OPINION 3: Supporting Capacity Building for the deployment of IPv6

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

considering

a) the success of WTSA Resolution 64 (Rev. Dubai 2012) on the subject of IP address allocation and encouraging the deployment of IPv6 which, *inter alia*, instructed the Director of the TSB in close collaboration with the Director of the BDT to undertake tasks;

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 and relevant discussions in WTSA-12 Dubai;

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

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, IPv6 in relevant capacity building,

recognizing

a) that IANA has allocated the last IPv4 blocks to the RIRs;

b) that RIRs have put in place measures to manage the remaining IPv4 blocks;

c) that migration to IPv6 is gaining speed and that many prominent international web-based businesses have already implemented IPv6 portals;

d) that IPv6 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, in form of IPsec, will enhance authentication, encryption, and integrity protection at the network layer;

f) that, nevertheless, the proportion of IPv6 traffic on the Internet remains very small;

g) that, because of the opportunity to operate IPv4 and IPv6 in parallel, via either dual stack or tunneling operation, there will be a need for IPv4 addresses for an indeterminate period until a critical mass of web-based services is available via IPv6 addresses;

h) that new entrant Internet service providers will continue to require access to IPv4 addresses for an indeterminate time;

i) that the RIRs have developed special policies for the distribution of final blocks of IPv4 addresses aimed to ensure that new and emerging networks receive a small amount of IPv4 for the foreseeable future;

j) that some RIRs are seeking to reclaim the IPv4 address space that was allocated in large blocks to individual companies and organizations prior to the establishment of the RIRs;

k) that a growing market has developed in the transfer of IPv4 addresses between entities and that the overwhelming proportion of transferred addresses are from legacy allocations which are not subject to the policies of the RIRs;

l) that the Directors of the TSB and BDT have,

1) initiated a project to assist developing countries, responding to their regional needs as identified by the Telecommunication Development Bureau (BDT); this project should be carried out jointly by the Telecommunication Standardization Bureau (TSB) and BDT, taking into consideration the involvement of those partners willing to join and to bring their expertise;

2) established a website that 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 relevant entities in the Internet community (e.g. Regional Internet Registries (RIRs), Local Internet Registries (LIRs), operator groups, the Internet Society (ISOC));

3) promoted awareness of the importance of IPv6 deployment, to facilitate joint training activities involving appropriate experts from the relevant entities, and to provide information to developing countries;

4) studied IPv6 address allocation and registration and reported to ITU Council 2012.

recognizing further

a) that the RIRs are developing policies to manage the inter-regional transfer of address space, underpinned by needs based demand for IPv4 addresses;

b)   that needs-based address allocation should continue to underpin IP address allocation, irrespective of whether they are IPv6 or IPv4, and in the case of IPv4, irrespective of whether they are legacy or allocated address space;

c)   that all IPv4 transactions be reported to the relevant RIRs, including transactions of legacy addresses that are not necessarily subject to the policies of the RIRs regarding transfers, as supported by the policies developed by the RIR communities;

d)   that issues regarding IPv4 can 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 policies of inter-RIR transfer across all RIRs should ensure that such transfers are needs based and be common to all RIRs irrespective of the address space concerned;

c)   that Member states and Sector members should promote the availability of affordable Customer Premise Equipment (CPEs) compatible with IPv6 in the shortest time possible,

   invites

a)   Member States to consider policies and incentives to promote, facilitate and support the fastest possible adoption and migration to IPv6 within their jurisdictions;

b)   Sector Members with web and Internet business to offer their services via IPv6 as quickly as possible.

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