

**Meeting of the Study Group on Sophistication of Emergency Telecommunications—1st
Meeting Summary of Minutes**

1. Date and Time

Thursday, November 22, 2007; 2:00 to 3:50 p.m.

2. Location

Conference Room 401, 4th floor, MIC

3. Attendees (honorifics omitted)

(1) Sub-Council Members

Hitoshi Aida (chair), Shingo Omori (represented by Kazunori Okada), Hideo Okinaka, Yoshifumi Kato, Eiji Saida (represented by Hirofumi Watanabe), Shinichiro Sakata, Sadahiro Sato, Yoshiyuki Sukemune, Nobuko Takahashi, Noriyuki Tsuchimori, Kiyoshi Tokuhiko, Isao Nakamura (sub-chair), Yuichiro Nishio, Hiroki Hirasawa (represented by So Ono), Kensuke Fukuda, Shunzo Yamaguchi (represented by Mitsuo Yoshida), Tatsuhisa Yoshimura, Makoto Yoshimuro

(2) Observers

Tatsuo Nakafushi (Cabinet Secretariat), Hiroshi Sonoda (Cabinet Office), Yutaka Shibuya (Metropolitan Police Department), Makoto Abe (Metropolitan Police Department), Kenichi Saito (represented by Masaya Hashimoto) (Metropolitan Police Department), Yoshinari Tanaka (Fire and Disaster Management Agency), Hideyuki Ashiya (Ministry of Land, Infrastructure, Transport and Tourism), Masanori Takahashi (represented by Kazuhide Akaishi) (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), Nakamura (Deputy Director, Land Mobile Communications Division), Sugiyama (Chief of Emergency Telecommunications, Public Safety Radio Communications Office), Watanabe (Head, Telecommunication Systems Division)

4. Subjects

- (1) Procedure of Study Group Meetings
- (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’ (Proposal)” (Reference 1-1) and “On Open Meeting of the Study Group (Proposal)” (Reference 1-2), after which the members approved organizing them in such manner.
- Hitoshi Aida (Professor, Graduate School of The University of Tokyo) was elected as the chair.
- Isao Nakamura (Professor, Toyo University) was elected as the sub-chair.

[Procedure of Study Group Meetings]

- The Secretariat described the steering of the study group meetings based on “On ‘Study Group on Sophistication of Emergency Telecommunications’” (Reference 1-3).
- The following is the summary of the question-and-answer session.
 - Today telecommunication carriers will deliver presentations. Considering the characteristics of emergency telecommunications, it is important to clarify the issues and needs of the users.
 - To analyze the issues and to acquire the needs, it is significant to conduct questionnaires and interviews at the organizations that use emergency communications, and to hear from those that are not designated organizations of emergency communications but do have needs for emergency communications.
 - For the requests for additional priority telephone lines, the needs could be significant or considerably high in some cases. In elevators, for example, the telecommunication needs could go beyond between the headquarters and the staff concerned. Maintaining a balance between the demand and the response is required, because the telecommunication capacity of the carriers is limited.

[Presentation 1]

- Yoshimura (Nippon Telegraph and Telephone East Corporation) delivered a presentation on emergency telecommunication based on the “Current Status of Emergency Telecommunication

Security” (Reference 1-4).

- The following is the summary of the question-and-answer session.
- Our target is to provide 10% of the subscribers with emergency priority telephone service. This percentage has been determined by the capacity of our facility rather than by the number of applications for the service. If it exceeds 10%, it is possible that we will not be able to carry priority calls.
- With the NGN, video distribution as well as telephone service use common network resources. Therefore, each type of communication is controlled according its priority class, with the telephone service given the first priority. The resource allocation for each service type can be changed with flexibility as circumstances demand.
- The analog telephone service has a special feature called “ring back.” In an emergency call, after the caller terminates a call and puts the handset down, the connection is maintained for a while so that the staff at the operating room can ring the caller back.
- This function is stipulated in the Regulations for Telecommunications Facilities for Telecommunications Business (Article 35-2). The Regulations (Article 35-8) also requires the IP telephone service to have a similar function.
- The Emergency Messaging (Saigai-yo Dengon Dial) service enables the users to exchange messages with their telephone numbers as key codes. It does not certify that the message was recorded by the person who owns the telephone line with the specified key code.
- Since the Optical IP Telephony (Hikari Denwa) service started as a cheaper and simpler alternative to regular telephony, it has not provided an emergency priority telephone service. However, as the number of users has grown, the NGN must be equipped with robust emergency priority telephony. To implement this feature, a mechanism for transferring emergency calls between operators is also required and it is now time to begin considering it. As an operator, we hope that forums like this promote and support implementation efforts.

[Presentation 2]

- Okinaka (KDDI Corporation) delivered a presentation on emergency telecommunication based on the “Current Status and Issues of Emergency Telecommunication” (Reference 1-5).
- The following is the summary of the question-and-answer session.
- For the notification of location information in an emergency call from a third-generation mobile phone, if the phone can receive the signals from four or more satellites, the operator sends the location determined by the GPS to the called party. If the phone can receive the signals from three or fewer satellites, the operator sends the location determined by the GPS

and surrounding base stations. If the phone can see no satellites, the operator sends the location information based on only the base stations.

- Currently, packets and voice are separately controlled and managed.
- If the subscriber's premises suffer a power failure, optical service becomes unavailable because no power is fed from the telephone office. The Metalplus service can receive power from the office because it uses a copper telephone line, but the power fed through the telephone line is not sufficient to operate modern telephones.
- In a massive disaster, a power failure may occur and the optical telephone service cannot be used. With the spread of IP-based telephone services, power feeding will become a serious problem.
- Since the terminal facility for the fixed telephone system does not belong to the network (or the operator), it is difficult to ensure that the subscribers provide backup batteries.
- The NTT Group lends an uninterruptible power supply (UPS). I hope it will be available at a lower fee.
- Modern telephone terminals are complicated, and most of them do not function without a utility power supply. I think that it will become a habit to have a UPS.
- As ONU, router, and VoIP operate on utility power, it is no use to only back up the telephone device. If we back up all devices, we need larger batteries, which is not realistic. We need to think of how we should back up all household electrical appliances including communication devices.
- During the era of traditional single-function telephones, the total power consumption was clearly specified. However, as the users buy various multi-functional terminals, it is difficult to estimate how much battery capacity is required.

[Other Topics]

- For the overall facilitation of the discussion, the following remarks were made.
- For the users, what will be made available by sophistication is more important than the mechanism of sophistication.
- For leased lines, if for example the cable connection to a seismometer is cut, the observation is interrupted. The attention is focused on how to prevent cable disconnection and how to back up in case of disconnection.
- Considering national security, it is important to ensure emergency communications at the time of terrorism or a military attack. If a civil aircraft is hijacked, for example, it is impossible to

communicate with VIPs because there is no means of ground-to-aircraft communication, and it could be difficult for the passengers in the hijacked plane to attempt any means of communication.

- Some electric power utility companies and railway companies have their own telecommunication networks. However, they use general carrier networks to reach external organizations and users. It is necessary to allocate roles and burdens among the parties concerned.
- There are various ways to realize a priority telephone service. It is important to determine how to implement the service by estimating the needs and considering the technological feasibility. Since priority handling differs among operators, the operators are expected to deliver presentations from the viewpoint of seeking the best practices.