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STANDARDIZATION SECTOR
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SERIES E: OVERALL NETWORK OPERATION,
TELEPHONE SERVICE, SERVICE OPERATION AND
HUMAN FACTORS

International operation – Operation of international
telephone services

Guidelines for ITU-T action on reported misuse of
E.164 number resources

**Supplement 1: Best practice guide on
countering misuse of E.164 number resources**

ITU-T Recommendation E.156 – Supplement 1

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ITU-T Recommendation E.156

Guidelines for ITU-T action on reported misuse of E.164 number resources

Supplement 1

Best practice guide on countering misuse of E.164 number resources

Summary

This Best Practice Guide is intended as a complimentary volume to ITU-T Recommendation E.156 "Guidelines for ITU-T action on reported misuse of E.164 number resources" that specifies the measures that the ITU TSB will undertake with respect to reported alleged misuse of numbering resources over which it has some control.

This guide is intended to discuss what action other stakeholders may wish to take with regard to minimizing and managing the impact of misuse of numbering resources for their customers benefit.

Source

Supplement 1 to ITU-T Recommendation E.156 was agreed on 8 November 2007 by ITU-T Study Group 2 (2005-2008).

FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

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Introduction

This Best Practice Guide is intended as a complimentary volume to ITU-T Recommendation E.156 "Guidelines for ITU-T action on reported misuse of E.164 number resources" that specifies the measures that the ITU TSB will undertake with respect to reported alleged misuse of numbering resources over which it has some control.

This guide is intended to discuss what action other stakeholders may wish to take with regard to minimizing and managing the impact of misuse of numbering resources for their customers benefit. In order to identify what such best practice is, it will be useful to present some background on the issues associated with misuse.

E.164 numbering misuse takes several forms and is detrimental to the industry in various respects. Unfortunately, there is no single measure to tackle this practice as a whole and all potential actions should be considered. The majority of misuse of numbers is carried out independent of Internet diallers.

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ITU-T Recommendation E.156

Guidelines for ITU-T action on reported misuse of E.164 number resources

Supplement 1

Best practice guide on countering misuse of E.164 number resources

1 Scope

This guide describes examples of misuse associated with E.164 numbering resources, together with descriptions of best practice to counter misuse. It was considered useful at the time it was written, and is intended to be used by Service providers and Regulators.

2 References

[ITU-T E.156] ITU-T Recommendation E.156 (2006), *Guidelines for ITU-T action on reported misuse of E.164 number resources*.

3 Acronyms

CRM	Customer Relationship/Management
IDD	International Direct Dial
IRSF	International Revenue Share Forum
PRSP	Premium Rate Service Provider
ROA	Recognized Operating Agency
SIM	Subscriber Identity Module
SMS	Short Message Service
SP	Service Provider(s)
TSP	Telephony Service Provider

4 Distinguishing misuse and fraud

This clause distinguishes between misuse of numbering and fraud that were seen to exist at the time that the guide was written. It is recognized that it is not complete and that other activities will emerge that could be categorized as either misuse or fraud or both in the future. The information in this guide is sufficiently generic to be relevant.

It is not the purpose of this guide to describe in detail what is meant by fraud. Rather it is intended to show that the misuse of Numbers and numbering plans might form the basis by which a fraud is perpetrated but the misuse itself might not constitute actual fraud. For the purposes of this guide, misuse, associated with numbers, is defined as the use of numbers other than for what they are intended. Fraud, on the other hand, is use of numbers in the manner for which they were prescribed, but in a manner intended to generate revenue.



Table 1 – Relationship of number ranges and mechanisms to misuse and/or fraud

	Misuse: A Number or number range that is being used for a purpose other than for which it was allocated	Misuse of a number in a fraudulent way	Fraud: The use of a number in the manner for which it was allocated but for the purpose of generating cash at the expense of the customer and/or operators
Global numbering resources	Yes	Yes	Yes
International numbering resources	Yes • Example 1 Short stopping (to be defined) • Example 2 Mobile numbers could be misused as premium rate services on international level	Yes • Getting the consumer to instigate calls with short stopping	Yes • Example 1 Getting the consumer to instigate calls (to be defined)
National numbering resources	Yes Personal Numbers that have premium rate charges associated with them	Yes Instigating calls by the consumer to PNs that have premium rate charges associated with them	Yes • Example 1 Instigating calls to consumers to perceived expensive calls • Example 2 Calls to numbers incurring expensive call charges and exploiting settlement dates to receive payment from operators prior to the call origination costs being settled. (Note 1)
Local numbering resources	?	?	?
Advertisement	Yes	Yes	Yes
SMS	Yes	Yes	Yes
Rogue dialling (Note 2)	Yes	Yes	Yes
NOTE 1 – This example is included here to demonstrate that fraud can occur elsewhere in the end-to-end connectivity chain. Its inclusion here is for completeness, and whilst issues may appear to be similar to those of this guide, they are addressed elsewhere. NOTE 2 – This table is intended to show that where fraud occurs, it should be dealt with as fraud, according to the laws that pertain. However, in some circumstances fraud occurs with numbering misuse, and other avenues are open to the operator/service provider in order to address the issue at hand by seeking to restrict the use of the number.			