Study Group on Establishing Usage Environment for Next-Generation Broadband Technology Summary of Minutes (4th Meeting)

1. Date: Friday, March 23, 2007, 10:00 to 12:15

2. Location: Special Conference Room 3, 9th Floor, Ministry of Internal Affairs and Communications

3. Attendees

    (1) Members (honorifics omitted)

    Mikio Ihori, Takashi Ushikubo, Hiroyo Ogawa (proxy: Masahiro Toyoda), Satoshi Kurokawa, Takashi Koike (proxy: Kazuhiko Wakamori), Takayoshi Sasao, Makoto Tsubokawa, Masao Nakagawa (Vice Chair), Akira Hashimoto, Mitsutoshi Hatori (Chair), Tatsuaki Hamai, Ryuhei Fujiwara, Tomokuni Matsumura, Mitsuji Matsumoto, Kenji Murao (proxy: Takayuki Mabuchi), Hiroyuki Yashima, Yasuhiro Yamato, Tetsuya Yuge

    (2) MIC Representatives

    Mori (Director-General, Telecommunications Bureau), Sakurai (Director-General, Telecommunications Business Department), Sugiura (Director, Electromagnetic Environment Division), Emura (Director, Advanced Network Division), Katagiri (Senior Promotion Officer, Advanced Network Division), Usuda (Deputy Director, Advanced Network Division)

    (3) Observers (honorifics omitted)

    Kiyotake Ando, Megumi Shibuya (JSAT Corporation), Hiroshi Nagano (Mitsubishi Research Institute, Inc.)

4. Outline of Proceedings

    (1) Issues and their solutions regarding the next-generation broadband technology

    - Member Ihori gave a presentation on Reference 4-1. Subsequently, the following questions and answers were made:

    Yamato: In regard to the e-mail notification service referred to in "example use of mobile terminals," I would like to know whether the citizens' e-mail addresses are registered in advance, and if so, how many addresses have been registered.

    Ihori: All services, which vary from weather information to questionnaire surveys, require pre-registration. The number of registered addresses differs between services: for example,

there are approximately 5,000 registrations for security service, 2,000 for weather information, and 2,500 for questionnaire surveys.

Chair Hatori: On the last page, you listed "expanded use of wireless systems (use of thin client)" as one of the issues. Could you explain the issue?

Ihori: I do not have an in-depth knowledge of the technical aspect, but it refers to the fact that 5,000 thin client units are used in schools but are not available for wireless systems. I hope they can be used no matter where they are moved around within the school premises.

- Member Yuge gave a presentation on Reference 4-2. Subsequently, the following questions and answers were made:

Chair Hatori: OAB-J numbers are not available for FTTN. Is it because of the difference between FTTH and FTTN?

Yuge: This is just the understanding of our company—in the case of the FTTH service called "mansion (collective housing) type," 0AB-J numbers are available because the lines are deemed stable, as lead-in optical fibers are installed in the building premises and the portion following the MDF consists of VDSL (very high-bit-rate digital subscriber lines). Meanwhile, in our company's system, the devices are installed at utility poles, not in the MDF. As the devices are moved to that extent, some people question whether the lines become unstable. We are therefore considering that we should verify the stability to use 0AB-J numbers in the future.

Tsubokawa: Could you explain the network configuration in regard to the distance between the lower part of the VDSL device and branch?

Yuge: The distance between the VDSL device and the lower metallic part is generally up to 500 m. Considerable speed is available if the distance is 300 m or less. I am not sure if I remember correctly, but the possible maximum distance is 1 km. You can see the actual configuration that refers to the FTTN node device on Page 10. The device has a 24-port modem, which connects to the metallic cable extended to individual subscribers' housing. Although the system requires devices like an MDF in proximity, the configuration is not on a branch basis.

- Observer Ando from JSAT gave a presentation on Reference 4-3. Subsequently, the following questions and answers were made:

Yuge: I have an image of satellite communications as multicast, but do you actually use multicast for your service?

Observer Ando: It is simply stated that multicast is used as well as other means. I do not know if the users are actually transmitting multicast traffic.

Deputy-Chair Nakagawa: Is the direction of the antenna the same as that for satellite broadcasting? Have you discussed the issue of communications and broadcasting convergence?

Observer Ando: The antenna direction differs from that of satellite broadcasting. Satellites used for broadcasting are JSAT-3 and JSAT-4. As most repeaters are fully used for broadcasting signals, there is insufficient capacity left for IP. Downlink technical standards are the same as those for broadcasting, so it is technically possible to partly use IP and transmit the remaining part as broadcasting. However, the reality is that broadcasting signals are dominant—therefore, the same satellite or antenna cannot be used.

Yashima: What is the maximum capacity of the system?

Observer Ando: There is no limit in terms of the number of registered users. I think the actual capacity at 69.5 Mbps may depend on the user traffic. As a control system, it does not impose a limit.

Yashima: Is it correct that the number of users 69.5 Mbps will be allocated is to be decided by the traffic situation?

Observer Ando: That is correct. As it is a best-effort service, the capacity allocated to a user can ultimately be some kbps with a simple calculation.

Yashima: Is it possible to share 10 Mbps among several people in a remote island?

Observer Ando: Actually, on Ie Island of Okinawa or Ogasawara Island, a satellite network is connected to the network on the island.

Yashima: What is the service charge?

Observer Ando: The charge for the standard plan is about 200,000 yen per month, while the light plan is 100,000 yen.

Yashima: Why do you use BCH as the outer code in the coding method for transmission parameters?

Observer Ando: We are following the DVB-S2 definitions, including the coding method.

Chair Hatori: For what type of occasions is the portable type used?

Observer Ando: One example is an experimental use as a kind of intranet for telemetry sites to access a hospital.

Yamato: What is the cost of the parabolic antenna?

Observer Ando: The cost for the antenna and IDU is 500,000 yen if purchased, or 25,000 yen

per month if rented.

Yamato: I think (physical lines of) repeaters are limited. As you said that there is no limit in the number of registered units, I assume that the sooner you use it, the better. Is that correct?

Observer Ando: From the sales perspective, if one repeater reaches its traffic capacity, a neighboring repeater can be used. The repeater performance will not deteriorate drastically.

(2) Global standardization trends of broadband technology

 - Member Hashimoto gave a presentation on Reference 4-4. Observer Nagano from MRI made a presentation on Reference 4-5. No questions and answers were made on these presentations.

(3) Draft Summary of the Study Group Report

 The secretariat explained Reference 4-6. Subsequently, the following opinions were voiced:

Ihori: What needs to be considered in regard to the issues listed in Chapter 11 is the perspective of the communication equipment users. For example, local governments are in two positions: providers who offer services for residents by using ICT, and corporate end-users who use ICT to fulfill their tasks. Depending on the position, the issues they need to solve vary.

There are instances where production of communication equipment, although not so obsolete, was discontinued and, consequently, maintenance service is not sufficiently provided. I think technical standards in regard to the future or continued support for communication equipment is needed. Reportedly, the cable modems that are in current use are not compatible with VLAN. There may be cases where people have initially adopted cable modems without thinking about future VLAN use, but later face the necessity of using VLAN and suddenly need to replace their communication equipment in a rush.

Use of a wide variety of communication equipment for various purposes is important, but scalability should be clarified from the perspective of the users of communication technologies or equipment in order to enable users to make an appropriate choice. I would like you to consider covering that point under the three issues.

Chair Hatori: Good point. From the user perspective, communication equipment provided by carriers for conventional communication services is definitely owned by individuals. However, in the case of current IP-based networks, very crucial devices, such as servers, are owned by individuals but incorporated in the networks.

Hashimoto: This is a rather minor matter, but regarding the title of Chapter 2, "Overseas

Development/Implementation Trends of Broadband Technology," "overseas" seems to exclude Japan. Japan's proactive commitment to standardization efforts under the leadership of MIC must be reflected in the title of Chapter 2. A possible alternative is "in countries and standardization institutions."

Secretariat: We would like the members to re-examine the draft summary of the report and provide additional comments by Monday, April 2, so that the comments as well as the opinions voiced today may be reflected in the draft report.

[References distributed]

Reference 4-1: Broadband in Ichikawa City

Reference 4-2: Technical Trends of DSL

Reference 4-3: Outline of SPACE IP Service

Reference 4-4: Standardization Trends of Broadband Technology

Reference 4-5: Overseas Development/Implementation Trends of Broadband Technology

Reference 4-6: Draft Summary of Report from the Study Group on Establishing Usage Environment for Next-Generation Broadband Technology