Malaysian Technical Standards Forum Bhd

SUMMARY REPORT

26th Asia Pacific Telecommunity Standardization Program Forum (ASTAP-26)
7-12 September 2015

Bangkok, Thailand

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On Behalf,
MALAYSIAN TECHNICAL STANDARDS FORUM BHD

INTRODUCTION

1. The Twenty-sixth Asia-Pacific Telecommunity Standardization Program Forum (ASTAP-26) was held from 7 to 12 September 2015 in Bangkok, Thailand.

2. The Forum was attended by 110 participants representing APT Members, Associate Members, Affiliate Members and other organizations.

3. Members of the Malaysian delegation to the forum include:
- Pn Nadia Hazwani Yaakob (SKMM)
- Ms. Adeline Chee (MTSFB/MDeC)
- Mr. Alex Kuik (MTSFB/DiGi)
- Dr Gopindran (MTSFB/RedTone)
- En. Zaharin Mohd Nadzri (MTSFB/Celcom)
- En. Isa (MTSFB/Astro)

4. The following delegates were present in the ASTAP-26 in particular to carry out the following duties/roles:

Adeline Chee:
- Vice Chairperson, ASTAP Policy, Strategy and Coordination Working Group

Alex Kuik:
- Vice Chairperson, ASTAP GICT & EMF Exposure Expert Group
- Rapporteur for Green Data Centre, GICT & EMF Exposure Expert Group, ASTAP
- Rapporteur for EMF, GICT & EMF Exposure Expert Group, ASTAP

PROCEEDINGS

1. On 7-8 September 2015, the 3rd APT/ITU Conformance and Interoperability (C&I) Event was held. This event was jointly organized by APT and ITU. 114 participants registered to this event and 9 exhibitors provided testing/showcasing in this event.

2. In the workshop which was held on 8 September, 16 presentations were introduced from APT member countries, invited speakers, exhibitors and ITU. Summary of the presentations in the workshop is as follows:

   i. **C&I3/INP-03   Testing activities for Conformity Assessment of Telecommunications in Vietnam (Mr. Nguyen Van Khoa, Vietnam Telecommunications Authority)**

   This presentation covered the following key information:

   - An overview of the conformity assessment in Vietnam in general and focus in telecom industry;
   - Conformance testing activities;
   - Role of Authority of Telecommunications in Conformity Assessment, Conformance Testing and its recent development in testing activities;
   - Challenges and our action plan regarding to Conformity Assessment.

   ii. **C&I-3/INP-04 Proposed Innovative Optical Cable Solution for closing the urban-rural digital divide (Global Pan Inc.)**

   This presentation covered the following key information:

   - Broadband backhaul is mandatory form cities to rural areas. Comparing wired and wireless solution, optical cable solution is 1000 times faster and lower CAPEX than microwave solution. Estimated cost of cable plus construction is 4500-5500US$/km with shallow direct burial using a handy pick. Minimum CAPEX/OPEX available with Optical Solution if direct-surface installation is allowed with later burying, submerging and suspending.
   - ITU-T SG15 develops a new Optical cable Standard for direct surface installation. It was agreed to develop new cable standards in Jun 2015.
   - Innovative optical cable with a steel pipe allowing direct-surface installation. It is thin, lightweight, robust, easy-handling. The metal pipe protecting fibers against crush, rodent, moisture/water, high/low temp.
   - Thin and lightweight cable is cost-effective and easy cable laying by do it yourself. It is possible to lay by helicopter.
   - Pilot tests are being conducted and planned in Japan, Bhutan, Nepal, India (MP state). Multiple countries express interests in conducting pilot tests.

iii. C&I-3/INP-05 Important Keys for Optical Access Network (NTT Corp.)

This presentation covered the following key information:

- FTTH is already matured in Japan. More than 26 million subscribers with stable and high quality network. NTT constructs infrastructure based on ITU standards to avoid vendor lock-in, to realize stable and high quality system and to promote competition between vendors.
- FTTH quality depends quality of engineer largely and it should be improved from the beginning because it is almost impossible to re-build whole FTTH network after growth.
- NTT group has experience to provide training and consulting to other carriers.

iv. C&I-3/INP-06 Components of Broadband Access Network (NTT Electronics)

This presentation covered the following key information:

- NEL provides codec LSI, video codec system, LSI for broadband core/access network and optical communication products.
- Optical splitters has features, 1. Completely passive, wide wavelength range of 1260 to 1660 nm, wide temperature range, Compact package, suitable for cassette, Good performance/High reliability（based on ITU-T Recommendation G.671 and L.37）. NEL has shipped 8 million of splitters within 10 years all over the world. There is no failure in the field so far.
- WDM-PON AAWG (NG-PON2) has the features, 1. Wide operation temperature range, 2. It can be used in both of C-band and L-band with cyclic design, 3. Water immersion and corrosion resistance tested.
- NEL provides MAC SoCs and Burst-mode TIA are developed for next generation 10G-EPON as key components.

v. C&I-3/INP-07 Report of Smart City showcasing (Fujikura Ltd.)

This presentation covered the following key information:

- Wireless Broadband Leaky Coaxial Cable (WBLCX) is an antenna which has the features, 1. It is ensuring reliable wireless LAN along the route of cable, 2. It can eliminate radio dead zone efficiently, 3. It can withstand the harsh environments, 4. It is maintenance free and lifecycle is more than 20 years.
- WBLCX enables 1. WAP can be installed anywhere, 2. Reduce the number of WAPs, 3. Eliminate signal shadows. It is suitable for using in hotel, hospital, underground carpark, shopping mall and factory warehouse. It is used for Japanese Shinkansen.
- Fujikura provides Optical Fiber Perimeter Intrusion Detection System

(PIDS) for security of airport, seaport, military area, chemical plant, solar/nuclear power plant and high speed train area.

- Fujikura provides solutions for FWA, Quick Charger for EV and High-Voltage Shore Connection System (HVSC System).

vi. C&I-3/INP-08 Introduction of Optical Fiber Sensors (Furukawa Electric)

This presentation covered the following key information:

- Optical fiber sensors have strong features for lighting resistant, external noise resistant, high reliability of low failure rate, cost effective and monitoring to extensive area.
- Furukawa electric provides solutions for optical water level gauge, optical water immersion sensor, optical rain-fall gauge, photonic power supply using optical fiber and optical fence sensor.
- Furukawa electric also provides optical fiber round type and flat type cable and fusion splicer S178A.

vii. C&I-3/INP-09   Report of IPTV Testing and showcasing (Oki Electric)

This presentation covered the following key information:

- UHDTV (Ultra HDTV) enables 4 times higher resolution by 4K and 16 times resolution by 8K. 8K realizes outstanding clear and realistic image/video services. ITU-T H265 is suitable for 4K/8K video coding method.
- IPTV testing in the 3rd C&I event checked the different points between ITU-T H.721 (2010) and H.721 (2015) such as video codec (H.265), audio codec (ALS, DTS-HD), Resolution (up to 4K) and VoD protocols (DASH).
- IPTV showcasing demonstrated; 1. Linear TV that supports ITU-T H.264, H.265 and H.721 (2015), 2. 4K UHDTV contents and 3. Contents encoded both 4K/H.265 and 2K/H264 format.
- IPTV showcasing displayed; 1. IPTV Head-end by Oki Electric, 2. IPTV STB by Mitsubishi Electric and 3. IPTV STB by Sumitomo Electric.

viii. C&I-3/INP-10 Telecom Carrier SDN solutions: vCPE (NEC Corp.)

This presentation covered the following key information:

- NEC is focusing 4 solutions 1. Data center SDN, 2. Network Function Virtualization, 3. Transport SDN, 4. Operation & Orchestration to address the Carriers' requirements.
- NEC's NFV solution has following key benefits. 1. Capex reduction, 2. Opex reduction, 3. Flexible and faster new revenue creation, 4. Resiliency for traffic surge and disaster. It has openness, interoperability,

scalability, operation efficiency, carrier-grade and business opportunities.
- NEC provides virtualized CPE solution. This solution enables home LAN extension and per device policy management.

ix. **C&I-3/INP-11 Report of NGN End-to-End Service interoperability testing on APT/ITU C&I event 2015 organized by HATS (HATS Japan, ITRC Iran)**

This presentation covered the following key information:

- NGN E2E service interoperability testing organized by HATS on 14th July in Japan. 5 Japanese companies and Iran Telecommunication research center joined this event.
- This testing event aimed to assure the interoperability of the NGN equipment which complied with ITU-T Recommendations and TTC standards.
- Testing for VoIP and Multimedia service was performed. NGN-SIP communication was successfully done for VoIP and Multimedia service but video communication caused error and frozen video picture because of the packet loss.
- Iran Telecommunication research center remotely joined from Iran and they confirmed interoperability between Japanese and Iran SIP terminal was successfully performed.

x. **C&I-3/INP-12 Report of Automated Mobile Accessibility Checkers solution (SCE Inc.)**

This presentation covered the following key information:

- Discrimination acts are requested by laws and regulations in many countries and mobile accessibility supports people with disabilities to access to websites.
- Focus and alternative text are the key components of mobile accessibility in order to maintain compatibility with the system-provided accessibility tools.
- forApp is the online service developed by SCE Inc.. It automatically inspects mobile applications for conformance with accessibility standards and makes an inspection report.
- 6 common issues on focus and alternative text can be identified by forApp services.

xi. **C&I-3/INP-13 Affordable BAN Portable Health Clinic and its Enhancement (NICT)**

This presentation covered the following key information:

- NCD (Non Communicable Diseases) has increased in low and middle income countries and it causes catastrophic increasing of medical

expenditures.

- BAN-PHC (BAN Portable Health Clinic) is a portable and affordable solution to provide health check-up and telemedicine on sites without power supply.It was brought to the site and measurement devices used for automatic categorization (B-Logic). The collected data was diagnosed in the remote medial help centre and medical certificate or prescription was provided if triage is high.
- 7792 examinees were checked their health and 3080 were diagnosed affected and emergent by telemedicine in 2013.
- China and Japan works on common medical BAN standards of IEEE802.15.4n, 4j and 6.
- BAN-PHC has been enhanced to use 400MHz for sneak wireless and long-haul communications. It also uses BAN Beam switch-over and non-invasive sensors.

xii. **C&I-3/INP-14   Report of Seamless Network Showcasing (NICT)**

   This presentation covered the following key information:

- Radio on fiber (RoF) is a technology to transmit RF signal via optical fiber from central unit to remote antenna unit. Its merits are low loss connection and simple base station.
- It can be used for application to 5G mobile fronthaul/backhaul and high-speed transmission at millimeter-wave/terahertz wave.
- RoF expands digital coherent optical transmission to high-speed wireless bases station in the mobile fronthaul network.
- Seamless optical/radio link with RoF is used for resilient network and enhance total capacity of MIMO.
- Milimeter wave over 60GHz transmission is used for highly-precise optical clock signal generator, high-capacity MMW-RoF backhaul for railways system and radar system for high-precision imaging in the airport.

xiii. **C&I-3/INP-15   ITU C&I Programme Pillars 1 and 2 (ITU)**

   This presentation covered the following key information:

- ITU-T takes the lead role of pillar 1 and 2 of C&I Programme which is defined in Resolution 177 (ITU PP-14).
- Main outcomes of the pillar 1 Conformity Assessment are Product Conformity Database, Whitelist of mobile phones, Pilot projects of conformity assessment, Guideline of Testing laboratories recognition procedure and establishment of Conformity Assessment Steering Committee (ITU-T CACS)
- ITU-T organizes Pillar 2 Interoperability event such as HATS interoperability event on NGN supported by ITU and APT, E-health

testing and showcasing event, APT/ITU C&I event and ITU test event.

xiv. C&I-3/INP-16   ITU C&I Programme Pillars 3 and 4 (ITU)

This presentation covered the following key information:

- ITU-D takes the lead role of pillar 3 Capability building and 4 Establishing C&I programmes in developing countries of C&I Programme.
- ITU Forums was held in each region and study for test centres and capacity building in the regions.
- ITU is implementing proposals on human capacity building and assists developing countries in the establishment of test facilities and in cooperation with international institutions such as UNIDO, ILAC, IAF.
- ITU provides training on C&I in regions such as type approval testing for mobile terminals, homologation procedures and market surveillance as activities of pillar 3 Capability building
- ITU provides guidelines such as establishing conformity and interoperability regimes – basic guidelines as activities of pillar 4 Establishing C&I programmes.
- ITU provides direct assistance through the regional offices for regulatory framework, institutions roles and typical procedure, mutual recognition agreements, funding and roadmap/feasibility study.

xv. C&I-3/INP-17   Activities of ITU-T SG11 on C&I (Vice-Chairman, ITU-T SG11)

This presentation covered the following key information:

- ITU-T SG11 has responsibility on signalling requirement and protocols and test specifications. WP4 of SG11 is the leading WP of test specifications, conformance and interoperability testing.
- Major outcomes of ITU-T SG11 on C&I are establishing the conformity assessment steering committee (ITU-T CASC), a living list of ITU-T Recommendations, reference table of ITU-T Recommendations and corresponding test specification and Pilot projects.
- Most telecom operators have implemented the IMS and efforts to assure interoperability are needed to adapt TE to IMS because of the different implementation of SIP-IMS protocols. ITU-T Q.3940 and series ITU-T Q.3941.1-Q.3941.4 were recently approved for this purpose.

xvi. C&I-3/INP-18   C&I Activities in ITU-T SG16 (Chairman, ITU-T SG16)

This presentation covered the following key information:

- Q25/SG16 "IoT application and service" was going to join the new SG20 "IoT and applications, smart cities".
- SG16 has held 8 testing events, 2 application challenges and 14

showcasing since July 2010. Those events were held in Singapore, Pune, Rio de Janeiro, Dubai, Bangkok, Sapporo and Tashkent etc.
- SG16 believed that Showcasing is also very important to show the users about the performance of new technologies, and ensure that the technologies are already available in market.
- SG16 was planning to continue enhancing the C&I testing events, including the first IPTV Conformance Testing in Geneva (Oct. 2015) and Rio Paralympic Games.

2. On 9 September 2015, Chairman welcomed all the delegates to the first session of the Plenary of ASTAP-26. He mentioned that the APT/ITU Conformance and Interoperability Event 2015 was held successfully from 7 to 8 September 2015. He thanked delegates for the success of the event. He also thanked all the delegates to present at the ASTAP-26 and provided a good number of input contributions.

3. Following that, from 9-12 September 2015, the ASTAP-26 continued its work on various topics under study by the ASTAP Working Groups (WG) and Expert Groups (EG), as follows:
   - WG on Policy and Strategic Coordination (PSC)
   - WG on Network and System (WG NS)
   - WG on Service and Application (WG SA)
   - EG on ITU-T issues (ITU-T)
   - EG on Bridging the Standardization Gap (BSG)
   - EG on Policies, Regulatory and Strategies (PRS)
   - EG on Green ICT & EMF Exposure (GICT&EMF)
   - EG on Future Network and NGN (FN & NGN)
   - EG on Seamless Access Communication System (SACS)
   - EG on Disaster Risk Management and Relief System (DRMRS)
   - EG on Machine to Machine Applications/Services (M2M)
   - EG on Security (IS)
   - EG on Speech and Natural Language Processing (SNLP)
   - EG on Multimedia Application (MA)
   - EG on Accessibility and Usability (AU)

4. On 9 September 2015, the ASTAP-25 Forum concluded with:
   - Presentation and adoption of reports and output documents of the three WGs
   - Meeting Report of ASTAP Advisory Board
   - Official endorsement of new Office Bearers of ASTAP
     i. Ms. Nadia Hazwani Yaakob (Malaysia) as Vice-chairman of EG PRS

  ii. Dr. Seung-yun Lee (Republic of Korea) as Vice-chairman of EG M2M

  iii. Ms. Wantanee Phantachat (Thailand) as Vice-chairman of EG AU

- Consideration of the Implementation of the APT Strategic Plan in the Activities of ASTAP
- Report of the APT/ITU Conformance and Interoperability Event 2015

KEY OUTCOMES

1. The WG Policy, Strategy and Coordination meetings were chaired by the WG Chairperson Ms Thuan with the assistance of Vice Chairperson Adeline. The WG PRS oversees 4 Expert Groups, namely:
    i. EG on Bridging the Standardization Gap (BSG)
    ii. EG on ITU-T issues (ITU-T)
    iii. EG on Policies, Regulatory and Strategies (PRS)
    iv. EG on Green ICT & EMF Exposure (GICT&EMF)

2. Matters related to the 4 EGs under WG PRS such as Office Bearers, ToR, Workplans, output papers, etc were discussed and approved.

3. Summary of the discussions for the 4 EGs under WG PRS are as follows:
    i. EG BSG
    - Three main issues were discussed and approved in the PSC WG:
        o New work item on "Guideline for Management of Deploying ICT solutions" was created and the revised reported will be presented for discussion in the next meeting.
        o Revised "Handbook to Introduce ICT Solutions for the Community in Rural Areas" was agreed with the change of project category name "e-disaster risk management" and added into the last summary table. These updates were agreed and approved to be an output document under the category of report.
        o The draft "Requirements of Information and Communication System Using Vehicles during Disaster" was agreed to be updated incorporating the result of use cases study based on answers to the questionnaire and with some editorial changes. The document was noted as useful information to design the communication system during disaster and was agreed to be an output document under the category of recommendation.

    ii. EG ITU-T

    The meeting achieved three key results as follows:
    - The five chairmen/vice-chairmen of ITU-T provided presentations

regarding latest updates by request from the chairman of EG ITU. Some questions and discussion were exchanged in the meeting. These presentations were very helpful for APT member and the chair of EG ITU requested them to continue to participate in the subsequent meetings of ASTAP and provide their presentations. EG ITU also identified the items for the discussion toward the next study period of the ITU-T from each presentation and created a liaison statement to WTSA-16 preparatory meeting for their considerations.

- EG ITU reviewed the report of the third C&I event which will be held on 7th & 8th in September 2015 back to back with the ASTAP-26. EG ITU also briefly reviewed the summary of the questionnaire and recognized that most of the member of ASTAP who provided the answer to the questionnaire supported to continue the C&I event. The meeting discussed the future plan of the event and agreed that EG ITU would create C&I coordination committee to discuss the detailed plan of the next action on APT C&I at the ASTAP-27 in March 2016. The meeting did not get any consensus on the date and the contents of the next event but the chair of EG ITU abstracted some ideas from the answer of the questionnaire as follows;

  o Support APT member countries based on ITU's C&I Pillar 3 Capability building and Pillar 4 Establishing C&I test center. It is proposed that APT provides C&I training supported by ITU regional office.

  o Attract more exhibitors and audience from APT member countries and non-APT member countries; and, increase participation from private sectors especially telecom operators. The following ideas were proposed:
    ✓ Enhance the collaboration with ITU such as collocated event with ITU meeting
    ✓ Joint with other APT's events such as APT Policy and Regulatory Forum (PRF)
    ✓ Create a new APT forum independent of ASTAP to organize C&I event.

iii.   EG PRS

- Nomination of PRS EG Vice Chairman:
  o The meeting agreed to recommend Ms Nadia Hazwani Yaakob as the Vice Chairman for EG PRS.

- Questionnaire on Standardization Policy and System of countries in AP region:

- In ASTAP-25, the EG meeting has agreed for the rapporteur to prepare a questionnaire to acquire additional responses from member countries. In this meeting (ASTAP-26), EG PRS members have reviewed and finalised the draft questionnaire.

iv. EG GICT & EMF
 The meeting achieved three key results as follows:
- The meeting agreed to endorse the skeleton of the "Status Report on Efforts to Green Data Centres in the ICT/Telecommunication sector in the APT member countries"; which was prepared by the Indonesia and Malaysia Editors, Mr Akbar and Mr Alex Kuik. Member countries were encouraged to submit contributions to the next ASTAP meeting.

- The meeting reviewed and discussed the work plans of GICT&EMF EG. The meeting has revised and agreed with the revised work plans of the three topics namely e-waste, green data centre and EMF exposure.

- The meeting reviewed and aligned the GICT&EMF EG Work plans with the Matrix to Follow up APT Strategic plan.

4. Key Output Documents from the WG PSC

Document Types	Title of Document	Action at WG PSC	Action at Plenary
Meeting report	Meeting Report of WG PSC	-	Approved
Work plan	Consolidated Work plan for EGs under WG PSC	-	Approved
Recommendation	Requirements of Information and Communication System Using Vehicle during disaster	Approved	Approved
Report	Handbook to Introduce ICT Solutions for the Community in Rural Areas	Approved	Approved
	Questionnaire On ICT Standardization and Conformity Assessment System	Approved	Approved
Liaison Statement	Liaison Statement to APT Preparatory Group for WTSA-16	Approved	Approved
Working document	Guideline for Management of Deploying ICT solutions	Noted	Noted

Document Types	Title of Document	Action at WG PSC	Action at Plenary
	Working Document towards a Draft Status Report on Efforts to Green Data Centres in the ICT/Telecommunication Sector in the APT Member Countries	Noted	Noted

5. **Other relevant outcomes**

i. Contributions of MTSFB representatives in the ASTAP-25 6th Industry Workshop were recognized and acknowledged; and Adeline was re-appointed as the focal point for the next Industry Workshop in ASTAP-27: "IoT and Smart Cities"

- At the opening plenary of ASTAP-26, the meeting agreed to have an ad-hoc session for initiating the smooth preparation of the next Industry Workshop. The ad-hoc session was led by Mr. Hyoung Jun Kim, one of the Vice-Chairs of the ASTAP. Considering that the Brunei Darussalam Statement stated that ICT has been an engine for growth in the Asia-Pacific economy and its potential can be seen by its expansive use in other industry sectors, and encourages sharing of research information, Industry Workshop of the ASTAP can provide the opportunity to learn the latest technologies and enhances cooperation among APT members. The Ad-hoc meeting agreed with the following topics for the next Industry Workshop in ASTAP-27:
  - "IoT and Smart Cities"
  - "Resilient ICT Systems for Disaster Management"

- The meeting agreed to appoint the following focal points to prepare the workshop programme:
  - "IoT and Smart Cities" (Korea, Malaysia): Dr. Seungyun Lee (ETRI, Korea (Republic of)), Ms. Adeline Chee (MTSFB, Malaysia)
  - "Resilient ICT Systems for Disaster Management" (Japan, Philippines): Mr. Susumu Tanaka, NEC Corporation, Japan), Mr. Siegfried L. Batucan, Department of Science and Technology, Philippines)

- Closing Plenary of ASTAP-26 agreed with the above topics and focal points.

ii)   EG M2M

- Discussion on the "Proposal to Add Several Use Cases into Report on e-Health in APT Region":
    - Mr. Hideo Himeno from NEC, Japan, gave the presentation and proposed updates for the e-Health use cases from Malaysia, Singapore and Philippine. This contribution requested to confirm the proposed use cases by each country member. Dr. Gopinath took comments to update Malaysia's use case at next ASTAP meeting. The proposal was agreed and Mr. Hideo Himeno, editor of this report expresses that he will complete this work by the next ASTAP meeting.
- The EG M2M meeting reviewed the current work plan for EG-M2M. Adeline has nominated Malaysian expert, Dr. Gopinath Rao Sinniah to be the Editor for the "APT report of Smart City in APT region"; which was agreed by the meeting. The work was expected to be completed by ASTAP-29, 2017/2018.

CONCLUSION

ASTAP serves as an important platform for relevant, interested and dedicated Malaysian delegates to gain latest insights on the key standardization topics and regional issues as well as best practices discussed in the ITU and APT.

Malaysian delegation with national interest, specifically, the MTSFB GICT WG's continued active participation in the future ASTAP meetings, is very important in order to ensure Malaysian's strategic intervention in the regional collaborative efforts and sharing of best practices with the other member countries.

In view of that, it is imperative for MTSFB and SKMM to continue providing the necessary support to the relevant ASTAP Office Bearers and Editors in carrying out their roles effectively to contribute to the future ASTAP activities. Furthermore, it is also useful and relevant to participate in other international standardization activities such as ITU-T SG meetings (especially SG5 – Environment and Climate Change; and, SG20 – IoT and its applications including smart cities and communities) to gain more international exposure and insights for the Malaysian participants to enhance knowledge and expertise for the standardization works.

ASTAP-25 Participants Group Photo

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