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| Asia-Pacific Telecommunity Member Administrations |
| Proposed modification of WTSA-12 Resolution 64 - IP address allocation and facilitating the transition to and deployment of IPv6 |
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| **Abstract:** | In this document the Asia-Pacific Telecommunity Administrations propose modifications to Resolution 64. |

Introduction

Even though IPv6 was introduced over 10 years ago, the adoption and deployment of the IPv6 addresses in some countries are still low. This could be due to many reasons such as incompatible hardware and software, poor planning, lack of skills and many others.

Benefits, customer’s demands and synchronized transition between related organization and companies are some factors that affect the objectives and direction in IPv6 transition. Besides that, many countries are still waiting for improving policy and also waiting for each other in implementing IPv6.

This document provides a proposal to add and modify some information deemed relevant to Resolution 64. The information would help countries to plan and execute IPv6 implementation.

Proposal

APT Member Administrations would like to propose to revise the text of Resolution 64 as provided in annex.

MOD APT/44A18/1

RESOLUTION 64 (REV. HAMMAMET, 2016)

IP address allocation and facilitating the transition to and deployment of IPv6

(Johannesburg, 2008; Dubai, 2012; Hammamet, 2016)

The World Telecommunication Standardization Assembly (Hammamet, 2016),

recognizing

*a)* Resolutions 101 (Rev. Busan, 2014), 102 (Rev. Busan, 2014) and 180 (Rev. Busan, 2014) of the Plenipotentiary Conference, and Resolution 63 (Rev. Dubai, 2014) of the World Telecommunication Development Conference;

*b)* that the exhaustion of IPv4 addresses calls for acceleration of IPv4 to IPv6 migration, which becomes an important issue for Member States and Sector Members;

*c)* the result of the ITU IPv6 Group, which has carried out the work that was assigned to it;

*d)* that future work on IPv6 human capacity building is to be continued and led by the Telecommunication Development Bureau (BDT), in collaboration with other relevant organizations, if required,

noting

*a)* that IP addresses are fundamental resources that are essential for the future development of IP-based telecommunication/information and communication technology (ICT) networks and for the world economy;

*b)* that many countries believe that there are historical imbalances related to IPv4 allocation;

*c)* that large contiguous blocks of IPv4 addresses are becoming scarce and that it is urgent to promote migration to IPv6;

*d)* the ongoing collaboration and coordination between ITU and relevant organizations on IPv6 capacity building in order to respond to the needs of Member States and Sector Members;

*e)* the progress towards adoption of IPv6 that has been made over the last few years,

considering

*a)* that, among the relevant stakeholders in the Internet community, there is a need to continue discussions related to IPv6 deployment and disseminate information in this regard;

*b)* that IPv6 deployment and migration is an important issue for Member States and Sector Members;

*c)* that many developing countries[[1]](#footnote-1)1 are still having challenges in the IPv4 to IPv6 transition process including due to the limited technical skills in this area;

*d)* that there are Member States with sufficient technical skills in IPv6, however there is delay in the IPv4 to IPv6 transition due to various reasons such as waiting for other Member States’ successful implementation and lack of demand from operators;

*e)* that Member States have an important role to play in promoting the deployment of IPv6;

*f)* that prompt deployment of IPv6 is increasingly urgent on account of the rapid rate of depletion of IPv4 addresses;

*g)* that many developing countries want the Telecommunication Standardization Sector (ITU-T) to become a registry of IP addresses in order to give the developing countries the option of obtaining IP addresses directly from ITU, while other countries prefer to use the current system;

*h)* that deployment of IPv6 will facilitate the Internet of Things (IoT) solutions, which require huge amount of IP addresses;

*i)* that new communication infrastructure such as 4G/LTE and 5G network will require IPv6 support for better communication,

resolves

1 to instruct ITU-T Study Groups 2 and 3, each according to its mandate, to continue to study the allocation and economic aspects of IP addresses, and to monitor and evaluate the allocation of IPv4 addresses which may be still available, returned or unused, in the interests of the developing countries;

2 to instruct Study Groups 2 and 3, each according to its mandate, to study IPv6 address allocation and registration for interested members and, especially, developing countries;

3 to enhance the exchange of experiences and information with all stakeholders regarding the deployment of IPv6, with the aim of creating opportunities for collaborative efforts, and to ensure that feedback exists to enrich ITU efforts to support the transition to and deployment of IPv6,

instructs the Director of the Telecommunication Standardization Bureau, in close collaboration with the Director of the Telecommunication Development Bureau

1 to continue the ongoing activities between the Telecommunication Standardization Bureau (TSB) and 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 respond to their regional needs as identified by BDT, especially through capacity-building programmes through BDT Programmes 2 and 4;

2 to maintain the website which provides information about global activities related to IPv6, in order to facilitate awareness-raising and highlight the importance of IPv6 deployment for all ITU members and interested entities, as well as information related to training events being undertaken by ITU and relevant organizations (e.g. regional Internet registries (RIR), network operator groups and the Internet Society (ISOC));

3 to promote awareness of the importance of IPv6 deployment, to facilitate joint training activities, involving appropriate experts from the relevant entities, to provide information, including roadmaps and guidelines, and to assist in the establishment of IPv6 test-bed laboratories in developing countries in collaboration with appropriate relevant organizations;

4 to initiate IPv6 training programme for engineers, network operators and content providers which can enhance their skills and further apply at their respective organisations,

further instructs the Director of the Telecommunication Standardization Bureau

to take appropriate action to facilitate the activities of Study Groups 2 and 3 in the area of IP addresses, and to report annually to the ITU Council and also to the 2016 world telecommunication standardization assembly, regarding the progress on action taken with respect to *resolves* above,

invites Member States and Sector Members

1 through the knowledge gained under *resolves* 3, to promote specific initiatives at the national level which foster interaction with governmental, private and academic entities and civil society for the purposes of the information exchange necessary for the deployment of IPv6 in their respective countries;

2 to ensure that newly deployed communication, computer equipment and software has IPv6 capability, as appropriate, taking into consideration a necessary period for the transition from IPv4 to IPv6;

3 to consider of making commitment on their IPv6 transition progress and do public communications to share the results of IPv6 transition,

invites Member States

1 to develop national policies to promote the technological update of systems, in order to ensure that the public services provided utilizing the IP protocol and the communications infrastructure and relevant applications of the Member States are compatible with IPv6.

2 to consider national IPv6 validation programs for Internet Service Providers (ISPs) and other relevant organisations;

3 to consider issuing a mandate or directive on offering IPv6 services for Governments, ISPs and relevant organisations, if appropriate.

1. 1 These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition. [↑](#footnote-ref-1)