SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

Infrastructure of audiovisual services – Communication procedures

Interworking of H-series multimedia terminals with H-series multimedia terminals and voice/voiceband terminals on GSTN, ISDN and PLMN

Amendment 1: Mapping of user priority level and country/international network of call origination between H.225 and ISUP

ITU-T Recommendation H.246 (2006) – Amendment 1

ITU-T H-SERIES RECOMMENDATIONS

AUDIOVISUAL AND MULTIMEDIA SYSTEMS

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

ITU-T Recommendation H.246

Interworking of H-series multimedia terminals with H-series multimedia terminals and voice/voiceband terminals on GSTN, ISDN and PLMN

Amendment 1

Mapping of user priority level and country/international network of call origination between H.225 and ISUP

Summary

This Recommendation describes Gateways which provide protocol interworking between H-Series multimedia terminals and other H-Series multimedia terminals, voice/voiceband terminals on GSTN, ISDN or PLMN, V.70 terminals on the GSTN, and multi-call applications on the GSTN. H.246 Gateways provide the required translation of control and media streams to allow interworking between terminals running different protocols. Annex A specifies H.323-H.320 interworking. Annex C specifies the interworking between ISUP (ISDN User Parts of Signalling System No. 7) and H.225.0. Annex E1 specifies the interworking between 2nd Generation Public Land Mobile Networks (PLMN) and H.323. Annex E2 specifies the interworking between 2nd Generation ANSI-41 PLMNs and H.323. Annex F specifies H.323-H.324 interworking.

Amendment 1 amends Annex C (ISDN User Part function – H.225.0 interworking) in support of mapping user priority level and country/international network of call origination between H.225 and ISUP.

Note that Annex B and Annex D do not exist; they were planned, but were never approved.

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.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure e.g. interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, ITU had received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. 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/.

ITU-T Recommendation H.246

Interworking of H-series multimedia terminals with H-series multimedia terminals and voice/voiceband terminals on GSTN, ISDN and PLMN

Amendment 1

Mapping of user priority level and country/international network of call origination between H.225 and ISUP

Modifications introduced by this amendment are shown in revision marks. Unchanged text is replaced by ellipsis (…). Some parts of unchanged texts (clause numbers, etc.) may be kept to indicate the correct insertion points.

…

C.2   References

…

 [1]   ITU-T Recommendation Q.764 (1999), *Signalling System No. 7 – ISDN User Part signalling procedures, plus* Amendment 2̶ 4̲ (2̶0̶0̶2̲2̲0̲0̲6̲), *Support for the International Emergency Preference Scheme*.

…

[21]   ITU-T Recommendation H.460.4 (2̶0̶0̶2̲2̲0̲0̲7̲), *Call priority designation ̲a̲n̲d̲ ̲c̲o̲u̲n̲t̲r̲y̲/̲i̲n̲t̲e̲r̲n̲a̲t̲i̲o̲n̲a̲l̲ ̲n̲e̲t̲w̲o̲r̲k̲ ̲o̲f̲ ̲c̲a̲l̲l̲ ̲o̲r̲i̲g̲i̲n̲a̲t̲i̲o̲n̲ ̲i̲d̲e̲n̲t̲i̲f̲i̲c̲a̲t̲i̲o̲n̲ for H.323 ̲p̲r̲i̲o̲r̲i̲t̲y̲ calls*.

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

[23]̲   ̲I̲T̲U̲-̲T̲ ̲R̲e̲c̲o̲m̲m̲e̲n̲d̲a̲t̲i̲o̲n̲ ̲Q̲.̲7̲6̲3̲ ̲(̲1̲9̲9̲9̲)̲,̲ *̲S̲i̲g̲n̲a̲l̲l̲i̲n̲g̲ ̲S̲y̲s̲t̲e̲m̲ ̲N̲o̲.̲ ̲7̲ ̲–̲ ̲I̲S̲D̲N̲ ̲U̲s̲e̲r̲ ̲P̲a̲r̲t̲ ̲f̲o̲r̲m̲a̲t̲s̲ ̲a̲n̲d̲ ̲c̲o̲d̲e̲s̲,̲* ̲p̲l̲u̲s̲ ̲A̲m̲e̲n̲d̲m̲e̲n̲t̲ ̲4̲ ̲(̲2̲0̲0̲6̲)̲,̲ *̲S̲u̲p̲p̲o̲r̲t̲ ̲f̲o̲r̲ ̲t̲h̲e̲ ̲I̲n̲t̲e̲r̲n̲a̲t̲i̲o̲n̲a̲l̲ ̲E̲m̲e̲r̲g̲e̲n̲c̲y̲ ̲P̲r̲e̲f̲e̲r̲e̲n̲c̲e̲ ̲S̲c̲h̲e̲m̲e̲*̲.̲

…

Table C.2/H.246 – Mapping of ISUP parameters to H.225.0 information elements

ISUP parameter	H.225.0 information element
...	
Called party number	Called party number
Calling party's category IEPS call information (Priority level subfield)	Call Priority Designation Parameter (ITU-T Rec. H.460.4)
IEPS call information (Country/International network of call origination subfield)	Country/International Network of Call Origination Identification Parameter (ITU-T Rec. H.460.4)
Calling party number	Calling party number or sourceAddress
...	

...

C.6.1.1.1 Mandatory parameters

...

Calling party's category

Coded according to internal data of the interworking unit, except when the H.460.4 [21] Call Priority designation parameter is included in the SETUP message and it indicates a priority value of emergencyAuthorized. In this case, one of the following scenarios applies:

a) For an internal national gateway: If an internal national gateway receives a Call Priority designation parameter set to emergencyAuthorized, call establishment proceeds with priority. The CPC parameter in the outgoing IAM message should be set to the IEPS call marking value (0000 1110 [~~14~~23]) or to a nationally assigned emergency call value. The actions taken on the ISUP side are described in 2.1.1.4 e/Q.764 [1] except that the ACM would be replaced by a Call Proceeding on the H.323 side.

b) For an outbound international gateway: If an outgoing international gateway receives a Call Priority designation parameter set to emergencyAuthorized, call establishment proceeds with priority. The CPC parameter in the outgoing IAM message should be set to the IEPS call marking value (0000 1110 [~~14~~23]) or to a nationally assigned emergency call value. The actions taken on the ISUP side are described in 2.1.1.3 e/Q.764 [1] except that the ACM would be replaced by a Call Proceeding on the H.323 side.

c) For an inbound international gateway: If an inbound international gateway receives a Call Priority designation parameter set to emergencyAuthorized, and if there is a bilateral agreement between governmental authorities to support IEPS, then call establishment proceeds with priority. The CPC parameter in the outgoing IAM message should be set to the IEPS call marking value (0000 1110 [~~14~~23]) or to a nationally assigned emergency call value. The actions taken on the ISUP side are described in 2.1.1.5 e/Q.764 [1] except that the ACM would be replaced by a Call Proceeding on the H.323 side.

d) For an intermediate international gateway: If an intermediate international exchange receives a Call Priority designation parameter set to emergencyAuthorized, call establishment proceeds with priority. The CPC parameter in the outgoing IAM message should be set to the IEPS call marking value (0000 1110 [~~14~~23]) or to a nationally assigned emergency call value. The actions taken on the ISUP side are described in 2.1.1.4 e/Q.764 [1] except that the ACM would be replaced by a Call Proceeding on the H.323 side.

...

C.6.1.1.2 Optional parameters

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MLPP precedence

NA.

IEPS call information

The IEPS call information parameter can be included in the outgoing IAM only if the priority level and the country/international network of call origination for the call are available. When included, this parameter shall include both the Priority level and the Country/International network of call origination subfields. If the "priorityExtension" field is included in the H.460.4 [21] Call Priority Designation parameter in the SETUP message, the interworking function should map it to a priority level within the "Priority level" subfield of the IEPS call information parameter in the outgoing IAM. If the "priorityExtension" field is not included in the H.460.4 [21] Call Priority Designation parameter, the call may be assigned a default priority level. If the H.460.4 [21] Country/International Network of Call Origination Identification parameter is included in the SETUP message, the interworking function should map it to the Country/International network of call origination subfield in the IEPS call information parameter in the outgoing IAM. The actions taken on the ISUP side are described in 2.28/Q.764 [1].

C.6.1.2   Sending of the Subsequent Address Message (SAM)

...

C.7.1.1   Sending of the SETUP message

...

Calling Party's Category

~~Coded according to the internal data of the interworking unit, except w~~When the IAM contains a CPC value set to the IEPS call marking (0000 1110 [23~~14~~]) or a nationally assigned emergency call value~~. In this case~~, the interworking function should include the Call Priority Designation parameter in the outgoing ARQ and SETUP messages. This parameter should be set to a priority value of emergencyAuthorized and the call establishment proceeds with priority. ~~The priority extension coding is for future study.~~ See ITU-T Rec. H.460.4 [21] for specific procedures.

IEPS call information

If the ISUP IEPS call information parameter is included in the IAM and the IAM also contains a CPC value set to the IEPS call marking (0000 1110 [23]) or a nationally assigned emergency call value, the interworking function should map the Priority level subfield (priority level) in the IEPS call information parameter to the "priorityExtension" field in the H.460.4 [21] Call Priority Designation parameter and the Country/International network of call origination subfield to the H.460.4 [21] Country/International Network of Call Origination Identification parameter in the outgoing ARQ and SETUP messages.

Progress indicator

See Table C.46.

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