

## Summary of Minutes of the 91st Interconnection Committee Meeting

Date and Time: Tuesday, April 24, 2007, 13:00 to 15:00

Location: Conference Room 901

Attendees Interconnection Committee

Mr. Toukai, Committee Chair; Mr. Sakai, Deputy Chair; Mr. Aida, committee member; Mr. Sato, committee member; Mr. Naoe, committee member; and Mr. Fujiwara, committee member

MIC

Mr. Sakurai, Director-General of the Telecommunications Business Department; Mr. Taniwaki, Director of the Tariff Division; Mr. Ninomiya, Senior Planning Officer of the Tariff Division; Mr. Katagiri, Deputy Director of the Tariff Division; Mr. Shirai, Deputy Director of the Tariff Division; and Secretary

### [Summary of Agenda Items]

1. Telecommunications Council Report No. 36 in response to Consultation No. 1165 (dated February 26, 2007) and System Review based thereon (Report)

- MIC reported on the matter, and a question and answer session followed.

2. How Interconnection Charges Should Be Calculated in and after FY2008

- MIC explained the contents of the consultation, and deliberation followed.
- As a result, it was decided that the committee and the Telecommunications Business Sub-Council would jointly hold a hearing session with carriers from May 22.

### [Discussion Details]

1. Telecommunications Council Report No. 36 in response to Consultation No. 1165 (dated February 26, 2007) and System Review based thereon (Report)

Mr. Aida, committee member: Is the increase of the compensation amount shown on Page 3 driven by the transfer of the NTS costs?

MIC: Exactly.

Mr. Aida, committee member: Then, is it correct to understand that the amount will not increase from FY2008 onward?

MIC: In principle, that would be the trend.

Mr. Sato, committee member: Regarding the figure on Page 2, the number of PSTN subscriber lines may decrease as the users switch to optical fiber or other means. In that case, will the costs in the modeling change? In addition, is it possible to predict changes in the market to some extent?

MIC: As the users switch to optical fiber or other means, the compensation amount for the universal service, which is 4.9% of the total cost, will decrease. Meanwhile, the subscriber line cost per line differs between centers, and it is difficult to predict if it will rise or fall.

Mr. Sakai, Deputy Chair: If there is no transfer of the NTS costs, the subscriber line cost per line will increase as the number of subscriber lines decrease. However, since the value of the denominator is set to cover other services as well, it is impossible to discuss, in general terms, whether the compensation amount will increase or not.

Mr. Naoe, committee member: If the users in the low-cost areas will be excluded, the average cost will become higher.

MIC: The issue seems to be the balance between the cost per line and the total cost.

Mr. Sato, committee member: I expect that a reasonable measure would be taken to prevent any increase to the consumer burden.

## 2. How Interconnection Charges Should Be Calculated in and after FY2008

### 1. Evaluation of new LRIC model

Mr. Sato, committee member: I assume the model focuses on IP-based networks. Is it possible to know the actual cost for old networks separately from that for IP networks in regard to the current investment cost?

MIC: The existing networks can be roughly categorized into voice networks and data networks. For example, FLET'S is classified as a data network. The Study Group on the Accounting System in Telecommunications Service is currently conducting a study on how to handle NGN in the future.

Mr. Sato, committee member: Is it difficult to know the NGN investment cost in terms of actual cost?

MIC: For calculating interconnection charges, it is possible to know the investment, even if it is not

clarified from the accounting perspective.

Mr. Toukai, Committee Chair: The study group is also discussing whether it should be grasped through daily records.

Mr. Aida, committee member: What are the details of the public comment on the LRIC study group report?

Mr. Naoe, committee member: There was no comment on the direction. All of them focused on extremely technical issues.

MIC: Specifically speaking, we received seven comments: “The service life of optical fiber should be estimated by using a method that matches the reality”; “The details of the estimation method should be disclosed so that it can be verified”; “There is a limit in incorporating control of new investment into the model”; “The costs arising from the efforts to maintain and extend the switching facilities should be reflected in the model”; “The rise in the unit price of investment in switching facilities, which is caused by the downsizing of the fixed telephone market, should be reflected in the model”; “The reality of data service provision should be considered”; “We agree on the addition of the logic to allocate cost to dry-copper facilities.” Considering these opinions, the LRIC study group organized their thinking and concluded not to change the details of the model.

Mr. Toukai, Committee Chair: I can understand the conclusion. The LRIC study group is a place to discuss the costing issues, and pricing issues should be discussed at the Interconnection Committee.

Mr. Naoe, committee member: In developing the first LRIC model, it was noted that integration or abolishment of the centers would change the structure and consequently lead to a drastic change in cost. As a result, it was planned to build large common centers first to minimize the incremental cost and gradually make adjustments. At that time, two positions were expressed: one in favor of building the centers by assuming downsizing; and one against it, as it would make provision of existing services impossible. Regarding the public comment procedure on the LRIC study group report, I had hoped that someone would point out that the basic cost might change as the centers would be integrated in the future, but no such comment was contributed. I suspect that people might have determined that it is difficult, considering the required drastic program modification and the huge amount of effort needed for it.

Mr. Sakai, Committee Vice Chair: As IP telephony networks are established, the positions of centers may change. If the change must be taken into consideration, it may become necessary to re-build the LRIC model itself.

Mr. Sato, committee member: Have the positions of stations not been changed in the past?

MIC: No.

Mr. Naoe, committee member: It may become necessary to drastically review the logic for each area.

Mr. Sato, committee member: Over the decade since the creation of the model, the reality may have changed considerably.

Mr. Sato, committee member: The model is built based on the division per prefecture. I would like to know the extent to which the characteristics of (NTT) East and West are reflected in the model. For example, is the invested amount calculated per prefecture?

MIC: That calculation method is applied in part.

Mr. Sato, committee member: Adopting the efficiency factor across the board seems to be blurring the economic characteristics of East and West. The first model was created based on the understanding that there would be no problem as long as interconnection charges were calculated per prefecture. However, in studying the second model, the issue of universal service was raised and we became aware of the differences between East and West.

Mr. Toukai, Committee Chair: The possibility of studying calculation methods other than the LRIC method is indicated. When a different method is finally determined, how will this agenda be handled?

MIC: The focus of this agenda is whether the fourth model proposed in the LRIC study group report should be applied to the interconnection charge calculation in FY2008 and onward. If it will be concluded that the actual cost method is more desirable than the fourth model, the former may be adopted.

Mr. Sakai, Committee Vice Chair: What I am concerned about in building LRIC for IP networks is that, although LRIC is supposed to indicate the lower limit, the recent discussions seem to think it indicates the upper limit. There is a growing feeling that below the LRIC cost is preferable.

Mr. Sato, committee member: As the LRIC model takes into account the facilities that are being created from scratch, its cost structure is close to the current one. Meanwhile, the LRIC networks do not necessarily match the reality. The recent streamlining is reversing the positions of the actual cost and the LRIC. In that sense, LRIC is high in some parts, and low in some parts. As most of the carriers own top-level layers of networks, cost comparison is possible, forward looking is effective, and examination is easy. In contrast, in regard to the lower-level layers, an alternative carrier does not exist, which means a desirable forward outlook is hard to find, the network cost is not necessarily ideal, and therefore reversal occurs.

Mr. Aida, committee member: As the costs for digging holes or installing lines are likely to rise in the

future, the costs for the LRIC model may become higher.

Mr. Sato, committee member: NTT's construction work is sometimes done for a very short distance, which results in higher unit price.

Mr. Toukai, Committee Chair: In order to consider efficiency improvement, demand must be stable to some extent. I think that efficiency improvement effort is impossible under the current trends toward IP-based networks.

Mr. Sato, committee member: Does the concept of charging by seconds, which is being used in the current switch-based interconnection, apply to the case where networks are connected with IP-based networks?

Mr. Aida, committee member: Data communication using the so-called packet communication system exists. In the case of telephone services that need to ensure the quality, the desirable charging structure may be charging with or without packet transmission, like a circuit exchange, although I cannot assure you--I do not know the details, such as whether only one transport is used for NGN.

MIC: NTT sets the goal of 30 million optical fiber subscriptions by 2010 in its mid-term management strategy. Even at that stage, PSTN and IP-based networks will coexist, so NTT needs to decide how to handle PSTN in 2010. Therefore, at this point, we should carry out our discussion by assuming the coexistence.

Mr. Toukai, Committee Chair: Is it preferable at all to assume a virtual network like LRIC while the two coexist?

MIC: During the discussion on the price cap, handling of the efficiency factor became an issue. At that time, the efficiency factor for the price cap was calculated by assuming a static market, because it is impossible to predict how to migrate from PSTN to IP-based networks, and, under such circumstances, the efficiency factor could be either positive or negative. We understand that the same is true in the case of interconnection charges. That is, it is very difficult to see one market amid migration.

Mr. Sakai, Committee Vice Chair: The existing concept is still valid if the traffic band is reserved for fixed telephone. However, if it is not reserved, but just prioritized, temporary heavy traffic in some part will cause a strain on the other part, and the overall traffic will not increase much. Meanwhile, some may support charging per call. We cannot say anything specific on that.

## 2. Handling of NTS (Non Traffic Sensitive) Cost

Mr. Aida, committee member: The biggest change since the last discussion is the start of the universal service fund system and carriers across Japan began charging fees on users. The last time, we carried out our discussion in parallel with the discussion at the Basic Charge Committee. Are we going to have discussions in parallel with the Universal Service Committee this time, or will we not get into the issue of basic charge?

MIC: As we reported earlier, the review of the compensation amount for the universal service fund system will be studied at the Universal Service Committee. For the report on the universal service we received in FY2005, the framework of basic charge and the gaps between East and West were discussed while simultaneously considering that telephone services that use dry copper lines instead of NTT's local circuits would increase and lead to future competition, including basic charge competition. At this point, the telephone services that do not use NTT's local circuits are on the rise, but more notable is the migration to IP telephony, which lessens the pressure on the competition in the conventional telephone market. The focus will move to how the calculation method for the compensation amount for the universal service fund system is to be reviewed in the future while assuming the existing gaps between center levels.

Mr. Sato, committee member: Is the concept of by center level or by business no longer used for optical fiber services?

MIC: No, such concept will not be used.

Mr. Naoe, committee member: In contrast to the LRIC study group, we need to discuss how to match the method with actual society.

Mr. Toukai, Committee Chair: That is the point, and I request that discussion at the Telecommunications Business Sub-Council be interlocked with the discussion at the Universal Service Committee in some way.

Mr. Sakai, Committee Vice Chair: The phased transition of the NTS costs in five years is not a logical conclusion, but one based on the judgment that the estimation result is reasonable.

Mr. Sato, committee member: In pricing discussion, both the fair competition perspective and the consumer benefit perspective must be considered. The phased transition of the NTS costs was decided by considering these two perspectives.

Mr. Aida, committee member: In plain words, if both interconnection charges and compensation for the universal service fund system will decrease, NTT East and NTT West need to increase the basic charge at some point, and we must consider a way to soft-land the increase.

Mr. Sato, committee member: As for the basic charge, some issues should be discussed at this committee, while some must be left to the management decisions of NTT East and NTT West.

Mr. Sato, committee member: Is the rise in the compensation amount for the universal service fund system due to the transition of the NTS costs?

MIC: In part, yes, but partly due to public phone service.

Mr. Sato, committee member: From the perspective of NCCs, it is unreasonable that the costs that should not be included in the interconnection charges have actually been collected as part of the interconnection charges. They made a compromise by solving the unreasonable issue in a phased approach. Meanwhile, the NTT side may have its own opinion. This is a very difficult issue.

Mr. Naoe, committee member: The current problem is that users are paying the compensation amount for the universal service fund system. They think it is unreasonable that the telephone charges are not reduced despite the reduction in interconnection charges, and, additionally, they are charged for the universal service. We need to consider how to solve the issue of the increase to the consumer burden.

MIC: As for the current call charge reduction related to the compensation for the universal service, NTT East and NTT West have at least reduced the charges for calls from fixed telephones to mobile telephones.

Mr. Toukai, Committee Chair: Besides the issue of how to reflect interconnection charges in call charges, we need to carefully watch how interconnection charges affect various aspects.

Mr. Sato, committee member: We may need to publicize that users have benefited from the results of competition.

Mr. Aida, committee member: Whether or not there is compensation for universal service, the total cost will not change. It is very hard to determine charges for a fixed rate and those for a pay-as-you-go rate.

MIC: In reviewing the universal service fund system, we take into account that each carrier has managed its business based on the existing system. Having the same specific amounts is definitely a critical factor, but changes in the market environment must be considered as well. Interconnection charges have decreased as the NTS costs have been excluded, but whether we should consider a policy of continuing to lower the telephone interconnection charges amid the migration from PSTN to IP could be an agenda. Likewise, we need to determine how to handle the NTS costs by examining changes in the market.

Mr. Sato, committee member: Ordinary companies invest in new businesses while securing their profit in existing businesses. Under the rules in the telecommunications market, however, compensating IP related cost with profits from telephone services is not allowed even though they are having

an economic effect on each other, as IP-based networks have not actually been built from scratch.

MIC: In the case of regular goods or services, it is possible to gradually downsize the goods or services that are no longer selling as well as before, so that resources can be concentrated into new goods or services. In the case of communications networks, however, we must build new networks while maintaining existing networks in relation to the universal service. How this differs from the market principle is the fact that we cannot downsize existing networks.

Mr. Sato, committee member: If what we should maintain is the services, why can't we study ways to keep the services, instead of keeping the existing networks? For example, by securing services by using mobile phones instead of fixed telephones in rural areas.

Mr. Sakai, Committee Vice Chair: There is no problem if the charge for the service is reduced when the development of optical fiber networks is completed.

MIC: As for the concept of separating networks from services, the idea of replacing networks is acceptable as long as the services have equivalence. The Study Group on Future Images of Universal Service Fund System is carrying out discussions toward that end.

### 3. Handling of Values Used in Interconnection Charge Calculation

Mr. Naoe, committee member: How about the traffic volume trends?

MIC: Looking at the data on changes in traffic volume until January this year on Page 19, the change in duration of calls, for example, seems to stay around -10% recently. We would like to provide some new data within June.

Mr. Sato, committee member: When traffic becomes stable, there will be no problem.

Mr. Aida, committee member: Does the traffic on Page 19 correspond to "calls from fixed telephones" on Page 7?

MIC: The survey data on Page 7 shows overall traffic broken down into call originators. The data on Page 19 is about the traffic routed through NTT's telephone networks.

### 4. Gaps in Interconnection Charges between East and West

Mr. Naoe, committee member: If the gaps between prefectures are surveyed, some may question why the rate level in Osaka is the same as that in Hokkaido, while they can understand that the rate level is the same between Tokyo and Osaka.

Mr. Aida, committee member: If the gaps are to be considered, we also need to set up different rate levels within the respective areas of NTT East and NTT West.

Mr. Naoe, committee member: I remember that the gap became twice as large when we tried to set up the rates per prefecture. We reached the conclusion, at that time, that a flat rate scheme should be introduced.

Mr. Sato, committee member: It may be a good idea to set up the rates per prefecture when we check new models. Since the current model is suitable for setting collective rates, breaking it down beyond some certain extent will cause a discrepancy from the reality. Such aspect must be considered from the perspective of a competitive policy. However, I think general utilities such as gas or electricity offer the flat rate scheme in one business area. I would appreciate it if this is checked and confirmed. If we will set up gaps, we may first set up the rates for the areas with the lowest rates, and then set up rates for the surrounding areas for additional costs. I doubt, however, that this will win people's understanding.

Mr. Naoe, committee member: The issue of the rate gaps between areas was discussed in Europe in the early 1990s, and setting up the regional gaps was finally rejected. The reason was that, although a difference in costs remains, the borders between different rate settings can be decided arbitrarily. France tried to set up the border per prefecture, but failed. Germany failed to set up a rate scheme that differentiates the areas in detail. Britain discussed the issue, but decided on a policy to maintain the flat rate scheme with internal cross-subsidization after privatization. Meanwhile, in the United States, the rate schemes in metropolitan areas like New York differ from those in other areas. It is hard to generalize, but it seems to indicate cultural differences. Japan has never set up any gaps between regions. It may be possible to explain that the gaps should be set up because market growth is an issue of higher priority, but whether it is preferable for society is uncertain. The concept of setting the differences in the rates because the costs are different is unlikely to be accepted at this point. NTT has set its goal of 30 million optical fiber subscribers by 2010, and the target will be achieved just in large and medium sized cities in terms of service areas. If the target is extended to 45 million subscribers, the cost will be equivalent to the cost required for the 30 million target. An effort to extend the target by an additional 5% requires twice as much cost, and to extend the target by another 5% requires four times as much cost. That is the existing structure. It is not that the rate should be flat because the telephone service is a public service, but there seem to be strong views that the telephone service is a kind of culture to be offered for flat rates.

Mr. Fujiwara, committee member: In the case of JR, the rate structure differs between companies, and

each company sets up different rates for each area.

Mr. Aida, committee member: Breaking it down to prefecture level seems too divided. It may lead to a situation where residents move out of their areas because of the differences in the rate.

Mr. Sakai, Committee Vice Chair: Some people may think that having different rates between areas within one company is unreasonable. Meanwhile, some may wonder why the same rates are set for both NTT East and NTT West, although they are different companies.

Mr. Sato, committee member: We should discuss the issue of whether different interconnection charges between East and West would result in gaps in call charges.

MIC: The difference from the discussion on interconnection charge calculation in FY2005 and onward is that the universal service areas have changed and that local calls were excluded. However, we need to take into account that local calls still have social and economic impacts. In addition, the United States has different rates for each of more than 1,000 carriers, as Mr. Naoe has pointed out.

#### 5. Applicable Period of the New Model

Mr. Aida, committee member: This issue seems to be interlocked with agenda item 2.

Mr. Naoe, committee member: Although it was pointed out that half of the telephone networks will be changed to IP-based networks by 2010, it may not be too late to discuss the issue when the position of existing networks and the IP-based networks are reversed.

Mr. Sato, committee member: Considering the creation of a new model, we need at least three years.

Mr. Toukai, Committee Chair: It will be a problem if we leave this issue for too long. Two years may be possible.

Mr. Naoe, committee member: One of the points will be how long PSTN should be maintained.

Mr. Aida, committee member: We need to discuss interconnection charges for IP telephony at some point, but we cannot identify it now. I suppose it may take five more years to see a long-term vision. Until then, we cannot help but use a temporary model.

#### 6. Interconnection Charge Calculation after Applying a New Model

Mr. Aida, committee member: We can discuss this issue only when several years will have passed after 2010.

Mr. Toukai, Committee Chair: Key points for the next modification of the LRIC model will be continuity

and how IP-based networks are to be incorporated.

Mr. Sato, committee member: A price cap method is possible. Calculation is possible as long as initial values and efficiency factor are clarified, but the calculated charges will have a disparity from the costs over the years of use.

Mr. Toukai, Committee Chair: It may be possible to combine it with the LRIC model.