



Editor

DRAFT PRELIMINARY APT COMMON PROPOSAL
PROPOSED MODIFICATION TO WTSA-16 RESOLUTION 60
RESPONDING TO THE CHALLENGES OF THE EVOLUTION OF THE
IDENTIFICATION/NUMBERING SYSTEM AND ITS CONVERGENCE WITH IP-
BASED SYSTEMS/NETWORKS

Abstract

Based on the consideration of the standardization progress of identification/numbering related subjects, Resolution 60 is proposed to be revised to enhance the standardization work on identification/numbering for emerging networks. The main modifications include: addressing identification/numbering related subjects for next-generation networks evolution (NGNe) and networks beyond IMT-2020; studying the role of new technologies in identification/numbering system; promoting the coordination and cooperation on identification/numbering; and other editorial changes.

Introduction

In recent years, ITU-T has led the standardization work on the allocation and management of identification/numbering, and the evolution of the identification/numbering system and its convergence with emerging networks, considering NGNe and networks beyond IMT-2020 as the working environment of the identification/numbering system. NGNe is an evolved version of NGN with enhanced capabilities for the support of network intelligence, virtualization, programmability and so on.

At the same time, the transition from traditional networks to IP-based networks is taking place at a fast pace. There exist the issues concerning the convergence of identification/numbering system along with the development of NGNe and networks beyond IMT-2020, and associated issues. Considering the standardization work on requirements, architecture, signalling, and protocol for NGNe and networks beyond IMT-2020 have made great progress in this study period, it would be of great value to address and enhance the standardization work on identification/numbering for emerging networks in ITU-T.

In the next study period, the new subjects on identification/numbering are as follows.

- 1) New identification/numbering introduced in NGNe and networks beyond IMT-2020;

- 2) The role of new technologies such as artificial intelligence (AI) / machine learning (ML) and distributed ledger technology (DLT) in identification/numbering system.

In addition, the coordination and cooperation on identification/numbering are to be promoted.

Proposal

APT members propose to revise Resolution 60 in following aspects:

- 1) To address the standardization work on identification/numbering related subjects for NGNe and networks beyond IMT-2020.
- 2) To study the role of new technologies such as AI/ML and DLT in identification/numbering system.
- 3) To promote the coordination and cooperation on identification/numbering in various study groups of ITU-T, and among ITU-T and other SDOs.

MOD

RESOLUTION 60 (HYDERABAD, 2020)

**Responding to the challenges of the evolution of the
identification/numbering system and its convergence with IP-based
systems/networks**

(Johannesburg, 2008; Dubai, 2012; Hyderabad, 2020)

The World Telecommunication Standardization Assembly (Hyderabad, 2020),

recognizing

- a) Resolution 133 (Rev. DUBAI, 2018) of the Plenipotentiary Conference, with regard to the continuing progress towards integration of telecommunications and the Internet;
- b) Resolutions 101 and 102 (Rev. DUBAI, 2018) of the Plenipotentiary Conference;
- c) the evolving role of the World Telecommunication Standardization Assembly, as reflected in Resolution 122 (Rev. Guadalajara, 2010) of the Plenipotentiary Conference,

considering

that International Mobile Telecommunications (IMT), especially IMT-2020, is being utilized widely to build a user-centred information ecosystem, and it makes a positive and important contribution to the United Nations Sustainable Development Goals (SDGs) and World Summit on the Information Society (WSIS) action lines,

noting

- a) the work in Study Group 2 of the ITU Telecommunication Standardization Sector (ITU-T), on investigating the evolutionary aspect of the identification/numbering system, including the "future of numbering", considering next-generation networks evolution (NGNe) and networks beyond IMT-2020 as the working environment of the identification/numbering system in the future;
- b) the work in Study Group 13 of ITU-T, on investigating the upcoming network technologies for networks beyond IMT-2020, with Information Centric Networking (ICN) being considered as a potential networking scheme;
- c) that the transition from traditional networks to IP-based networks is taking place at a fast pace, whilst there is a transition to NGNe and networks beyond IMT-2020;
- d) the emerging issues concerning administrative control for international telecommunication service-based numbers;
- e) the forthcoming issues concerning the convergence of numbering, naming, addressing and identification systems along with the development of NGNe and networks beyond IMT-2020, and associated issues concerning security, signalling, protocol, portability and migration;

f) the growing demand for identification/numbering resources for communications referred to as Internet of things (IoT);

g) the need for principles and a roadmap for the evolution of international telecommunication resources, which would be expected to help the timely, predictable deployment of advanced identification/numbering technologies,

resolves to instruct ITU-T Study Group 2, within the mandate of ITU-T

1 to continue studying, in liaison with the other relevant study groups, the necessary requirements for the structure and maintenance of telecommunication identification/numbering resources in relation to the deployment of IP-based networks and the transition to NGNe and networks beyond IMT-2020;

2 to ensure the development of the administrative requirements for identification/numbering resource management systems in NGNe and networks beyond IMT-2020;

3 to continue developing guidelines, as well as a framework, for the evolution of the international telecommunication identification/numbering system and its convergence with IP-based systems, in coordination with related study groups and associated regional groups, so that a basis for any new application can be provided;

4 to study the role of new technologies such as artificial intelligence (AI) / machine learning (ML) and distributed ledger technology (DLT) in identification/numbering system;

5 to promote the coordination and cooperation on identification/numbering in various study groups of ITU-T, and with other standards development organizations (SDOs),

instructs relevant study groups, and in particular ITU-T Study Group 13 and Study Group 11

to support the work of Study Group 2, to ensure that such applications are based on appropriate guidelines, as well as a framework, for the evolution of the international telecommunication identification/numbering system, and to help investigate their impact on the identification/numbering system in the aspects of requirements, architecture, signalling, and protocol of network, especially for NGNe and networks beyond IMT-2020,

instructs the Director of the Telecommunication Standardization Bureau

to take appropriate action to facilitate the foregoing work regarding the evolution of the identification/numbering system or its converged applications,

invites Member States and Sector Members

1 to contribute to these activities, taking into consideration their national concerns and experiences;

2 to participate in and to contribute to regional groups discussing the identification/numbering issues, and to promote the participation of developing countries in those discussions.