Global Standardization Activities

Results of ITU-T WTSA-04

Yukio Hiramatsu and Hideyuki Iwata†

Abstract

This article reports on WTSA-04, which was held October 5–12, 2004 in Florianópolis, Brazil. The World Telecommunication Standardization Assembly (WTSA) is the highest level decision-making assembly of ITU-T (International Telecommunication Union Telecommunication Standardization Sector). Japan sent 41 delegates to the assembly from the Ministry of Internal Affairs and Communications and from private companies and achieved a good level of success.

1. Overview of WTSA-04

ITU-T (International Telecommunication Union Telecommunication Standardization Sector) holds its World Telecommunication Standardization Assembly (WTSA) once every four years to decide the organization for studies over the next four years, improvements in working methods, and so on. The organization includes the structure of Study Groups, allocation of Questions to Study Groups, and election of Study Group Chairmen and Vice Chairmen. WTSA-04 was held October 5–12, 2004 in Florianópolis, Brazil. The structure of the Assembly is shown in

Fig. 1. Only one representative from Japan, Yoichi Maeda of NTT, was elected as a committee leadership member for the assembly. He acted as Vice Chairman of Committee 3. The major issues contained in the agenda included the structure of the study on NGN (next-generation network) that will replace the existing telephone networks, enhancements of working methods, and issues related to the Internet. In particular, study group structure for the work on NGN did not reach consensus at the TSAG (Telecommunication Standardization Advisory Group) in July 2004 and was postponed until WSTA-04.
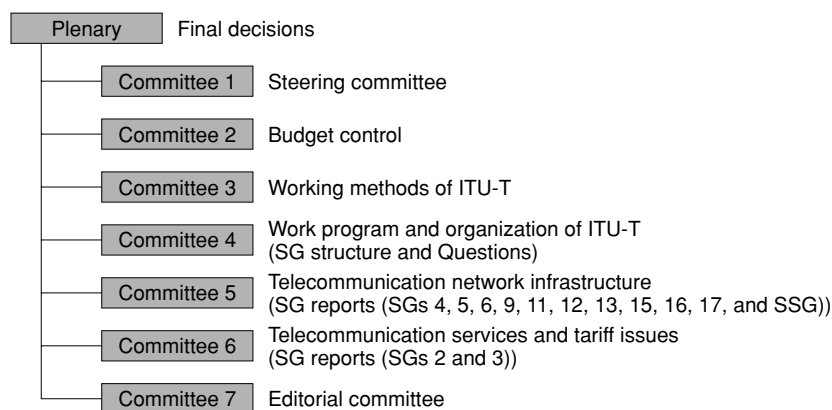

Fig. 1. Structure of WTSA-04.

† NTT Department III (R&D Strategy Department)
  Chiyoda-ku, Tokyo, 100-8116 Japan
  E-mail: h.iwata@hco.ntt.co.jp

2. Study group structure and allocation of Questions

2.1 Study structure for NGN

NGN is considered to be the most important study item for the next four-year study period (2005–2008). Although the July 2004 TSAG discussed the study structure for NGN in preparation for the draft proposals for WTSA-04, it failed to reach a conclusion [1]. At WTSA-04, there was a conflict of opinions between Europe, which argued for the merger of SG 13 and SG 11 (which had been studying architecture and signaling, respectively), and Asia and the U.S.A., which argued for continued separation of the two SGs and stronger coordination between related SGs. The end result was a compromise coordinated by Japan, which was finally approved unanimously.

- SG 13 was designated as the NGN-SG. In addition to NGN architecture and framework, it will also study signaling requirements in cooperation with SG 11.
- SG 13 will become the parent study group for the NGN Focus Group (NGN-FG) established before WTSA-04 and will determine the future of NGN-FG.
- SG 13 will develop a release plan for NGN-related Recommendations.
- SG 13 will manage coordination across study groups that are relevant to NGN, in particular with SGs 2, 11, and 19 for NGN core aspects and SGs 11 and 19 for the fixed and mobile convergence aspects.
- SG 11, like other SGs, will develop detailed Recommendations including those related to protocols based on the requirements developed by SG 13. SG 11 will continue to study signaling requirements and protocols.
- Within two years, TSAG will review the structure of relevant SGs and may decide upon further restructuring.

With this decision, it was announced to the world that ITU-T would strongly promote the study of NGN with SG 13 as the core study group on NGN.

2.2 Continuation of SG 2

There was also discussion about whether or not to keep SG 2, which had been studying a numbering plan and addressing and so on. In particular, NNAR (naming, numbering, addressing and routing) is recognized as one of the important Questions for the next study period. The U.S.A. argued that NNAR should be studied in the NGN-SG because it is closely related to the study of NGN, whereas the Arab countries argued that SG 2 should continue as a separate study group because NNAR also covers the study of regulatory matters. In the end, the arguments of the Arab countries were endorsed by the Assembly. Other SGs were as adopted at the previous TSAG meeting. Thus, the final SG structure is as shown in **Table 1**. It is not

Table 1. SG structure for the next study period (2005–2008).

SG2	Operational aspects of service provision, networks, and performance	
SG3	Tariff and accounting principles including related telecommunication economic and policy issues	
SG4	Telecommunication management	
SG5	Protection against electromagnetic environment effects	Note 1
SG6	Outside plant and related indoor installations	Note 1
SG9	Integrated broadband cable networks and television and sound transmission	Note 2
SG11	Signaling requirements and protocols	Note 3
SG12	Performance and quality of service	
SG13	Next generation networks	Note 3
SG15	Optical and other transport network infrastructures	
SG16	Multimedia terminals, systems, and applications	
SG17	Security, languages, and telecommunication software	
SG19	Mobile telecommunication networks	Note 3
TSAG	Telecommunication Standardization Advisory Group	

Note 1: As SG6 intends to expand its scope to indoor matters, SG5 and SG6 should be collocated whenever possible.

Note 2: Since future convergence between communications and broadcasting will make SG9 more relevant to other SGs (such as SG12 and SG16), SG9 should be collocated with other relevant SGs whenever possible.

Note 3: Since SGs 11, 13, and 19 need to cooperate, they should be collocated whenever possible.

very different from that of the previous study period (2001–2004) except that the mobility-related SG has become an ordinary SG, instead of an SSG (Special Study Group), that was given high flexibility in terms of developing new working methods by itself, and that some Questions have been moved or coordinated among SGs. Conversely, since it was recognized that there were a number of Questions that affect more than one SG, the Assembly recommended several collocated meetings (to be held at the same time and the same location) for some SGs.

3.   Working methods

3.1   Coordination among SGs

Study of NGN or security, which is of growing importance for ITU-T, cannot be done by a single SG, but requires project-oriented coordination among relevant SGs for a field of technology. Considering this, Japan and Australia had been proposing to TSAG the establishment of project groups or coordination groups. This resulted in three contributions to this WTSA as common proposals from APT (Asia Pacific Telecommunity). As the result of the discussions, the proposals were successfully adopted in the form of Resolution 45 entitled "Effective coordination of standardization work across study groups in ITU-T" and also reflected in the revised Resolution 22 specifying authorization for TSAG to act between WTSAs.

3.2   Vetos in Alternative Approval Process (AAP)

ITU-T has been seeking consensus in making various final decisions such as the approval of Recommendations. This differs from industrial forums and consortiums and is occasionally regarded as being the main reason for slow decision-making in ITU-T. This point was also discussed at WTSA-2000 where several countries supported the idea of sending Recommendations forward even when two or three countries objected, but this was not approved. At WTSA-04, similar proposals were submitted by APT, CEPT (European Conference of Postal and Telecommunications Administrations), and ATU (African Telecommunications Union), which resulted in a compromise being reached at the final plenary session under the leadership of the Assembly's Chairman. This contained the idea of a two-member-state veto instead of the traditional one-member-state veto for decisions made at the SG plenary in the Alternative Approval Process (AAP) for technical Recommendations. However, Syria and the U.S.A.

expressed their objection to this result after the Assembly by complaining that the decision process was unfair and unclear and that they would try to raise this issue again in future TSAG and ITU Council meetings.

3.3   Enhancement to appointment process of Chairmen and Vice Chairmen

Resolution 35 adopted at WTSA-2000 specified the appointment process for Chairman and Vice Chairmen of SGs and TSAG. In the past, there were cases where persons with no ITU-T experience were appointed just for honor and they stopped attending ITU-T during the study period and did not provide the expected services. To avoid such cases, CEPT submitted a contribution proposing an enhancement to the resolution so that it could only elect the required number of persons from among those having ITU-T experience and able to actually perform ITU-T work. This proposal was approved with some modifications requested by Japan and other countries and reflected in the revised Resolution 35.

3.4   Enhancement to SG working methods

Based on a proposal by TSAG held in July 2004 and the input contributions, the SG working methods specified in WTSA Resolution 1 were discussed and enhanced as follows:

- In the previous version of WTSA Resolution 1, the sections describing the approval of a new Question at WTSA came earlier than those describing the approval of a new Question at SG meetings. At WTSA-04, it was agreed to alter the order of these sections to clearly show that a new Question can be approved at any SG meeting in a timely manner without waiting for the next WTSA.
- The previous Resolution 1 specified that an SG receiving an initial proposal for a new Question should develop and finalize text for it, and then the next SG meeting could formally approve the proposed new Question. This was changed to let an SG receiving a proposal for a new Question develop and approve it without waiting for the next SG meeting.

These revisions were originally proposed by Japan at previous TSAG meetings and were finally approved at the July 2004 TSAG meeting.

3.5   Improvements to workshop activities

Based on proposals from APT and CITEL (Inter-American Telecommunications Commission), the

Assembly adopted Resolution 53 to develop a coordination group at TSAG for more effective ways of holding seminars and workshops.

4. Internet-related matters

In recent years, concern about the security of the Internet has been growing worldwide. For example, according to research conducted by ITU, 65% of e-mail traffic is spam [2]. Also the number of the cases of criminal activity using the Internet is rapidly increasing. The opinions that ITU-T should urgently tackle these problems mainly came from the developing countries. At this WTSA, the contribution submitted by the Arab countries resulted in various Resolutions being adopted, as shown in **Table 2**. Moreover, relevant study items were included in the new Questions for SG 2.

5. Election of Chairmen and Vice Chairmen

Based on the agreed-upon SG structure, the election of Chairmen and Vice Chairmen of SGs and the TSAG was conducted at the beginning of the delegation meeting and finally concluded as shown in **Table**

Table 2.   Internet-related resolutions.

Resolution 47	Country code top-level domain names
Resolution 48	Internationalized domain names
Resolution 49	ENUM*
Resolution 50	Cybersecurity
Resolution 51	Combating spam
Resolution 52	Countering spam by technical means

* ENUM is a protocol that is the result of work of the Internet Engineering Task Force's Telephone Number Mapping working group.

Table 3.   Japanese Chairmen and Vice Chairmen elected at the WTSA-04.

SG3	VC	Seiichi Tsugawa (KDDI)
SG4	VC	Nobuo Fujii (NTT)
SG9	VC	Shuichi Matsumoto (KDDI)
SG11	C	Yukio Hiramatsu (NTT)
SG13	VC	Naotaka Morita (NTT)
SG15	C	Yoichi Maeda (NTT)
SG16	VC	Yushi Naito (Mitsubishi Electric)
SG17	VC	Yu Watanabe (KDDI)
SG19	VC	Motoshi Tamura (NTT DoCoMo)
TSAG	VC	Haruo Okamura (SCAT)

SCAT: Support Center for Advanced Telecommunications Technology Research, Foundation

3. A record number of ten were elected from Japan, exceeding the nine from the U.S.A. It was also the first time that two Chairmen were elected from NTT. Korea and China also experienced significant gains in the number of officers, with the result that China, Japan, and Korea are providing officers in important SGs such as those relevant to NGN and security, heralding the Asian era expected in the near future.

6. SG reports

According to the ITU Constitution and Convention, reports from SGs for the study period 2001–2004 were given. Each SG Chairman described the Recommendations approved during the study period, SG activity topics, and Questions proposed for the new study period. The main trend was the activation of studies on (i) communications over the Internet such as VoIP (voice over Internet protocol), (ii) broadband access systems such as xDSL (digital subscriber line) and optical fiber, and (iii) QoS (quality of service) and security. This trend is expected to continue for the current study period in the study on NGN. Another trend was that many workshops were held to discuss future directions of telecommunication standardization.

7. Promotion of participation from developing countries

Resolution 44 aiming to bridge "the standardization gap" between developed and developing countries was adopted based on numerous proposals from developing countries. Moreover, as an actual action in this direction, Resolution 54 was adopted based on contributions from Senegal and other developing countries to consider the possible introduction of "regional groups" similar to those of SG 3 for SGs identifying Questions relevant to NGN and security.

8. Financial matters

Although the principal role of the financial committee was to examine and report to the plenary on the accounts for expenditure incurred throughout the duration of the Assembly, this WTSA additionally discussed "result-based budgeting" proposed by Arab countries, ATU, and the U.S.A. This is an idea for budgeting various ITU-T activities according to the level of achievement for each activity by defining a clear and measurable index and objective for each activity. As the result, Resolution 42 regarding result-

based budgeting was adopted. In addition, some proposed revisions to ITU-T-related sections in ITU's strategic plan adopted at the 2002 Plenipotentiary meeting were developed so that the achievements of the planned activities could be clearly measured.

9. Continued participation in ITU-T

In recent years, the numbers of participants and contributions to ITU-T have been steadily falling due to the rise in activities of outside forums and consortiums and the serious downturn experienced by the IT industry. However, in the 2005–2008 study period, studies on the transition from existing networks to the NGN are expected to be active, so ITU-T should be reinvigorated. NTT and Japan should put high priority on and play positive roles in standardization at ITU-T in coordination with China and Korea.

References

[1] Y. Hiramatsu, "Activities of ITU-T TSAG," NTT Technical Review, Vol. 3, No. 1, pp. 43-47, 2005.

[2] ITU WSIS Thematic meeting on countering spam, http://www.itu.int/osg/spu/spam/meeting7-9.04/agenda.html, July 7-9, 2004.

Yukio Hiramatsu
Former Senior Manager, NTT Intellectual Property Center.
He received the B.E. and M.E. degrees from Yokohama National University, Yokohama, Kanagawa in 1976 and 1978, respectively. He joined the Musashino Electrical Communications Laboratories, Nippon Telegraph and Telephone Public Corporation (now NTT), in 1978 and has been engaged in the development and standardization of signaling and data communications systems including ISDN packet, frame relay, and ATM. He is currently a professor of Graduate School of Intellectual Property at Osaka Institute of Technology. He is a member of IEEE, the Institute of Electronics, Information and Communication Engineers (IEICE) of Japan, and the Information Processing Society of Japan. In 1995 and 2004, the ITU Association of Japan gave him an award for his contribution to standardization work in ITU-T.
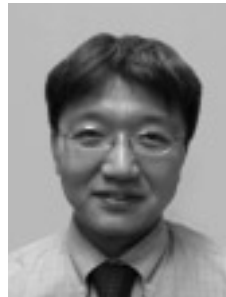
Hideyuki Iwata
Senior Manager, NTT Department III (R&D Strategy Department).
He received the B.E. and M.E. degrees in electronic engineering from Yamagata University, Yamagata in 1989 and 1991. He joined NTT in 1991. From 1993 to 2000, he was engaged in research on high-density and aerial optical fiber cable in NTT Access Network Service Systems Laboratories. Since 2000, he has been responsible for Standardization Strategy Planning for NTT R&D. He has been a delegate of IEC SC86A (optical fiber and cable) since 1998 and of ITU-T TSAG since 2003. He is a member of IEICE. In 2004, the IEC Activities Promotion Committee of Japan gave him an award for his contribution to standardization work in IEC (International Electrotechnical Commission).