

Panel on Future Directions of Multimedia Broadcast Services for Mobile Terminals

—5th Meeting

Summary of Minutes

1. Date and Time

Monday, November 26, 2007; 14:00–16:00

2. Location

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

3. Attendees

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

Susumu Ito, Tomoko Kanayama, Kazumi Kurokawa, Hiroshi Suzuki, Akira Negishi (chair), Hiroyuki Morikawa, Nozomu Yoshida

(2) MIC Representatives

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), Nagashio (Senior Planning Officer, Broadcasting Policy Division)

4. Agenda

(1) Presentations (4th Group)

- Multimedia Broadcasting Business Forum
- Yokosuka Telecom Research Park, Inc.
- Japan Housewives' Association
- Federation of Tokyo Regional Women's Organizations

(2) Supplementary Issues Regarding Study (Study on Frequency Allocation)

(to be explained at the next meeting)

(3) Others

5. Meeting Summary

(1) Presentations (4th Group)

The Multimedia Broadcasting Business Forum, Yokosuka Telecom Research Park, Inc., Japan Housewives' Association and Federation of Tokyo Regional Women's Organizations

each gave a presentation on the study items and their own views. Each presentation was followed by a question-and-answer and opinion exchange session.

#### 1) Multimedia Broadcasting Business Forum

- Presentations

Made with reference to Handout 1

- Q&A, Opinion exchange

Member: I would like to comment on two things on page 38 of the handout. The first is the statement: “In particular, the transmission of data requires an infrastructure that enables local information to be provided in an appropriate manner; hence, it is essential to allocate frequencies region by region, rather than on a nationwide basis.” The second is the statement: “What is strongly desired is a framework or system that not only supports the continuation and migration of services by existing broadcasters but also invites a variety of service providers under fair and appropriate conditions.” My point is that as long as the conditions for entering the market are fair and appropriate, frequency allocation needs not be governed by a region-by-region framework. What do you think of this point?

Multimedia Broadcasting Business Forum (hereafter, “MM FORUM”): The scope of business can be either nationwide or region by region. However, what we wanted to emphasize here is the importance of regional or local services and therefore we would like to see a frequency allocation scheme that would support them.

Member: When we think this in terms of advertising, we can easily imagine a locality or a prefecture as a distinct unit, since each locality has its own set of needs. However, when it comes to fee-based operation, I wonder if prefecture-bound operators will actually be able to promote their business. What would you say about this?

MM FORUM: We assume, for example, that businesses wishing to provide nationwide data services will do so by forming partnerships with local broadcasters that have local infrastructure.

Member: If we assume a region-based frequency allocation scheme, the “region” would typically be a prefecture, if frequency management practices of the past are any indication. This may not necessarily be a problem. For example, a Saitama FM broadcast spills over into Kanagawa Prefecture, but this kind of spillover should not be considered to be preventing the local flavor of other areas from being maintained.

Take another example. Machida city, which is part of Tokyo, shares a border over 20 km long with Kanagawa Prefecture's Sagami-hara city. There are 1.8 million people living within a 10-km radius of Machida Station, of which 20% are residents of Tokyo and 80% are residents of Kanagawa. Thus, Machida is not the center of information or, in other words, it's not the case that information is sent out from Machida. Think of the area along Edogawa river, which has about 2.5 million residents spread over the cities of Matsudo, Ichikawa and Funabashi. Here, let's put aside areas split by a river such as Kita Ward and Kawaguchi city. Now, setting aside cities that have a soccer team such as Kashiwa, Chiba and Ohmiya, I am personally very concerned about how to provide community service broadcasts where there is neither an infrastructure nor a particular identity.

The problem with these areas is that they can't have such an identity because they have been left out under the current framework or system. Osaka also has a similar problem. One of the biggest concerns of local governments today is that they want to have a distinctive political or local identity. In Tokyo, only 800,000 people live in the five central wards and only 8.5 million in the entire 23 wards. For greater Tokyo, which includes the suburbs, the population has grown to as many as 34.5 million. The 26 million residents in the suburbs are left out in the cold. MIC may be to blame for this. Whenever a new system is considered for construction, the focus tends to be limited to only the central area, be it Tokyo or Osaka, and the particular characteristics of the suburbs are left out of consideration. The problem of what to do in the event of a disaster has now emerged. People living in the suburbs say we should stop discussing it on a prefectural basis and start discussing it from the viewpoint of cooperation across municipal boundaries. On the other hand, broadcasters have continued their discussion within the conventional framework. So, there has been a gap or discrepancy in this regard.

MM FORUM: Here let me address this point not as a representative of MM Forum but as a prefectural broadcaster operating within the prefectural area called Tokyo. The same problem exists with regard to analog broadcasting, too. I said "prefectural broadcasting" because I think it is necessary to have a system that is not oriented toward Tokyo or the center but rather encourages thinking oriented toward regional areas. Also, in relation to the presentation a few weeks ago on community broadcasting, I think it is quite okay that small analog FM stations and other broadcasters migrating to digital complement each other.

Member: On page 32 of the handout you write "if we assume a combined transmission of about 2 x 3 segments as one unit." Does this mean that you would send 6 segments

consisting of 2 x 3 segments as one unit, instead of 3 segments as one unit?

MM FORUM: We think that transmitting 6 segments as a unit would be a very efficient way of using the frequency. In addition, having two 3-segment broadcasters together would enhance variety and also introduce competition.

Member: Do you mean that with 6 segments, the same frequency band will be allocated to one prefecture?

MM FORUM: Yes, the same frequency band. Within one prefecture, 6 segments share one frequency band.

Member: It must be either 3 segments or 6 segments, I guess, because multiplexing increases the capacity and also the efficiency of the use of the frequency. On the other hand, there is a concern that, depending on the geographical area, the frequency band will be underutilized because there is not a sufficient amount of content to transmit. In large cities, it may be easier to make highly efficient use of frequencies because of strong demand for downloads, etc. In the countryside, however, even in the case of sending traffic information in the event of a traffic accident, it may well be conceived that only voice or text data will be sent because sending images would require a lot of human-hours and be costly. So, if you think about these kinds of situations, the allocated frequency band would remain almost empty. Thus, I'm concerned 6 segments would be a little too much. What do you think of this point?

MM FORUM: From the viewpoint of automobile businesses or automobile manufacturers, 3-segment transmission can be used for three purposes: first, traffic congestion information; second, tourism; and third, disaster prevention.

Today's car navigation system retrieves information from the Internet by using telecommunications. Capitalizing on this capability, we can find the optimum route from the start-point to the destination by taking traffic congestion into account, and as a result, can actually reduce the amount of CO<sub>2</sub> released as exhaust by 18%. However, the user may not use this feature all the time because it is based on telecommunications and thus costs money. So, here is our solution: We will broadcast traffic information at least to drivers in the pertinent area, so that the amount of CO<sub>2</sub> from exhaust will be further reduced. This is our first objective.

About the second objective, tourism, some people are concerned that there is no

information to transmit in the countryside. Actually, as far as tourism is concerned, a variety of information is provided by local governments, especially in areas of remote countryside. The problem is that such information is transmitted over the Internet or provided in the form of leaflets at roadside stations, that is, it does not directly reach drivers or tourists. We are already sending such information to drivers via their car navigation systems using telecommunications. However, it seems it is not easy for the user to download rich content such as photographs, etc. If we could transmit via broadcasting photographs of delicious-looking food or a beautiful landscape—things that only those who are actually on the lookout for would download today—they would reach all drivers in the area and potentially stimulate demand. This would contribute to the revitalization of the countryside.

Finally, let me say something about the third objective, disaster prevention. Today, automobile manufacturers acquire information on how their vehicles drive by asking their customer to send it to them. Under the current telecommunications system, if the users do not actively communicate with us, we will not get information about which roads are blocked because of an earthquake and won't be able to pass on this information to others. If, in contrast, we send such information via broadcasting, then we can let all the people in the area know which roads are blocked. After all, in the event of an earthquake, everybody would be using their mobile phones, and sending information by means of telecommunications to get traffic moving efficiently would be given a lower priority.

In these regards, we are expecting very much from the concept of transmitting information to local areas via broadcasting in terms of environment or efficiency with regard to traffic congestion, tourism as a means of revitalizing the countryside and disaster prevention.

Member: Assuming that initially there is not so much information as would require 6 segments and the amount of information will gradually increase in the future, I am concerned there will be some waste. What do you think?

MM FORUM: We, too, are aware that needs vary in terms of quantity from area to area. The demand for mobile phone downloads in particular is very strong around big cities but may not be so strong in the countryside. However, we still want to draw attention to the countryside in our push for services for on-board vehicle devices.

Member: We have just heard that urgent earthquake warning information, which is currently distributed via a telecommunications network, can be distributed without delay by means

of simultaneous broadcast. I think such a warning must be delivered at great speed or it would be of no use. Can simultaneous broadcasting work in real time?

MM FORUM: In Tokyo today, there is a service offered to condominiums, whereby information is distributed via a special device integrated in the intercom which is connected to the Internet all the time. While it is still open to question whether such an arrangement is effective and how fast it is, the general idea is that broadcasting compensates for the delay of several seconds caused by the Internet connection routers and as a result enhances efficiency.

Member: Has it been actually verified?

MM FORUM: Yes. We verified the delay by actually transmitting a radio wave on January 17.

Member: I have two questions. First, would the service model for automobiles pay off as a business if no fees are charged? Second, how would a single service cover the automobile and the mobile phone, which I think are totally different from each other in terms of applications and needs? Can you give me a clear picture on these points?

MM FORUM: As for the first question, automobile manufacturers such as Nissan, Toyota and Honda are these days including the service cost in the sales price of the car navigation system.

As for the second question, certainly, there may well be different services for automobiles and for mobile phones. However, our basic philosophy is that services should be built so as not to depend upon clients. Therefore, after all, we believe the same or similar solutions can be used and common needs exist between the two fields, although the form of the information, either tourism or traffic, may appear differently on the terminal because of the differences in user interface.

## 2) Yokosuka Telecom Research Park (YRP)

- Presentations

Made with reference to Handout 2

- Q&A, Opinion exchange

Member: I presume that what you have proposed is an underlay system. Now, once the

1-segment system is approved as a technical standard, can we assume that there will be no change to the technical standard?

Another question I have refers to page 14 of the handout, which says, “‘broadcasters’ having the ‘business structure for 1-segment community broadcast operators’ will also create content.” Am I correct in taking this to mean that the model will work even if the content providers are vertically split from the broadcasters to whom frequency bands are allocated?

Yokosuka Telecom Research Park (hereafter, “YRP”): First, let me address your first question. Currently, the 1-segment system uses only a part of the 13 segments. As long as we use the 1-segment system by itself as it is, we don’t foresee any problem. We are also thinking of enhancing the 1-segment to a higher level, for example, by offering only three 1-segments for use or having three 1-segments shared by three broadcasters. In either case, we are thinking of expanding the current technical specifications, in order to minimize the interference between waves and allow reuse of frequency bands. Actually we are planning to conduct an experiment on this during this fiscal year. Technology-wise, the outlook seems positive at the moment.

As for the second point, that is vertical separation, your understanding is correct.

Member: I’d like to ask about business applications. I understand now you are looking to community broadcasting and considering a set of applications aimed at local communities. I can imagine community broadcasting being successful in those areas that embrace new business innovations such as Yokosuka, Shibuya, Ueno and Minatomirai. On the other hand, I doubt that it will succeed at all in rural cities and areas where even ordinary shops are having a hard time surviving. Now I’d like to hear what you think is necessary for business to succeed in such areas.

YRP: We believe that is a very important point. Keio University’s recent validation study may be indicative of the future direction. At any rate, the problem, as I see it, is that nobody wants to be the first to offer new services, either in rural cities or in the shopping streets of a big city.

Come to think of it, if you are actually to start offering such services, you would be able to do it with a system simpler and lighter than that needed for conventional broadcasting. Further, you would not always need to produce substantial programs as long as one hour or two hours; rather, broadcast services delivering constantly updated information would be much more suitable. The question would be how many people

would come forward as providers of such services.

For example, today in the Hiyoshi shopping street in Yokohama, there are no business owners who want to offer such services. However, if Keio University takes the initiative to construct a framework for offering such services in cooperation with the local people, it might open up a new field. We at YRP consider it to be our mission to create such solutions area by area as needs arise.

Member: I see there is a picture of a transmitter on page 8 of the handout, and would like to ask a question about receivers that relates to it. According to your presentation, such receivers can receive the 1-segment service as it is today. Now, can today's 1-segment receivers receive such services?

YRP: Today's 1-segment receivers cannot receive the new transmission called "advanced 1-segment" that is currently under development. More specifically, it does not comply with the ARIB standards in terms of 30 fps and download capability. One thing to be noted is that today's 1-segment terminals can receive the broadcast in the frequency band for standalone 1-segment. To receive frequency bands other than this band, the terminal must be modified. However, terminal manufacturers do not consider it a major technical problem. We would like to verify this during this fiscal year.

Member: Today's 1-segment broadcasting uses only the segment in the very middle of the 13 segments. Would it still be possible to support what you have said, even if a frequency band other than that is to be used?

YRP: We think it feasible if the difference is 1 segment.

Member: Now, how about licensing? Can you give us your thoughts about whether a license will be granted on an area-by-area basis? For example, this broadcaster will be granted a license for this area only.

YRP: This is indeed what we are discussing internally at YRP. Probably this is not the kind of thing that will be solved only by YRP and our internal discussions, but rather needs to be discussed in a collective manner, with the advice of the members of this panel taken as valuable input. That will be a very long process. Basically, since we are already beginning to understand the concrete needs of various business operators, we should focus on how to meet them.

One direction we are identifying is the relaxation of regulations, which would allow businesses other than broadcasters to broadcast. This has given rise, for example, to community FM broadcasts. A system of registration can be an option in the broadcast system. We at YRP would like to carefully study these kinds of possibilities and then consult MIC. At the moment we are working toward this goal.

Member: It is not very easy for users to see what programs are broadcast in what geographical areas. It might be necessary to build an organization or a system which puts together or coordinates various local program schedules. What would you think of such a thing?

YRP: We quite agree. In addition, apart from such a system from a business perspective, we think it necessary to develop a system that will allow subscribers to automatically tune segment-broadcast programs or 1-segment-broadcast programs into area-oriented ones. Some companies are already developing such systems to a near-practical level. Thus, we would like to form a team, as far as possible, with such companies as the core, on an area-by-area basis. Actually, under the current 1-segment system, retuning is necessary from one geographical area to another. Therefore, we are also preparing a system which will automatically tune broadcasts area by area.

Member: On page 8 of the handout, how big is the geographical area that can be covered by the "current equipment"? Is it likely that you need to have a fairly big area to be successful?

YRP: We think we can increase the power of the wave just by replacing the amplifier. Very powerful amplifiers can cost 1 million to 2 million yen, or even more. However, we are currently looking at a radius of 1 km at most; typically 200 to 300 m, in which case the equipment cost would be of the order of tens of millions of yen at most.

Member: As the spot becomes smaller, the borders become blurred, which causes interference. This may be related to the licensing issue discussed a few minutes ago, but any way, who is addressing the problem of interference?

YRP: Currently nobody is addressing it. The problem is being dealt with by spacing out antennas widely enough so they don't cause interference with each other.

Member: You mean you keep a certain distance between antennas?

YRP: For example, 1 mW corresponds to an effective service area of 30 to 40 m. Therefore, our rule of thumb is to install an antenna about 500 m away from existing ones to avoid interference.

Member: Is it left entirely up to private business operators?

YRP: Today, we are in an experimental stage; so, we at YRP are planning the experiment so as to avoid overlapping of waves. In the future, we think it will be necessary to introduce guidelines for avoiding overlapping of waves and also a framework for managing all the 13 segments.

Member: "Advanced 1-segment" will support file downloading, according to your plan. Does this include the so-called statistical multiplexing?

YRP: Currently we are not considering that. If, however, we are to bundle together various streams in this 1-segment system further in the form of file downloading, then we feel it may become necessary to introduce statistical multiplexing or something similar.

Member: Can multiple channels be received simultaneously?

YRP: Currently, only one channel, because one tuner is dedicated to receive 1 segment.

Member: Does this mean that there is a receiver that is tuned to only 1 segment, rather than receiving all 13 segments simultaneously and then taking out 1 segment?

YRP: That is quite right.

### 3) Japan Housewives' Association

- Presentations

Japan Housewives' Association stated the following expectations from the viewpoint of users of multimedia broadcast services:

- The fundamental expectation is that as long as it is positioned as "broadcasting" its neutrality should be secured, it should not have negative influence on children and young people, and it should contribute to the well-being of the general public.

- On the other hand, free competition among content producers that would contribute to the enrichment and diversification of service content is necessary.

And further argued as follows:

- As to whether it should be positioned as part of the backbone media, it should be different from today's terrestrial TV broadcast, if this is what the term "backbone broadcast" means. The reason for this is the lack of diversity among programs transmitted in today's terrestrial TV broadcasting.
- One should aim at broadcasts that will satisfy a wide range of age brackets, rather than programs that appeal only to a specific age bracket or a specific group of people. Thus, diversity should be secured for multimedia broadcasting as a whole, although it is not necessary to go as far as "general program production."
- It should provide a fair balance of information about the lives, property, safety and security of local residents.
- Money should not be wasted on unnecessary functions. Such unnecessary costs should not be passed onto consumers.

#### 4) Federation of Tokyo Regional Women's Organizations

- Presentations

Made with reference to Handout 3

- Q&A, Opinion Exchange Concerning the Presentations by 3) Japan Housewives' Association and 4) Federation of Tokyo Regional Women's Organizations

Member: Both parties have brought up issues from the viewpoint of consumer protection, and we quite agree. We do realize the importance of the viewpoint of consumers. I have one question here, concerning your suggestion to modify the Act on Specified Commercial Transactions and the Installment Sales Law. I think the problem can be solved by applying these laws also to the media for multimedia broadcasting for mobile terminals. What do you think of this?

The Act on Specified Commercial Transactions, or some other law, is about to be amended to extend the scope of application of the cooling-off period. Further, if I remember correctly, it was recently reported in the newspaper that this scope is to be expanded to also cover the Internet. I believe we are going to take these points into consideration in this panel as we proceed. I would like to ask about your opinions on this point, if any.

Japan Housewives' Association: The types of damage being discussed at the committee studying the amendment of the Installment Sales Law are really egregious and unreasonably oppressive. The argument that damage incurred in connection with broadcasting will be dealt with by this law and therefore there should be no problem is not helpful. First and foremost, such lawlessness should be prevented from occurring in the first place with regard to broadcasting. Even so, problems may occur, and then we need legal remedies. The point is that we should switch our thinking. Instead of resorting to the Installment Sales Law or the Act on Specified Commercial Transactions in the event of some issue, we need to have a certain hurdle or standard in the first place, so long as it is in fact a form of broadcasting.

Another point is that, if multimedia broadcasting is to allow consumers to do shopping or make reservations, experts on this issue should be brought in to establish rules concerning personal information such as credit card data.

Federation of Tokyo Regional Women's Organizations: We accept that multimedia broadcasting may be useful in rural areas where people have difficulty receiving television or radio and having access to shopping facilities. However, some of the programs that are broadcast today engage in the questionable practice of staging. For example, somebody is planted in the audience who pops out, applauding and saying, "Wow, how cheap!" or a TV personality comments, "This is a must-buy." Frankly, in today's affluent society glutted with goods, I wonder what good it would do to society to provide shopping information via electromagnetic waves, which is a public asset. No matter how the relevant laws may be amended, I would like to see voluntary restraint on the part of the industry, especially in the light of it being an attractive form of media.

## (2) Supplementary Issues Regarding Study (Study on Frequency Allocation)

Due to time considerations, this topic will be moved to the next meeting.