



World Telecommunication/ICT  
Policy Forum 2013



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## **OPINION 4: In support of IPv6 adoption and transition from IPv4**

The fifth World Telecommunication/ICT Policy Forum (Geneva, 2013),

*considering*

a) WTSA Resolution 64 (Rev. Dubai, 2012) on the subject of IP address allocation and facilitating the transition to and deployment of IPv6 which, *inter alia*, instructs the Director of the TSB in close collaboration with the Director of the BDT to:

- 1) continue the ongoing activities between the Telecommunication Standardization Bureau (TSB) and the Telecommunication Development Bureau (BDT), taking into consideration the involvement of those partners willing to participate and bring their expertise to assist developing countries with IPv6 migration and deployment, and to respond to their regional needs as identified by the BDT, especially through capacity building programs;
- 2) maintain the website which provides information about global activities related to IPv6, to facilitate awareness-raising and the importance of IPv6 deployment for all ITU members and interested entities, and provides information related to training events being undertaken by ITU and relevant entities in the Internet community (e.g. Regional Internet Registries (RIRs), network operator groups, and the Internet Society (ISOC));
- 3) promote awareness of the importance of IPv6 deployment, to facilitate joint training activities involving appropriate experts from the relevant entities, and to provide information including roadmaps, guidelines, and to assist in the establishment of IPv6 Test bed Laboratories in developing countries in collaboration with appropriate related organizations;
- 4) take appropriate action to facilitate the activities for Study Group 2 and Study Group 3 in the area of IP addresses and to report annually to the ITU Council and to WTSA 2016.

b) Plenipotentiary Resolution 180 (Guadalajara, 2010) on Facilitating the transition from IPv4 to IPv6;

c) the work of the IPv6 working group, that was established by the Council at its 2009 session, as well as related discussions in WTSA-12 (Dubai 2012);

d) WTPF Opinion 5 (Lisbon, 2009) calling for acceleration of activities related to WTSA Resolution 64 (Johannesburg 2008);

- e) the work of BDT and TSB already undertaken on the subject of IPv6;
- f) that IPv6 address allocation and deployment is an important issue for Member States and Sector Members;
- g) the ongoing work of the RIRs, ISOC, and other stakeholders in the areas of IPv4 and IPv6,  
*recognizing*
- a) that the IANA functions operator has allocated the last IPv4 blocks to the RIRs;
- b) that RIRs are close to exhausting their IPv4 allocations;
- c) that migration to IPv6 is gaining speed and that many prominent international web-based businesses have already implemented IPv6 portals;
- d) that IPv6's extremely large address space enables global connectivity to many more electronic devices, mobile phones, laptops, in-vehicle computers, televisions, cameras, building sensors, medical devices, etc;
- e) that IPv6's security, when enabled and configured with the appropriate key infrastructure, such as IPsec, will enhance authentication, encryption, confidentiality and integrity protection at the network layer;
- f) that the proportion of IPv6 traffic on the Internet remains very small;
- g) that because of incompatibility between IPv4 and IPv6, parallel (dual stack) operation is required and there will be a need for IPv4 addresses for an undetermined period until a critical mass of users and services is available via IPv6 addresses, thereby allowing IPv4 to be phased out;
- h) that new entrant Internet service providers will continue to require access to IPv4 addresses for an indeterminate period of time;
- i) that large blocks of IPv4 address space were allocated to individual companies and organizations prior to the establishment of the RIRs and that the status of some legacy address space is unclear;
- j) that a growing market has developed in the transfer of IPv4 addresses between entities with a significant proportion of transferred addresses from legacy allocations which are not subject to the relevant policies of the RIRs;
- k) that consistent with the policies developed through the RIRs, all IP numbers continue to be allocated for use on a needs basis and should be returned to the numbering pool when no longer needed,  
*recognizing further*
- a) that transfers of IPv4 addresses that are not coordinated through the RIRs could have undesirable consequences;
- b) that such consequences could be minimized by accelerating the transition to IPv6,

*is of the view*

- a) that every effort should be made to encourage and facilitate the transition to IPv6;
- b) that every effort should be made to facilitate the optimal use of IPv4 addresses, including legacy addresses and by inter-region transfers;
- c) that plans and policies should continue to be in place to allow new entrant ISPs to enter the market via access to a reasonable block of IPv4 addresses at reasonable prices;
- d) that needs-based address allocation should continue to underpin IP address allocation, irrespective of whether they are IPv6 or IPv4 addresses;
- e) that all IPv4 transactions should continue to be reported to the relevant RIRs;
- f) that policies of inter RIR transfer across all RIRs should work to ensure that such transfers are needs based and be common to all RIRs irrespective of the address space concerned;
- g) that plans and policies should be in place to address the issue of legacy addresses which may not be subject to current policies of the RIRs,

*invites*

- a) Member States to take appropriate measures to encourage, facilitate and support the fastest possible adoption and migration to IPv6;
  - b) Membership to promote affordable IPv6 compliant products and services as quickly as possible;
  - c) Member States to contribute to the Council Working Group on International Internet-related Public Policy Issues on matters pertaining to the Internet and the management of Internet resources, including addresses;
  - d) Member States, and other stakeholders, according to their roles and responsibilities as defined in paragraph 35 of the Tunis Agenda, to participate in the multi-stakeholder institutions directly responsible for the development of technical policy and allocation of these resources so that their policy priorities in these matters can be taken into account.
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