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| **Agenda item: PL 2** | **Document C24/33-E** |
| **18 April 2024** |
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| Report by the Secretary-General |
| ITU INTERNET ACTIVITIES: RESOLUTIONS 101, 102, 133, 180 AND 206 |
| **Purpose**This report summarizes ITU’s activities related to Plenipotentiary Conference (PP) Resolution 101 (Rev. Bucharest, 2022), *“Internet Protocol-based networks”*; Resolution 102 (Rev. Bucharest, 2022), *“ITU’s role with regard to international public policy issues pertaining to the Internet and the management of Internet resources, including domain names and addresses”*; Resolution 133 (Rev. Bucharest, 2022), *“Roles of administrations of Member States in the management of Internationalized (multilingual) domain names”*; Resolution 180 (Rev. Bucharest, 2022), *“Promoting deployment of Internet Protocol version 6”* and Resolution 206 (Dubai, 2018), *“OTTs”*.**Action required by the Council**The Council is invited to **note** the report. The Council is also invited to **endorse** the transmission of the report, along with the compilation of views of Council Member States and the related summary records with a cover note, to the United Nations Secretary-General.**Relevant link(s) with the Strategic Plan**Development of international standards; convening platform; capacity development; provision of technical assistance.**Financial implications**Within the allocated budget 2024-2025.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**References***Plenipotentiary Resolutions* [101](https://www.itu.int/en/council/Documents/basic-texts-2023/RES-101-E.pdf)*,* [102](https://www.itu.int/en/council/Documents/basic-texts-2023/RES-102-E.pdf)*,* [133](https://www.itu.int/en/council/Documents/basic-texts-2023/RES-133-E.pdf)*,* [180](https://www.itu.int/en/council/Documents/basic-texts-2023/RES-180-E.pdf) *(Rev.* Bucharest*, 2022), Resolution* [*206*](https://www.itu.int/en/council/Documents/basic-texts-2023/RES-206-E.pdf) *(Dubai, 2018); Council Resolutions* [*1305*](http://www.itu.int/md/S09-CL-C-0105) *(2009),* [*1336*](http://www.itu.int/md/S15-CL-C-0113/en) *(mod 2015),* [*1344*](http://www.itu.int/md/S15-CL-C-0112/en) *(mod 2015); WTSA Resolutions* [*47*](https://www.itu.int/pub/publications.aspx?lang=en&parent=T-RES-T.47-2022) *(Rev. Dubai, 2012),* [*48*](https://www.itu.int/pub/publications.aspx?lang=en&parent=T-RES-T.48-2022) *(Rev. Geneva, 2022),* [*49*](https://www.itu.int/pub/publications.aspx?lang=en&parent=T-RES-T.49-2016) *(Rev. Hammamet, 2016),* [*50*](https://www.itu.int/pub/publications.aspx?lang=en&parent=T-RES-T.50-2022) *(Rev. Geneva, 2022),* [*52*](https://www.itu.int/pub/publications.aspx?lang=en&parent=T-RES-T.52-2022) *(Rev. Hammamet, 2016),* [*58*](https://www.itu.int/pub/publications.aspx?lang=en&parent=T-RES-T.58-2022)*,* [*60*](https://www.itu.int/pub/publications.aspx?lang=en&parent=T-RES-T.60-2022)*,* [*64*](https://www.itu.int/pub/publications.aspx?lang=en&parent=T-RES-T.64-2022)*, (Rev. Geneva, 2022),* [*69*](https://www.itu.int/pub/publications.aspx?lang=en&parent=T-RES-T.69-2022)*,* [*75*](https://www.itu.int/pub/publications.aspx?lang=en&parent=T-RES-T.75-2022) *(Rev. Geneva, 2022),* [*98*](https://www.itu.int/pub/publications.aspx?lang=en&parent=T-RES-T.98-2022) *(Rev. Geneva, 2022);* [*WTDC-17/Buenos Aires Action Plan Objective 3/Output 3.3*](https://www.itu.int/en/ITU-D/Conferences/WTDC/WTDC17/Documents/WTDC17_FinalReport_en.pdf) *, WTDC Resolutions* [*20, 30 , 63*](https://www.itu.int/en/ITU-D/Conferences/WTDC/WTDC17/Documents/WTDC17_FinalReport_en.pdf) *(Rev. Buenos Aires, 2017), and* [*45*](http://www.itu.int/en/action/internet/Documents/Resolution_45_wtdc14.pdf)  *(Rev. Dubai, 2014); Council Documents* [*C16/33*](http://www.itu.int/md/S16-CL-C-0033/en)*,* [*C17/33*](https://www.itu.int/md/S17-CL-C-0033/en)*,* [*C18/33*](https://www.itu.int/md/S18-CL-C-0033/en)*,* [*C19/33*](https://www.itu.int/md/S19-CL-C-0033/en)*,* [*C20/33*](https://www.itu.int/md/S20-CL-C-0033/en), [*C21/33*](https://www.itu.int/md/S21-CL-C-0033/en)*,* [*C22/33*](https://www.itu.int/md/S22-CL-C-0033/en)*,* [*C23/33*](https://www.itu.int/md/S23-CL-C-0033/en)*.* |

**1 Introduction**

This report describes ITU’s activities related to the 2022 Plenipotentiary Conference Resolutions 101, 102, 133, 180 and 206 for the reporting period from March 2023 till March 2024.

**2 Activities related to Internet Protocol (IP) networks, the development of next-generation networks (NGN) and future Internet, including policy and regulatory challenges**

More than 350 new/revised ITU-T Recommendations and other texts have been approved from 1 March 2023 to 25 March 2024, including those relevant to this Report. [Relevant Recommendations](https://www.itu.int/ITU-T/workprog/wp_search.aspx?isn_sp=8265&isn_status=-1,8,1,3,7,2&adf=2023-03-01&adt=2024-03-25&details=0&field=acdefghijo) can be found under the different ITU-T Study Groups (SGs).

**2.1** **IMT-2020:** In total, 27 Recommendations were approved by ITU-T SGs 5, 9, 11, 13 and 17. One Supplement was agreed by SG13, and nine draft Recommendations are under approval in SGs 13 and 17.

**2.2 Internet-of-things (IoT) and Smart Cities:** In total, 12 Recommendations were approved by SGs 11, 17 and 20, One Supplement and two Technical Reports were agreed by SGs 3, 17 and 20, 15 draft Recommendations are under approval in SGs 17. The Correspondence Group on Artificial Intelligence of Things (CG-AIoT) which was created under SG20 concluded successfully its activities in September 2023. The standardization of IoT test specifications is accelerating, supported by the increasing collaboration of ITU-T and oneM2M. ITU-T SG20 continued coordination in its ITU-T JCA-IoT and SC&C and is also in close collaboration with IETF, oneM2M, W3C, LoRa Alliance and TMForum.

**2.3 IP Cable:** ITU-T SG9 approved five Recommendations.

**2.4 IPTV, Content Delivery Networks (CDN) and Digital Signage:** ITU-T SG16 approved three Recommendations.

**2.5 IP performance:** ITU-T SG12 approved five Recommendations and agreed one Supplement.

**2.6 IP-based Cloud computing and Big Data:** ITU-T SG13 approved seven Recommendations**;** SG17 approved three Recommendations. ITU-T SG11 developed four Recommendations on computing power network and edge computing.

**2.7 Security:** ITU-T SG17 approved 20+ Recommendations on countering cyberattack/spam, personal identifiable information protection, authentication, and quantum-based security technologies. A separate report on ITU’s activities related to building confidence and security in the use of ICTs, including SG17’s work, is presented as Document [C24/18](https://www.itu.int/md/S24-CL-C-0018/en).

**2.8 ITU-T Focus Groups:** In total, seven ITU-T Focus Groups are active: [*ITU-T Focus Group on Metaverse (FG-MV)*](https://www.itu.int/en/ITU-T/focusgroups/mv/Pages/default.aspx); [*ITU-T Focus Group on Testbeds Federations for IMT-2020 and beyond (FG-TBFxG)*](https://www.itu.int/en/ITU-T/focusgroups/tbfxg/Pages/default.aspx)*;* [*ITU-T Focus Group on AI for Natural Disaster Management (FG-AI4NDM)*](https://www.itu.int/en/ITU-T/focusgroups/ai4ndm/Pages/default.aspx); [*ITU-T Focus Group on Autonomous Networks (FG-AN)*](https://www.itu.int/en/ITU-T/focusgroups/an/Pages/default.aspx)*;* [*ITU-T Focus Group on Artificial Intelligence (AI) and Internet of Things (IoT) for Digital Agriculture*](https://www.itu.int/en/ITU-T/focusgroups/ai4a/Pages/default.aspx) *(FG-AI4A), and* [*ITU-T Focus Group on costing models for affordable data services (FG-CD)*](https://www.itu.int/en/ITU-T/focusgroups/cd/Pages/default.aspx)**.**

**2.9** In the reporting period, TSB has not received reports or information on concerning any incidents covered by [WTSA Resolution 69](https://www.itu.int/net/ITU-T/res69/Default.aspx) on *“Non-discriminatory access and use of Internet resources”* (so far there have been [37 incidents since 2009](https://www.itu.int/net/ITU-T/res69/secured/notifications.aspx)).

**2.10** The TSB Director, Mr Seizo Onoe, was invited to and addressed the IETF #116 meeting on 29 March 2023 in Yokohama, Japan.

**2.11** ITU-D SG 1 and SG 2 continue their work on IP-related issues. Q1/1 is working on *“Strategies and policies for the deployment of broadband in developing countries”*.

**2.12** Projects have been implemented successfully by BDT on Internet broadband wireless connectivity to provide free or low-cost digital access for schools and hospitals, and for underserved populations in rural and remote areas in selected countries. The impact for the countries where projects have been implemented includes but is not limited to:

- Burundi: 10 cities connected in 2.5 GHz frequency band, 15 engineers trained for operations and maintenance, and 437 schools, hospitals and Government agencies connected.

- Djibouti: 20 cities connected in 2.5 GHz Frequency Band, and 48 Schools, 43 Hospitals/clinics and 23 Ministries connected.

- Eswatini: 4G LTE Broadband Wireless Network installed in 10 sites and 15 technical training sessions completed for local experts on the RF Monitoring and Planning and Operation and Maintenance of the deployed 4G LTE Broadband Wireless Network.

Other initiatives are also ongoing related to this subject such as GIGA and Partner2Connect. More information is available in [C24/35](https://www.itu.int/md/S24-CL-C-0035/en).

**2.13** ITU-R approved Recommendation ITU-R M.2083-0 *“IMT Vision – Framework and overall objectives of the future development of IMT for 2020 and beyond”*, Resolutions ITU-R 65 *“Principles for the process of future development of IMT for 2020 and beyond”* and ITU-R 66 *“Studies related to wireless systems and applications for the development of the Internet of Things”*, and Report ITU-R M.2440-0 *“The use of the terrestrial component of International Mobile Telecommunications for narrowband and broadband machine-type communications”*.

**2.14** Several training courses were provided through the [ITU Academy](https://academy.itu.int/) and the [ITU Academy Training Centers](https://academy.itu.int/itu-d/projects-activities/centres-excellence/coe-overview), covering topics such as “ Wireless access technologies to internet network", "Key technologies and governance of Internet of Things, Big Data and Artificial Intelligence”, and “The Last Mile Internet Connectivity”. A total of 794 participants took those courses, of which 306 received a certificate.

**3 IPv6**

**3.1** The [ITU-T IPv6 webpage](https://www.itu.int/en/ITU-T/ipv6/Pages/default.aspx) highlights the IPv6 activities within ITU-T. Trainings/courses are being organized on all forms of IoT connectivity, including information security and privacy.

**3.2** BDT and Telecommunications and Post Regulatory Authority- of Sudan established a regional “ITU IPv6 and IoT Expertise Center for Arab Region” hosted by TPRA-Sudan to [provide trainings](https://www.itu.int/en/ITU-D/Regional-Presence/ArabStates/Pages/Projects/IPv6%26IoT/IPV6-IOT.aspx).

**3.3** BDT is also providing technical assistance on IPv6 to Montenegro. The IPv6 Laboratory is now operational at the University of Montenegro.

**3.4** BDT is providing assistance on IPv6 test bed implementation in Cameroon and in the Republic of Congo. Technical assistance is being provided to Iraq, State of Palestine, Somalia, and Sudan for developing their national IPv6 transition strategies and the creation of national IPv6 task forces.

**3.5** BDT is also focusing on a special program to train the trainers on “IPv6 Over 5G Networks”. 31 participants completed the training and 20 have been certified.

**3.6** The [final report](https://www.itu.int/pub/D-STG-SG01.01.1-2017) in response to ITU-D SG 1 [Question 1/1](https://www.itu.int/net4/ITU-D/CDS/sg/rgqlist.asp?lg=1&sp=2014&rgq=D14-SG01-RGQ01.1&stg=1) is available and explores through case studies the experiences of countries in transitioning from IPv4 to IPv6. An [essential Guide](https://www.itu.int/en/ITU-D/Study-Groups/2018-2021/Pages/Publications.aspx) is available in order to assist developing countries to implement IPv6 over 5G Networks.

**4 Internet-related public policy issues including the management of domain names and addresses**

**4.1** The [Council Working Group on international Internet-related public policy issues (CWG-Internet)](https://www.itu.int/en/council/cwg-internet/Pages/default.aspx) held its eighteenth and nineteenth meeting of CWG-Internet on 18 October 2023 and 31 January-1 February 2024, respectively, at the ITU Headquarters in Geneva, Switzerland. At the nineteenth meeting, the Group agreed to launch an open consultation on [*The developmental aspects to strengthen the Internet*](https://www.itu.int/en/council/cwg-internet/Pages/consultation-feb2024.aspx). The Chair’s Report to Council is presented in Document [C24/51](https://www.itu.int/md/S24-CL-C-0051/en).

**4.2** ITU participated in the 18th IGF meeting held in Kyoto, Japan from 8 to 12 October 2023, including the opening ceremony and high-level sessions, and organized sessions on the CWG-Internet, WSIS+20 and WSIS Forum 2024 Open Consultation, measurement frameworks and indicators, and cybersecurity. ITU will continue to participate at the highest level at the 19th IGF meeting in Riyadh, Saudi Arabia.

**4.3** ITU continues to follow the issue of protecting IGO names and acronyms in any new gTLDs, as part of the IGO coalition composed of 35 IGOs including OECD, UN, UPU, WHO, WIPO, and the World Bank.

**4.4** In allthe activities listed in the various sections of this Report, particularly with regard to beneficiary countries on IPv6, broadband and capacity building activities, ITU aims to address the challenges faced by landlocked developing countries as per the Vienna Programme of Action.

**4.5** ITU continues to actively follow discussions in GAC as an observer. ITU attended ICANN78 in October, which marked the 25th Annual General Meeting. The ITU Secretary-General also joined ICANN78 and met the ICANN Board. ITU will participate in ICANN79 in March 2024.

**5 ENUM**

[Updated Information on ENUM](http://www.itu.int/ITU-T/inr/enum/) is being maintained by ITU-T. ITU-T SG2 is continuing work on a new draft Recommendation to differentiate between ENUM and Infrastructure ENUM.

**6 International Internet Connectivity (IIC)/Internet Exchange Points (IXPs)**

BDT continues its work on providing assistance on IXP related issues. IXPs locations are available at the ICT Infrastructure interactive mapping: <https://bbmaps.itu.int/bbmaps/>.

**7 OTT**

**7.1** Under **ITU-D Q3/1**, work continues on *“Emerging technologies, including cloud computing, m-services and OTTs: Challenges and opportunities, economic and policy impact for developing countries”*.

**7.2** **ITU-T SG2** is progressing two work items on OTTs (TR.OTTnum *“Current use of E.164 numbers as identifiers for OTTs”*, and draft Recommendation ITU-T E.ACP *“Alternative calling procedures”*) and **ITU-T SG3** approved one regional Recommendation for Africa on OTT voice bypass and one regional Recommendation for Arab States on “*Principles for dealing with OTTs*”. ITU-T SG3 is also currently working on several work items on OTTS, including a Technical Report to study the economic and policy aspects of OTTs. An ITU workshop on [“Economic and fiscal incentives to accelerate digital transformation of data and applications over telecommunication infrastructure”](https://www.itu.int/en/ITU-T/Workshops-and-Seminars/2022/1103/Pages/default.aspx), was held from 3 to 4 November 2022 in Geneva.

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