

PROMOTION AND DEPLOYMENT OF IPv6

The 32 Meeting of the Permanent Consultative Committee I: Telecommunications/Information and Communication Technologies (PCC.I),

CONSIDERING:

- a) That the Internet Protocol (IP) addresses are essential resources that constitute indispensable tools for the future development of IP-based telecommunication/ICT networks, and for the development of new service offerings provided via the internet.
- b) That the Internet protocol Ipv4 is in its final phase, and its reserves are nearly exhausted, at a time when the internet is expanding, extending its coverage to new regions, there is proliferation of devices, and a great potential for the emergence of new service modes.
- c) That at a time when running out of Ipv4 resources would restrict the possibilities to allocate new IP addresses, essential for the growth and deployment of Internet of Things (IoT) solutions, which require availability of more resources, and Ipv6 is one of the solutions to that end.

RECOGNIZING:

- a) That by virtue of WTDC-17 Resolution 63 on “Allocation of IP addresses and facilitating the transition to Ipv6 in the developing countries”, Member States resolved to cooperate with the relevant international and regional organizations, particularly the Regional Internet Registries (RIR), regarding training and expansion of technical knowledge on Ipv6.
- b) That as a way of continuing with the growth and stability of the internet at the regional and global level, it is necessary to promote and establish mechanisms that provide incentives for the adoption of Ipv6 in our region.
- c) That, to that effect, CITEL Member States have discussed and approved some Recommendations referring to the actions necessary for the deployment of Ipv6:
 - Recommendation PCC.I/REC.2 (XII-08) “Implementation of Ipv6”, where CITEL Member States recommend taking actions to collaborate with the private sector in the timely deployment of protocol Ipv6 in their respective countries.
 - Resolution CITEL RES.58 (V-10) “Transition towards Ipv6”, where Member States recognize the positive role of Regional Internet Registries (RIRs) in the fair allocation of IP addresses. At the same time, they are determined to work in a coordinated fashion with these organizations,

¹ CCP.I-TIC/doc. 4598/18 rev. 1

local technical communities, national research and education networks, and the industry to promote facilitation of deployment of Ipv6.

- Recommendation PCC.I/REC. 7 (XVIII-11) “Ipv6-compliant procurement and updates in CITEL Member States” to foster coexistence and transition towards the use of Ipv6 through the adoption of standards, guidelines and recommendations so that medium and long term network updates and procurement are both Ipv4 and Ipv6 compliant, taking into consideration the role of governments as the main technology purchasing party.
- Recommendation PCC.I/REC. 15 (XX-12) “Regional Policies for the adoption and coexistence of Ipv4-Ipv6 in CITEL Member States”, encouraging most countries to adopt measures that foster the implementation of joint policies towards the adoption of Ipv6.

d) That the Member States of Argentina, Colombia, Costa Rica, Ecuador, Mexico, Peru, and the Dominican Republic have been able to make progress in the promotion of Ipv6 deployment, as a result of definitions relative to legal and regulatory frameworks, coalitions and/or task forces, involving different stakeholders in the internet ecosystem so as to foster and provide incentives for the development of this protocol in the region.

e) That the Regional Internet Registries (RIR) members of CITEL have supported and organized seminars and/or training sessions on Ipv6 related technical topics in the region.

f) That the deployment of Ipv6 is not a technological or commercial issue exclusively reserved for operators anymore, but it has become a strategic matter to develop telecommunication networks and to connect the disconnected.

RECOMMENDS:

a) That the Member States continue in the process of promoting and providing incentives for Ipv6 deployment in the countries of the region, taking into account the following aspects:

i. Improvement of Governmental Networks

IT equipment and service acquisition shall require procurement specifications that are compatible with Ipv6, which 1) will pave the way at government offices for an adequate deployment, 2) will generate a business case for the industry, laying the foundation for future services such as “Smart Cities”, Internet of Things (IoT), e-Gov, and 3) will attract the attention and engage academia, an indispensable step for the generation of professional who are experts in this topic.

It is critical for government services that are offered online to be Ipv4 and Ipv6 compliant, so as to provide incentives for Ipv6 deployment. In turn, this will make Ipv6 available to users for direct native access, without the need for intermediary “translating” equipment.

ii. Imports of “Ipv6 Ready” Equipment

Our region runs the risk of receiving significant amounts of IT equipment that only support the Ipv4 protocol, turning our countries into receivers of obsolete and outdated technology. The recommendation is to establish a plan to limit or reject imports of equipment that only support Ipv4 and provide incentives to import equipment that is Ipv4 and Ipv6 compliant, following the standards defined by the IETF.

iii. Preserve digital security for our citizens.

By deploying Ipv6, countries improve internet transaction traceability in cybercrime cases.

In this sense, internet service providers (ISP) that implement Ipv6 will be able to improve transaction traceability, enabling the mapping of IP addresses to a reduced number of subscribers, something that is impossible in practice with Ipv4, when operators use mechanisms such as Carrier-Grade NATs (CGNs).

The recommendation is for service providers to implement Ipv6, following the technical specifications defined in RFC 7721, in order to reduce security and privacy concerns.

iv. That the Member States in need of expanding their technical knowledge on deployment of Ipv6 coordinate the necessary measures through their RIRs in order to increase Ipv6 knowledge in the region.