INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.2761

Amendment 1
(12/2002)

SERIES Q: SWITCHING AND SIGNALLING

Broadband ISDN – B-ISDN application protocols for the network signalling

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Functional description of the B-ISDN user part (B-ISUP) of signalling system No. 7

Amendment 1: Support for the International Emergency Preference Scheme

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ITU-T Recommendation Q.2761 (1999) – Amendment 1

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ITU-T Recommendation Q.2761

Functional description of the B-ISDN user part (B-ISUP) of signalling system No. 7

Amendment 1

Support for the International Emergency Preference Scheme

Summary

This amendment was produced to meet the urgent need for the implementation of the International Emergency Preference Scheme (IEPS) as specified in ITU-T Rec. E.106. This amendment contains the modifications to ITU-T Rec. Q.2761 (12/99) in order to accommodate these needs. This amendment should be read in connection with the related amendments to ITU-T Recs Q.2762, Q.2763, and Q.2764.

Source

Amendment 1 to ITU-T Recommendation Q.2761 (1999) was prepared by ITU-T Study Group 11 (2001-2004) and approved under the WTSA Resolution 1 procedure on 29 December 2002.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. 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 Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

INTELLECTUAL PROPERTY RIGHTS

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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

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ITU-T Recommendation Q.2761

Functional description of the B-ISDN user part (B-ISUP) of signalling system No. 7

Amendment 1

Support for the International Emergency Preference Scheme

1) Clause 1 – Scope

Insert the following paragraph after the third paragraph:

The International Emergency Preference Scheme is described in ITU-T Rec. E.106, *Description of an International Emergency Preference Scheme*. The associated B-ISUP general functions of messages and signals, formats and codes, and procedures are to be found in ITU-T Recs Q.2762 [3], Q.2763 [4], and Q.2764 [5].

NOTE – If B-ISUP is used as a bearer control protocol in a BICC environment as described in TRQ.3020 (ITU-T Q-series Recommendations, Supplement 16), these amendments to B-ISUP do not apply.

2) Clause 2 – References

Add the following new references numerically:

[52] ITU-T Recommendation E.106 (2000), *Description of an international emergency preference scheme (IEPS)*.

[53] ITU-T Recommendation E.412 (2003), *Network management controls*.

[54] ITU-T Recommendation Q.767 (1991), *Application of the ISDN User Part of CCITT signalling system No. 7 for international ISDN interconnections*.

[55] ITU-T Recommendation Q.1902.x series (2001), *Bearer Independent Call Control protocol (Capability Set 2)*.

3) Clause 4 – Abbreviations

Insert the following new abbreviation alphabetically:

IEPS International Emergency Preference Scheme

4) Clause 6 – Capabilities supported by the B-ISDN User Part

Insert the following new entry into Table 1/Q.2761:

Table 1/Q.2761 – Signalling capabilities for basic call

Function/service	Origination/Destination nodes	Transit nodes
International Emergency Preference Scheme	√ Note	√
NOTE – The procedures specified here for the international signalling network can be applied in national networks also. It is essential that the call is set-up in the originating and destination national networks with utmost priority.		

5) New Appendix III

Insert the following new Appendix III:

Appendix III

B-ISUP enhancements to support IEPS

III.1 Introduction

There is an urgent need for enhancements to B-ISUP implementations in support of the International Emergency Preference Scheme (IEPS) as specified in ITU-T Rec. E.106 [52]. The intent is to increase the probability of call completion in congested network situations for authorized callers. These enhancements only apply to the international interface Administrations and network operators are encouraged to support these, or similar capabilities, in their domestic networks.

III.2 Scope

This appendix provides an overview of the signalling needed to support IEPS. The B-ISUP enhancements to the other ITU-T Recommendations of this series relating to basic call are provided in corresponding amendments to ITU-T Recs Q.2762, Q.2763, and Q.2764. To provide a viable IEPS capability, it is required to implement all the amendments to the ITU-T Recommendations of this series.

III.3 Approach

The implementation of IEPS support may take place in a phased approach in a forward compatible manner. This phased approach facilitates and expedites the introduction of IEPS and allows its support by different B-ISUP versions. The phases are:

a) The minimum implementation relies on the transfer in B-ISUP of a specific IEPS call marking in the forward direction for preferential call set-up in the international network. In an international exchange, any call attempt with this IEPS call marking shall bypass restrictive call handling procedures (for example network management controls as specified in ITU-T Rec. E.412 [53]).

b) An improved implementation provides the generation of an early ACM. The aim of this mechanism is to reduce call set-up failures due to timer expiration caused by, for example, queuing delays for trunk allocation on congested routes.

c) An additional information transfer mechanism, based on a new parameter in conjunction with the IEPS call marking, may be introduced to facilitate future enhancements of IEPS, for example, in the areas of identification, security, validation and priority levels. The coding of this new parameter and its associated procedures are not covered in this set of amendments and are for further study.

III.4 ISUP versions and ISUP-based protocols

As the B-ISUP specifications [3], [4], [5] are published in different ITU-T Recommendations, these amendments to B-ISUP provide all necessary information for support of IEPS in international exchanges. IEPS can be implemented on the other ISUP versions, i.e., ISUP'92, ISUP'97 and ISUP'2000, by the identical amendments made for B-ISUP. In support of IEPS, ITU-T Rec. Q.767 [54] and BICC [55] are also being amended.

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