

Panel on Multimedia Broadcasting Services for Mobile Terminals
First Meeting Summary of Minutes

1. Date and Time

Thursday, August 2, 2007; 10:00— 11:35

2. Location

MIC Special Conference Room 4, 5th floor, 2nd Bldg. of the Central Common Government Office

3. Attendees

(1) Members (Japanese alphabetical order; honorifics omitted)

Reiko Akiike, Susumu Ito, Yumi Ogose, Tomoko Kanayama, Shunichi Kita, Hiroshi Suzuki, Akira Negishi (chair), Hiroyuki Morikawa, Ryuji Yamamoto, Nozomu Yoshida

(2) MIC Representatives

Kan (Minister of Internal Affairs and Communications), Ogasawara (Director-General, Information and Communications Policy Bureau), Kawachi (Deputy Director-General, Information and Communications Policy Bureau), Imabayashi (Director, General Affairs Division), Yoshida (Director, Broadcasting Policy Division), Oku (Director, Broadcasting Technology Division), Yoshida (Director, Terrestrial Broadcasting Division), Takeda (Director, Satellite and International Broadcasting Division), Fujishima (Director, Regional Broadcasting Division)

4. Agenda

(1) Objectives of the Panel

(2) “Openness” of the Panel

(3) Current Status of Multimedia Broadcasting Services

(4) How to Conduct the Panel Meetings

(5) Call for Proposals of Study Items

(6) Others

5. Meeting Summary

(1) Opening Words by Minister Kan

(2) “Objectives of the Panel” and “‘Openness’ of the Panel”

• The Panel approved the following proposals of the Secretariat: “Objectives of the Panel (Proposal)” (Handout 1) and “‘Openness’ of the Panel (Proposal)” (Handout 2).

(3) Election of Chair and Designation of Assistant Chair

- The Panel elected Negishi as chair. Negishi designated Kurokawa as assistant chair.

(4) “Current Status of Multimedia Broadcast Services”; “How to Conduct the Meetings of the Panel”; and “Call for Proposals of Study Items”

- The Secretariat explained the handouts “Current Status of Multimedia Broadcast Services for Mobile Terminals” (Handout 3); “Overview of Broadcasting Systems” (Handout 4); “Effective Spectrum Usage Policy Committee Report Summary (June 27, 2007)” (Handout 5); “How to Conduct the Panel Meetings (Proposal)” (Handout 6); and “Application Procedures for Proposals of Study Items for the Panel on the Future Directions of Multimedia Broadcasting Services for Mobile Terminals (Proposal)” (Handout 7).

- The meeting proceedings after the explanations by the Secretariat were as follows:

Member: To begin with, we would like to discuss how to conduct the Panel meetings. The Secretariat has just explained this matter using Handout 6, and also the application procedures for proposals of study items using Handout 7. Would anyone like to raise comments about these?

Member: While the handout states, “we invite proposals from various angles,” the deadline is fixed at the end of August. Today is already August 2. Considering that there is a summer (i.e., *Obon*) break in-between, I feel the time available is extremely short. In terms of timing, are there no other alternatives?

MIC: We will consider extending the deadline to the beginning of September.

Member: Indeed, our first impression is that the time available is very short. Since we wish to invite proposals from various angles, we would appreciate it if you could revise the schedule so it will not be viewed as unrealistic.

Member: You are scheduling up to four presentations. If there are too many proposals, will there be any mechanism for narrowing them down to a manageable volume?

MIC: In such an event, we will first consult the chair, and if necessary, consult the entire Panel. We can consider various contingencies. For example, if we receive too many proposals in one particular field, we may need to narrow them down. On the other hand, even if there are very few proposals in a certain field, if we find them important enough we

consider them. It would be difficult to set rigid selection criteria in advance.

Member: I understand.

Member: As has been pointed out, we will need to handle them on a case-by-case basis. At any rate, we would like to hear every member's opinions one way or the other and then take them into consideration.

MIC: In terms of technology, it is unlikely that we will receive a huge number of proposals; the number likely to be limited, in my opinion. What may happen is that various people may advocate a variety of technologies to varying degrees. In such an event, one way of handling the situation would be to divide them into several technology groups and ask each group to give a presentation. At any rate, we would like to consult the Panel regarding each major point.

Member: Does anybody have any other opinions regarding this issue? No? Okay, then, we would like to confirm that we will conduct the Panel meetings as proposed, while asking the Secretariat to revise the deadline and schedule.

The next issue we need to address is the content, which is what this Panel will be concerned with. At this point, we welcome candid opinions as well as questions and comments from everybody present here, either from your own perspectives or from outside your areas of specialization. Anybody?

Member: May I be the first to take the floor? I have a question about page 3 of Handout 4, "Overview of Broadcasting Systems," particularly regarding the arrows relating to the program-supplying broadcasters and telecommunications carriers. The arrows from the broadcasters extend from the top to the bottom, while the arrows from telecommunications carriers extend from the middle to the top and also to the bottom. For both content and the telecommunications infrastructure, everything should flow from top to bottom, I would say. Now, regarding the different directions of the arrows, are these due to differences between the governing laws of broadcasting businesses on the one hand and telecommunications businesses on the other? Am I right in thinking that in essence the directions should be the same?

MIC: They are the same in terms of hardware, that is, the object that actually reaches the subscriber, and also in terms of software, that is, what is actually carried on or through the

hardware. The difference lies in the way they are treated by the legal framework.

Member: I'd like to voice a request for the Secretariat. It would be very useful if a road map could be provided toward the launching of the new services in 2011 and the related discontinuation of analog broadcasting. There must be quite a few people who wish to join the bandwagon but are wondering what they need to do and by what date. Such people would greatly benefit from such a road map, which would also indicate what should be determined by the government and by what date.

Another thing I would find useful would be a list of points of argument, or an issue tree, so to speak, for this Panel. During today's explanations, I heard it said a number of times that something or other would be an issue or a point of argument. So, such a list would put things into perspective, by enumerating the points for this Panel to discuss.

This would also help in calling for proposals and opinions, as the list of possible points of argument would be presented up front. It would sort out various argument directions, which could otherwise spin out of control. Certain issues will be dichotomous, that is, either A or B; either yes or no; either we do or we don't. For such issues, it would be more productive to seek an opinion by pinpointing what the proposer him or herself thinks; otherwise, we might end up wondering what the point of the presentation was in the first place or asking the proposer to give the presentation again. Or, they might simply argue that their proposal be adopted regardless. So I would appreciate your consideration of these points.

Member: I quite agree with the second point raised. On the other hand, we have to keep in mind that we will be calling for proposals. If we are to present the points of argument upfront in a top-down fashion, it would in effect place the arguments within a limited frame. It might be better to welcome any proposals first, and then, based on these proposals, consider the relevant points of argument. It is not that the points of argument would be determined from the very start, right? It would be the Secretariat that would take care of the scheduling. Regarding the second issue also, I agree with the previous speaker, but I would like to hear what the Secretariat members think.

MIC: As for the overall schedule, we are thinking along the following lines: first, the Panel will formulate a general framework by late spring next year, and then we are going to draw up technological standards and tackle the issue of legislation, as necessary. If necessary, we will aim for the year 2009 to bring about all the amendments. In this regard, we also need to straighten out various legal and administrative systems, such as licensing criteria and

licensing policies. These will also need about the same amount of time. So it would be just after this time frame that we would actually start inviting applications.

Unfortunately we don't have such a road map in writing today, but we would like to create one and send it to all the members by e-mail or any other means.

As for the second issue, that is, the call for proposals, we do see the value of presenting a list of points up front. However, regarding multimedia broadcasting, which is an entirely new field, there may be some issues we are unaware of, and therefore we thought it better to first call for proposals from as many fields as possible, without setting any framework in place in advance. There are actually three broad issues to consider: technology, business models, and systems.

Member: I see.

Member: We have no idea how many proposals there will be. Page 13 of Handout 5 lists a fairly large number of proposals, but I guess this just reflects the situation at one point in time. Or perhaps, do you have an updated version available? Page 13 of Handout 5 lists as many as 21 under digital multimedia broadcasting alone. Altogether there are 44 under digital broadcasting alone. I really wasn't aware that there were so many.

As for a list of points of argument, I don't think this is necessary. We will get down to individual arguments later anyway, and that will be at the time of the presentations.

MIC: Let me respond to your first question. As you have pointed out, on page 13 of Handout 5, there are 44 proposals under digital broadcasting and 6 under analog FM broadcasting. There is some overlap, however. On page 15 you see the proposals as systems under the previous study. The area shaded in light green corresponds to digital broadcasting. Six systems have been proposed: digital radio, multimedia broadcasting, and so on. There have been cases where the same system has been proposed by more than one person or company. At that time there may have been minor variations to an individual system, or different business models based on the same system. But at any rate, they were classified into these six systems.

Member: This is a very well-organized chart. Can we presume that most systems will generally fall into these categories?

MIC: It's been some time since we drew up this memo, so, there may be new proposals based on new technologies, or new business models based on new ideas. Looking back,

however, we think this more or less represented the overall picture at the time.

Member: I understand. Thank you.

MIC: As for the second point, we would like to be flexible depending on the progress of the discussion, especially in terms of lending our ears to voices from outside in our effort to sort out the points of argument. Thus, the schedule presented here should be adopted simply to reflect our thinking at present. As we proceed, we would like to navigate the Panel so as to elicit fruitful discussions.

Member: I agree with everybody that we should invite arguments from as broad a spectrum as possible. I also hope that proposers will give focused presentations, having clarified their points of argument.

One point that occurred to me just now while reading the handouts is that it might be better to include the notion of supporting new business models for enhancing international competitiveness a little more strongly into the first item, the "Scope of application for proposals of study items," in the "Call for Proposals of Study Items." That way, the message will be promoted that MIC is willing to support new ideas. Furthermore, if we are to consider amending relevant laws around 2009, it might be better to explicitly state in the first part of the "Call for Proposals" flier that we would welcome ideas on where to amend the laws. This is important because new business models tend to entail a variety of intellectual property issues. I believe it would benefit Japan as a country if as many people as possible could freely ask us questions and candidly point out potential problem areas.

MIC: We would like to embrace international viewpoints also in this "Call for Proposals" flier.

Member: I don't know whether this is appropriate for this Panel, but I would like to present an idea as one of the points of argument. The handout calling for proposals of study items says something like "MIC will ... analyze the proposals and consider what form the business models should take and what social roles they should assume." The study appears to address legal and administrative systems, technologies and business models. One area that might be missing is a social viewpoint, or the viewpoint of subscribers to the broadcasting services, that is, what social roles the public, or ordinary citizens, expect. For example, as mentioned in one of the proposals, there shouldn't be any households experiencing difficulties in receiving the broadcasting, an area which constitutes one of the

principal digital-divide issues. The public are concerned about such issues. Therefore, I think it's important to embrace such arguments in some way, although this would somewhat broaden the scope.

MIC: Indeed. We would like to take this suggestion into consideration.

Member: A few minutes ago, the Secretariat presented several points of argument. Now, we'd like to invite further points of argument, if any, whether related to or different from those all already mentioned.

Member: While I understand that the emphasis is on strengthening Japan's international competitiveness, I have noticed, on page 11 of Handout 3, that the application of our one-segment system is limited to Japan and Brazil only. Other countries have other systems such as DVB-H, T-DBM and MediaFLO. We had a heated debate on this matter in the broadcasting section of the ICT Panel. The question is for whom we should seek international competitiveness. Take the international competitiveness of terminal manufacturers, for example. What matters is compliance with global standards, which is the key to greater market share. One of the important strategies would be to adopt a standard used by countries with huge market potentials. Look at South Korea, which employs distinct national strategies in many fields. In the case of the mobile phone, upon realizing that WCDMA was going to be a global standard, the South Korean Government was quick to switch everything to this system. This was indeed among their national strategies to increase the international market share of Samsung and LG. While it is fine to invite opinions and suggestions broadly from a wide audience, I would like to hear what Japan, or MIC in particular, should do to boost our international competitiveness, as well as everybody's views on this matter. The question I'd like to pose is whether it is really a good idea to stick to Japan's original system. Although the system itself may be good, when it comes to the business model, it seems the general is that we should first establish a business model on that system, see if it works well and can run on other systems, and then we should export it. It's a moot point, an open question, as far as I can see. There are a number of viewpoints and arguments. Whenever we discuss a certain goal or the issue of international competitiveness, we tend to avoid the question of who does what, in other words who will benefit most, and we end up with unclear and ambiguous conclusions. I'd like to see these issues specifically discussed by this Panel.

Member: First I'd like to state my stance, which is not directly related to this Panel. I have

long been a supporter of digital broadcasting. Now, as to the discontinuation of analog broadcasting, looking at a number of issues occurring these days as a result of hasty decisions—which may significantly impact the business operations of broadcasters in the long term—I have been of the opinion that it would be better not to set a wholesale deadline. This is the point where I differ from MIC, and for that reason I have been avoiding these kinds of meetings since then. This time around, however, I was told that I would be able to candidly express my views, including on that particular point, and that is why I am here today. My stance is to see reality as it actually is. Quite apart from what the Panel's decisions may be, this is what I think.

Now regarding business models, when it comes to broadcasting, there are basically three models: the advertising model, the direct-fee model, and the sales downloading model. In advertising you tend to reuse existing contents. It's an old-fashioned model, and it would not be a very good idea to increase the amount of advertising. Therefore, I would personally go for a fee-based model, in which money is collected from consumers, or sales downloading, in which a new form of income is created in combination with business operators selling downloading services.

Member: Regarding the first point, are you referring to the time frame of the launch of certain broadcasting services?

Member: Yes. There are 120 million television sets in Japan, which means many households have two or three sets. Further, viewing rates are higher for second or third sets than for the first set. This means that, even though the first set of each household may become digital, quite a few second and third sets remain analog in 2007. The business of most private broadcasters relies heavily on income based on viewing-rates. So if analog broadcast were to be discontinued abruptly at a certain point in time, it would have a very serious impact on their business. This is a reality. Of course, what should be done in terms of national policy over the next several years should be to pursue the present course, and this Panel is part of that policy. On the other hand, what I have said are my own personal concerns, and I'd like to point out that it may become necessary to take realistic measures henceforth.

Member: I understand. Any other comments or opinions? Also, we may need to discuss how we are going to prioritize these points of argument we have listed.

Today we have a number of scholars from various fields present here. Some of you may have already expressed your views. Are there any other points of argument regarding

technology? Please speak freely.

Member: One of the technological arguments would be whether we should accommodate more than one broadcasting system into a single broadcasting form, which I don't think has been addressed yet. Somebody mentioned a road map a few minutes ago. From the viewpoint of technological standards, some of the systems can be implemented with little modification to existing standards. A new broadcasting system would probably have to be discussed at the Telecommunications Council. Therefore, the road map would greatly depend on whether or not a new system is introduced. One of the points in this regard is whether we are to accommodate multiple broadcasting systems.

Another issue is international competitiveness, as discussed by somebody a few minutes ago. It would be extremely difficult to answer the question of for whom we should seek international competitiveness. The world of broadcasting is very different from that of the mobile phone business, where what matters most in a sense is the sale of terminals. With broadcasting, we need to take a longer-term perspective in terms of both international deployment and export of content.

There is a point in the argument that, in order to make business sense, it is quite permissible to bring in an outside system. However, in the long term, this would undermine our own technologies. A certain carrier company once maintained that they didn't require a research laboratory, I hear. Well, that might be okay in the short term, but it would constitute significant a body blow overall.

In broadcasting, there is nowhere in the world with a laboratory comparable to NHK's Science & Technology Research Laboratories, which means, in a sense, we lead the world in broadcasting technologies. I personally believe we should maintain this leadership position. Of course, on the one hand, you cannot continue to do what does not bring in money. On the other hand, on a long term basis, we need to maintain the stance, both in terms of systems and content, that what matters most is technology and the quality of culture.

Member: Exactly. However, the issue here is that this is not the prevailing view. I am not arguing that it is no longer necessary to stick to Japan's originality. The point is there are a variety of views, and what is necessary is the time axis. Nowadays in Japan, companies are required to produce results for every single quarter; otherwise, all executives would lose their jobs. In such a corporate environment, it is hard to argue that we should persevere with today's hardship and instead should look to three years, five years, or even 10 years from now. Such an argument would then be met with counterarguments favoring short-term

benefits. The problem is where we would find a compromise. I don't have any bias one way or the other; I'm just saying that both views exist.

Member: As for the method of determining standards, for example, a question remains whether there is room for self-reflection. I personally think that if the building of a system is left under the control of television people, the system tends to become a closed one. They will invariably pick XML, which is extremely hostile to the Internet, and as a result, the amount of text content in broadcasting will be extremely low. At any rate, TV stations are not very keen to produce text content in the first place. And then comes my own personal argument that users would be happier if we made the system more Internet-friendly by relaxing the corresponding peripheral standards. The issue here, as I see it, is that for people who are already conducting business, restrictive standards would merely create an inconvenient barrier and result in loss of popularity for the system. When selecting technological standards, as in past cases of system design, it is important to take a step back and review what was good, what was bad, and what has not made progress.

Member: I think you are referring to data broadcasting. Now as far as data broadcasting is concerned, there are no compulsory standards imposed from above. There are technological standards established by a non-governmental standardization organization, which are outside the scope of compulsory standards in this country.

The same is true of the one-segment system that is currently in place. There have been various patent issues. Originally planned to adopt MPEG-4, but this was later changed to H.264 instead. These are not national, compulsory standards. So things seem to evolve on a private, industry basis. As for data broadcasting, of course the Council discussed what to do and how to do it, but compulsory standards were not established, as far as I recall.

Member: It should be pointed out that, when private businesses take control, they may not necessarily adopt an open standard. It sometimes happens that at the end of the day, the system is unable to attract consumers and nobody uses it, causing the data broadcast business to fail. This is a classic example of reaping what you sow. Therefore, in this regard, the criteria for selecting a system should include whether it is convenient for users, whether it is expected to evolve further, and whether it will be followed by a lot of supporting content.

Member: Okay, any other comments or opinions, please. How about from the viewpoint of

business, which is closely related. Somebody mentioned intellectual property issues a few moments ago. What kinds of problem can be foreseen here?

Member: In addition to the MPEG-4 patent issue just discussed, I can think of potential copyright issues. Let me take mobile phone-music downloading as an example. It's now difficult to load music from a CD into your mobile phone. Somebody came up with a new business model, but then the court ruled it illegal under the current copyright law. Now with broadcasting, it might become a legal issue if you were to download a broadcasting program into your mobile phone and then view it on your television at home, since this would involve a file conversion. It was due to this very issue, I hear, that Japan lagged so far behind other countries in this respect, being the 19th country in the world to introduce iPod and iTunes, which originated in the United States.

Member: Do you mean to say this lag was due to copyright issue?

Member: Well, not only that. There must have also been various licensing issues, I imagine. At any rate, whenever a new business model is to be introduced and supported, it entails various legal issues. In this regard, if we as a country establish a system which supports new businesses, including the amendment of pertinent laws, it encourages new entrants. As I see it, there are potential legal issues involving both patents and copyright.

Member: Right now we are discussing legal issues. We now welcome arguments from other viewpoints. Please feel free to voice your arguments, comments, and questions.

Member: I think the discussions we have had so far on the overview of the broadcasting system pretty much cover the main arguments. The point would be, as I see it, where in the existing legal and administrative systems we should fit the new broadcasting, and where it would not fit in the existing systems. First we would like to see what exactly comes up during the meetings and then we would like to start considering these points. As for overseas trends, the handouts already cover technological trends, I believe. It would be beneficial to us if there were some information available on overseas trends in legal and administrative systems.

Member: Could the Secretariat handle that?

MIC: Certainly. In fact we have already commenced studies into this area, but have not yet

gathered sufficient data. We will eventually prepare some materials to present to this Panel, but would appreciate your patience on this matter for the time being.

Member: I guess the picture will be quite different from that of the current broadcasting, in terms of, for example, the separation between hardware and software, the discipline in producing programs, and the principle of preventing the over-concentration of mass media. We would appreciate it if you could include information on these issues in the report.

Any other comments or suggestions, please? For example, from the viewpoints of business fields, how we should build a business model in such an environment, and what the competitive environment would look like.

Member: Perhaps this is an offshoot of the previous discussion, but I wish to add something. While it is very important to be a technology leader in the world, this requires R&D investment, and unless it can be grown to the point where the investment pays off, the business will fail. Of course, the legal and administrative systems need to be discussed, but in that case we might end up spending too much time and energy on this discussion. What is important for this Panel is to discuss what kinds of consumption are going to be encouraged, and in areas where there has been no market to date, who is going to supply what and who is going to buy it. Excuse me if I'm repeating myself, but if we miss this approach, we may end up losing ground, with no funds to spare for R&D investment. This is precisely what is happening today in some fields of technology in Japan, I'm afraid. For example, not all mobile terminal manufacturers are currently enjoying high profits.

I can't say for now whether or not it would be wise to stick to the original Japanese system, but, if we are to adopt a unique, original system, I think it would be necessary to try to build a business model with which we can enhance our international competitiveness. Therefore, I believe, in conducting this Panel discussion, we should keep this perspective in mind.

I guess the intent of this Panel is to elicit study items by inviting proposals from as broad an audience as possible, without setting forth points of argument up front. I'd like to point out, however, that not everybody is able to come up with creative ideas. What I'd like to propose is to put all the points of argument of this Panel on paper and then update the memo frequently. All the points of argument at each meeting shall be shared by every member of the Panel. As we engage in discussions and listen to presentations, we will add new points or modify previous ones. This way, we will be more focused and more productive. This is what I'd like to propose.

Member: That might be the idea of the Secretariat. We will not start from scratch. The Secretariat did present a list of points of argument at the start of this meeting. Although there may be other ways to do it, might this not be the way we should pursue?

MIC: We'd like to prepare something that incorporates and summarizes not only the points we made earlier in this meeting but also those brought up today and that can be shared by all and be used as a basis of our discussions.

Member: That would be most helpful. Such documents would be more valuable if they covered the arguments of whether or not the proposal makes business sense, whether there are any benefits to the general public, and whether the business operators in the field will be able to gain reasonable profits, while at the same time maintaining international competitiveness and finding room for growth.

Member: My interest lies not in business but rather in the socially weak, the citizens and the media, and also in the revitalization of local communities and the use of the media in such a context. As I understand, this Panel is going to mainly discuss systems, legal systems, technologies and business models. When I look at how various forms of the media have evolved, however, certain issues remain unresolved. For example, it would be nice if we could grasp how the beneficiaries of the media, the subscribers, feel, and whether or not their lives have improved.

Such issues may need to be addressed by this Panel from the very start. From this perspective, when we discuss business models, we should also cover what the consumers themselves want.

I'd like to further draw your attention to the use of the mobile phone in various community activities, such as security and disaster prevention. "One segment" broadcasting, for example, is attracting particular public attention from the viewpoint of disaster prevention. I would like business operators to reach out and listen to consumers. Today, if you ask students what media they use most frequently, most will say "the mobile phone." A growing majority of students do not watch much television; instead they rely heavily on the mobile phone. So the question should be, is it okay to give such young people simply what the conventional media, i.e., television and radio, have been giving? As somebody pointed out a few minutes ago, we would need to discuss how to enable these people, who are so dependent on the Internet, to connect to it.

Member: What is the most difficult aspect of technology is that once we allocate a

frequency band, the technological standards involved will be altered. One of the biggest differences from the Internet is that, once we establish something, we cannot change it at a later date. One thing I can point out is that the mobile terminal has only been around for five to ten years, and is likely to change again in the next ten to twenty years. The mobile phone no longer uses analog. So in ten to twenty years we will see some more new technologies. What matters is how flexible we should be in dealing with these new technologies.

Ideally, broadcasting will become multimedia, and we will probably allocate multimedia wavelengths to this end. But then the question remains whether this can really be called broadcasting. It will have some aspects of telecommunications, that is, a frequency band without an uplink. But then again, we will be able to run telecommunications programs using a separate frequency band for uplinks. There may also be applications similar to today's peer-to-peer. Therefore, while accepting the fact that we have no choice but to adopt what we have today and follow such and such a schedule, I believe we should also be flexible and look to the future. For example, it would be nice to have technology standards or a licensing system that would accelerate this change.

Member: When we discussed international competitiveness earlier in this meeting, I had to emphasize the long-term vision. Now, when we look at the timeframe for the launch of this service, as you have just mentioned, I don't think anybody will be actually developing anything from scratch. Probably they will select an existing product, with slight modifications added if necessary. Since early on, in most cases, one of the requirements for establishing technical standards in broadcasting has been that they should act as international standards. Therefore, this won't be anything peculiar. In this regard, as mentioned earlier, there are roughly three focal points at stake regarding the ITU-R. Other than that, the allocation of frequency bands will be determined by what the legal system will look like. For example, it will depend on whether we allow nation-wide broadcasting on a terrestrial basis, that is, whether we limit the area of digital broadcasting to the prefectural level, just as with today's terrestrial broadcasting. If the allocation of frequency bands changes, there will, of course, be technological arguments as to whether the system can keep up with the changes and how efficiently the frequency bands are used. However, the chances that an entirely new system will develop are very slim, and even if this does happen, we would find it difficult to adopt it as long as international standards were not employed.

Member: As for international standards, it is hard to discuss any standards unless we have a road map indicating that they are on the way to becoming international standards. For

example, several points should be checked, such as how long a life the system has, what we should consider within that life, or whether we take a longer perspective, which may occur in the meantime, and therefore what factors we should reckon in the first place. There can be one road map for hardware and another for software, and there can be a point of compromise that we have to settle for. Many years ago I was involved in the development of a mobile phone. At that time, we were using the PDC system and had fairly small terminals in Japan. When I visited Siemens in Europe around that time, I was shown a fairly bulky GSM terminal. When I made an international call to Japan as suggested, I was impressed with the excellent sound quality. I was also impressed with the robust specifications, while the physical size didn't bother me very much. This size has quickly shrunk thanks to advances in semiconductor technology. I believe that the people developing GSM terminals had a road map and were content with the bulkiness caused by the complexity of the telecommunications system. As I see it, the lesson is this: unless we incorporate trends in technology, internationalization and society into our discussion of the introduction of or migration to something new, we will lose sight of long-term key points. Therefore, if possible, I would like to see such a long-term perspective incorporated into our discussions of proposals.

Member: One of the factors that impacts on the business model is the spectrum user fee, which I think will be paid by the business operator. There is a rumor that MIC is considering raising the spectrum user fee in or after 2011. I would like to ask your intention in this regard, if I may.

MIC: We have been reviewing the spectrum user fee basically on a three-yearly basis. We have just finished our review for the three-year period commencing next year.

Member: Does that mean up to 2011?

MIC: It means up to 2010. The year 2011 belongs to the next phase, for which the details have not yet been determined.

Member: Will you then determine those details around the year 2010?

MIC: That's the schedule, roughly speaking.

Member: Okay, then, we would like to continue conducting these Panel meetings, taking

today's discussion into consideration and also using the results of the Call for Proposals as a reference.

6. Others

- The second meeting is scheduled for sometime between late September and the end of October.