International Telecommunication Union

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Supplement 6
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SERIES E: OVERALL NETWORK OPERATION, TELEPHONE SERVICE, SERVICE OPERATION AND HUMAN FACTORS

International operation – Numbering plan of the international telephone service

The international public telecommunication numbering plan

Supplement 6: Guidelines for identifying and selecting globally harmonized numbers

Recommendation ITU-T E.164 – Supplement 6

ITU-T E-SERIES RECOMMENDATIONS

OVERALL NETWORK OPERATION, TELEPHONE SERVICE, SERVICE OPERATION AND HUMAN FACTORS

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Recommendation ITU-T E.164

The international public telecommunication numbering plan

Supplement 6

Guidelines for identifying and selecting globally harmonized numbers

Summary

Supplement 6 to Recommendation ITU-T E.164 outlines the benefits of globally harmonized numbers (GHNs), and provides guidelines for the possible selection of the same number in every national numbering plan in order to achieve the "same number – same service" concept, whenever deemed appropriate.

Some major requirements to be taken into account when establishing GHNs are also stated.

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T E.164/I.331	1984-10-19	
2.0	ITU-T E.164/I.331/Q.11 bis	1988-11-25	
3.0	ITU-T E.164/I.331	1991-08-23	II
4.0	ITU-T E.164	1997-05-30	2
4.1	ITU-T E.164 Suppl. 2	1998-11-13	2
4.2	ITU-T E.164 Suppl. 3	2002-05-16	2
4.3	ITU-T E.164 Suppl. 4	2003-05-02	2
4.4	ITU-T E.164 Suppl. 5	2008-05-15	2
5.0	ITU-T E.164	2005-02-24	2
6.0	ITU-T E.164	2010-11-18	2
6.1	ITU-T E.164 Suppl. 1	1998-03-09	2
6.1	ITU-T E.164 (2010) Amd. 1	2011-06-10	2
6.2	ITU-T E.164 Suppl. 2	2012-03-29	2
6.3	ITU-T E.164 Suppl. 3	2004-05-28	2
6.3	ITU-T E.164 Suppl. 2	2009-11-24	2
6.4	ITU-T E.164 Suppl. 3 Amd. 1	2009-11-24	2
6.5	ITU-T E.164 Suppl. 4	2004-05-28	2
6.6	ITU-T E.164 Suppl. 4 Amd. 1	2009-11-24	2
6.7	ITU-T E.164 Suppl. 5	2009-11-24	2
6.9	ITU-T E.164 Suppl. 6	2012-03-29	2

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

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.

NOTE

In this publication, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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As of the date of approval of this publication, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this publication. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at http://www.itu.int/ITU-T/ipr/.

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Introduction

The Telecommunication Standardization Bureau (TSB) of the International Telecommunication Union (ITU) has allocated country codes to national administrations that, in turn, have managed the national (significant) number (N(S)N) element as defined in [ITU-T E.164]. The N(S)N of every national numbering plan is unique inside each country, and has evolved over a considerable period of time. These N(S)Ns are currently administered in integrated numbering plans, and national numbering plans, to reflect the legal, regulatory and commercial requirements. In a difficult environment, the concept that elements of the national numbering plan could be harmonized to some extent by adopting common principles for the design of numbering plans and choosing identical codes for services of social values (SSV), is strongly encouraged.

It should be noted that numbering harmonization could also be useful for facilitating the mitigation of the effects of climate change by collecting information and improving planning and response mechanisms. This is of particular relevance in high-risk regions of the world that are challenged by the severe consequences of such natural disasters as strong hurricanes, rising sea levels, etc.

Harmonization of telecommunication facilities to promote international communications is a concept also considered within the purpose of the ITU and exists with the recognition of the sovereign rights of Member States.

This supplement provides guidelines to identify and select numbers that might be useful if harmonization of certain categories of services is desired.

Recommendation ITU-T E.164

The international public telecommunication numbering plan

Supplement 6

Guidelines for identifying and selecting globally harmonized numbers

1   Scope

This supplement provides the basic concepts and advantages of services that are identified and selected for the assignment of national numbers on a globally harmonized basis. Such number assignment for services of social value (SSV) will be implemented to the extent permitted by current national numbering plans.

Technology requirements are considered out of the scope of this supplement.

2   References

[ITU-T E.101]	Recommendation ITU-T E.101 (2009), *Definitions of terms used for identifiers (names, numbers, addresses and other identifiers) for public telecommunication services and networks*.
[ITU T E.161.1]	Recommendation ITU-T E.161.1 (2008), *Guidelines to select Emergency Number for public telecommunications networks*.
[ITU T E.164 Sup.5]	Recommendation ITU-T E.164 Supplement 5 (2008), *Guidance with regard to the selection of numbers for help lines for children*.
[ITU-T E.1100]	Recommendation ITU-T E.1100 (2009), *Specification of an international numbering resource for use in the provisioning of international help lines*.
[ITU-T Q.1761]	Recommendation ITU-T Q.1761 (2004), *Principles and requirements for convergence of fixed and existing IMT-2000 systems*.
[ITU-T Q-Sup.47]	ITU-T Q-Series Recommendations – Supplement 47 (2003), *Emergency services for IMT-2000 networks – Requirements for harmonization and convergence*.
[EU J-116]	Official Journal of the European Union (2007), *Commission decision 2007/116/EC*. <http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l_049/l_04920070217en00300033.pdf>

3   Definitions

3.1   Term defined elsewhere

The following term defined elsewhere and used in this supplement is to be used within the context of global number harmonization.

3.1.1   convergence [ITU-T Q.1761]: Coordinated evolution of formerly discrete networks toward uniformity in support of services and applications.

3.2 Term defined in this supplement

This supplement defines the following term:

3.2.1 services of social value: Services provided for the benefit of individuals to aid in maintaining their well-being.

NOTE – This definition is based on the definition given for 'harmonized service of social value' in [EU J-116].

4 Abbreviations and acronyms

This supplement uses the following abbreviations and acronyms:

GHN   Globally Harmonized Number

HN   Harmonized Number

SSV   Service of Social Value

5 Conventions

There is no particular notation, style, presentation, or other conventions used within this supplement.

6 Requirements for globally harmonized numbers

6.1 Process for identifying global harmonization of numbers

The definition of the SSV should be used as the basis for a circular to be sent to the Members of the ITU, seeking their input on the following questions:

a)   Does a service of social value, similar to that specified in the ITU, exist?

b)   Are there plans to deploy such a service of social value?

c)   What number(s) is/are currently being used to access such services of social value?

The responses to the circular letter should be analysed to identify which number, if any, might be used in a further recommendation to identify a candidate for use as a national globally harmonized number.

If such a number exists, then a further circular letter should be initiated to request Member States to advise:

a)   what, if any, issues exist in utilizing such a number in the future

    a. by itself

    b. in parallel with other existing national numbers for similar services.

b)   under what circumstances use of the possible globally harmonized number would be considered.

In the selection of the GHNs, consideration should be given to existing regional numbers and also to numbers that are widespread in many countries across the world.

6.2 Process for specifying a globally harmonized number

If the results of the process for identifying a possible candidate for a national globally harmonized number (GHN) (see clause 6.1) are positive, then such a number should be specified either in a new Recommendation or in a supplement to [ITU-T E.164].

NOTE – If a Recommendation is to be used, then the text utilized should be in the same form as in [ITU-T E.161.1].

If global harmonization of a number is difficult in a given country due to the existence of an equivalent commonly-used national number, the GHN could be implemented on a secondary basis. However, any national implementation of GHNs is subject to availability and meeting the national regulatory and legal requirements.

When considering the establishment of GHNs, it is advisable that the application of international ITU-T E.164 numbers is also placed under review as an alternative option.

7   Further considerations for identifying and specifying a globally harmonized number

It is clear that mobility and mobile communications have a significant role in accessing telecommunications and that such access is increased as more and more people are able to travel with their own terminals, carrying the numbering information of their original network. In this context, having different numbers/codes to provide the same service in different countries might be very confusing. In addition, endeavours to harmonize numbers through technical solutions that allow a national number from Country A to be routed to either the implemented harmonized number deployed in Country B, or Country B's implementation of the number for a specific service of social value, should only be done in line with national regulatory and legal requirements, based upon a commercial implementation.

Access from fixed telephones to services of social value would benefit more from the selection and deployment of a harmonized number. Unless and until similar technology, potentially on a converged base to that of the mobile scenario, can be utilized in all telecommunication environments, the use of a possible globally harmonized number should be considered, based on the selection and specification criteria identified above.

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