Study Group on Advanced Use of Internet with IPv6—1st Meeting
Summary of Minutes

1. Date and Time

Friday, February 27, 2009; 10:00–12:00

2. Location

Conference Rooms 1 to 3, 2nd basement floor, Ministry of Internal Affairs and Communications

3. Attendees (honorifics omitted)

(1) Chair

Tadao Saito (University of Tokyo)

(2) Study Group Members

Izumi Aizu (Institute for InfoSocionomics, Tama University), Takashi Arano (Japan Network Information Center), Takanori Ida (Graduate School, Kyoto University), Keiichi Imai (Telecom Services Association), Kazuhito Kumada (Japan Data Communications Association), Toru Takahashi (Internet Association Japan), Toshiaki Tateishi (Japan Internet Providers Association), Osamu Nakamura (Keio University), Masataka Nakamura (Japan Cable Laboratories; Proxy: Hirade), Toshihiro Matsumura (Institute of Social Science, University of Tokyo), Kiyoshi Yoshida (Japan Approvals Institute for Telecommunications Equipment; Proxy: Terada)

(3) MIC Representatives

Sakurai (Director-General, Telecommunications Bureau), Takeuchi (Director-General, Telecommunications Business Department), Ando (Director, General Affairs Division), Nagashio (Director, Computer Communications Division), Yagishima (Senior Planning Officer, Computer Communications Division), Buma (Deputy-Director, Computer Communications Division), Mashiko (Specialist, Computer Communications Division), Ukai (Head, Computer Communications Division)

4. Agenda

(1) Measures to address the Internet IPv4 address depletion issue

(2) Background of the study and issues, etc.

(3) Presentations by study group members

(i) Recent state of IPv4 address allocation and establishment of the taskforce to address the IPv4 address depletion issue

(ii) Survey of IPv6 penetration

(4) General discussion

(5) Establishment of the WG

(6) Others

5. Summary of the Meeting

[Outline of study group meetings and disclosure of study group meetings]

- The secretariat explained "Draft outline of meetings of the Study Group on Advanced Use of Internet with IPv6" (Reference 1-1-1) and "Draft disclosure of the study group meetings" (Reference 1-1-2), and they were approved.

[Appointment of chair]

- Saito (member) was appointed chair. Chair Saito then designated Kokuryo (member) to be vice chair.

[Background of the study and issues]

- The secretariat explained "Measures to address the Internet IPv4 address depletion issue" (Reference 1-2) and "Background of the study and issues, etc." (Reference 1-3).

[Establishment of the taskforce to address the IPv4 address depletion issue]

- Arano (member) explained, "Recent situation of IPv4 address allocation and establishment of the taskforce to address the IPv4 address depletion issue" (Reference 1-4).

[Survey of IPv6 penetration]

- Takahashi (member) explained "Survey of the IPv6 penetration" (Reference 1-5).

[General discussion]

- I heard that there are many IPv4 addresses in the USA that were assigned at the dawn of the Internet Age. I want to see the data that shows the situation between countries, for example, that there are many IPv4 addresses assigned for the USA and there is a shortage of IPv4 addresses in other countries, such as China.

- A conflict in interests (for example, between carriers promoting NGN and carriers not

promoting NGN) is emerging, which may lead to a prisoners' dilemma and/or failure in cooperation.

- It is important to look at the matter in terms of merit from the viewpoint of users, and it is necessary to think of how to maximize the benefits to all of society. Attempts must be made to minimize social costs and maximize social benefits.
- In order to prevent the Galapagos effect, how Japan can establish its standards as global standards is considered most important in the process of IPv6 development and the global deployment of NGN.
- If the timing of the shift to IPv6 depends on business judgment, a kind of a moral hazard will be created, and there will be some free riders in a certain sense in such a case. This kind of problem will be avoided in a model whereby charges are imposed for the possession of IP addresses and charges increase in pace with the level of IP address depletion.
- Considering that it is more advantageous and less expensive to obtain more IPv4 addresses ahead of others, the shift to IPv6 will not be promoted if it is left to the carriers' independent judgment. In this context, it is useful and well justifiable for the government to clearly show the action plan.
- In the case of JPNIC, management fees are charged according to the number of addresses possessed, but the maximum charge is about 4 million yen. This system therefore does not work well as a mechanism to limit excessive possession. There is another problem in that the addresses assigned before 1995 are not reflected in the calculation of management fees because such addresses cannot be confirmed.
- As for secondary transactions of IPv4 addresses, global discussion is flowing in the direction of allowing secondary transactions for properly managing information on IP address owners.
- The depletion of IPv4 addresses will have an impact on upper layers (such as cloud computing business). It is necessary to consider the degree of lost opportunities caused by the delay in the shift to IPv6.
- It will be important to express an opinion representing user benefits.
- I desire that a discussion be held to help smoothly promote the interconnection between IPv6 and IPv4 domains.
- It will be necessary to analyze and study the fact that, while AAAA queries (DNS queries for IPv6 addresses) account for 8%, the actual IPv6 traffic is less than 1%.
- In my opinion, the Internet market cannot be maximized unless IPv6 is promoted now. It will be necessary to show the public a specific model of the shift to IPv6.

[Establishment of a working group]

- The secretariat explained, “Draft establishment of the WG” (Reference 1-6) and it was approved.
- Chair Saito designated Ezaki (member) to chair the working group.

[Others]

- The information on the next meeting will be announced separately.