Meeting of the Study Group on Sophistication of Emergency Telecommunications—2nd Meeting Summary of Minutes

1. Date and Time

Friday, December 7, 2007; 2:00 to 3:50 p.m.

2. Location

Special Conference Room No. 1, 8th floor, MIC

3. Attendees (honorifics omitted)

(1) Sub-Council Members

Hitoshi Aida (chair), Shingo Omori, Hideo Okinaka, Yoshifumi Kato (represented by Hiroyuki Mochiki), Eiji Saida (represented by Takeo Kato), Shinichiro Sakata, Sadahiro Sato (represented by Masayuki Okubo), Yoshiyuki Sukemune, Nobuko Takahashi, Noriyuki Tsuchimori, Kiyoshi Tokuhiro (represented by Michio Fujiwara), Isao Nakamura (sub-chair), Yuichiro Nishio, Hiroki Hirasawa, Kensuke Fukuda, Shunzo Yamaguchi (represented by Hiroyuki Okuma), Masaki Yokoi, Tatsuhisa Yoshimura, Makoto Yoshimuro

(2) Observers

Tatsuo Nakafushi (Cabinet Secretariat), Yutaka Shibuya (Metropolitan Police Department), Makoto Abe (Metropolitan Police Department), Kenichi Saito (Metropolitan Police Department), Yoshinari Tanaka (represented by Hisaya Sakurai) (Fire and Disaster Management Agency), Hideyuki Ashiya (Ministry of Land, Infrastructure, Transport and Tourism), Masanori Takahashi (Meteorological Agency), Hiroyuki Fujimoto (Coast Guard), Takashi Yoshida (Ministry of Defense)

(3) MIC Representatives

Suzuki (Vice-Minister for Policy Coordination), Takeuchi (Director-General, Telecommunications Business Department), Takeuchi (Director, Telecommunication Systems Division), Hishinuma (Head, Security and Reliability Countermeasures Office), Yamashita (Deputy Director, Telecommunication Systems Division), Sugiyama (Chief of Emergency Telecommunications, Public Safety Radio Communications Office), Watanabe (Head, Telecommunication Systems Division)

4. Subjects

(1) Subjects to be Discussed

(2) Presentations

(3) Others

5. Meeting Summary

○ The Secretariat described the organization of the study group meetings based on "Summary of Holding a Meeting of the 'Study Group on Sophistication of Emergency Telecommunications' (Proposed Amendment)" (Reference 2-1), after which the members approved organizing them in such manner.

[Subjects to be Discussed]

○ The Secretariat described the subjects to be discussed based on "Points to Review on Sophistication of Emergency Telecommunications (Proposal)" (Reference 2-2) and "'Questionnaire on Sophistication of Emergency Telecommunications' at the 'ICT Forum for Security and Safety'" (Reference 2-3), after which the members approved the subjects.

○ Omori (Chair of the Planning Working Group of the ICT Forum for Security and Safety) explained about the forum.

○ In response to the indication that the subject area of the Study Group on Sophistication of Emergency Telecommunications was not clearly defined in References 2-2 and 2-3 at the last meeting, Chair Aida explained that the Secretariat had submitted the subjects to be reviewed and the results of existing questionnaires; that these matters would not be discussed here, but they would serve as the basis for future presentations; and that the points under discussion in Reference 2-2 should be organized during the latter half of the study group discussions.

○ There were no remarks in the question-and-answer session.

Additional References for the Last Presentation

○ Yoshimura (Nippon Telegraph and Telephone East Corporation) described the acquisition of power during an outage, which was pointed out in the last discussion, based on "Power Feeding and Power Outage Measures for Voice Communication Services" (Reference 2-4).

○ The following is the summary of the question-and-answer session.

- What is the backup power for use during outages at the other operators? It is not easy for users to determine the appropriate type and capacity of UPS for telecommunication devices. NTT East has recommended UPS's. What about the other operators?
- KDDI: For the analog lines, similar to NTT East, the metal line (Metalplus) service supplies power from the telephone office. For the optical lines, the telephone devices operate on

commercial power supplies. The service guide states that if the power to the customer equipment is cut, the service becomes unavailable, and recommends that the customers purchase a UPS to be prepared for power outages. The company's website shows recommended UPS's.

- SoftBank: Similar to NTT East and KDDI, the metal line (Otoku Line) service supplies power from the telephone office, and the optical line service becomes unavailable during power outage. The company recommends that the customers prepare a UPS for operation during outages. Recommended UPS for telephone devices exist, but the company advises the users to purchase a UPS that is appropriate for their specific needs and capacity requirements.
- K-opticom: The company provides only an optical line service, and its website recommends that customers purchase a UPS at a computer retailer to be prepared for power outage.
- It is important to set up emergency power supply measures for optical telephones. I know it is difficult to obligate users to purchase UPS's due to economical reasons, but isn't it impossible to think of an appropriate provision for the age of optical IP telephony?
- For the backup power for home telecommunication equipment, I think it would be better to continue the discussion in this study group for as long as possible. This thought is based on the operator findings regarding power backup with a UPS or dry cells and on the reports from CIAJ on the backup support for telephone terminals, considering the trend of optical telephony.
- There is an issue of whether whatever provides backup power for all home electric appliances including telecommunication devices is within the scope of this study group. I hope this issue will be discussed in an appropriate forum.
- A UPS has several outlets so that all telecommunication devices can be connected. However, some users install ONU and VoIP devices with a telephone base unit and the handsets in different rooms, in which it is difficult to provide backup power to all of them with a single UPS. From this viewpoint, it would be necessary to consider backup power for all home electric appliances as a whole.
- In case of multi-function telephones such as a cordless one with answering and fax capabilities, it is not easy to determine which functions should be maintained during power outages, and which should be supplied by the operator, user, or terminal manufacturer.
- Considering a power outage caused by an earthquake, a terminal that operates without utility power supply is essential. However, many consumers tend to be fascinated with abundant features. Educational campaigns are also important.
- Of about 20 models from NTT East, nine analog and three ISDN models operate on power

from the telephone office. For an answering phone, the telephone capability works on the power from the phone line. A telephone with fax capability is power-hungry, so that it is impossible to use it on line power.

- Some fax machines have a socket to which a separate telephone can be connected in case of power outage.
- Not all fax telephones refuse to work during outages. On some older models, the telephone operates on line power.
- No comprehensive investigation has been conducted on support for operation on phone line power. We asked some companies, but the answers are that almost no telephones with fax capability work on phone line power, and for other telephones, some provide support and some do not.
- We expect your report on the emergency backup power for terminal devices in the next meeting.
- The UPS supply time of 30 minutes recommended by NTT East is determined by the UPS specifications, not by the recovery time of the exchange.
- The auxiliary power supply at a mobile phone base station provides backup power for about three hours. The backup time is not stipulated in the Regulations for Telecommunications Facilities for Telecommunications Business. It depends on the size of the base station.

[Presentation 1]

○ Sub-chair Nakamura of Toyo University delivered a presentation based on “Information Needs during a Disaster -- In relation to emergency telecommunications” (Reference 2-5).

○ The following is the summary of the question-and-answer session.

- “Mobile phone mail service is easier to connect” is stated on page 3. I think one reason is the separation of voice and packets by the mobile operators. What are the situations in each company?
- NTT DoCoMo: Voice and packets are separated and can be controlled separately. The mova service has long supported separation. FOMA recently started support.
- KDDI: We have the CDMA 1X and CDMA 1X WIN services. In CDMA 1X WIN, voice and data use different carriers, in which separate congestion control is possible. Since CDMA 1X WIN has a broad bandwidth, no congestion control is conducted in most cases. The congestion control itself is performed by the network, which randomly accepts connection requests.
- SoftBank: We have no information at hand.

Presentation 2

○ The Metropolitan Police Department delivered a presentation based on “On Command Control” (Reference 2-6-1) and “Police Telecommunication” (Reference 2-6-2).

○ The following is the summary of the question-and-answer session.

- If it is necessary to place emergency calls to both police (“110” in Japan) and ambulance (“119” in Japan) in a traffic accident, etc., the ambulance is called first to save the injured. The police and ambulance emergency call reception operators can talk with each other once the jurisdiction area of the caller is identified.

[Presentation 3]

○ Omori (National Institute of Information and Communications Technology) delivered a presentation based on “Introduction of Studies on the Security of Emergency Telecommunication during a Disaster” (Reference 2-7).

○ The following is the summary of the question-and-answer session.

- The loss probability model assumes a loss system (if the line is busy, the system gives up). It does not consider to the level where the loss probability rises due to repeated calls.
- For repeated calls, we are studying a method of controlling calls based on a repeated call history. In this method, when a caller who had previously connected tries another connection, the probability of connection is reduced by fifty percent.
- If the caller disconnects within 10 to 15 seconds, isn’t it possible to use a delay system (that connects calls one-by-one by holding them until lines are available).
- There is a limit to reducing the communication time. Isn’t it difficult to shorten the limit to less than 30 seconds? It is necessary to suitably combine communication time limit and call control.

[Others]

○ For the overall facilitation of the discussion, there were the following remarks.

- In addition to the members of this study group, we would like to hear from elevator companies, electric power utility companies, and the organizations and study groups that are working toward realization of information-oriented communities.
- For emergency calls, we are expecting presentations by the Coast Guard and the Fire and Disaster Management Agency, as well as the Metropolitan Police Department.
- The Tokyo Metropolitan Government has developed a system for sending emergency messages to hearing-impaired people by email. The Japanese Government is also planning to assist in the spread of “Furusato Keitai” for the elderly, in which local governments and NPOs provide community services. I hope we can hear about the measures for sending emergency

calls to the disadvantaged.

- As the number of foreign nationals grows, we will need to establish a system for accepting emergency calls in foreign languages.