Outline of the Proceedings of the 5th Meeting of the Study Group on Mobile Business

1. Date and time: 15:00 to 17:30, Friday, April 6, 2007

2. Location: Special Conference Room 1, Ministry of Internal Affairs and Communications

3. Attendees

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

Aida, member; Fujiwara, member; Hasegawa, member; Iizuka, member; Ishiwatari, member; Saito, Chairperson; Kita, member; Izumi, Deputy Chairperson; Sato, member; and Takahashi, member

(2) Ministry of Internal Affairs and Communications

Mori, Director-General of the Telecommunications Bureau; Sakurai, Director-General of the Telecommunications Business Department; Samura, Director of the General Affairs Division; Suzuki, Director of the Telecommunications Policy Division; Taniwaki, Director of the Tariff Division; Ohashi, Director of the Computer Communications Division; Ninomiya, Senior Planning Officer of the Tariff Division; Katagiri, Deputy Director of the Tariff Division; Shirai, Deputy Director of the Tariff Division; and Shibazaki, Deputy Director of the Computer Communications Division

4. Agenda

(1) Presentations from observers in the Study Group [4]

1) EMOBILE Ltd.

2) Microsoft Co., Ltd.

3) Gourmet Navigator Inc.

4) Mitsui & Co., Ltd.

5) Access Co., Ltd.

(2) Free discussions

5. Outline of proceedings

<Presentations from companies concerned>

<Member> According to a presentation by ACCESS Co., Ltd., software costs account for 10 percent of total costs. It seems to me that this figure is very low compared to those given in presentations by other companies. Is there any root cause for this?

< Access > This figure is based on our own prediction for high volume models several years from now.

<Member> It is said that generally speaking, 100 models show up per year, with a development cost of 10 billion yen per model. In this respect, I feel that software is being created from scratch for each model. Does the presentation by ACCESS Co., Ltd. imply that as the unification of platforms progresses, economies of scale will result, and that therefore, your company wishes to promote such unification?

< Access > That’s right.

<Member> I look forward to it with great expectation.

<Member> It was mentioned that applications differ from carrier to carrier. In this regard, Nokia provides products that can be used with any carrier. Would it be true to say that although these products can be used in common now, several years from now diversification will take place, and not even Nokia will be able to produce such products?

< Access > Until several years ago, Nokia was able to reduce the costs of existing terminals thanks to volume efficiency, and shipped them worldwide. In this respect, industry-wide specifications for items such as SMSs and browsers were the norm. However, on the part of carriers, unless they provided services that could only be performed by their terminals, then their SIMs inevitably risked being replaced, with subsequent changeovers being made to other carriers. There are in fact some products for which the same hardware can be used by multiple carriers, but there have been very few successful cases of this. Personally, I think that in the future, if SIM locking is removed,

carriers will incur the risk of their SIM cards being replaced, and that therefore carriers will try to attract users by means of unique applications.

<Member> I think that the reduction in terminal costs occurs as a flow of events. In this regard, the diversification of user needs is also conceivable. I would like to know the ratio of terminals actually sold at 100 to 150 dollars per unit is available, if such a figure is available.

< Access > No specific figure is available now, but I think that the ratio has increased. Products such as smartphones exist as high-end articles, while there are low-end products that are only capable of voice services and SMSs. However, our understanding is that the figures for midrange terminals encompass a fairly wide range.

<Member> I would like to pose the following question to all carriers. Entities like content providers perform tests on each terminal, and manufacturers say that they incur the burden of software development. Carriers, in turn, incur terminal development costs. In the end, all parties insist that, due to high terminal development costs, prices cannot be reduced. I have heard that such high costs can be alleviated by performing standardization within a consortium or similar framework. I would like to ask what measures each carrier will take toward the establishment of such a consortium.

<MVNO Council> The relevant document of Access Co., Ltd. says that terminal costs are in the range of 70 to 80 thousand yen. Now what are the actual approximate amounts? I would like to put this question to all carriers.

<NTT DoCoMo> It is a fact that costs are incurred not only in software development but also in verification. Standardization is an urgent task. LiMo Foundation, which includes not only domestic manufacturers but also overseas manufacturers such as Motorola, is promoting the standardization of middleware. Development costs differ considerably. In the case of DoCoMo, the cost of developing 900 Series new terminals ranges from a few billion to around 10 billion yen. Efforts are made to reduce terminal costs in such a way that either the manufacturer bears this cost on its own or DoCoMo subsidizes the development cost.

<Member> Would you say that the cost of 70 to 80 thousand yen, which was just mentioned, is reasonable?

< NTT DoCoMo > It depends on the number of units. In the case of high end terminals, the cost is about 55 to 60 thousand yen. It varies depending on numbers of units sold.

<SoftBank> It is quite true that costs rise due to software development and terminal tests. It is a fact that, for the purpose of reducing the costs, the ratio of models equipped with Windows Mobile will be increased as a major trend. As regards the delivery price per terminal, it is advisable to understand that the amount—such as 70 thousand-plus yen—indicated as a lump sum payment amount in the online store on the website is obtained by adding a certain amount of profit to the delivery price.

<KDDI> It is a fact that the ratio of the software development cost to total costs is on the increase. Our company provides a platform called KCP, thereby expanding the domain where relevant vendors can standardize specifications. As a result of the above, in specific terms, the aggregate average of the costs of cellular telephones has dropped by about 10 percent in the last two years. On the other hand, the number of functions has increased. Therefore, it is our understanding that the standardization of specifications has started to take effect. Furthermore, software test costs have risen dramatically due to the increase in the number of functions. Therefore, we are also making efforts to reduce such costs by standardization. As regards terminal prices, we think that there are cases where a high-function terminal may cost as much as 70 to 80 thousand yen. As for average prices, it seems that they are fairly low, due to the number of low-end terminals. In this regard, however, we can’t make sweeping statements, since prices also depend on volume. As for middleware, our company is using Qualcomm’s BREW in common with that company, in order to reduce loads, even by a little.

<Member> According to the explanation given by Mitsui & Co., Ltd., terminals differ from carrier to carrier in Japan, but this is not the case in Australia. How are steps being taken to realize differentiation according on the carrier? In this regard, what do you think is the most desirable method of doing business?

<Mitsui & Co.> In the case of business in Australia, our company is enjoying the benefit of doing business with one carrier. Sales channels differ depending on the carrier. Under certain circumstances, there may be cases where we engage in sales for other carriers. Now you asked us about the most desirable method of doing business. Our company has a share of seven percent in

Japan and is one of the largest scale companies in the country. However, our company is not in a position to have influence on the entire distribution field. In overseas regions as well, our company will basically not turn out to have influence on all aspects only from the viewpoint of distribution. Therefore, we are making efforts to find ways to make our presence felt more strongly.

<Member> I think that in Australia as well, there are multiple terminal manufacturers. Are there cases where carriers directly place orders for special software with manufacturers?

<Mitsui & Co.> In the case of simple software, there are instances where we install such software on a customized basis, and ship the final products. Specifications are decided through direct negotiations between manufacturers and carriers.

<Member> I think that it is very important to ascertain stages of cooperation and collaboration. In this connection, entirely different answers will result depending on the aspect in which cooperation is provided, and in what aspect competition is carried out. I would like to have a definite answer.

<Member> If the act of having a robust network and providing stable services is matched with the act of implementing services that can be provided by means of the most advanced terminals in the world, I think that things will not always proceed well. In this regard, I would like to be provided with a scenario regarding for whom services are intended to be provided, what goals are intended to be pursued, and by what methods of use consumer satisfaction is intended to be achieved.

<Secretariat> We would like to prepare questions to which as specific answers as possible may be obtained. It will be so arranged that the Secretariat will prepare draft questions and members will confirm them.

<Member> I would like to put this question to EMOBILE, Ltd. I have heard that as regards the promotion of MVNOs, EMOBILE, Ltd. has ideas contrasting with those of existing entrepreneurs. EMOBILE’s comment was that MVNOs’ wholesale fees should be stipulated by covenants. I would like to be informed of the reason for the above. I would also like to be advised of the grounds for determining the rate of 15 yen per 3 minutes as a wholesale fee. Moreover, what image does the company have regarding the portability of contents and addresses? Furthermore, what understanding does EMOBILE, Ltd. have concerning SIM locking with regard to the act of rendering terminals open? It seems that EMOBILE, Ltd., as a new entrepreneur, has different opinions from those of existing entrepreneurs. Does EMOBILE, Ltd. intend to conduct business as an MVNO in the manner stated here?

<EMOBILE> The answer to the first question about the reason why MVNOs’

wholesale fees should be stipulated by covenants is as follows: Ever since the early days of the industry, the structural outline of the telecommunications business has been such that competition took place between monopolistic entrepreneurs and new entrepreneurs. Since new entrepreneurs have to compete with companies on a scale of several trillions of yen in turnover, if such entrepreneurs were told to get by merely by negotiations between companies, the situation would be like a race between huge ships and fishing boats. From the point of view of the promotion of new business, it is desired that brakes be applied to huge enterprises to enable new entrepreneurs to conduct business. Great developments have been taking place through the implementation of the above, as was the case with ADSL and dark optical fibers.

With regards the next point, the grounds for the rate of 15 yen are as follows. By assuming that total costs consist of the equipment cost and the labor cost, it was considered that the wholesale fee would probably be 30 percent of the retail fee, and a calculation was made accordingly. We think that this is a level at which small MVNO entrepreneurs entering the market can reasonably do business. We dare not say that services should be provided by going in the red, but no competition would occur among MVNOs if services were not provided at such a level.

Regarding our image of the portability of contents and addresses, what we would like to mention is that steps should be taken to reduce the costs of switching among entrepreneurs. As one of the steps, we thought that it would be necessary for addresses to be retained even after switching. We do not have a specific image at present, but we do think that the lack of this step constitutes a hindrance to switching among entrepreneurs.

As regards SIM locking, our understanding is that it impedes user convenience. In this regard, it is not realistic for just one entrepreneur to remove SIM locking. Therefore, we think that steps should be taken for it to be removed by the whole industry.

<MVNO Council> We agree to the stipulation of MVNOs' wholesale fees by means of covenants. There have been instances where wholesale fees were changed unilaterally in relative contracts. Therefore, it is necessary to stipulate the above through standardized covenants.

<Member> I would like to put this question to EMOBILE, Ltd. It is understood that

MVNO entrepreneurs insist on the stipulation of wholesale fees by covenants. In this regard, does the fact that MVNOs themselves insist on the formulation of MVNO rules mean that restraints should be imposed only on dominant enterprises, or should restraints in fact be imposed on all carriers?

<EMOBILE> We think that in the first place, restraints should be imposed only on dominant enterprises.

<Member> I also think that restraints should be imposed in that way as regards the formulation of menus of wholesale fees. In the case of connection, it is easy to propose that fees be based on costs. However, with regard to wholesaling, there is the question of what should be deducted from user fees. Therefore, I think that it is tough to conclude relative contracts unless wholesale fees are stipulated on menus or rendered transparent. In this connection I would like to solicit comments from NTT DoCoMo and KDDI au with regard to the formulation of menus and the establishment of tariffs.

<KDDI> As regards MVNOs, our understanding is that it is difficult for carriers alone to construct business models. Therefore, we would like to carry out operations on the basis of businesses. As for the formulation of menus, our understanding is that this issue is an item to be studied from now on. On the occasion of the entry of MVNOs into the market, we think that the 20 million subscribers we currently have should not be affected. Subsequently, we would like to proceed in a forward-looking manner so as to render these two aspects mutually compatible.

< NTT DoCoMo > It has been asked whether an enterprise is considered dominant if its market share exceeds 50 percent. We believe that this constitutes a different subject of discussion. As regards MVNOs, our understanding is that the formulation of menus is a possible pattern. There have been comments that the win-win stance of DoCoMo is oriented toward a rural community mentality. In this respect, in conducting business, we cannot proceed with business as a private company unless we produce profits. We cannot take sides with those who discuss this matter in the same context as for entities like NTT East Corporation and West Corporation. With regard to the stipulation of wholesale fees on menus, we are opposed to rendering this practice obligatory.

<Member> As regards interconnection of telecommunication carriers with Category 2 Designated Telecommunication Facilities, it is obligatory initially to

stipulate wholesale fees by covenants. In this regard, what is the reason for NTT DoCoMo to be opposed to the stipulation of wholesale fees by covenants?

< NTT DoCoMo > As regards wholesale fees, there is no premise for rendering the stipulation obligatory.

<EMOBILE> Discussions regarding ADSL have proceeded well for the following reasons: The line sharing fee for ADSL was originally 800 yen, but through open discussions such as in committee meetings, the fee became 180 yen, thereby resulting in Japan becoming a major user of ADSL. This time, we proposed 15 yen per three minutes. In this respect, if DoCoMo is kind enough to show its wholesale fee in the first place, and if public discussions are held regarding the reasonableness of this fee, won't MVNOs also prosper?

<Member> I think that ADSL was discussed at a meeting of the Telecommunications Business Sub-Council. At that time, there were legal grounds for the statement that since relevant devices came under the category of Category 1 Designated Telecommunications Facilities, such devices were to be handled on the basis of costs. However, for now, this is not the case with Category 2 Designated Telecommunications Facilities. The opinion has also been raised that the problem is the sluggishness of the business of MVNOs. Therefore, it is necessary to hold discussions once more. DoCoMo says that unlike in the case of connection, there are no legal grounds for the stipulation of wholesale fees by covenants. This is quite correct. Through the presentations given this time, the three cellular telephone entrepreneurs were often mentioned in respect to sales incentives and SIM locking. In this regard, I would like to request the three companies to give comments by taking into account the discussions conducted thus far.

<SoftBank> The removal of SIM locking has been discussed. We agree to the removal and would like to study it in a forward-looking manner. In this respect, the purpose is to expand users' choices. Also, the connection between terminals and carriers is intended to be severed. Therefore, we think that not just a few, but all entrepreneurs, should carry out the removal simultaneously. As regards the incentive model, our company is implementing the installment sales model, and therefore, we think that the problem of the sense of unfairness regarding long-term users and short-term users has been resolved. As for MVNOs, the situation is that consultations

are held with multiple entrepreneurs in a forward-looking manner.

< NTT DoCoMo > By being given relevant presentations, we have come to realize that a number of different opinions are held. In the first place, we think that it is necessary to decide, by way of a policy issue, what should be done regarding the whole market. Therefore, I would like request the Ministry of Internal Affairs and Communications to present a logical argument. We have the understanding that as regards the current incentive model, there exists a sense of unfairness due to the differing replacement purchase periods. However, there are many ideas that may be reconsidered. It is impossible to satisfy everyone, no matter which ideas are adopted. We would like to positively address the issues of sales incentives and SIM locking removal, in such a manner as to regard these two items as a single integrated problem. The competitive market for cellular telephones is not only an arena for competition between the current several cellular telephone entrepreneurs, but has also changed into a large competitive market including the Internet. We do not want this market to be seen from the viewpoint of the conventional fixed market concept, which consists of fixed communications and mobile communications. DoCoMo itself wishes to “grow up” beyond this outdated concept. Therefore, we would like to request that arguments be made from a broad perspective so that our growth will not be hindered.

<KDDI> It is true that there are problems with current incentives, but there is no doubt that these incentives have served as the driving force supporting the rapid growth. Not only carriers but also manufacturers and content providers have been making efforts to meet the customer needs of the progressive Japanese market. However, as has been pointed out, there is a sense of unfairness among users. We think that from now on it is necessary for us to make more efforts than we do at present in deciding how to present explanations to users. As regards SIM locking, we think that it is necessary not to discuss the matter independently, but rather to discuss it in combination with incentives. There is no change in our basic awareness that the matter of SIM locking should be reconsidered from the viewpoint of increasing users’ choices. In this connection, in removing SIM locking, there are the issues of overseas outflow and technical problems, among others. We would like to hold consultations to figure out suitable ways to solve these problems. As regards MVNOs, we believe that there will be a limit if a merely vertical consolidation of carriers is carried out. Such being the case, we would like to create successful instances in cooperation with partners.

<Member> I would like to put this question to Gourmet Navigator, Inc. It was explained that since terminals differ from company to company, it would be very time-consuming to address the entire situation. In this regard, I think that opinions exist that in order for relevant companies to acquire users, it is necessary to implement differentiation. I would like to request that a pertinent argument be made regarding such matters.

<Gourmet Navigator > As a premise, it has been asked whether so-called international standards are convenient for development. The answer is, no. We hear opinions along the lines that it is better to handle things even if terminals differ from carrier to carrier. In that sense, we do not think that we can definitely assert that standardization is advantageous for the development of contents. However, if interpreter type terminals are activated differently by the same command, or if such terminals are equipped with unique functions that appear to be unnaturally exclusive, then this creates burdens at development sites. Therefore, it is requested that manufacturers do not provide more exclusiveness than is absolutely necessary. However, when individual manufacturers add unique functions by showing technical superiority, we do not perceive such practices to be negative. Only it is requested that acts such as preventing interchangeability be abstained from.

<Member> What has just been mentioned pertains to a function that is lacking in the case of standardization in Japan. When international standards such as those of the ITU were established, NTT and KDD were the only relevant companies in those days. Each of these companies performed subsetting. Since no companies other than those two companies were involved at that time, there was no entity that carried out relevant unification. I think that TTC should do that, but things are not working well. In countries such as the United States, when, for example, a standard such as WiMax was established, the relevant industries organized a forum to formulate a standard, since WiMax was of little use as a standard. Speaking of WiMax, there are similar standards in South Korea and China, but there is no such standard in Japan. In the case of WiMax, multiple subsettings have been created, and therefore no unification has been undertaken in Japan. The same situations occur in the cases of WiFi and WAP as well. Things have not changed significantly since the days of monopolization by NTT. I think that proper efforts should be made in this respect. I believe that the Standardization Division of the Ministry of Internal Affairs and Communications is also involved in this matter. It is requested that due consideration be given to this matter.

End