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| African Telecommunication Union Administrations | | | |
| Proposed modification of Resolution 65 - Calling party number delivery, calling line identification and originating identification | | | |
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| **Abstract:** | African Member States propose revisions of WTSA-12 Resolution 65 on CPND, CLI and OI to cater for the changing international telecommunication environment, and the need for TRUST in telecommunications. |

# 1 Introduction

WTSA-12 Resolution 65 instructs and provides guidance for ITU-T Study Group 2, ITU-T Study Group 3 and, where required, ITU-T Study Group 17 to further study the emerging issues of international CPND, and CLI and OI. Also Recommendation ITU-T E.157 was developed by ITU‑T Study Group 2 in 2009 to provide guidance for international calling party number delivery, Calling Line Identification and Origin Identification.

Since then, many changes have happened in the telecommunication technologies arena, including infrastructures and services evolutions and innovations. Therefore it was felt that WTSA-12 Resolution 65 as well as ITU-T Recommendation 157 should be duly revised and updated to cater for these telecommunication environment changes and advances.

It is becoming more certain that trust in telecommunications should be on top of the concerns of Member States. Non-delivery and/or Spoofing of the origin of a communication is contributing to a great extent in fraudulent activities including financial fraud, security threats and users inconvenience. Absence of CPN, CLI and OI information is usually commensurate with misuse of numbering resources.

Currently, and in the foreseen future, most of the traffic is carried over legacy switched networks as well as, and mostly integrated with, IP based networks, with more reliance on the latter. Accordingly, it is not appropriate that Resolution 65 and Recommendation ITU-T E.157 ignore this paradigm shift in telecommunication delivery scenarios and mechanisms.

# 2 Discussion

For a long time, the SS7 signalling protocol provided a secure environment that promoted trust in the CPN and CLI digits presented to the end-users, and the supply chain extended from the originating network, through a transit network if needed, to the terminating network. However it has been recently reported about vulnerabilities in the SS7 system, which should be subject to study in the concerned ITU-T Study Groups, e.g. SG 2, SG 11 and SG 17. Additionally, in a converged environment, the Session Initiation Protocol (Sip) Protocol is used within NGN networks, particularly in IMS systems, for end-to-end communication, the identification of the caller is also possible.

A recent report by the CEPT ECC (Electronic Communications Committee) indicated that “*the transition from legacy networks has transferred intelligence to the network edge and more sophisticated end-user devices and applications have empowered end-users to make use of the CLI capability in an increasingly flexible way thereby extending the supply chain well beyond the traditional players. This development, while broadly beneficial to calling parties, has created an environment where the inherent trust in CLI has been eroded and in some cases abused to perpetrate consumer harm through the manipulation of the E.164 number used as CLI*”. The report highlighted the need for validation mechanisms to retain and restore trust in CLI; this validation measure if taken, would ensure that the risk of consumer harm (e.g. Calling/Caller ID Spoofing) is minimised. The Report concluded that CLI validation techniques should be made mandatory. Although African Countries may have different views on some of the proposals of this report, it well describes the *status quo* and opens areas for study by the ITU-T.

Hence it is timely to modify Resolution 65 to cater for the above paradigm shift in networking infrastructures and services provisioning, stressing on the need for trust in the delivery of the calling party number, Calling line identification and originating identification. The pertinent Recommendation ITU-T E.157 should be duly revised to address these changes.

# 3 Proposal

African Member States propose changes to Resolution 65 to address the above issues, and to invite ITU-T Study Groups 2, 3, 11 and 17 to study these issues and reconsider updating Recommendation E.157 accordingly. Some minor changes to terminology is also proposed. With these proposed new studies, the TSB Director should continue to report on the progress of the revised Resolution 65.

MOD AFCP/42A29/1

RESOLUTION 65 (REV. HAMMAMET, 2016)

Calling party number delivery, calling line identification and originating identification

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

The World Telecommunication Standardization Assembly (Hammamet, 2016),

concerned

*a)* that there appears to be a trend to suppress the transmission across international boundaries of calling party number, calling line identification and originating identification information, in particular the country code and the national destination code;

*b)* that such practices have an unfavourable effect on security and economic issues, in particular for developing countries[[1]](#footnote-1)1;

*c)* about the significant number of cases reported to the Director of the Telecommunication Standardization Bureau (TSB) on ITU-T E.164 numbering misappropriation and misuse related to non-delivery or spoofing of the calling party number;

*d)* that work in Study Group 2 of the ITU Telecommunication Standardization Sector (ITU-T) on this topic needs to be expedited and expanded to cater for the changing environment of services delivery and networks infrastructures, including NGN and FN,

noting

*a)* relevant ITU-T Recommendations, in particular:

i) ITU-T E.156, Guidelines for ITU-T action on reported misuse of ITU-T E.164 number resources;

ii) ITU-T E.157, International calling party number delivery;

iii) ITU‑T E.164, The international public telecommunication numbering plan;

iv) ITU‑T I.251.3, Number identification supplementary services: Calling Line Identification Presentation;

v) ITU‑T I.251.4, Number identification supplementary services: Calling Line Identification Restriction;

vi) ITU‑T I.251.7, Number identification supplementary services: Malicious call identification;

vii) ITU‑T Q.731.x-series, concerning stage 3 descriptions for number identification supplementary services using Signalling System No. 7;

viii) ITU‑T Q.731.7, Stage 3 description for number identification supplementary services using Signalling System No. 7: Malicious call identification (MCID);

ix) ITU‑T Q.764, Signalling System No. 7 – ISDN User Part signalling procedures;

x) ITU‑T Q.1912.5, Interworking between Session Initiation Protocol (SIP) and Bearer Independent Call Control protocol or ISDN User Part;

*b)* relevant resolutions:

i) Resolution 61 (Rev. Dubai, 2012) of this assembly, on misappropriation and misuse of international telecommunication numbering resources;

ii) Resolution 21 (Rev. Antalya, 2006) of the Plenipotentiary Conference, on special measures concerning alternative calling procedures on international telecommunication networks;

iii) Resolution 29 (Rev. Dubai, 2012) of this assembly, on alternative calling procedures on international telecommunication networks;

*c)* Clause 31B (Article 3.6) of the ITRs (Dubai, 2012) regarding the delivery of international calling line identification (CLI) by the signatory Member States to these ITRs,

noting further

that some countries and regions have adopted national laws, directives and recommendations regarding non-delivery and spoofing of calling party number, and/or on ensuring confidence in origination identification, and that some countries have national data-protection and data-privacy laws, directives and recommendations,

reaffirming

that it is the sovereign right of each country to regulate its telecommunications and, as such, regulate the provision of calling line identification (CLI), calling party number delivery (CPND) and originating identification (OI), taking into account the Preamble to the ITU Constitution and the relevant provisions of the ITRs related to CLI,

resolves

1 that international CLI, CPND and OI shall be provided based on the relevant ITU‑T Recommendations where technically possible;

2 that the delivered calling party numbers (CPN) shall at least, where technically possible, be prefixed with country codes so that a terminating country can identify in which country the calls are originated before they are delivered from an originating country to that terminating country;

3 that, in addition to the country code if delivered, the delivered CPN and CLI shall include the national destination code, or sufficient information to allow proper billing and accounting, for each call;

4 that the OI information in a heterogeneous networking environment shall, where technically possible, be an identifier registered by the subscriber and authorised by originating service provider, or be replaced by a default identifier by the originating provider to identify the origin of the call;

5 that the CPN, CLI and OI information shall be transmitted transparently by transit networks (including hubs),

instructs

1 ITU-T Study Group 2, ITU-T Study Group 3 and, where required, ITU-T Study Group 11 and ITU-T Study Group 17 to further study the emerging issues of CPND, CLI and OI, in particular for heterogeneous networking environment, including security methods and validation techniques for CPND, CLI and OI;

2 the study groups concerned to expedite work on Recommendations that would provide additional detail and guidance for the implementation of this resolution;

3 the Director of the TSB to report on the progress achieved by the study groups in implementing this resolution, which is intended to improve security and minimize fraud, and minimize technical harm as called for by Article 42 of the Constitution,

invites Member States

1 to contribute to this work and to cooperate in the implementation of this resolution;

2 to implement clause 31B (Article 3.6) of the ITRs (Dubai, 2012) by the signatory Member States to these ITRs.

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