Standardization Activities in the Asia-Pacific Region—New Management Structure Approved at the 33rd Asia-Pacific Telecommunity Standardization Program (ASTAP) Meeting

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Abstract

The 33rd Asia-Pacific Telecommunity Standardization Program (ASTAP) meeting was held in June 2021 in an online format. ASTAP aims at strengthening standardization activities in the information and communication technology field in the Asia-Pacific Telecommunity and contributing to the establishment of international standards as a region. This article describes the main results of ASTAP-33 and the industry workshop held during the meeting.

Keywords: APT, ASTAP, standardization

1. Introduction

The Asia-Pacific Telecommunity (APT) is an international organization promoting information and communication technology (ICT) sector development in the Asia-Pacific region. It was established in 1979 and has 38 member countries [1].

The APT Standardization Program (ASTAP) was established in 1998 to promote standardization activities in APT [2]. The main objectives are to (1) contribute to international standardization by building a cooperative framework for standardization within the APT region, (2) foster standardization activists within the APT region and support skill development in the ICT field by members within the region, especially members of developing countries, and (3) make APT common proposals to international standardization organizations, such as the International Telecommunication Union (ITU), as regional standardization organizations. It is important to use ASTAP as a platform for building partnerships in the APT region and contributing to developing countries. It is also considered to be an important issue as a strategy for international collaboration on standardization in Japan. The 33rd ASTAP meeting (ASTAP-33) was held from June 7 to 11, 2021, and about 190 people from 17 member countries participated. At the meeting, an industry workshop on the fifth-generation mobile communication system (5G) and emergency communications was held, and 142 people participated.

2. New management structure of ASTAP

The terms of office of the chair and vice-chair of ASTAP are set to allow a maximum of two terms for each term of three years. ASTAP-32 was held in November 2020 at the timing of the expiration of the

Table 1. Organization and management structure of ASTAP.

Group	Chair	Vice-chair
ASTAP	Dr. Hyoung Jun Kim (Korea)	Dr. Hideyuki Iwata (TTC, Japan) Mr. Xiaoyu You (China)
WG Policy and Strategic Co-ordination (WG PSC)	Mrs. Nguyen Thi Khanh Thuan (Vietnam)	Mr. Kaoru Kenyoshi (NICT, Japan) Mr. Wu Tong (China)
Expert Group Bridging the Standardization Gap (EG BSG)	Mrs. Nguyen Thi Khanh Thuan (Vietnam)	Mr. Ki-Hun Kim (Korea) Dr. Hideyuki Iwata (TTC, Japan)
Expert Group Green ICT and EMF Exposure (EG GICT&EMF)	Dr. Sam Young Chung (Korea)	Mr. Min Prasad Aryal (Nepal) Mr. Nur Akbar Said (Indonesia) Mr. Uttachai Mannontri (Thailand)
Expert Group ITU-T Issues (EG ITU-T)	Mr. Kaoru Kenyoshi (NICT, Japan)	Mr. Nguyen Van Khoa (Vietnam)
Expert Group Policies, Regulatory and Strategies (EG PRS)	Ms. Nadia Hazwani Yaakob (Malaysia)	–
WG Network and System (WG NS)	Dr. Joon-Won Leen (Korea)	Dr. Hiroyo Ogawa (NICT, Japan)
Expert Group Future Network and Next Generation Networks (EG FN&NGN)	Dr. Joon-Won Lee (Korea)	Mr. Kazunori Tanikawa (NICT, Japan)
Expert Group Seamless Access Communication Systems (EG SACS)	Dr. Hiroyo Ogawa (NICT, Japan)	–
Expert Group Disaster Risk Management and Relief System (EG DRMRS)	Mr. Noriyuki Araki (NTT, Japan)	–
WG Service and Application (WG SA)	Ms. Miho Naganuma (NEC, Japan)	Dr. Jee-In Kim (Korea)
Expert Group Internet of Things Application/Services (EG IOT)	Dr. Toru Yamada (NEC, Japan)	Dr. Seung-yun Lee (Korea) Ms. Haihua Li (China)
Expert Group Security (EG IS)	Ms. Miho Naganuma (NEC, Japan)	Dr. Heuisu Ryu (Korea)
Expert Group Multimedia Application (EG MA)	Dr. Hideki Yamamoto (OKI, Japan)	Dr. Dong il Seo (Korea)
Expert Group Accessibility and Usability (EG AU)	Dr. Jee-In Kim (Korea)	Ms. Wantanee Phantachat (Thailand)

terms of office of the chair and vice-chairs of ASTAP. A new chair and vice-chairs were elected, and the work plans were confirmed at the meeting of the Working Group (WG), including the review of working methods in response to the worldwide spread of COVID-19 and the confirmation of the continuation of the organizational structure. Due to the COVID-19 pandemic, ASTAP-32 was held online for only 2 days, so the Expert Group (EG) meeting by technology field was not held, and substantive discussion on the new management structure started with ASTAP-33.

Table 1 shows the organization structure of ASTAP and the new management structure. At ASTAP-32, Dr. Hyoung Jun Kim (Electronics and Telecommunications Research Institute (ETRI), Korea) was appointed as the new chair, who served as vice-chair until the previous meeting, and Dr. Hideyuki Iwata (The Telecommunication Technology Committee (TTC), Japan) and Dr. Xiaoyu You (The China Academy of Information and Communications Technology (CAICT), China) were appointed as vice-chairs. The continuation of the chairs and vice-chairs of the WG and EG was also confirmed and approved, respectively. At ASTAP-33, Mr. Kaoru Kenyoshi (National Institute of Information and Communications Technology (NICT), Japan) was newly appointed as vice-chair of WG PSC (Policy and Strategic Co-ordination), and Mr. Noriyuki Araki (NTT, Japan), author of this article, was appointed as chair of EG DRMRS (Disaster Risk Management and Relief System).

3. Industry workshop

At ASTAP-33, the ASTAP vice-chair organized an industry workshop on topics of interest to APT member countries. Based on the results of the questionnaire to APT member countries, ten presentations were made in each session on two topics of 5G and emergency communications from Japan, China, Korea, Thailand, etc. The commercial introduction of 5G has started in APT countries including Japan, China, and Korea, and it is a topic of interest for countries that are about to start commercialization. Natural disasters, such as typhoons and torrential rains, have occurred frequently not only in Japan but also throughout the APT region, and the social impact

Table 2. Industry workshop program.

Industry workshop on “5G & Emergency communications”	
Session 1: 5G	**Introductory Remarks** by Hideyuki Iwata, TTC, Japan Industry Workshop Corresponding Member **Part I: 5G** Chair: Dr. Seungyun Lee, ETRI, Republic of Korea 1. 5G Technology, Standard and Industry Development by Yongming Liang, Huawei, P.R. China 2. Application of 5G in the Industrial Internet by Zongxiang Li, CAICT, P.R. China 3. Pioneering 5G Broadcast: Building on Multiple Generations of Cellular Broadcast Technology Leadership by Michael Seongill Park, Qualcomm, Rep. of Korea 4. 5G Network Deployment and Service Development by Xiaoyin Zhao, China Telecom, P.R. China 5. Moving Towards Autonomous Networks Together by Wong Leon, Rakuten Mobile, Inc, Japan
Session 2: Emergency communications	**Part II: Emergency communications** Chair: Mr. Noriyuki Araki, NTT, Japan 1. The Role of Emergency Messages in Covid-19 and the Future Direction in 5G by Seung-hee Oh, ETRI, Rep. of Korea 2. An intelligent Big Data Analysis System for Fire Management Using NB-IoT by Lun Li, CAICT, P.R. China 3. Enhancing Emergency Medical Service (EMS) Operation with Digital Technology: Case Study in Thailand by Teerawat Issariyakul, National Telecom Public Company Limited, Thailand 4. Himawari Real-Time: A Web Application and Sharing System of Large-scale Data and High-resolution Images of Himawari Meteorological Satellite across Asia-Pacific Region for Disaster Mitigations by Ken Takeshi Murata, NICT, Japan 5. Resilient Information and Communication Technologies by Toshiaki Kuri, NICT, Japan
Conclusion	**Conclusion of Industry Workshop** Mr. Xiaoyu You, CAICT, P.R. China

NB-IoT: narrow band Internet of Things

of COVID-19 continues to grow. **Table 2** shows the program of the industry workshop.

Some of the presentations at the industry workshop were discussed in technically relevant EGs such as EG FN&NGN (Future Network and Next Generation Networks) and EG DRMRS, and new technical documents (APT Report) on related technologies were proposed as future work items.

4. Key output documents

At ASTAP-33, input documents were discussed at WG and EG meetings, and ten APT Reports and two Liaison statements to other standards bodies were approved as output documents at the plenary meeting. **Table 3** lists the main output documents (APT Reports and Liaisons) that have been approved.

Five APT Reports have been proposed by Japan and have led the development of documents, accounting for more than half the documents approved at this meeting. The following two documents were proposed by TTC where NTT serves as an expert committee member:

- “Handbook to Introduce ICT Solutions for the Community in Rural Areas” (OUT-10)
- “APT Report on Traffic Accidental Record and its Analysis Method’s Guidelines in Asia” (OUT-18)

The former is a compilation of examples of ICT solution demonstration experiments in rural areas conducted in cooperation with partners in Asian countries and using the APT Project, etc. In this case, we added and revised a medical solution for tuberculosis in Myanmar. The latter indicates the importance of devising countermeasures by recording and analyzing accidents for the purpose of reducing traffic accidents. In this report, we investigated the situation of accident-record collection and analysis in Asian countries and summarized the record items and analysis methods as guidelines.

5. Future plans

Due to the fact that ITU events, such as World Telecommunication Standardization Assembly and World Telecommunication Development Conference, have been postponed until 2022, and that there is a possibility that the schedule will be changed again depending on the COVID-19 situation, we determined that it would be difficult to decide the date and venue of ASTAP-34, and the schedule of ASTAP-34 has not yet been decided. It is hoped that the ASTAP meetings

Table 3. Approved main output documents (APT Reports and Liaisons).

Title	Document number
Handbook to Introduce ICT Solutions for the Community in Rural Areas	ASTAP-33/OUT-10
Guideline on referencing int'l standards in developing national standards	ASTAP-33/OUT-11
Report of the Compliance Label of Communication Devices Implemented by APT Member Countries	ASTAP-33/OUT-12
APT Report on VoLTE Interoperability	ASTAP-33/OUT-13
Liaison Statement to ITU-D SG2 Q5/2	ASTAP-33/OUT-14
APT Report on Requirement of Transmitter in Coherent Radio over Fiber System	ASTAP-33/OUT-15
Revised APT Report on Radio-over-Fiber Relay Link for Indoor Communication Systems	ASTAP-33/OUT-16
APT Report on Traffic Accident Record and its Analysis Method's Guidelines in Asia	ASTAP-33/OUT-18
Security Guidelines for Open Source Software	ASTAP-33/OUT-19
APT Report on interactive multimedia service on IPTV/CATV in the Asia-Pacific Region	ASTAP-33/OUT-20
Liaison Statement to ITU-T SG16, SG9 and ITU-D SG1	ASTAP-33/OUT-21
Report of Surveying Mobile Accessibility in the AP region	ASTAP-33/OUT-24

CATV: cable television
IPTV: Internet protocol television
ITU-D: ITU Telecommunication Development Sector
ITU-T: ITU Telecommunication Standardization Sector
SG: Study Group
VoLTE: voice over Long-Term Evolution

will be held in person to promote standardization activities in the Asia-Pacific region and use ASTAP more effectively as a forum for deepening cooperation with APT member countries.

References

[1] APT, https://www.apt.int/
[2] ASTAP, https://www.apt.int/APTASTAP

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He received a B.E. and M.E. in electrical and electronic engineering from Sophia University, Tokyo, in 1993 and 1995. He joined NTT Access Network Service Systems Laboratories in 1995, where he researched and developed operation and maintenance systems for optical fiber cable networks. He has been contributing to standardization efforts in ITU-T Study Group (SG)6 since 2006. He was the rapporteur of Question 6 of ITU-T SG6 from 2006 to 2008 and the rapporteur of Question 17 of ITU-T SG15 from 2008 to 2012. He also served as the chairman of the ITU-T Focus Group on Disaster Relief Systems and Network Resilience and Recovery. He has been the vice-chairman of ITU-T SG15 since 2013. He also contributes to the activities of International Electrotechnical Commission (IEC) Technical Committee 86 (fiber optic systems). He received the ITU-AJ award from the ITU Association of Japan in 2017. He is a member of the Institute of Electronics, Information and Communication Engineers (IEICE).