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ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.1902.4

Amendment 1
(12/2002)

SERIES Q: SWITCHING AND SIGNALLING

Specifications of signalling related to Bearer Independent
Call Control (BICC)

Bearer Independent Call Control protocol
(Capability Set 2): Basic call procedures

**Amendment 1: Support for the International
Emergency Preference Scheme**

ITU-T Recommendation Q.1902.4 (2001) –
Amendment 1

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ITU-T Recommendation Q.1902.4

Bearer Independent Call Control protocol (Capability Set 2): Basic call procedures

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.1902.4 (07/01) in order to accommodate these needs. This amendment should be read in connection with the related amendments to ITU-T Recs Q.1902.1, Q.1902.2, Q.1902.3 and Q.1950.

Source

Amendment 1 to ITU-T Recommendation Q.1902.4 (2001) 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.

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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.1902.4

Bearer Independent Call Control protocol (Capability Set 2): Basic call procedures

Amendment 1

Support for the International Emergency Preference Scheme

1) Clause 4 – Abbreviations

Add the following new abbreviations alphabetically:

CPC Calling Party's Category

IEPS International Emergency Preference Scheme

2) Clause 7.2.2.3 – Actions required at an intermediate international SN

Add the following:

b) *International Emergency Preference Scheme:*

- i) If the CSF, at an intermediate international SN, receives a call with CPC set to IEPS, the call establishment proceeds with priority. The call is established with the CPC set as IEPS call marking in the outgoing IAM. Restrictive network management controls (e.g. Automatic Call Gapping, Automatic Congestion Control, Hard-to-Reach procedure) are not applied to this call.
- ii) For an IEPS-call, the codec negotiation procedures are not to be invoked. If codec negotiation is already invoked on a preceding bearer path, the SN shall terminate the codec negotiation procedures and the call shall proceed.
- iii) If routing procedures fail to find an outgoing CIC value, the call is queued and shall take precedence over any other normal call attempts.
- iv) Optionally, if queuing occurs, an early ACM (called party status set to "no indication") with the inclusion of the generic notification parameter set to "call completion delay" may be returned to the preceding CSF. However, if the incoming IAM had indicated "COT to be expected", the early ACM (no indication) shall not be sent until Continuity Message (COT) with *Continuity Indication* has been received.

3) Clause 7.2.3.3 – Actions required at an intermediate international CMN

Add the following:

b) *International Emergency Preference Scheme:*

- i) If the CSF, at an intermediate international CMN, receives a call with CPC set to IEPS, the call establishment proceeds with priority. The call is established with the CPC set as IEPS call marking in the outgoing IAM. Restrictive network management controls (e.g. Automatic Call Gapping, Automatic Congestion Control, Hard-to-Reach procedure) are not applied to this call.
- ii) If routing procedures fail to find an outgoing CIC value, the call is queued and shall take precedence over any other normal call attempts.

- iii) Optionally, if queuing occurs, an early ACM (called party status set to *"no indication"*) with the inclusion of the generic notification parameter set to *"call completion delay"* may be returned to the preceding CSF. However, if the incoming IAM had indicated *"COT to be expected"*, the early ACM (*no indication*) shall not be sent until Continuity Message (COT) with *Continuity Indication* has been received.

4) Clause 7.2.4.3 – Actions required at an outgoing international gateway SN

Add the following:

c) *International Emergency Preference Scheme:*

- i) If the CSF, at an outgoing international gateway SN, receives information from the national network that the call is to be treated as an IEPS call (e.g. CPC value of IEPS), call establishment proceeds with priority. The call is established with the CPC set as IEPS call marking in the outgoing IAM. Restrictive network management controls (e.g. Automatic Call Gapping, Automatic Congestion Control, Hard-to-Reach procedure) are not applied to this call.
- ii) For an IEPS-call, the codec negotiation procedures are not to be invoked. If codec negotiation is already invoked on a preceding bearer path, the SN shall terminate the codec negotiation procedures and the call shall proceed.
- iii) If routing procedures fail to find an outgoing CIC value, the call is queued and shall take precedence over any other normal call attempts.
- iv) Optionally, if queuing occurs, an early ACM (called party status set to *"no indication"*) with the inclusion of the generic notification parameter set to *"call completion delay"* may be returned to the preceding CSF. However, if the incoming IAM had indicated *"COT to be expected"*, the early ACM (*no indication*) shall not be sent until Continuity Message (COT) with *Continuity Indication* has been received.

5) Clause 7.2.5.3 – Actions required at an outgoing international gateway CMN

Add the following:

b) *International Emergency Preference Scheme:*

- i) If the CSF, at an outgoing international gateway CMN, receives information from the national network that the call is to be treated as an IEPS call (e.g. CPC value of IEPS), call establishment proceeds with priority. The call is established with the CPC set as IEPS call marking in the outgoing IAM. Restrictive network management controls (e.g. Automatic Call Gapping, Automatic Congestion Control, Hard-to-Reach procedure) are not applied to this call.
- ii) If routing procedures fail to find an outgoing CIC value, the call is queued and shall take precedence over any other normal call attempts.
- iii) Optionally, if queuing occurs, an early ACM (called party status set to *"no indication"*) with the inclusion of the generic notification parameter set to *"call completion delay"* may be returned to the preceding CSF. However, if the incoming IAM had indicated *"COT to be expected"*, the early ACM (*no indication*) shall not be sent until Continuity Message (COT) with *Continuity Indication* has been received.

6) Clause 7.2.6.3 – Actions required at an incoming international gateway SN

Add the following (after the Note):

a) *International Emergency Preference Scheme:*

- i) If the CSF, at an incoming international gateway SN, receives a call with CPC set to IEPS, the call establishment proceeds with priority. The call is established with the CPC set as IEPS call marking or national specific information for IEPS call treatment in the outgoing IAM. Restrictive network management controls (e.g. Automatic Call Gapping, Automatic Congestion Control, Hard-to-Reach procedure) are not applied to this call.
- ii) For an IEPS-call, the codec negotiation procedures are not to be invoked. If codec negotiation is already invoked on a preceding bearer path, the SN shall terminate the codec negotiation procedures and the call shall proceed.
- iii) If routing procedures fail to find an outgoing CIC value, the call is queued and shall take precedence over any other normal call attempts.
- iv) Optionally, if queuing occurs, an early ACM (called party status set to "no indication") with the inclusion of the generic notification parameter set to "call completion delay" may be returned to the preceding CSF. However, if the incoming IAM had indicated "COT to be expected", the early ACM (no indication) shall not be sent until Continuity Message (COT) with *Continuity Indication* has been received.

7) Clause 7.2.7.3 – Actions required at an incoming international gateway CMN

Add the following (after the Note):

a) *International Emergency Preference Scheme:*

- i) If the CSF, at an incoming international gateway CMN, receives a call with CPC set to IEPS, the call establishment proceeds with priority. The call is established with the CPC set as IEPS call marking or national specific information for IEPS call treatment in the outgoing IAM. Restrictive network management controls (e.g. Automatic Call Gapping, Automatic Congestion Control, Hard-to-Reach procedure) are not applied to this call.
- ii) If routing procedures fail to find a outgoing CIC value, the call is queued and shall take precedence over any other normal call attempts.
- iii) Optionally, if queuing occurs, an early ACM (called party status set to "no indication") with the inclusion of the generic notification parameter set to "call completion delay" may be returned to the preceding CSF. However, if the incoming IAM had indicated "COT to be expected", the early ACM (no indication) shall not be sent until Continuity Message (COT) with *Continuity Indication* has been received.

8) Clause 7.4 – Outgoing bearer set-up procedure

Add the following new paragraph at the end:

The BCF shall select appropriate bearer resources for a call with CPC set to IEPS to ensure that the quality of the bearer path is guaranteed throughout the lifetime of the call. This applies both to the set-up phase of the call as well as to the connection phase of the call in case of congested network situations. The CSF shall accordingly pass an emergency call indicator to the BCF in the BNC Information Request primitive and/or in the Bearer Set-up Request primitive.

9) Clause 7.5 – Incoming bearer set-up procedure

Add the following new paragraph at the end:

The BCF shall select appropriate bearer resources for a call with CPC set to IEPS to ensure that the quality of the bearer path is guaranteed throughout the lifetime of the call. This applies both to the set-up phase of the call as well as to the connection phase of the call in case of congested network situations. The CSF shall accordingly pass an emergency call indicator to the BCF in the BNC Information Request primitive and/or in the Bearer Set-up Request primitive.

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