

APT/ITU Conformance and Interoperability Event

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1. Introduction

From September 9 through September 12, 2013, a Conformance and Interoperability (C&I) event was held jointly by the APT¹ and ITU. The purpose of this event was to promote activities to deepen the understanding of C&I throughout countries in the Asia-Pacific region, and to improve the capabilities of each APT member nation and resolve their problems. This event featured C&I-themed workshops, NGN/IPTV interoperability testing, and showcases giving demonstrations of NGN, IPTV and optical access technology. This article provides a broad description of the APT/ITU C&I event.

2. Cooperation of ITU with national/regional SDOs

In response to strong demands from developing countries, the ITU-T adopted resolution 76² at WTSA08 (October 2008, Johannesburg, South Africa), and has been working to resolve interoperability issues as a key priority. In each of the ITU-T's study groups, recommendations relating to conformance and interoperability have been developed, and interoperability events relating to IPTV and home networks have been held by SG16 and SG15 respectively. In July 2012, the results of a survey by the external organization KPMG were reported at a TSAG meeting (2–4 July 2012 in Geneva), and the ITU was recommended to implement four action items (1. Assessing product conformity with ITU-T recommendations, 2. Holding interoperability events, 3. Cultivating human resources for capacity building, and 4. Establishing test centers in developing countries) and a business plan. As the lead SG for test specification and C&I testing, ITU-T SG11 is working to set up an action plan to address C&I issues. At WTSA12 (November 2012, Dubai, UAE), SG11 was assigned as the parent SG of Joint Coordination Activity on Conformance and Interoperability Testing (JCA-CIT), which coordinates C&I initiatives associated with multiple study groups of the ITU-T. This was done to strengthen SG11's efforts. Although the ITU-T's activities relating to C&I are supported by developing countries and need to be performed reliably, the business plan required on the part of developed countries is unclear, and it is also thought that there is too much overlap with the activities of other SDOs, resulting in a conflicting composition. This conflict exists against a complex background in which developing countries that plan to construct and introduce network technologies such as NGN and IPTV are calling for interoperability to be reliably assured, while on the other hand the developed countries that have already brought various types of equipment onto the market are keen to mitigate any impact on their existing network products.

In Japan, TTC³ have completed the specifications JT-Q3401 and JT-Q3402 based on the ITU-T NGN UNI/NNI

specifications ITU-T Q.3401/Q.3402 by adding technical details for interconnections, and HATS⁴ have performed terminal-to-terminal interconnection tests based on this UNI specification. In June 2009, TTC established the IoP-AG (Interoperability Advisory Group), which is continuing to study NGN interoperability submit contributions to SG11. At ITU-T SG11, this activity has so far resulted in the completion of ITU-T recommendations Q.3909 (test framework), Q.3948 (VoIP test specification) and Q.3949 (TV phone test specification), based on TTC specifications. At the SG11 meeting in May 2012, based on the test specification recommendations developed by SG11, it was proposed that the ITU-T should provide backing for an NGN interoperability testing event. With the support of relevant departments of bodies including the CIAJ, TTC and Ministry of Internal Affairs and Communications, this culminated in the HATS Interoperability event supported by the ITU, which took place on December 11–12, 2012. On July 13, 2012, a workshop styled as an open seminar was held on the theme of interoperability activities at HATS and ITU-T, at which there was a lively discussion of the outcome of this event and its future prospects. At this workshop, a video letter was sent from ITU-T director Malcolm Johnson to introduce his expectations regarding HATS. Other HATS interoperability events backed by ITU-T took place the following year, with an HDTV interoperability testing event held on July 9, 2013, and the second NGN interoperability workshop held on 24 September.

3. APT/ITU conformance and interoperability event

At the APT/ITU conformance and interoperability event, discussions were started based on Japanese contributions proposed at the 36th APT Management Committee (November 2012, Bangkok). At the 21st ASTAP general assembly (March 2013), a Japanese contribution was submitted and discussed proposing that the conformance and interoperability event be held in September 2013. At this meeting, it was agreed that an APT/ITU C&I event coordination committee would be set up to make preparations and study the contents of the event. I was appointed chairman of the coordinating committee. Since April 2013, we have recruited committee members from each of the APT member countries, and by September we had held six telephone conferences to investigate the specific details of the testing, showcasing and workshops, announce the event, and invite participation from individuals and companies. This event was announced on the APT and ITU websites, and participants were invited from the APT and ITU member countries. We are also providing technical support, including delegating personnel from the ITU.

This event was held jointly with the ITU, and included interoperability testing and showcasing events. It was therefore

Fig. 1: The NGN Showcase event



Fig. 2: Visitors taking part in one of the workshops



targeted at people from developing countries in the region with the purpose of contributing directly to the resolution of issues in developing countries. By taking advantage of the opportunities presented by the event held in Japan since 2012 by HATS with the backing of the ITU, I think the scope of these activities has expanded to a more global level since the 2014 event will be hosted by the APT and ASTAP (Asia-Pacific Telecommunity Standardization Program).

The APT/ITU C&I event was held at the Centara Grand Hotel in Bangkok, and its configuration and schedule were as follows:

- 1) Workshop (Afternoon on 9th and 10th September)
- 2) Interoperability testing (9th AM September)
 - 1) NGN (VoIP, Video conference)
 - 2) IPTV (including IPTV-MAFR (Multimedia Application Framework))
- 3) Showcasing (from 9th PM to 12th September)
 - 1) NGN (VoIP, Video conference)
 - 2) IPTV (including IPTV-MAFR (Multimedia Application Framework))
 - 3) Optical access

The 22nd ASTAP general assembly was held on September 9–14, so from September 9 through September 12, our event ran back-to-back with the ASTAP general assembly.

For Testing & Showcasing, there were seven exhibitor companies, and 120 visitors came to listen and observe at the workshops and showcase events. For NGN Testing & Showcasing, there were five exhibitors: NTT, OKI, NEIX, NEC and Teluu PJSIP. For IPTV Testing & Showcasing, there were two exhibitors: OKI and Mitsubishi. And for the Optical access showcasing, there were three exhibitors: OKI, Mitsubishi and Fujitsu. At the workshops, there were country reports from three countries (China, Vietnam and Mongolia), and eight showcase introductions to technologies including NGN, IPTV and optical access. Panel discussions were held at the end of the workshops to gather suggestions to the ASTAP relating to C&I. Based on these suggestions, we plan to discuss specific implementation method at the next ASTAP general assembly.

In a questionnaire survey performed after the event, responses were received from 45 APT member countries, of which 39 supported holding another similar event. Overall, the feedback was very positive, and we have started discussions with a view to holding the second C&I event simultaneously with the ASTAP

conference in September 2014. On the other hand, among this year's Testing & Showcasing exhibitors, there was one company from the UK, but the other six were all Japanese businesses. During the preparatory period, invitations were extended to APT member countries centered on the host nation Thailand, but unfortunately they did not participate as exhibitors. Since this was the first such event, perhaps there were a lot of companies who wanted to see how things turned out before getting involved. At the second event in September 2014, I hope we can continue our activities to facilitate the participation of operators and vendors from countries all over Asia.

4. Conclusion

Spurred on by the experience of the first APT/ITU C&I event, we have started discussions aimed at forging closer links between the business world and the activities of the APT to contribute directly to the construction of the network infrastructure in APT member countries. Japan proposed holding a C&I event due to the considerable amount of interest in C&I in all countries, and the expectation of active participation from the ICT industries. Although the APT had no prior experience of holding C&I events and was obliged to rely on technical support from the ITU, there were many issues to address such as the configuration of the event, the negotiations with the APT secretariat on the participation fees, and the recruitment of exhibitors. However, at the sixth coordination committee meeting, more support was obtained from the APT members and ITU-T SG16 chairman Yushi Naito, and this helped us to hold the C&I event successfully. The testing and showcasing was mainly performed by TTC/HATS members, while I acted as a coordinator and hopefully made an impression of Japan's leadership. The event was rated very highly in a questionnaire survey conducted afterward, and there are growing expectations of another similar event next year. I intend to continue acting as a coordinator with the aim of holding a second event in September 2014. I would like to thank everyone who helped make the first event a success, and I hope you will be able to offer your continued support for the second event.

1 APT: Asia Pacific Telecommunity
 2 Resolution 76 "Studies related to conformance and interoperability testing, assistance to developing countries, and a possible future ITU mark programme"
 3 TTC: Telecommunication Technology Committee
 4 HATS: Harmonization of Advanced Telecommunication Systems