Outline of Proceedings of the 4th Meeting of the Study Group on Future Visions of the Universal Service Fund System

1. Date and time: 1400 to 1600, Tuesday, May 29, 2007

2. Location: Special Conference Room 1, 8th Floor, Bldg. 2, Central Common Government Office

3. Attendees

(1) Members (Entered in alphabetical order of last names, with honorifics omitted)

Junichiro Fujiwara, Yuji Oie, Hiromasa Sekiguchi,
Minoru Sugaya (Chairperson), Atsushi Togashi,
Masatsugu Tsuji (Deputy Chairperson), Hirotaka Yamauchi

(2) Observers (Entered in alphabetical order of entity names)

Communications and Information Network Association of Japan; eAccess Ltd.; Fusion Communications Corporation; Japan Business Federation; Japan Cable and Telecommunication Association; KDDI Corporation; Kyushu Telecommunication Network Co., Inc.; National Federation of Regional Women's Organizations; Nippon Telegraph and Telephone Corporation; Nippon Telegraph and Telephone East Corporation; Nippon Telegraph and Telephone West Corporation; SoftBank Telecom Corporation; Telecom Service Association; WILLCOM, Inc.

(3) Ministry of Internal Affairs and Communications

Mori, Director-General of the Telecommunications Bureau; Samura, Director of General Affairs Division of the Regional Bureau of Telecommunications; Sakurai, Director-General of the Telecommunications Business Department; Taniwaki, Director of the Tariff Division; Ninomiya, Senior Planning Officer of the Tariff Division; Suzuki, Assistant Director of the Tariff Division; Katagiri, Assistant Director of the Tariff Division

4. Agenda

(1) Hearing of presentations from observers in the Study Group 2)

(2) Free discussions

5. Outline of proceedings

○ Presentations by observers of the Study Group 2)

[KDDI Corporation] (Document 4-1)

・Studies should be conducted of the future visions of the Universal Service Fund System from the point of view of how to stably maintain services essential to national life, and in such a way that changes in market structures are kept in mind.

・With regard to component requirements for universal service, consideration should continue

to be given to ensuring voice communication by way of universal conditions.

- When consideration is given to environmental changes caused by diversification of communication means, it is necessary for the conventional framework where voice communication is supported only by PSTNs to be changed over to a framework in which voice communication is supported by various access means.
- If it turns out in the future that universal service will be maintained by various access means, it is conceivable, for example, that the access departments will be separated from NTT East Japan and NTT West Japan, and that the access departments as they will be after separation will provide voice communication functions by one of the most economically reasonable access means (such as cellular telephones or satellite communications).
- The act of maintaining PSTNs, which are becoming increasingly expensive, is beyond the scope of the original purposes of the Universal Service Fund System. Therefore, full attention should be paid to not preventing the changeover to an economically reasonable access means. Furthermore, under this system, only one means of access should be chosen, and compensation should be made only with respect to the functions necessary for voice communication.
- Important matters regarding the changeover from PSTNs to IP networks include the following: the point in time up to which PSTN equipment will be allowed to coexist with IP network equipment; and the point in time when the full changeover to IP telephones will be realized. It is necessary to hold an open discussion to clarify the schedule for the above.
- From the point of view of accountability to customers, thorough discussions should first be held regarding the necessity of providing compensation for deficits by means of the Universal Service Fund System.

[Fusion Communications Corporation] (Document 4-2)

- We believe that the concept of the component requirements for universal service remains the same as before, however there is room to change, in the future, the universal service content and the means of providing such service.
- With regard to universal service in and after 2010, studies should be conducted as to whether it is necessary to provide broadband services in addition to voice communication and emergency call services. Moreover, the issue of public telephones should be studied in combination with the above.
- We think that the concept of universal access is necessary. Since this is a new concept, it is necessary to define it clearly.
- What follows is an example of methods for realizing universal service. An access means whereby costs are minimized in an unprofitable area is chosen by bidding.
- If broadband access is defined as universal access, then from the point of view of minimizing costs, a method is available whereby costs incurred for the provision of telephone services are allocated according to bands and applications.

・It seems that a minimum of necessary compensation is needed with respect to costs incurred for the operation and maintenance of infrastructure developed by autonomous bodies.
・The current method of calculating costs for analog telephones is an appropriate one. With regard to universal access, it is necessary to conduct studies for a calculation method whereby similar advantages and effects can be obtained.
・If multiple qualified telecommunications carriers exist, it is conceivable that carriers other than NTT East Japan and NTT West Japan are eligible. From the point of view of minimizing costs, however, the number of carriers providing services in any single area should be limited to one.
・It is also conceivable that qualified telecommunications carriers will be limited to NTT East Japan and NTT West Japan, as has been the case so far, and that work is commissioned to other carriers in relevant areas.
・It is conceivable as well that NTT East Japan and NTT West Japan will disclose the costs of provision in unprofitable areas, and that advertisements will be run for carriers that can provide services at lower cost.

[WILLCOM, Inc.] (Document 4-3)

・If IP networks are to be categorized as items covered by universal service, this should be implemented when the full changeover to IP telephones is realized, so that burden charges will not increase.
・It is presumed that, in the future, maintenance costs for PSTNs will rise, resulting in burden charges being increased. Fixed telephone networks should not be limited to PSTNs, and studies should be conducted on new access means including IP telephones, thereby reducing costs.
・From the cost reduction point of view, it is desirable that the concept of universal access be introduced, thereby positively adopting technologies involving fiber-optic cables and wireless equipment. For example, it is possible to provide broadband services by means of high-speed wireless access.
・In the course of the changeover from PSTNs to IP networks, there is a possibility that cost burdens will increase due to the coexistence of the two types of networks. If cost advantages are produced by making the changeover to IP telephones at an early stage, then this changeover should be definitively performed.
・Promotion of the changeover to IP telephones should be carried out, for example, by public assistance based on “Next Generation Broadband Strategy 2010.”
・If the introduction of universal access is intended, it is presumed that various service providers will conduct operations. It is therefore desirable to expand the range of qualified telecommunications carriers.
・Studies should be conducted on the practice of designating qualified telecommunications carriers in terms of administrative divisions smaller than prefectures.

・From the point of view of minimizing costs, it is desirable to designate just one telecommunications carrier in each area.

[Kyushu Telecommunication Network Co., Inc.] (Document 4-4)

・Studies on the ideal setup of the Universal Service Fund System should be conducted, irrespective of the framework of the current system, by assuming what things will be like 10 years from now. In conducting such studies, consideration should be given to the appearance of new technologies.

・It is presumed that PSTNs and IP networks will continue to coexist, even in 2010. In order to promote the changeover to IP telephones, it is necessary to set the date for full changeover as the year 2015, for example, and that discussions be held on measures to realize the above.

・If it turns out that IP telephones will be covered by universal service, then the equipment for both PSTNs and IP networks will have to be maintained during the period of coexistence of both types of networks, resulting in increased cost burdens. To prevent such occurring, studies should be conducted on measures to remove PSTNs from the scope of compensation based on the Universal Service Fund System.

・Moreover, it is also necessary to conduct studies on which of the following entities is to bear the costs of the full changeover to IP telephones in unprofitable areas: autonomous bodies, NTT East Japan, NTT West Japan, or other telecommunications carriers.

・We think that telephones ranging from OAB to JIP, which are capable of emergency calls, can be categorized as items subject to universal service in and after 2010, when the full changeover to IP telephones will take place.

・If it is assumed that the full changeover to IP telephones will occur in and after 2014, then the aging society will have progressed and broadband services aimed at improving the health and welfare of old people is expected to play the role of universal service. In this connection, it is necessary to hold discussions about the fact that direct beneficiaries of broadband services are old people and about the issue of whether such services should be categorized as items subject to compensation under the Universal Service Fund System.

・The concept of universal service is such that consideration is given by separating the access portion and the service portion from each other, thus this concept is reasonable.

・Universal access systems should be established primarily in such a way that the government itself or autonomous bodies themselves take the initiative, or that telecommunications carriers are supported by the government or autonomous bodies.

・Those items of fiber-optic equipment in mountainous areas and the like that have already been developed by prefectures or other autonomous bodies should be positively opened to private sectors.

・If IP telephones are subjected to universal service, and if IP telephone services are provided using an infrastructure developed by autonomous bodies, then it is possible to provide

such services at low cost. However, if the infrastructure is built by the carriers themselves and if only IP telephone services are provided, then costs turn out to be comparatively high. It is therefore conceivable that compensation will be provided with respect to that portion of universal access maintenance costs which is incurred for IP telephone services.

・With regard to the solution of the problem of areas having no broadband services, it is presumed that autonomous bodies will develop infrastructure in unprofitable areas. On such occasions, if universal access equipment built by autonomous bodies is transferred to private carriers, it is conceivable that carriers other than NTT East Japan and NTT West Japan will be designated as qualified telecommunications carriers. Moreover, multiple qualified telecommunications carriers will be present in a single area as a result, and NTT East Japan or NTT West Japan, as applicable, will consequentially be removed from the register of qualified telecommunications carriers.

○ Major statements made during free discussions are as follows.

(Member)

Considerably specific proposals were made. It is therefore easy to proceed with discussions from now on. I would like to confirm two points.

1) If the concept of universal access is introduced, the access means will be diversified. The time period for the full changeover to IP telephones is a matter of argument. Many carriers say that it is OK to use PSTNs if they are less expensive than IP networks. In high-cost areas, considerable costs will be incurred even in the case of IP networks. From the point of view of economic rationality, will IP telephones end up as a firm means of providing services at low cost?

2) There was a proposal that, in the period of coexistence of PSTNs and IP networks, services would be able to be provided at lower cost by utilizing infrastructure developed by autonomous bodies. In this regard, I think that there are several problems. If NTT East Japan or NTT West Japan, as applicable, is removed from the register of qualified telecommunications carriers, the problem of PSTN removal will arise. If the full changeover to IP telephones is to be made in a certain area, and if even one user in that area desires to receive services by PSTN, will PSTNs then continue to be maintained?

(KDDI)

With regard to item 1), the point is to what extent PSTNs will be maintained under the Universal Service Fund System. In the first place, it is necessary to outline what services can be provided at low cost in the future. If this is done, it will be possible to form a mental image of when PSTNs should be changed over to IP networks in such a way that propriety will be ensured from the point of view of economic rationality. It seems to us that unless such simulation is carried out, there will be no progress in argument.

As regards item 2), it is necessary to hold open discussions on the following points by showing several models. For example, what should be done to be able to provide services at

low cost in relevant areas, and whether services can be supplied at lower cost if provided by NTT East Japan or NTT West Japan, as applicable. Moreover, we think that if PSTNs currently developed by NTT East Japan or NTT West Japan, as applicable, are assumed to be the only means of providing services, then it is impossible to guarantee efficiency and economic rationality. It is necessary to broaden the scope of argument.

(Member)

If even one user desires to receive services by PSTN, what action will be taken?

(KDDI)

If it is assumed that IP telephone networks can become an alternative means to PSTNs, and if PSTNs are maintained in the interest of just one customer, then not only will the convenience of all the other customers be reduced, but there will also be a possibility of technical innovation being prevented. It is necessary to take due steps to properly persuade such a customer.

(Member)

Analog broadcasting is undergoing a compulsory changeover to digital broadcasting. What is your stance on this issue?

(KDDI)

We think that if customers can enjoy great advantages due to the changeover to digital broadcasting, there is no choice but to push forward with this switchover. It is desirable that the interests and benefits of customers as a whole not be lost due to the interests of exceptional customers.

(Kyushu Telecommunication Network Co., Inc)

If it is assumed that carriers other than NTT East Japan and NTT West Japan will become qualified telecommunications carriers in the future, it is conceivable that multiple qualified telecommunications carriers will be present in a single area. In such a case, it will be inefficient to maintain multiple means of providing services in that single area. Therefore, we think that it will be inevitable to make a changeover to IP telephones by compulsorily removing PSTNs. There seems to be no choice but to give explanations to, and persuade, the small numbers of customers who desire to continue to use PSTN services.

Policy goals should be set as to the time period for the removal of PSTNs, thereby carrying out operations methodically.

(Member)

The documents of relevant observer companies mentioned that when multiple access means are to be subjects of universal service, then selection of service types that can be provided at lower cost would be made. Different types of service can be received depending on various service patterns. Therefore, there are cases where new devices are purchased for receiving universal service.

The Fusion Communications Corporation document states that public telephones can be replaced with cellular telephones and PHSs. However, not all people have cellular telephones

or PHSs. I presume that if no public telephones are available, people who do not have cellular telephones, such as travelers from overseas, will be inconvenienced. Furthermore, public telephones have advantages in that, for example, it is easier to catch sounds than with cellular telephones. It is questionable whether cellular telephones and the like can be an alternative for public telephones.

Do you believe that when services are to be changed over, it is inevitable to neglect a certain small number of people?

(Fusion Communications Corporation)

We do not mean that public telephones are unnecessary. What we mean is that environments change with time, and therefore discussions should be held on a wide-ranging basis, including the issue of public telephones.

Moreover, the content of page 4 in Document 4-3 means that, if it is assumed that universal service consists of voice communication and emergency calls, the access means will be chosen from analog telephones, cellular telephones, and broadband equipment. If multiple access means are to be subjects of universal service, then PSTNs are considered unnecessary. In any case, it is necessary to first define the types of services and then to discuss the means of realizing them.

(Member)

User fees for public telephones can be maintained at a certain level of affordability if compensated for under the Universal Service Fund System, however if public telephones are eliminated from the scope of universal coverage, there is a possibility that user fees will be raised.

(Member)

If a means of universal access that is rendered economically rational due to the diversification of access means is to be chosen, is there a possibility that an access means less expensive than PSTNs will appear? For example, is there a possibility that, depending on cases, IP telephone services or wireless equipment services can be provided at lower cost?

(KDDI)

It is important to have an idea of how to give thoughts on an overall basis when the future is viewed, rather than to have a partial viewpoint of whether costs are low or high. We do not deny the fact that, at present, there are cases where PSTNs are reasonable. However, since subscribers to PSTN services are expected to decrease in the future, we do not think that the status quo is satisfactory. It is conceivable that the maintenance costs for PSTNs will relatively increase in the circumstances where the changeover to IP telephones is in progress. Studies should be conducted on several access means for voice communication. We do not mean that it is permissible to abandon PSTNs. At present, the scope of items subject to universal service should be limited to the minimum necessary items for voice communication.

(Kyushu Telecommunication Network Co., Inc)

We think that 10 years from now, it will be difficult to secure stocks of parts for switchboards

and to perform maintenance, and as a result, maintenance costs for PSTNs will increase. It seems that 10 to 15 years from now, the costs for providing IP network services will probably be lower than the maintenance costs for PSTNs due to technical innovation and changeover to IP phones.

(SoftBank Telecom Corporation)

It is not reasonable to argue that the changeover to IP telephones should be made because stocks of parts for switchboards will be lacking. Instead, if current technologies are applied, switchboards ought to be manufactured at lower cost.

It may be true that voice communication services and emergency call services can be provided at low cost by PSTNs, but it will turn out that voice communication services can be provided at lower cost by broadband services if things are seen as a whole, including values added such as those due to the Internet based on broadband services.

In regard to the matter of the ability to provide access means at lower cost, our company has so far been claiming that FTTH services can be provided at 690 yen per month. This means that such services can be provided at low cost when things are seen as a whole.

(WILLCOM, Inc.)

In the case of overseas areas where cable equipment is not available, wireless services, which can be provided at lower cost, are developed. However, in cases where PSTNs are to be removed and replaced with wireless equipment, no conclusion can be drawn unless costs are compared. Besides, we think that if wireless equipment for cellular telephones is used for purposes of wireless access for fixed telephones, then larger areas will be covered and services can be provided at lower cost.

(Member)

According to hearings held at the time of the review of the current system, unprofitable areas where carriers were unable to provide services accounted for 6 percent. This fact constitutes one of the corroborations in which any area involving twice the standard deviation was regarded as a high cost area. At present, with the progress of access technologies, are such problems being solved to some extent?

(WILLCOM, Inc.)

Wireless devices themselves have certainly become less expensive due to technological progress. Auxiliary equipment such as steel towers is still expensive. However, if existing cellular telephone equipment is used, services can be provided at lower cost. We think that if such equipment is used for fixed communications, larger areas can be covered than with mobile communications, with the result that costs will be relatively reduced.

(Fusion Communications Corporation)

We presume that if cost-advantageous access means are chosen in specific areas, then services can be provided at lower cost. As a way of choosing such means, we mention bidding and invitations for applications.

(Member)

According to the law now in force, qualified telecommunications carriers should be designated under the Universal Service Fund System. Since the area coverage ratio is specified as 100 percent, only NTT East Japan and NTT West Japan are actually designated. Due to the above, it is guaranteed that NTT East Japan and NTT West Japan are certain to provide services.

Apart from the NTT Law, if qualified telecommunications carriers are to be selected at auction, I presume that no carrier will volunteer to be selected, since there is no incentive to become a qualified telecommunications carrier under the current system. How should this issue be addressed? What should be done if no one is willing to be selected, or is such a situation itself never assumed?

(KDDI)

If equipment is to be renewed in a certain high cost area, and if there is no carrier that can provide services at lower cost than in the case of NTT East Japan or NTT West Japan, as applicable, then it is OK if NTT East Japan or NTT West Japan, as applicable, provides services. However, if there is a carrier that can provide services at lower cost, it is OK if that carrier does that.

(Member)

In other words, do you mean that the roles assigned to NTT East Japan and NTT West Japan as the last resorts will continue to be obligatory?

(KDDI)

If NTT East Japan and NTT West Japan can provide services at lower cost from the point of view of economic rationality, then those companies should do that.

(Fusion Communications Corporation): As stated on page 6 of Document 4-2, if an entity can provide services at lower cost in a certain unprofitable area than in the case of access provided via cooperation among the government, the relevant autonomous body and the relevant carrier, then that entity should do it.

(Member)

It is the general understanding that voice communication and emergency calls are almost all that are within the scope of universal service. However, page 7 of Document 4-4 states that there is a possibility that health and welfare services will be subject to universal service after the full changeover to IP telephones is realized. I think that this is a new viewpoint. What is the purport of this point?

(Kyushu Telecommunication Network Co., Inc.)

In seven to eight years, aging will progress further in Japan. For example, a venture company in Fukuoka Prefecture started the service of taking electrocardiograms via the Internet this fiscal year. We presume that autonomous bodies will definitely adopt such health services, resulting in the spread of those services. It may be too early for this to occur at present, but we believe that there is a possibility of such a situation taking place 10 years from now.

(Member)

In that case, universal service coverage will be expanded, and I therefore presume that compensation amounts will increase.

(Kyushu Telecommunication Network Co., Inc.)

Based on the beneficiary pays principle, we think that old people should bear such amounts. We have not yet conducted specific studies of items including fees, therefore how great the compensation amounts will remain unknown.

(Member)

I would like to ask Fusion Communications Corporation, “What do you think about the method of allocating costs?” Then I would like to ask WILLCOM, Inc., “What do you think about areas?”

(WILLCOM, Inc.)

We have not yet decided whether services should be provided in terms of municipality or MA. Our idea is that NTT East Japan and NTT West Japan will provide equipment, and that carriers capable of providing services at low cost will do so. In the first place, the scope of universal service should be established. We think that the concept of access is distinct from the concept of service.

(Fusion Communications Corporation)

If voice communication is to be covered by universal service, then the previously mentioned method is conceivable as an example whereby costs are allocated based on necessary bands and applications.

(Member)

There are items that cannot be implemented by allocating joint costs. It is conceivable that, due to the progress of technologies, changes will occur in the content of the costs constituting the foundation.

(Member)

In today’s discussions, consensus was reached to the effect that it is desirable to limit universal service to voice communication. At present, voice communication services are provided by being bundled into broadband services. In this situation, it has been discovered that it is very expensive to provide voice communication services by taking such services from broadband services.

Fusion Communications Corporation’s proposal is such that the voice portion is appropriately taken from voice communication services based on broadband techniques. I presume that even if this is accomplished with the utmost effort, the costs will not drop below those for PSTNs. It seems to me that services cannot be provided at low cost until entities such as autonomous bodies develop costly infrastructure portions.

On the other hand, the proposal of WILLCOM, Inc. is fresh.

(Member)

It may be reasonable to argue that in high cost areas, wireless equipment is less costly than FTTH equipment.

(SoftBank Telecom Corporation)

Specific discussions should be held based on facts and data as to what the costs will be if various access means are used, including wireless equipment and hybrids of metal and fiber-optic cables.

(Member)

In Maniwa City, Okayama Prefecture, the optical network built by an autonomous body is used to provide fiber-optic telephone services at 1,428 yen per month. The City Office built the network independently, and NTT West Japan is commissioned to perform the administrative work. The user fee of 1,428 yen, which was calculated based on administrative costs, can be regarded as a rough guide for cases where only voice communication is provided on networks built by autonomous bodies.

(Member)

Are there visualizations of any services that are considered essential to national life in the future and are not limited to current telephone services?

(KDDI)

The number of subscribers to cellular telephone services has exceeded 100 million. Therefore, cellular telephones can be said to be necessities of life. In the case of our company, the average user fee per person per month is around 6000 yen, out of which about 2000 yen pertains to data communication including e-mail. Therefore, we have the understanding that data communication will become important in the future. However, it is still unknown whether the three component requirements will be met in the future. Consequently, it is necessary to make a sharp distinction between the provision of universal service and the solution of the digital divide problem.

(Member)

On pages 4 and 11 of Document 4-4, mention is made of autonomous bodies' roles aimed at the full changeover to IP telephones. In reality, are there many autonomous bodies that are positively developing broadband infrastructure in unprofitable areas on Kyushu Island? In addition, does the transfer of equipment to telecommunications carriers mentioned in Item (2) on page 11 include the process up to the transfer of ownership?

(Kyushu Telecommunication Network Co., Inc.)

The transfer of equipment mentioned in Item (2) on page 11 refers to the transfer of ownership. At present, the administrative work is commissioned, but ownership is not transferred. There is room to conduct studies in the future. If the problem of areas having no broadband infrastructure is solved, and if infrastructure built by autonomous bodies is utilized, it will be possible to provide services at lower cost.

(Member)

I once conducted hearings from autonomous bodies in Miyagi Prefecture. They were not very positive about the development of broadband infrastructure. As an example, many autonomous bodies said that they were unable to spend money on broadband infrastructure

since they were faced with financial problems. I had the impression that it would be difficult to solve the problem of areas having no broadband infrastructure by 2010 if the development of infrastructure was left only to autonomous bodies.

(Member)

With regard to the definition of universal service, I think that there is a possibility that in the future, health and welfare services will be covered by universal service.

(SoftBank Telecom Corporation)

There can be the perspective of using broadband services for education. From this point of view, broadband services can be considered to be within the scope of universal service on a long-term basis.

End