# Telecommunications Council, Information and Communications Policy Committee Digital Content Trading Promotion Committee 4th Meeting Minutes

1. Date: 14:00 – 15:30, Tuesday, November 21, 2006

2. Location: Special Conference Room 1, Ministry of Internal Affairs and Communications

3. Attendees (Honorifics omitted)

(1) Committee members (Including expert advisors)

Jun Murai (Study Group Chair), Nagaaki Oyama (Vice-Chair), Tomoyuki Ikeda, Ryohei Ishii, Tsunetoshi Ishibashi, Yuu Inaba, Gota Iwanami, Yoshiyuki Uei, Naotaka Kacho, Makiko Kawamura, Junichi Kishigami, Nobuhiko Sato, Kazuo Shiina, Mizuo Sugawara, Yoshiyuki Seki, Nobuko Takahashi, Shinji Takada, Shuichi Tago, Mario Tokoro, Miwako Doi, Fujio Nakajima, Miki Nagata, Akio Nosaka, Hidetoshi Haeno, Toshio Fukuda, Yoshitaka Hori (26 members)

(2) Observers

Masahiro Kamei (Japan Electronics and Information Technology Industries Association [JEITA]), Makoto Kawase (Agency for Cultural Affairs), Yuichi Tsubouchi (Japan Electronics and Information Technology Industries Association), Yoshiji Nakamura (Japan Association of Music Enterprises), Shuichi Fujisawa (Japan Broadcasting Corporation [NHK]), Keiya Motohashi (Japan Broadcasting Corporation [NHK])

(3) Secretariat

Ogasawara (Director of the Contents Development Office, Information Policy Division, Information and Communications Policy Bureau)

(4) Ministry of Internal Affairs and Communications

Suzuki, Director-General of the Information and Communications Policy Bureau; Terasaki, Director-General for Policy Planning; Nakata, Deputy Director-General, Minister's Secretariat; Fujishima, Director of the Regional Broadcasting Division

4. Agenda

(1) Matters such as the state of content protection technologies (1)

○ Based on Document 1, Mr. Tago, a committee member, explained the framework of JEITA's

proposal on content protection for terrestrial digital broadcasting.

○ Mr. Tsubouchi, an observer, used a monitor in the conference room to give supplementary explanations on JEITA's understanding of the TR-B14 Content Protection Rules as well as on device compliance to these rules.

○ Based on Document 2, Mr. Seki, a committee member, explained RMP enforcement and the B-CAS method.

○ Chair Murai explained that the questions submitted in advance would be discussed before handling any questions about the above-mentioned explanations. He also explained that, of the eight questions submitted in advance, the last two questions would be handled at the next meeting or later, since those questions pertained to foreign countries.

○ Question (1) is whether content recorded on DVDs is in high definition or in standard definition. DVDs are essentially in standard definition, and therefore standard definition is the answer. My understanding is that the statement following the parentheses is beyond the scope of questions to be answered by a device manufacturer. Therefore, I would like to request that this question be answered by a broadcaster.

○ There is a question of whether recording controls are applied when a program recorded in high definition is moved to a DVD in standard definition. From the point of view of a broadcaster, no distinction is made at all about this point in terms of operation. Basically, no discussion has taken place about moving from high definition to standard definition or vice versa, thus currently no distinction is made.

○ Question (2) is whether products that move content in high definition are already on the market. There are already three types on the market. The first type of product is hard disks. The second type of product is HD DVDs. The third type of product is Blu-rays. I presume that the hard disk prices are about the same as those for hard-disk recorders. I have the understanding that the market prices of next-generation DVDs such as HD DVDs and Blu-rays are a little higher.

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○ Question (3) is whether all devices that record moved content in standard definition are intended to be abolished by 2011. This is basically left to the business judgment of device manufacturers. According to JEITA statistics, the total number of DVD recorder/players shipped so far is around 14 million. Of these devices, about 2 million units are equipped with built-in terrestrial digital tuners. This number will increase from now on. We therefore presume that a large number will still be around in 2011.

○ Question (4) is whether, in the case of STB for terrestrial digital broadcasting, it is possible to record broadcasts with video decks by means of analog outputs using three-color cables consisting of red, white, and yellow wires. It is possible to do so by using so-called three-color cables, of which the red and white wires are for audio terminals and the yellow wire is for screen images.

○ Question (5) pertains to comments on the opinion that EPN is equivalent to "rampancy of pirated versions" and "copy-free." The copy-free term was explained earlier, and therefore I will speak about pirated versions. My understanding is that the greater part of consumers, who do not commit acts of piracy, will not be tempted to do so even if it becomes possible to make some copies by means of EPN. JEITA's understanding is that it is a big problem to place restrictions on the greater part of sensible users because of the acts of a few malicious people.

○ There are four points in my answer to Question (6). As regards Point 1), the relationship between B-CAS and copy-once is as explained earlier. Point 2) concerns whether viewers have to bear the costs of operating B-CAS. Viewers do not directly bear the costs of cards, which account for the greatest part of the B-CAS costs. It may be that, in the end, all of the costs will be transferred to viewers. This will be similar to the case of commercial broadcasting.

○ Point 3) of my answer to Question (6) pertains to the necessity of B-CAS in the case of EPN. Under the current DTCP rules, B-CAS is necessary, as explained earlier. Point 4) concerns whether the B-CAS mechanism can be used for pay broadcasts. B-CAS was originally designed as a mechanism for pay broadcasts. There is a question about why B-CAS is being used for free terrestrial broadcasts. The answer is that, with the aim of scrambling broadcasts for enforcement purposes due to the circumstances explained earlier, the B-CAS method, which had already started to be used by that time, was adopted.

○ With regard to Point 3) of your answer to Question (6), it was explained that B-CAS is an enforcement mechanism in relation to the question of whether B-CAS will be required if EPN is adopted. Is that explanation correct? In this regard, another explanation was given that B-CAS is the enforcement portion and EPN is the technology for output protection.

○ Device manufacturers' understanding is that enforcement is basically implemented through B-CAS contracts, since it is included in operating rules.

○ It was explained that B-CAS and EPN are completely independent in terms of technology, and that the practice of scrambling broadcasts for enforcement purposes with the aim of operating EPN is the same as for COG. Therefore, it is not that the adoption of EPN makes scrambling unnecessary. This scheme results from the fact that the DTCP rules specify that enforcement shall

be carried out with scrambling performed.

○ This is a supplementary explanation. If DTCP, which pertains to the encoding rules in licensing agreements, is regarded as independent, it is permissible to operate EPN, provided that a framework exists in which detection of, and responses to, flags are made obligatory by law, as in the case of the broadcast flag, with respect to the relationship between free broadcast programs involving content protection and other broadcast programs. Namely, under the encoding rules, it is permissible to trigger DTCP with EPN.

○ As explained in the last meeting, when the relevant operating rules were established in Japan, they were not what they are today. That is, these rules were amended later. In the course of amendment, great discussions were held, with even the government involved, about whether it was possible to carry out legal enforcement. It was concluded that it was difficult to do so, and therefore, technical enforcement is implemented at present.

○ I would like to request that detailed explanations be given on move failures, which constitute the core of this discussion; on how the standards for moves are defined; and on how move functions are installed.

○ In May 2001, in a meeting called 8B4E (participated in by eight BS companies and 5C manufacturers, excepting Intel), a move function was proposed by the four manufacturers. Specifically, this function complied with the following provisions of the DTCP rules. Implementation of any move shall be limited to only a no-more-copies content; any move shall be done for only one recording medium; and after completion of any move, no usable copy shall remain simultaneously at both the move source and the move destination.

○ I cannot understand why move failures occur when data is moved from a hard disk to a DVD. When a write is done to an optical medium or the like, the normal practice is to confirm the written data physically with a verify or compare operation and then to erase the original file. However, such operation is not implemented. Why is the move function advocated in spite of that? I would like to request that it be made clear whether move failures are a problem with operating rules such as DTCP rules, or a problem with implementation techniques.

○ Please understand that manufacturers manufacture devices in accordance with the TR framework, since enforcement is implemented.

○ A move can be done to a single recording medium that is either built-in or connected digitally. When a move is made to a high-speed digital interface or to another recording medium, the move should comply with DTCP rules. This means that the DTCP rules should be conformed to when a

move is done on a so-called i-Link. It is specified that no move shall be made to any analog device.

○ There is a provision that in the course of any move operation, no content more than one minute in length shall remain capable of being played back simultaneously at both the move source and the move destination. Move functions are therefore installed in accordance with this provision.

○ After completion of any move, no usable content shall remain simultaneously at both the move source and the move destination. Namely, after completion of any move, the playback of the content at the move source shall be disabled. This section of the Broadcast Operating Rules contains other related particulars on the disabling of the playback of content in relation to the move function. Therefore, device manufacturers install the move function in an orderly manner in compliance with the relevant wording of the Broadcast Operating Rules.

○ When data is to be transferred to an optical peripheral or the like, some technology such as verify or compare is available. Now am I right to understand that because of the relevant provisions in the TR, such technology is not employed in spite of the above?

○ Basically, the TR was established through consultations among broadcasters, broadcast engineers, and device manufacturers. In the end, the TR contains such wording. If manufacturers are manufacturing devices in accordance with this wording, then my understanding is that the answer to your question should be “No”.

○ The broadcast operating rules are very closely linked to the receiver specifications, therefore these rules cannot be decided by broadcasters alone. Such rules were established through various discussions between broadcasters and device manufacturers. For example, scrambling and B-CAS were included as enforcement because manufacturers desired to exclude devices that did not support the rules. Such being the case, I think that accurate disclosure of information is necessary for a common technical understanding.

○ The third interim report states that when DTCP technology is used, it should comply with the technical operating rules called the encoding rules. In addition, the report clearly says that this technology was jointly developed and established by a group of enterprises called 5C, consisting mainly of device manufacturers, and that 5C created the operating rules after consultations with the U.S. movie industry. Therefore, if you say that you feel helpless, we will be very perplexed.

○ If both broadcasters and device manufacturers make irresponsible arguments, consumers will be dumbfounded. The third interim report clearly says that studies will be conducted on specific measures for receivers by considering pointed-out problems such as move failures, and that the

state of the study will be reported by December this year. I presume that there are encoding rules other than EPN, copy-free, copy-never, and copy-one-generation.

○ There are cases where devices that are sold in compliance with the operating rules established by the ARIB and in accordance with DTCP do not behave as specified. I would like to make it clear that the copy-once rule is not responsible for this phenomenon. With regard to EPN, I now understand that content cannot be locked on the Internet because media IDs are changed. Nevertheless, on the other hand, there are no restrictions on copying content from hard disks to DVDs. In addition, generations can be made without restriction from such DVDs. Therefore, rights holders can only judge that this situation is the same as being copy-free.

○ None of the foregoing explanations answer the following questions, among others. What is meant by being copyable in a protected state? Can copies be made without restrictions as to generations or numbers of copies? How are the keys for Internet transmission processed at destinations, or is it that no content whatsoever is transmitted, since no key is available? If content is copied to a different medium with a different player, is it possible to copy this content with no restriction as to generations or numbers of copies?

○ It is impossible to perform generation management and to impose restrictions on generations and on numbers of copies. Can this situation be referred to as anything other than being copy-free? Besides, my understanding is that copy-once and copy-one-generation differ. I think that COG stands for copy-one-generation. In this connection, to what does “generation” refer? When a broadcast is recorded to a hard disk, does that recording fall under the category of copy-one-generation, or does it come under the category of no-more-copies?

○ Setting aside whether this was named copy-free, EPN does not impose restrictions on generations or on numbers of copies. In this regard, no restrictions whatsoever are placed on analog or terrestrial analog broadcasts. As distinct from this, there are limitations in place in the case of EPN. That is to say, only the media, players, and recorders that protect content with some encryption based on the content protection method can use such content. As mentioned earlier, EPN does not impose limitations on copy generations or numbers of copies.

○ Before letting discussions suddenly turn to EPN from move failures, it may be a good idea to discuss a type of operation where, for example, a copy-one-generation flag is attached to content captured on a hard disk and then that content is allowed to be copied to an optical medium in the case of one generation. I think that there is room for improvement with respect to the current framework and the EPN approach. I cannot help feeling that it will be a great leap if discussions turn to copy-free before the above-mentioned matters are discussed.

○ When content that is broadcast with a COG device is copied to a hard disk after being received through the tuner associated with the hard disk, the resulting copy is supposed to be in the category of no-more-copies. This is what the rules specify. That is, the content cannot be copied any further. Therefore, there is no choice but to have a move made.

○ It was mentioned that if content is left on a hard disk by some other method, endless copies are capable of being made. From the perspective of device manufacturers, this means that in one case, a terrestrial digital tuner's internal recorder and a built-in hard disk or an external hard disk are connected by an internal bus, while in another case, DTCP has to be used between a terrestrial digital tuner's internal recorder and a built-in hard disk or an external hard disk. The rules thus have to be changed completely. In reality, this will be impossible or at least very time-consuming.

○ If there are any alternatives other than COG and EPN, I would like to request broadcasters to propose such alternatives. At present, that is all that can be done, since only a world of 0 or 1 is being discussed.

○ Is it that when connection is to be made with external devices, DTCP is used, but when connection is to be established with built-in devices, another original standard is applied in such a way that DTCP is not used? It seems that the majority of devices come with hard disks and DVDs. Does this mean that these devices do not comply with DTCP?

○ In the case of built-in devices, an internal standard is applied instead of DTCP. We understand that there is no problem, since it complies with the Japanese TR-B14 broadcasting format. When external processes are performed, they conform to DTCP.

○ The JEITA document states that if a new CCI is defined on the upstream side, it is necessary to change the protection method standards on the downstream side. Actually, this works both ways. In the document from the broadcasters, the "Copy prohibited" block is marked with an x in the section titled "Free broadcasts with content protected." This was done in order to comply with the DTCP rules.

○ Digital receivers are subject to the restrictions specified in the operating rules for broadcast waves and they are also subject to the restrictions stipulated in licensing agreements that are required because such receivers are equipped with DTCP technology. Receivers are not allowed to be manufactured unless these two sets of restrictions are consistent. Therefore, the DTCP rules, the transmission operating rules, and the TR are consistent in the manner that has been discussed so far. Consequently, if it had been difficult to meet a draft TR in terms of implementation, then device manufacturers would have given their opinions accordingly, with the result that this draft would not have been adopted, hence the current TR. It would be appreciated if this fact could be

understood.

○ I think that today, a number of things have become clear, such as the relationship between copy-once and the DTCP rules. In particular, matters like the relationship among the following items have been clarified with regard to moves: the number of sets of restrictions specified in TR, feasibility, and issues that were discussed. Besides, explanations were given on matters such as the relationship between scrambling and B-CAS for guaranteeing enforcement.

○ In the next meeting, I hope that the following matters will be covered as much as possible: various issues that were raised in the past meetings; and questions, reports, and other particulars about conditions in foreign countries.

(2) Schedule of future studies

○ Based on Document 3, Mr. Ogasawara, Director of the Contents Development Office, explained the schedule of future studies.

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