

Broadcasting System Committee (5th Meeting) Summary of Minutes
Telecommunications Technology Sub-Council, Telecommunications Council

1. Date and time

Tuesday, March 13, 2007, 17:00

2. Location

Special Meeting Room 3, MIC

3. Agenda

- (1) Confirmation of the summary of minutes of the previous meeting
- (2) Current situation of satellite broadcasting
- (3) Outline of BS digital broadcasting and its services
- (4) Draft administration policy for the Working Group for Satellite Broadcasting System
- (5) Draft schedule for future discussions
- (6) Others

4. Attendees (honorifics omitted; in random order)

Ito (Committee Chairperson; Tokyo University of Science), Tsuzuku (Vice Committee Chairperson; Meijo University), Aizawa (National Institute of Informatics), Katto (Waseda University), Kobayashi (Association of Radio Industries and Businesses), Sato (Tokyo University of Technology), Yamada (Graduate School, the University of Electro-Communications), and Kato (presenter; Japan Broadcasting Corporation NHK)
[Secretariat] Okubo, Fuseda, Usui, and Takemura (Broadcasting Technology Division, MIC)

5. Documents Distributed

- Document 5-1: Broadcasting System Committee (4th Meeting) Summary of Minutes (Draft)
- Document 5-2: Current situation of satellite broadcasting
- Document 5-3: Outline of BS digital broadcasting and its services
- Document 5-4: Draft administration policy for the Working Group for Satellite Broadcasting System
- Document 5-5: Draft schedule for future discussions
- Reference: Administration policy for the Broadcasting System Committee

6. Summary of the Meeting

After introduction of the presenter and ensuring that every participant received the documents to be distributed, the agenda items were discussed as follows:

(1) Confirmation of the summary of minutes of the previous meeting

The Broadcasting System Committee (4th Meeting) Summary of Minutes (Draft) was approved.

(2) Current situation of satellite broadcasting

The secretariat explained the current situation of satellite broadcasting, based on Document 5-2. Subsequently, the following opinions were voiced:

- Chairperson Ito: The future mission of this committee is to discuss the technical requirements for advanced systems of BS digital broadcasting and broadband CS digital broadcasting. Currently, these two types of broadcasting use different parameters of operation, but share the same technical standards. How should we handle such conditions in discussing new systems?

→ Secretariat: We would like this committee to discuss that issue as well.

- Vice Chairperson Tsuzuku: The Satellite Broadcasting Study Group (the Study Group on the Future Vision of Satellite Broadcasting) intends to “maximize the use of new broadcasting systems” while simultaneously “considering the benefits for the users of existing receivers that are based on the current broadcasting system.” The currently prevailing receivers that are compatible with three types of radio waves cannot receive the radio waves of new services that use new systems. How far should we consider existing receivers?

→ Secretariat: In regard to BS digital broadcasting, if services based on the current technical standards are provided via a total of seven channels, namely the three channels vacated after the switch from analog to digital broadcasting and an additional four channels, some models of existing receivers cannot receive the radio waves of all of the seven channels. That is why there are demands for new systems. Meanwhile, we should also see to it that the viewers who have been enjoying existing services with existing receivers would not be affected by the launch of new services based on new systems.

- Chairperson Ito: There is the issue of the extent to which we should consider the legacy receivers that are limited in the number of receivable TS and the number of broadcaster IDs. I believe that the comparatively new receivers of these days can receive radio waves of all

channels if the current technical standards are adopted.

→ Presenter Kato: JEITA's survey revealed that most receivers do not have any limitations in receiving radio waves, but some receivers have a limitation in the number of receivable TS, i.e., up to 16. They may not be able to handle additional services, although they can receive existing services without any problems. There are also some types of receivers that are limited to up to 20 receivable broadcaster IDs. Beyond the limitation, they cannot access NVRAM for data broadcasting, which means users with these receivers cannot enjoy all services. Other than these, some receivers cannot handle the additional 4 channels or 110 CS broadcasting, not because of the specification of the receivers, but because community reception facilities, or a booster's bandwidth can only handle up to 15 channels of BS broadcasting.

→ Chairperson Ito: It is difficult to fully comprehend how many of such receivers are currently used and how many will still be used in 2011. We should study new systems based on a new concept of providing an option to choose an existing method or new method, by ensuring that users of existing receivers can continue to enjoy existing services.

- Member Kobayashi: I am not sure of the extent to which the Satellite Broadcasting Study Group has discussed the issue, but I would like to know which service type is the basis of their study, paid broadcasting or free broadcasting? This relates particularly to the CAS discussion.

→ Secretariat: The assumption of our discussions should be that both are possible.

→ Chairperson Ito: The service types, namely whether paid or free, are closely related to the principle of excluding multiple ownership of the media, and the Satellite Broadcasting Study Group has not yet reached a conclusion.

(3) Outline of BS digital broadcasting and its services

Presenter Kato described Document 5-3 on the outline and services of BS digital broadcasting.

The following questions were subsequently asked:

- Member Kobayashi: What is the frequency of the hierarchical modulation service?

→ Presenter Kato: In the case of NHK, we operate the system all the time for BS1 and BS2, while only weather warnings are issued for BS-hi.

- Member Kobayashi: The document uses the phrase, "quasi-basic broadcasting." As BS digital broadcasting is heading toward multi-channel, has any discussion been conducted at the Satellite Broadcasting Study Group in regard to the position of quasi-basic broadcasting in the entire system? The viewers watch programs within a limited amount of time. The increase in the number of channels may result in a situation where it only means an increase in the number

of programs they cannot view. We need to change the perspective in our discussion, depending on whether to regard quasi-basic broadcasting as similar to multi-channel broadcasting (CS digital broadcasting) or similar to basic broadcasting (terrestrial digital broadcasting). Please let me know if any discussion has been conducted on this matter.

→ Secretariat: The Broadcasting Policy Study Group (the Study Group for the Development of Digitization and Broadcasting Policy) touched on the matter, but it decided that it should follow the conventional role. I do not believe the Satellite Broadcasting Study Group has discussed the ideal roles of quasi-basic broadcasting.

→ Chairperson Ito: I think BS digital broadcasting has been regarded as quasi-basic broadcasting because it is a media that has a great number of viewers and influence on society.

- Chairperson Ito: I remember back when the burst signals were first considered for synchronization in order to meet the urgent need that emerged during the development of the reception system. I would like to know whether the signals should be inserted as frequently as in the past, even with the current technical standards.

→ Presenter Kato: It may be possible to reduce the frequency, depending on the system of demodulators. For example, in the past, the roll-off rate was set at 35% by considering the tap length of digital filters. The impact on hardware is now smaller, even if the tap length is considerable. That must be one of the points to be reviewed with the technical advances in the past decade.

(4) Draft administration policy for the Working Group for Satellite Broadcasting System

The secretariat explained Document 5-4, Draft administration policy for the Working Group for Satellite Broadcasting System, and the draft policy was approved. Also member Katto was appointed Chief of the Working Group.

(5) The secretariat explained Document 5-5, draft schedule for future discussions. Subsequently, the following questions were asked and the draft schedule was approved.

- Chairperson Ito: We are to draft the committee report by mid-April of next year. Is it right to understand that we will complete the public comment procedure in the following month and submit a report to the Minister by around June.

→ Secretariat: That's correct.

- Member Kobayashi: According to the estimated timeline in Document 5-2, the study of consumer specifications starts after submitting the report to the Minister. I do not believe it excludes the possibility that the private sector will discuss various issues before the submission

of the report. Is my understanding correct?

→ Secretariat: There is no problem. We really appreciate the private sector efforts.

- Chairperson Ito: We should discuss new technical standards from a flexible perspective so that they can handle not only HDTV, but also higher definition video format.

(6) Others

- Member Kobayashi: When we studied the technical standards for the current BS digital broadcasting, we assumed that the technologies that had not reached maturity at that time would become available for commercialization by the time BS digital broadcasting services were launched. Now, H.264 technology is almost complete. If we assume its service launch is to be in 2011, are there any other technologies that need to be considered as more advanced than H.264, or should we focus on existing technologies?

→ Chairperson Ito: The major issues of our discussion are transmission coding and source coding (particularly video compression). I am not an expert on the former, but as for the latter, I remember that the Satellite Broadcasting Study Group discussed the system and most of experts in this field said any video compression system that replaces H.264 is unlikely to emerge by 2011. Considering the transition to a new system, receivers that are compatible with the current MPEG-2 and the new system will be developed. In that sense, MPEG-2 is regarded as a sub-set of H.264, and the two are highly comparable. H.264 technology is surely almost complete, but the technology on the encoder side has not matured in terms of high-definition images. Considering the years that MPEG-2 took to mature, you can easily imagine that much more time is required for H.264, which has a greater number of coding parameters, to mature. In that sense, if H.264 is adopted for the next satellite digital broadcasting as a result of this committee's study, the speed of development may be accelerated.

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