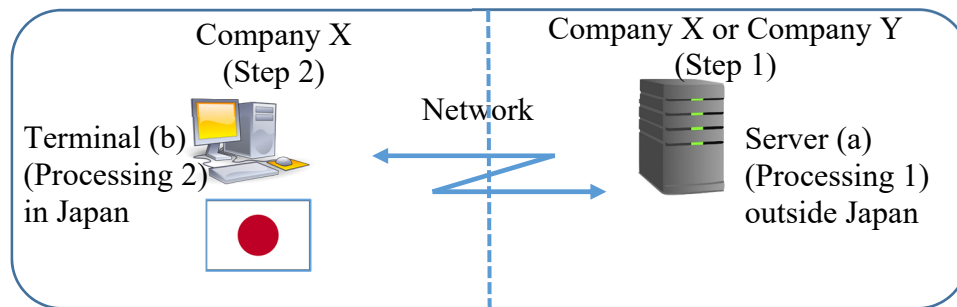
Accordingly, we adopted a broad definition for "network-related invention," as referring to an invention (including both an invention of a product and an invention of a process) that can be practiced using a combination of multiple computers (e.g. a server, client) connected via a network.

One of the characteristics of a network-related invention is that the invention can be processed in a decentralized manner, by placing components of the invention, such as a server and a client, in different countries and regions. In addition, multiple parties can be involved in performing decentralized processing. Thus, it may be easy to put network-related inventions into practice beyond the national border.

With these characteristics in mind, a typical scheme of cross-border infringement of a patent right relating to a network-related invention is indicated in Figure 1. Here, "cross-border

infringement" is defined as an activity in which a single actor (single practicing party) or multiple actors (multiple practicing parties) perform respective acts both in the country where a patent right is registered and another country or region, thereby satisfying all elements of the patented invention.

Figure 1: Typical scheme of cross-border infringement by a single actor or multiple actors



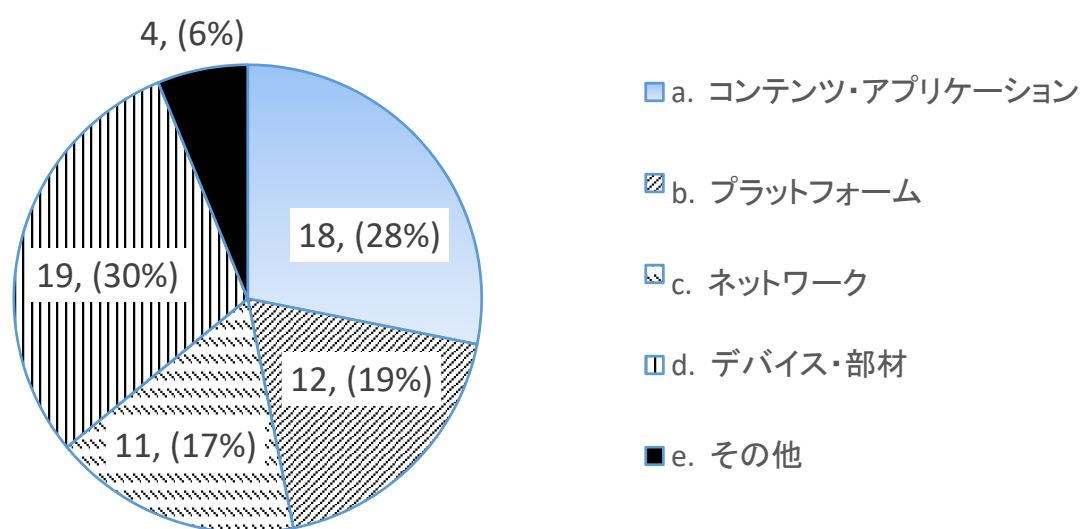
(2) Domestic questionnaire survey

We conducted a questionnaire survey targeting Japanese companies, etc. to ascertain whether they have experienced cross-border infringement of their rights relating to network-related inventions. Among the 32 respondents, only one respondent (3% of the total) answered that it experienced cross-border infringement, whereas the other 31 respondents answered that they do not have such experience (16 respondents; 50%) or that they do not know (15 respondents; 47%). On the surface, this result suggests that Japanese companies do not have an immediate concern about infringement involving network-related inventions.

However, we identified 24 types of infringement schemes the respondents are concerned about (Figure 3) and 16 types of infringement schemes against which they seek protection (Figure 4). Furthermore, 18 respondents (56%) explained specific types of infringement schemes against which they seek protection and the reasons for seeking protection. We confirmed the fact that there is a call from industry for increased protection against infringement involving network-related inventions.

Based on the results of the survey, we found that protection is most needed against an infringement scheme adopting a client-server system that uses a server located abroad.

Figure 2: Computer system layers to which respondents belong
(32 respondents [actual number] ; 64 respondents [total number])



- a. Content/application programs
- b. Platform
- c. Network
- d. Devices/materials
- e. Other

Figure 3: Analysis of types of infringement schemes respondents are concerned about

Type		Country where the server is located				Total
		No. of actors	In Japan	Outside Japan	In/outside Japan	No answer
(1) Client-server system (one server located in one country)	1	1	1	0	1	3
	2	2	4	0	3	9
	3 or more	0	0	0	0	0
	No answer	1	3	0	2	6
	Total	4	8	0	6	18
(2) C/S system (multiple servers located in multiple)	1	0	0	0	0	0
	2	0	0	0	1	1
	3 or more	0	0	0	1	1
	No answer	0	0	2	2	4

countries	Total	0	0	2	4	6
(1) + (2)		4	8	2	10	24

Figure 4: Analysis of type of infringement schemes against which respondents seek protection

Type	No. of actors	Country where the server is located				Total
		In Japan	Outside Japan	In/outside Japan	No answer	
(1) Client-server (C/S) system (one server located in one country)	1	0	1	0	0	1
	2	2	2	0	1	5
	3 or more	0	0	0	1	1
	No answer	1	5	0	1	7
	Total	3	8	0	3	14
(2) C/S system (multiple servers located in multiple countries)	1	0	0	0	0	0
	2	0	0	0	0	0
	3 or more	0	0	0	1	1
	No answer	0	0	0	1	1
	Total	0	0	0	2	2
(1) + (2)		3	8	0	5	16

(3) Domestic interview survey

In response to the questions concerning the Copyright Act, uploading of files was mentioned as a type of cross-border copyright infringement. With regard to the application of the Copyright Act, some respondents commented that it is not necessary to adopt the territorial principle under the Copyright Act as strictly as under the Patent Act but that a more flexible approach should be adopted for determining the governing law and jurisdiction.

In response to the questions concerning the Unfair Competition Prevention Act, most respondents mentioned infringement of trade secrets as a type of cross-border infringement, while some respondents referred to export or import of counterfeit products.

An opinion we frequently heard from respondents was that even when infringement of trade secrets was committed outside Japan, if it could affect Japanese companies, the jurisdiction of Japanese courts and the applicability of Japanese law should be recognized flexibly.

With regard to all of the abovementioned three intellectual property laws, that is, the Patent Act, the Copyright Act, and the Unfair Competition Prevention Act, respondents pointed out the difficulty in taking legal action to enforce their rights against infringers who are abroad, and most of them demanded that Japanese courts recognize extraterritorial application of these Japanese laws

in the future.

Furthermore, in connection with infringement of patent rights, problems involved in claim drafting and complexity in litigation proceedings were pointed out.

(4) International questionnaire survey

In the United States, different criteria for determining infringement are adopted for a system claim and a method claim. In finding infringement based on the "use" in the case of a system claim, the place where the claimed system is "used" is tied to the location where the system as a whole operates, in accordance with §271(a) of the U.S. Patent Act. On the other hand, infringement of a patent right for a method claim requires all steps of the method to be performed within the United States. In terms of implementation of the U.S. Patent Act, we confirmed that there is a presumption against extraterritoriality in principle, with an exception that §271(f) and (g) are applicable to address cross-border infringement. Meanwhile, we did not identify the existence of a call for increased protection of patentees beyond the level exercised under the existing law against cross-border infringement of US patents.

With regard to the situation in the United Kingdom, based on the Menashe Case, there may be cases where, even if one of the physical components of a system claim (e.g. a host computer) is located outside the United Kingdom, the claimed invention would be regarded as being put into effect in the United Kingdom and infringement would be found. There was a comment that in the case of cross-border infringement, there is a sufficient possibility to have infringement be recognized to exist within the United Kingdom by arranging claim descriptions. Meanwhile, we did not identify the existence of a call for increased protection of patentees beyond the level exercised under the existing law against cross-border infringement of UK patents.

In Germany, in the case of infringement of a patent right for a method claim committed by multiple parties, supposing that some steps of the method are performed by an infringing party in Germany and the other steps are performed by another infringing party outside Germany, infringement may be found in Germany if the acts relating to the steps performed outside Germany have been directed by the infringer in Germany. Meanwhile, we did not identify the existence of a call for increased protection of patentees beyond the level exercised under the existing law against cross-border infringement of German patents.

In France, except for the case of indirect infringement, infringement would not be found unless all elements of a claim are performed within France. While we noticed a demand for a clearer definition of "essential elements" of an invention in terms of indirect infringement, we did not identify the existence of a call for protection against cross-border direct infringement of French patents.

China does not have a clear legal provision concerning an act of practicing a patent outside the country. In legal interpretation, an act of practicing a patent outside the country is not included in

the scope of application of the Chinese Patent Act, and in fact, this kind of case has not been seen. Meanwhile, we did not identify the existence of a call for increased protection of patentees beyond the level exercised under the existing law against cross-border infringement of Chinese patents.

In South Korea, there are two court cases that addressed cross-border patent right infringement. In these cases, the court considered specific points according to the type of case, such as how an act to perform the main step among the steps that constitute a system claim was performed, or who was the substantial infringer of a patent right for a method claim. However, a criterion for assessing an act performed outside South Korea, including the relationship with the territorial principle, has not been established yet, and this issue is yet to be discussed systematically or actively. Ideas proposed at the present stage include broadening the interpretation of "indirect infringement," and expanding the definition of "use," which is among the elements of "practice" under the Patent Act, to explore the possibility of direct infringement.

(5) Discussion at the committee

If an invention for which a patent has been granted (Article 2(2) of the Patent Act) is "worked" (Article 2(3)) by a third party as a business without legitimate title or reasonable grounds, such act of the third party constitutes infringement of the patent right (based on the opposite interpretation of Article 68 of the Act). At the committee, we focused only on direct infringement and left indirect infringement to future discussion.

In order to find infringement under the Patent Act of Japan, all elements of a claim need to be satisfied by an infringing act committed within or beyond the national border. Based on this prerequisite, we discussed an interpretation approach through which a patented invention is considered to have been "worked in Japan." For the sake of convenience in discussion, we focused on infringement of an invention of a process (or method) committed by a single party.

Specifically, we focused on the place of the "main act" and the "place of market" as factors for considering flexible interpretation of the place of "working," without putting too much emphasis on the strict territorial principle. The place of the "main act" is a concept according to which, if any part of the main element among the elements of a claim is performed within Japan, the patented invention is found to have been "worked in Japan," even where other elements are performed outside Japan. The "place of market" is a concept according to which a patented invention is found to have been "worked in Japan" if the working of the invention has an impact on the Japanese market (e.g. economic impact (an increased profit) and technical impact).

Possible interpretation approaches while taking into consideration the place of the "main act" and the "place of market" suggested at the committee include interpreting the place of the "main act" as the place of "working," interpreting the "place of market" as the place of "working," and interpreting the place of the "main act" as the place of "working" on condition that the "main act" involves an economic activity.

With any of these approaches adopted, it is necessary to continue discussing cases in which a patent invention can be interpreted as having been "worked in Japan," while taking into consideration the possibility of applying the territorial principle flexibly as well as the perspective of international harmonization.

III. Summary

In the domestic questionnaire survey, we received answers with regard to the types of infringement schemes involving network-related inventions the respondent Japanese companies, etc. are concerned about, and the types of infringement schemes against which they seek protection. Their answers made it clear that protection is most needed against an infringement scheme adopting a client-server system that uses a server located abroad.

In the domestic interview survey, with regard to the Patent Act in particular among the three intellectual property laws (the other two are the Copyright Act and the Unfair Competition Prevention Act), the respondents pointed out the difficulty in taking legal action to enforce their rights against infringers who are abroad, and most of them demanded that Japanese courts recognize the applicability of the Japanese Patent Act against infringing acts committed outside Japan in the future. Furthermore, in connection with infringement of patent rights, problems involved in claim drafting and complexity in litigation proceedings were pointed out.

We also conducted an international questionnaire survey and obtained information concerning cases of cross-border patent infringement considered by foreign courts, in addition to information collected through the public information survey. Among the surveyed countries, the United States has clearer criteria for determining infringement than those of the other countries, and adopts different criteria for a system claim and a method claim. Furthermore, the United States has legal provisions designed to address cross-border infringement (U.S. Patent Act, § 271(f) and (g)) as an exception to the presumption against extraterritoriality. We confirmed multiple court decisions made under these provisions.

Based on the results of these surveys, we held discussions at the committee. In order to find infringement under the Patent Act of Japan, all elements of a claim need to be satisfied by an infringing act committed within or beyond the national border. Based on this prerequisite, we discussed an interpretation approach through which a patented invention is considered to have been "worked in Japan." For the sake of convenience in discussion, we focused on infringement of an invention of a process (or method) committed by a single party.

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