ETNO position paper on the New IP proposal

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Executive Summary

In response to the proposal initially introduced in the ITU-T Telecommunication Standardization Advisory Group (TSAG), and further developed within SG11 and 13, whereby the ITU-T would take on a more consequential role in the development of IP protocols, this paper summarises the main reactions, and outlines the position of the European telecommunications sector on this important issue.

ETNO does not support the New IP (renamed 'future vertical communication networks') proposal, on the grounds that:

- the need for a 'New IP' still needs to be assessed, and
- a shift of responsibility from the IETF/IEEE to the ITU-T would represent a duplication of standardisation work. Indeed, the development of IP protocols should continue to be conducted by the IETF, since the evolution of IP protocols is at the core of its mission.

Introduction

During the Telecommunication Standardization Advisory Group (TSAG) of 23-27 September 2019 a contribution (C83 "New IP, Shaping Future Network") was presented by China Mobile Communications Corporation, China Unicom , Huawei Technologies Co., Ltd. (China), and the Ministry of Industry and Information Technology (MIIT) (China).

This contribution proposed that TSAG should consider recommending in the next WTSA (postponed to February 2021) that ITU-T play a leading role in the strategic transformation to a new information and communications network, paying more attention to the new future network research with a New IP protocol system and by taking a long-term view and shoulder the responsibility of a top-down design for the future network in next study period.

ETNO members have followed the issue closely, and taken note of the many reactions, Liaison Statements and positioning of some ITU-T Study Groups, national governments, sectoral organisations and some Standards Development Organisations.

ETNO position

ETNO members recognise the role of the ITU in the research, standardisation and development of telecommunications technologies with regard to current and future communication services.

Current telecommunication services use the TCP/IP protocol suite that built the Internet, thereby acknowledging the flexible and adaptable nature of IP protocols. At present, the Internet is commonly used as the backbone for many international communications.

The IP architecture and the capacity of current communication networks has been based mostly on the work of the IETF and IEEE, while 3GPP has been developing cellular technologies. The work of these SDOs has been complementary to the work done in ITU regarding Telecommunication services: the development of IP protocols has never been under the remit of the ITU.

Nevertheless, some emerging communication services like immersive services based upon Augmented Reality or Virtual reality techniques have specific requirements that can hardly be addressed by current

communication networks (e.g., from a latency perspective). Some of these requirements are already under development (or developed to some degree) by the IETF, while others remain to be defined.

ETNO also disagrees with the characterisation of the supposed inherent shortcomings of the Internet Protocol stack in the "New IP, Shaping Future Network" proposal. ETNO sees the decentralised nature of today's Internet precisely as an asset for addressing future use cases, and the bottom-up development process of the SDOs currently in charge of the necessary improvements (security, trust etc.) as a guarantee to ensure the backward compatibility of these improvements with today's Internet.

ETNO considers that the distribution of work and responsibilities among these agencies/institutions should remain unchanged for the following reasons:

1. The development of a new Internet Protocol (provided there is a real need for it) would put at risk the **high investments devoted to telecoms network infrastructures**, which might need to be replaced before being fully amortized, thus affecting the return on investment of the sector and putting their sustainability at significant risk;
2. To **avoid duplication of efforts**, there should be no (or minimal) overlap in work done in different SDOs: the ITU should not take on work on the IP architecture and the capacity of current transport networks being implemented by IETF and IEEE
3. Internet protocols and their architecture should continue to be developed in **open**, **multistakeholder, and bottom-up fashion** – such as those led by the IETF and IEEE – and not driven by top-down processes, as in ITU

In conclusion, having reviewed the proposed rationale for a "New IP" and given the above elements, ETNO does not support the development of this new protocol stack by the ITU-T.

ETNO (European Telecommunications Network Operators' Association) represents Europe's telecommunications network operators and is the principal policy group for European e-communications network operators. ETNO's primary purpose is to promote a positive policy environment allowing the EU telecommunications sector to deliver best quality services to consumers and businesses.

For questions and clarifications regarding this position paper, please contact **Ross Creelman** (creelman@etno.eu).

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