ITU WTSA 2016 Outcomes
An Internet Society Perspective

22 November 2016

The ITU World Telecommunication Standardization Assembly 2016 (WTSA-16) was a highly charged meeting with a significant number of controversial contributions that made for quite a productive conference. Several resolutions - the Digital Object Architecture (DOA), Internet services such as OTT, the role of the Internet of Things and privacy and trust - were among the more contentious issues debated at-length. The cooperative spirit of the first couple of days waned as the meeting progressed, resulting in relentless stalemates that only exacerbated regional polarization that is usually evident at an ITU treaty-level conference. Despite the controversy on the resolutions, delegates were able to come to a compromise agreement on several Internet-related resolutions. With WTSA-16 now squarely behind us we can begin to take stock of the outcomes and assess the overall impact.

Insofar as major outcomes of WTSA-16 are concerned, two areas in particular are noteworthy:

Increased regulatory and policy mandate

Significant changes were made to the ITU's mandate through changes to the mandates of ITU-T Study Group 2 (SG-2) and Study Group 3 (SG-3). SG-2 plays an important role, dealing with naming, numbering, addressing, and identification for telecommunications networks (numbering issues). In particular SG-2 manages international telecommunication country codes – E.164 numbers and E.212 international mobile shared codes and a number of other network identifiers. SG-3 deals with accounting, charging, and tariffing principles. An expanded mandate for SG-2 and a shared role with SG-20 on identification schema have clouded issues related to SG-2's role in its role as the primary Study Group for numbering and identifiers. New study areas on the economic and regulatory impacts of Internet services or infrastructure were approved for SG-3, including a broader 'policy role' that is yet to be determined. Inevitably, these changes will allow the institution to edge even closer to Internet-related policy matters. Furthermore, they pave the way for governments to have an increased regulatory role across a broad range of emerging issues believed to have an economic impact on the revenues of legacy telecommunication operators.

Internet of Things – the new gateway into any domain

Study Group 20 (SG-20) is a relatively new entity within the ITU-T system, having been created by the Telecommunication Standardization Advisory Group (TSAG) in 2015 to examine the Internet of Things (IoT). However, by all estimation it is an area that wields significant influence over the institution's agenda. SG-20 has shifted the institution's focus in a number of directions including taking a more prominent role on IP-based resource matters. In its relatively short life-span, SG-20 has been the subject of intense debate over its mandate, with many ITU-T members determined to keep its focus on the harmonization of IoT standards and use cases for IoT.

While the efforts by some at WTSA-16 to expand SG-20's role into privacy policy were not successful, we expect the discussions to continue beyond WTSA-16 and into Plenipotentiary 2018. It's worth noting that SG-20's mandate was increased to include e-services and smart services, aspects of big data and IoT identifiers. We would note that with what appears to be an expanded policy role for SG-3, this study group may become the default policy/regulatory clearing-house for SG-20. As such, we expect moves for further expansion of mandates and roles to come in the years ahead.

Outcomes of the Key Issues:

International Internet Connectivity

WTSA-16 saw the approval of Recommendation ITU-D: 52 on "Establishing and connecting Regional IXPs to reduce costs of International internet connectivity." Some opposition was mounted to quell the adoption of this Recommendation (standard) on the basis that consensus was not achieved during the traditional approval process for Recommendations. In particular, the concept of "Regional IXP" does not yet enjoy a widely shared, operational definition. Furthermore, the regulatory approach of a one-size-fits-all solution embedded in this recommendation fails to consider the unique environment of each country. Irrespective of the dissonance surrounding this recommendation, the high costs of domestic and International Internet connectivity remains a key issue for developing countries and much work still remains in order to remove the barriers to global and affordable Internet connectivity.

Digital Object Architecture (DOA)

WTSA-16 received 10 (ten) resolutions ranging from smart cities, combating counterfeit devices and cybersecurity to e-health, IoT that explicitly and implicitly referenced the DOA. Political momentum quickly grew around the DOA as some member states appeared to seek to alter the ITU's technology neutral stance by selecting the DOA as the solution for a number of issues, including IoT.

Agreement was reached to either replace DOA references with Recommendation ITU-T X.1255 (which is based on the DOA) or remove them entirely from the relevant resolutions if agreed text on identity management would be reflected in the summary record of the proceedings. The compromise text was a follows: *"the Plenary recognized that identity management plays an important role in many telecommunications/ICT services and that it can be implemented using a range of technologies and solutions."*

We should expect prolonged debates as DOA has survived with a variety of hooks in Resolutions and Recommendations that will carry into Plenipotentiary 2018. It will be important for governments to consider interoperability, stability, security and scalability (at Internet scale) capabilities of any technologies that are deployed on the Internet to ensure that the Internet continues to remain secure and stable. More information can be found in our paper providing an overview of the DOA.

ccTLDs / gTLDS

Two proposals on Resolution 47, which enables member states to discuss issues related to ccTLDs, were submitted to WTSA-16. While one sought to suppress the resolution, the second sought to expand the scope of Resolution 47 to include protecting national, regional and local territorial names from being used as gTLDs. In the end both contributions were withdrawn resulting in no change to resolution 47.

Spam

The main point of contention on Resolution 50 on Combating Spam was a reference to SG-3 that would have increased its mandate to include spam-related activities. This was seen by some to be duplicative, as activities within SG-17 (Security) and in SG-2 of the ITU's Development Sector (ITU-D), has included work on cybersecurity for more than 8 years, and a focus on spam has been included in the last ITU-D study cycle. Those opposed stressed that these activities were more than sufficient. A compromise agreement was finally reached with the deletion of the SG-3 reference.

International Telecommunication Regulations (ITRs)

Earlier this year, the ITU Council established another Expert Group on the ITRs (EG-ITRs) and agreed on its terms of reference. The EG-ITRs will seek input from Member States and Sector Members on how/whether they are using the 2012-ITRs. EG-ITRs will also conduct both a legal analysis of the 2012 ITRs and an analysis of the challenges preventing accession to the ITRs.

The proposals submitted to WTSA-16 sought to expand the process (as it did in 2012) by inviting ITU-T study groups to submit inputs on emerging issues within the scope to the ITR review process. It is likely that the 2012 ITRs will be re-opened and consequently lead to another WCIT. The outcome at WTSA-16 resulted in a confirmation of the Council decision.

Over-the-top Services (OTT)

The perceived economic impact of Internet-based services was contentious at WTSA-16, and were tied to a new OTT resolution proposed at the meeting. The OTT resolution went through various cycles with title and terminology changes, including one that addressed a variety of services: "Online voice, video calling and instant messaging applications impacting operating agencies/telecommunication operators in developing countries." This last one attracts much more pointed focus, particularly the impact on revenue streams (see also the following section on ACP.)

With the new study areas on Internet services in SG-2 and SG-3, a compromise was reached and this new OTT resolution was withdrawn.

Alternative Calling Procedures for International Telecommunication Networks (ACP)

Resolution 29 on ACP focuses on 'by-pass' of international telecommunication networks, and suggests that IP-based networks and various Internet services facilitate alternative calling procedures. It is relevant to note that the ACP debate included concerns about quality of service (QoS). WTSA-16 agreed that SG-2 should study and define alternative calling procedures and look at measures to suspend calling procedures that impact QoS, quality of experience (QoE), and that focus on origin identification and calling-line identification (CLI). A major point of contention with this resolution was a reference to OTT services as "fraudulent use of telecommunications."

The final outcome resulted in an exclusion of the reference to fraud in the resolution. This focus on ACP has been a preoccupation in SG-3 for many years and it is likely that this study group will also examine ACP-related issues from a policy/regulatory perspective during the next study period.

Privacy and Trust

Privacy and trust was another contentious issue. A new proposal on IoT sought to expand SG-20's mandate related to privacy and trust. Currently, Study Group 17 (SG-17) is the lead study group for security in ITU-T, and its privacy focus is limited to personally identifiable information. The privacy debates focused on definition and scope of the issue with concerns raised by some Member States about potential scope creep into the privacy policy realm. Those in support called out the various references to privacy in ITU Plenipotentiary 2014 texts to validate the ITU's role in these areas, and the need for this work in SG-20 tied to Big Data from IoT. The resolution was later withdrawn as a compromise could not be reached.

WTSA-16 revised a number of other Internet related resolutions which can be found in the outcome section of the WTSA-16 Resolution Matrix.

Looking Past WTSA-16

Heading into WTSA-16 there were some major concerns for the Internet community. However, the dissolution of the more challenging changes in the Internet related resolutions yielded a much more favorable outcome than could have expected in view of the tough negotiations and stalemates through much of the meeting. It is important to note that the additional changes in the study group mandates, particularly in SG-3 and SG-20, may result in increased governance roles for governments related to the operational aspects of the Internet and Internet policy matters. Additionally, some of the policy issues discussed at WTSA-16, including privacy and trust, the economic impacts of Internet services, and spam will continue into the Plenipotentiary (Plenipot) conference in 2018 where we can expect governments will try to exert increased regulatory jurisdiction over these matters.

The most divisive issues at WTSA-16 fostered increased regional polarization and introduced a level of fragmentation in the organization. This polarization and fragmentation will play-out at the Plenipot, where each member state has one vote and where countries have used Resolutions to create an ancillary regulatory/policy role for the ITU. The ITU is responsible for a number of important functions such as frameworks and agreements for the allocation of spectrum, infrastructure development and investment for communications technologies around the world. As part of the ecosystem, the ITU should continue to foster open dialogue on these policy issues with all stakeholders in the ecosystem, and to collaborate continuously in areas of mutual interest so that work is complementary and not duplicative.

Additional Information

The following sites and documents provide more information about the WTSA event and the topics of discussion:
- Internet Society WTSA page: https://www.internetsociety.org/wtsa
- WTSA 2016 matrix of resolutions: https://www.internetsociety.org/wtsa/matrix
- Internet Society Policy Briefs: https://www.internetsociety.org/policybriefs
- WTSA 2016 Background Paper
- Overview of the Digital Object Architecture (DOA)
- Policy framework for enabling Internet access
- The Internet of Things (IoT): An Overview