

**Meeting of the Study Group on Sophistication of Emergency Telecommunications—5th  
Meeting Summary of Minutes**

1. Date and Time

Tuesday, February 12, 2008; 4:00 to 6:15 p.m.

2. Location

MIC Conference Room No. 1, 1st floor, Low-rise Bldg., MIC

3. Attendees (honorifics omitted)

(1) Sub-Council Members

Hitoshi Aida (chair), Shingo Omori (represented by Kazunori Okada), Hideo Okinaka (represented by Yasunao Misawa), Yoshifumi Kato, Eiji Saida (represented by Norio Ikeda), Shinichiro Sakata (represented by Akira Uemura), Sadahiro Sato, Kishie Shigekawa, Yoshiyuki Sukemune, Nobuko Takahashi, Noriyuki Tsuchimori, Kiyoshi Tokuhiko, Isao Nakamura (sub-chair), Yuichiro Nishio, Hiroki Hirasawa (represented by Masahiro Sada), Kensuke Fukuda, Shunzo Yamaguchi (represented by Mitsuo Yoshida), Masaki Yokoi, Tatsuhisa Yoshimura (represented by Yukio Toho), Makoto Yoshimuro

(2) Observers

Tatsuo Nakafushi (Cabinet Secretariat), Hiroshi Sonoda (Cabinet Office), 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 (represented by Akira Toyooka) (Ministry of Defense)

(3) Representatives Invited to the Hearing Session

Yoshiaki Iida (Japan Automobile Federation), Kaoru Kinoshita (Central Japan Railway Company), Toshimi Kumanbara (Federation of Electric Power Companies), Shinobu Yoshihara (Japan Elevator Association)

(4) MIC Representatives

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), Murakami (Deputy Director, Public Safety Radio Communications Office), Watanabe (Head, Telecommunication Systems Division)

#### 4. Subjects

- (1) Presentations
- (2) Questionnaire Results
- (3) Points of Discussion
- (4) Others

#### 5. Meeting Summary

##### [Presentation 1]

- Nishio (JSAT) delivered a presentation based on “Satellite Communications and Emergency Telecommunications” (Reference 5-1).
- The following is the summary of the question-and-answer session.
  - How much time is a satellite unavailable due to heavy rains and snowfalls?
  - > 99% or higher availability is expected in the design, but the actual value depends on the rainfall probability of each location, etc.
  - > If you have more detailed data, we would appreciate it if you could submit it to the study group.

##### [Presentation 2]

- The organizations that wish to be designated as emergency telecommunications organizations delivered presentations.
  - Yoshihara (Japan Elevator Association (EV Association)) delivered a presentation based on “Necessity of Emergency Priority Telephones” (Reference 5-2).
  - Iida (Japan Automobile Federation (JAF)) delivered a presentation based on “Telecommunications in Emergency Rescue Operations by JAF” (Reference 5-3).
  - Kumanbara (Federation of Electric Power Companies) delivered a presentation based on “The Current Status of the Communication Network and Emergency Contact System of Electric Power Companies” (Reference 5-4).
  - Kinoshita (Central Japan Railway Company (JR Central)) delivered a presentation based on “Use of Priority Phones during a Massive Disaster” (Reference 5-5).
- The following is the summary of the question-and-answer session.

- Emergency priority phones should be used by the public institutions designated under the Disaster Countermeasures Basic Act, etc. to save people's lives. They are not prepared for use to smooth the continuation or recovery of business.
- If we have too many emergency priority phones, they might not be able to connect in an emergency. The number of assignments is limited. Even some designated organizations do not have sufficient assignments, with some ambulances unassigned. Selection and concentration always require considering what is important. If we are to make new assignments, it might even be necessary to cancel some of the current assignments.
- Does the EV Association request one emergency priority phone for each elevator?
  - > EV Association: We will use them for communications between the maintenance companies and recovery staff. We will not assign them to elevators. For the number of assignments, in Tokyo where we are a designated public institution, about 300 lines are required, and a total of about 2,000 lines nationwide.
- What types of lines are used for communication from inside an elevator car to the maintenance company?
  - > EV Association: We used a general fixed telephone line or PHS line. Pressing down the button of the intercom dials a number and connects.
- In case of an earthquake beneath the metropolitan area, pressing the intercom button notifies the building superintendent, but it might not be able to call the maintenance company due to congestion. Even if the maintenance companies have priority phones, they could not receive phone calls. How would you solve this problem?
  - > EV Association: In the 2005 Northwest Chiba Earthquake, trapped calls and abnormality signals reached the maintenance companies through telephone lines. We simulated the distribution of calling areas. The maintenance companies require priority phones to contact the recovery staff so that staff members can be effectively dispatched to each area.
- > In the Northwest Chiba Earthquake, trapped people could make emergency contact because congestion occurred in the mobile phone network but not in fixed phones. In the 2007 Miyagi Earthquake and other cases, the traffic surged a minute after the occurrence of the quake and the exchanges automatically controlled calls. When an earthquake beneath the metropolitan area occurs, calls made immediately after the beginning of a tremor may be connected, but after the tremor ceases it may be much more difficult to connect. The discussion on installing priority phones in maintenance companies may be meaningful, but those priority phones might not work unless the upstream section (connections between the elevators and maintenance

companies) is secured.

-> EV Association: They want to instruct each recovery staff member where to go through priority telephones. The instruction can be one-way. Human-wave tactics is very important. It is also necessary to rescue trapped people in cooperation with fire departments and building administrators.

- Lifeline companies are designated as priority telephone companies. There is an issue of how many should be assigned to their subcontractors. The assignment of priority telephones is limited. A proper discussion is required on the extent of coverage.

- I think the demand of the EV Association can be satisfied with customer owned and maintained (COAM) equipment. For example, MCA claims robustness against disasters. It would be better to build COAM rather than to depend on the network of the telecommunication operators.

-> EV Association: For COAM, wireless and satellite systems might be candidates, but they are costly. In addition, recovery staff moves by foot, bike, or motorbike. The current MCA devices are designed to be mounted in cars and are poor in portability. If their size is reduced enough to make them portable, they can be candidates for deployment.

- JAF seems to use MCA. Is it not sufficient with COAM?

-> JAF: We use MCA between the command control and rescue vehicles. An antenna tower collapsed during a typhoon in the past, but, in general, we've had no disconnection due to a disaster. However, we need priority telephones to contact disaster countermeasure headquarters.

- JR Central requests the assignment of priority telephones for its subcontractors. If the subcontractors change every year, it will be necessary to reassign them. Is it possible to objectively specify the extent of subcontractors?

-> JR Central: The number of companies that have technologies specific to railways is limited in Japan. Several companies make contracts directly with JR Central, which do not change greatly. It is therefore relatively easy to specify the targets of assignment by limiting them to those with direct contracts.

○ Chair Aida asked the members to submit any other questions to the Secretariat.

[Questionnaire Results]

○ Yokoi (Nomura Research Institute) described the results of the questionnaire proposed by the Secretariat in the third meeting based on "Results of a Questionnaire on Organizations That Use Emergency Telecommunications" (Reference 5-6).

- The following is the summary of the question-and-answer session.
- Is the call time limit on page 13, on which discussions took place, used for securing calls through priority telephones rather than general calls?
- > The questionnaire didn't specifically state such, just that the purpose is to reduce the hold time so that more people can use them.

[Points of Discussion]

- The Secretariat delivered a presentation based on “Points to Review on Sophistication of Emergency Telecommunications (Status of Discussion)” (Reference 5-7) and “Points of Discussion on Sophistication of Emergency Telecommunications (Proposal)” (Reference 5-8).
- There were no remarks on Reference 5-7.
- Chair Aida indicated that Reference 5-8 needed more discussion, that it was not an issue that had to be concluded that day, and that any opinions submitted to the Secretariat would be reflected in the next reference.
- The following is the summary of the question-and-answer session on Reference 5-8.
- Page 42 describes five categories of NGN, but they include test calls and do not seem to intend priority processing. What is the meaning of these categories?
- > I've heard that NTT, KDDI, and SoftBank conducted a trial NGN operation using the table at the bottom of page 42. This table does not mean a growth in type priorities in NGN. It indicates that NGN can implement a mechanism similar to a fixed circuit.
- There is a proposal to set a call time limit so that more people can use the lines. How effective is it and what mechanism is required? According to the reference on page 28, the number of calls increases for the excess processing power generated by limiting call time. In actual fact, how much would it be?
- I would like to point out that an earlier chapter describes services other than voice.
- The prioritized handling of data transmission services may target emails. However, email involves the Internet protocol, which cannot be implemented by simply modifying the network. If we were to implement the modification, we would have to deal with anti-spam measures and calls from overseas, which could be difficult to solve.
- For emails, there are global organizations like IETF as well as national groups that are conducting reviews. Reaching an international consensus is not an easy task. We must consider this matter from a broad view.
- Page 52 recommends installing priority telephones to reduce the burden of the teachers (who help care for the victims evacuated to the school gymnasium). However, in the case of the

Great Hanshin (Kobe) Earthquake, when people start taking care of victims at shelters, congestion had already ceased and regular telephones could be used without any problem. The target phase seems to differ for each assumption. As a precondition, it would be necessary to clarify which types of communications are important and need to be secured against congestion, and then to discuss the specifics concerning those types.

-> The story of shelters is not actually about congestion. In the case of the 2004 Chuetsu Earthquake, staff at the city office tried to contact the gymnasium, but there was no phone in the gymnasium, so they called the faculty room and asked a teacher to send a message to the gymnasium. They actually want a telephone installed in the gymnasium, not necessarily an emergency priority phone.

-> A mobile phone is adequate for that purpose. It is not necessary to secure emergency telecommunications.

- The time axis is also an important concept. Each party has a different idea regarding important telecommunications. I think we should clarify the meaning of important telecommunications by using the concepts of Business-to-Business (B-to-B), Business-to-Consumer (B-to-C), Consumer-to-Consumer (C-to-C), and the time axis.

-> The ITU also divides important telecommunications into three categories: C-to-B (e.g., emergency calls), B-to-B (e.g., emergency priority telephones), and B-to-C (e.g., earthquake early warning distribution).

- Is the report of this study group supposed to be suggestions or a summary of technology and backgrounds?

-> As this is a study group, we have to summarize the current situation, but for the items on which a consensus has been reached, we will give suggestions. For the other items, we will describe both opinions.

- What about the issue of the lack of a method to acquire addresses with reliability in case of emergency calls that we discussed before? If we leave this problem unsolved, no system will work.

-> Section 4 (2) in Contents corresponds to the address acquisition issue, but we didn't have enough time to reach a conclusion. We are planning to mention it in the next meeting.