International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.2931
Amendment 5
(01/2006)

SERIES Q: SWITCHING AND SIGNALLING

Broadband ISDN – B-ISDN application protocols for access signalling

Digital Subscriber Signalling System No. 2 – User-Network Interface (UNI) layer 3 specification for basic call/connection control

Amendment 5: Support for the International Emergency Preference Scheme

ITU-T Recommendation Q.2931 (1995) – Amendment 5

ITU-T Q-SERIES RECOMMENDATIONS

SWITCHING AND SIGNALLING

For further details, please refer to the list of ITU-T Recommendations.

ITU-T Recommendation Q.2931

Digital Subscriber Signalling System No. 2 – User-Network Interface (UNI) layer 3 specification for basic call/connection control

Amendment 5

Support for the International Emergency Preference Scheme

Summary

ITU-T Rec. Q.2931 provides basic call and connection control for point-to-point connections in a B-ISDN. This amendment was produced to meet the need for the implementation of the International Emergency Preference Scheme (IEPS) as specified in ITU-T Rec. E.106. It contains the modifications to ITU-T Rec. Q.2931 (1995) in order to accommodate these needs. This amendment is designed to be compatible with implementations conforming to ITU-T Rec. Q.2931 (1995) and its Amendments 1, 2, 3 and 4.

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.

NOTE

In this Recommendation, 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 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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Introduction

This amendment was produced to meet the need for the implementation of the International Emergency Preference Scheme (IEPS) as specified in ITU-T Rec. E.106. It contains the modifications to ITU-T Rec. Q.2931 (1995) in order to accommodate these needs. This amendment is designed to be compatible with implementations conforming to ITU-T Rec. Q.2931 (1995) and its Amendments 1, 2, 3 and 4.

ITU-T Recommendation Q.2931

Digital Subscriber Signalling System No. 2 – User-Network Interface (UNI) layer 3 specification for basic call/connection control

Amendment 5

Support for the International Emergency Preference Scheme

1)   Clause 1.3 – Capabilities supported by this Recommendation

Insert the following new capability:

15)   IEPS

2)   New clause 1.3.15 – IEPS

Add the following new clause:

1.3.15   IEPS

To support IEPS in the signalling protocol, a mechanism based on signalling an IEPS indicator is specified.

3)   Clause 3.1.7 – Set-up

Add the following entry to Table 3-8:

Table 3-8/Q.2931 – SETUP message content

Information element	Reference	Direction	Type	Length
IEPS indicator	4.5	Both	O	4-5

4)   Clause 3.2.7 – Set-up

Add the following entry to Table 3-19:

Table 3-19/Q.2931 – SETUP message content

Information element	Reference	Direction	Type	Length
IEPS indicator	4.5	Both	O	4-5

5)   Clause 4.5.1 – Coding rules

Add the following entry to Table 4-3:

Table 4-3/Q.2931 – General information element format – Information element identifiers

Bits								
8	7	6	5	4	3	2	1	
1	0	0	1	1	0	0	0	IEPS indicator

6) New clause 4.5.26 – IEPS indicator

Add the following new clause:

4.5.26 IEPS indicator

The purpose of the IEPS indicator information element is to identify an IEPS call/connection for preferential call/connection set-up. It is optionally present in the SETUP message.

The IEPS indicator information element is coded as shown in Figure 4-36. The length of this information element is 5 octets.

8	7	6	5	4	3	2	1	Octet
IEPS indicator information element identifier								1
1	0	0	1	1	0	0	0	
ext. 1	Coding standard		IE instruction field					2
			Flag indicator	Res		IE action		
Length of IEPS indicator contents								3
								4
ext. 1	IEPS indicator							5

Figure 4-36/Q.2931 – IEPS indicator information element

Table 4-24/Q.2931 – IEPS indicator information element

IEPS indicator (octet 5)
<u>Bits</u>
7 6 5 4 3 2 1
0 0 0 0 0 0 0   No indication
0 0 0 0 0 0 1   IEPS marking for preferential call/connection set-up
Other values are spare.

7) New clause 5.10 – International Emergency Preference Scheme

Add the following new clause:

5.10 International Emergency Preference Scheme

5.10.1 Call/connection establishment at the originating interface

5.10.1.1 Call/connection request

When subscribed to, the DSS2 user entity will include the IEPS indicator IE in the SETUP message to provide preferential treatment for a call/connection. The call/connection is established with the IEPS indicator IE set as "IEPS marking for preferential call/connection set-up" in the SETUP message. Restrictive network management controls (e.g., DSS2 signalling congestion control procedure) are not applied to this call/connection.

5.10.1.2 Call/connection rejection

Procedures as specified in 5.1.8 apply.

5.10.2 Call/connection establishment at the destination interface

5.10.2.1 Incoming call/connection request

The network will map the IEPS call/connection marking transported through the network into the IEPS indicator information element and deliver it in the SETUP message to the DSS2 user entity. Restrictive network management controls (e.g., DSS2 signalling congestion control procedure) are not applied to this call/connection.

8) Clause J.2 – Abbreviations

Insert the following new abbreviation alphabetically:

IEPS   International Emergency Preference Scheme

9) Clause J.3 – References

Insert the following new references:

[59]   ITU-T Recommendation E.106 (2003), *International Emergency Preference Scheme (IEPS) for disaster relief operations*.

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

[61]   ITU-T Recommendation Q.1902.x series (2001), *Bearer Independent Call Control protocol Capability Set 2 (BICC CS2)*.

[62]   ITU-T Recommendation Q.1950 (2002), *Bearer independent call bearer control protocol*.

10) Appendix I – Guidelines for the use of Instruction indicators

Add the following entry to Table I.2:

Table I.2/Q.2931 – Typical use of Instruction indicators for the Q.2931 information elements which are related to the basic call control

Information elements	Flag	Origin	Action indicator
IEPS indicator	Not used	N&U	Not significant

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