

RESOLUTION 101 (REV. BUSAN, 2014)

Internet Protocol-based networks

The Plenipotentiary Conference of the International Telecommunication Union (Busan, 2014),

recalling

- a) Resolution 101 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference;
- b) Resolutions 102, 130, 133 and 180 (Rev. Busan 2014) of this conference;
- c) the outcomes of the Geneva (2003) and Tunis (2005) phases of the World Summit on the Information Society (WSIS), especially §§ 27 c) and 50 d) of the Tunis Agenda for the Information Society, relating to international Internet connectivity;
- d) that the WSIS+10 High-Level Event (Geneva, 2014), in its Statement on the Implementation of WSIS Outcomes and the WSIS Vision Beyond 2015, determined that one of the priority areas to be addressed by the Post-2015 Development Agenda must be: "Encouraging the full deployment of IPv6 to ensure the long-term sustainability of the addressing space, including in light of future developments in the Internet of Things";
- e) No. 196 of the ITU Convention, which stipulates that telecommunication standardization study groups shall pay due attention to the study of Questions and to the formulation of recommendations directly connected with the establishment, development and improvement of telecommunications in developing countries¹ at both the regional and international levels;
- f) Resolution 23 (Rev. Dubai, 2014) of the World Telecommunication Development Conference (WTDC), on Internet access and availability for developing countries and charging principles for international Internet connection;
- g) Resolution 69 (Rev. Dubai, 2012) of the World Telecommunication Standardization Assembly (WTSA), on non-discriminatory access and use of Internet resources;
- h) Recommendation ITU-T D.50, on general tariff principles – principles applicable to international Internet connection;

¹ These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

- i)* Resolution 64 (Rev. Dubai, 2012) of WTSA, on IP address allocation and facilitating the transition to and deployment of IPv6;
- j)* United Nations General Assembly Resolution 68/302, on the review of WSIS;
- k)* Opinion 1 (Geneva, 2013) of the World Telecommunication/Information and Communication Technology (ICT) Policy Forum (WTPF), on promoting Internet exchange points (IXPs) as a long-term solution to advance connectivity;
- l)* Opinion 2 (Geneva, 2013) of WTPF, on fostering an enabling environment for the greater growth and development of broadband connectivity;
- m)* Opinion 3 (Geneva, 2013) of WTPF, on supporting capacity building for the deployment of IPv6;
- n)* Opinion 4 (Geneva, 2013) of WTPF, in support of IPv6 adoption and transition from IPv4;
- o)* Opinion 5 (Geneva, 2013) of WTPF, on supporting multistakeholderism in Internet governance;
- p)* Opinion 6 (Geneva, 2013) of WTPF, on supporting operationalizing the enhanced cooperation process,

aware

- a)* that one of the purposes of the Union is to promote the extension of new telecommunication technologies to all the world's inhabitants;
- b)* that, in order to fulfil its purposes, the Union should, among other things, facilitate the worldwide standardization of telecommunications, with a satisfactory quality of service,

considering

- a)* that advances in the global information infrastructure, including the development of Internet Protocol (IP)-based networks and especially the Internet, and future IP developments, continue to be an issue of crucial importance, as an important engine for growth in the world economy and prosperity in the twenty-first century;
- b)* the need for preserving and promoting multilingualism on the Internet for an integrating and inclusive information society;
- c)* that the Internet permits the introduction of new additional applications in telecommunication/ICT services based on its highly advanced technology, e.g. steady progress in adopting cloud computing, and that e-mail and text messaging, voice over IP, video and real-time TV (IPTV) over the Internet continue to record high levels of use, even though there are challenges regarding quality of service, uncertainty of origin, and the high cost of international connectivity;
- d)* that current and future IP-based networks and future IP developments will continue to introduce dramatic changes in the way we acquire, produce, circulate and consume information;

- e) that broadband development and rising demand for Internet access being experienced particularly in developing countries lead to the need for affordable international Internet connectivity;
- f) that Resolution 23 (Rev. Dubai, 2014) of WTDC noted "that the composition of costs for operators, whether regional or local, is in part, significantly dependent on the type of connection (transit or peering) and the availability and cost of backhaul and long-haul infrastructure", as it relates to developing countries;
- g) that Opinion 1 (Geneva, 2013) of WTPF deems that the establishment of Internet exchange points (IXPs) is a priority to tackle connectivity problems, improve service quality and increase network connectivity and resilience, fostering competition and reducing interconnection costs;
- h) that results of studies on international Internet connection costs, especially for developing countries, should continue to be examined in order to improve affordable Internet connectivity;
- i) Resolution 1 (Dubai, 2012) of the World Conference on International Telecommunications (WCIT), on special measures for landlocked developing countries (LLDCs) and small island developing States (SIDS) for access to international optical fibre networks,

considering further

- a) that the ITU Telecommunication Development Sector (ITU-D) has made significant progress and carried out several studies on the promotion of infrastructure and the use of the Internet in developing countries under its 2010 Hyderabad Action Plan, through human capacity building efforts such as its Internet training centre initiative, and through the outcomes of WTDC-14 Dubai Action Plan, which endorsed the continuation of these studies,
- b) that studies are ongoing in the ITU Telecommunication Standardization Sector (ITU-T) on IP-based network issues, including service interoperability with other telecommunication networks, numbering, signalling requirements and protocol aspects, security and infrastructure component costs, issues associated with migration from existing networks to NGNs and evolution to future networks, and implementation of the requirements of Recommendation ITU-T D.50;
- c) that the general cooperation agreement between ITU-T and the Internet Society (ISOC)/Internet Engineering Task Force (IETF), as referred to in Supplement 3 to the ITU-T Series A recommendations, continues to exist,

recognizing

- a) that IP-based networks have evolved to a widely accessible medium used for global commerce and communication, and there is therefore a need to continue to identify the global and regional activities related to IP-based networks with respect to, for example:
 - i) infrastructure, interoperability and standardization;

- ii) Internet naming and addressing;
 - iii) dissemination of information about IP-based networks and the implications of their development for ITU Member States, particularly the developing countries;
- b) that significant work on IP-related issues and the future Internet is being conducted within ITU and many other international bodies;
- c) that the quality of service of IP-based networks should be consistent with ITU-T recommendations and other recognized international standards;
- d) that it is in the public interest that IP-based networks and other telecommunication networks should be both interoperable and provide global reachability, bearing in mind *recognizing c) above,*

requests the ITU Telecommunication Standardization Sector

to continue its collaborative activities on IP-based networks with ISOC/IETF and other relevant recognized organizations, in respect of interconnectivity with existing telecommunication networks and migration to NGN and future networks,

requests the three Sectors

to continue to consider and update their work programmes on IP-based networks and on migration to NGN and future networks,

resolves

- 1 to explore ways and means for greater collaboration and coordination between ITU and relevant organizations² involved in the development of IP-based networks and the future Internet, through cooperation agreements, as appropriate, in order to increase the role of ITU in Internet governance so as to ensure maximum benefits to the global community;
- 2 that ITU shall fully embrace the opportunities for telecommunication/ICT development that arise from the growth of IP-based services, in conformity with the ITU purposes and the outcomes of the Geneva (2003) and Tunis (2005) phases of WSIS, taking into account the quality and security of services and the affordability of international connectivity for developing countries, especially for LLDCs and SIDS;
- 3 that ITU shall clearly identify, for its Member States and Sector Members and for the general public, the range of Internet-related issues that fall within the responsibilities incumbent on the Union under its basic texts and the activities in the WSIS outcome documents where ITU has a role;

² Including, but not limited to, the Internet Corporation for Assigned Names and Numbers (ICANN), the regional Internet registries (RIRs), the Internet Engineering Task Force (IETF), the Internet Society (ISOC) and the World Wide Web Consortium (W3C), on the basis of reciprocity.

4 that ITU shall continue to collaborate with other relevant organizations to ensure that growth in IP-based networks, along with and taking into consideration traditional networks, delivers maximum benefits to the global community, and shall continue to participate, as appropriate, in any directly related new international initiatives, such as the initiative in cooperation with the United Nations Educational, Scientific and Cultural Organization (UNESCO) on the United Nations Broadband Commission formed for this purpose;

5 to continue the study of international Internet connectivity as an urgent matter, as called for in § 50 d) of the Tunis Agenda (2005), and to call upon ITU-T, in particular Study Group 3, which has responsibility for Recommendation ITU-T D.50 and which has compiled an initial set of guidelines in Supplement 2 to Recommendation ITU-T D.50 (05/2013), to complete as soon as possible its studies that have been ongoing since WTSA-2000;

6 to take into account the provisions of Resolution 23 (Rev. Dubai, 2014) of WTDC, in particular undertaking studies on the structure of international Internet connection costs for developing countries, with emphasis on the influence and effects of the connection mode (transit and peering), secure cross-border connectivity and the availability and cost of backhaul and long-haul physical infrastructure,

instructs the Secretary-General

1 to prepare an annual report to the ITU Council with the appropriate input from Member States, Sector Members, the three Sectors and the General Secretariat, that provides a comprehensive summary both of the activities that ITU is already undertaking in regard to IP-based networks and any changes thereto, including the development of NGNs and future networks, and of the roles and activities of other relevant international organizations, describing their involvement in IP-based network issues; the report shall indicate the degree of cooperation between ITU and these organizations, drawing the required information wherever possible from existing sources, and containing concrete proposals on improving ITU activities and such cooperation, and shall be distributed widely among the Member States and Sector Members, the advisory groups of the three Sectors and other groups involved one month before the Council session;

2 based on this report, to continue collaborative activities related to IP-based networks, especially those related to the implementation of the relevant outcomes of the two phases of WSIS (Geneva, 2003 and Tunis, 2005), and to consider the WSIS+10 Statement of the ITU-coordinated High-Level Event on the implementation of the WSIS outcomes;

3 to submit a report, based on input from Member States and Sector Members, to the Council, for its consideration, on the need to convene the sixth WTPF at an appropriate time pursuant to Resolution 2 (Rev. Busan, 2014) of this conference,

instructs the Director of the Telecommunication Development Bureau

to provide capacity building to developing countries, including least developed countries, SIDS and LLDCs, in order to connect the unconnected, including through provision of the necessary assistance by the ITU regional offices to achieve this goal,

invites the Council

to consider the report referred to in *instructs the Secretary-General 3*, and take into account comments, if any, made by the advisory groups of the three Sectors through their respective Bureau Directors on implementation of this resolution and take necessary action, as appropriate,

invites Member States and Sector Members

- 1 to participate in, and follow the progress of, the current work of the Sectors of the Union;
- 2 to increase awareness at national, regional and international level among all interested non-governmental parties and to facilitate their participation in relevant ITU activities, and in any other relevant activities emanating from the Geneva (2003) and Tunis (2005) phases of WSIS.