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SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

Infrastructure of audiovisual services – Supplementary
services for multimedia

Call priority designation and country/international network of call origination identification for H.323 priority calls

ITU-T Recommendation H.460.4

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Call priority designation and country/international network of call origination identification for H.323 priority calls

Summary

There is a desire to provide higher than normal priority call services to support several different applications. These applications include calls by authorized emergency personnel during disaster relief efforts, emergency calls by the public, or calls governed by service level agreements which specify a higher than normal probability of call completion. In order to provide these priority call services, it is necessary to signal to network elements such as Gatekeepers, Border Elements and Gateways that a call requires priority handling. This Recommendation defines messages and procedures necessary to signal the desired priority and country/international network of call origination for an H.323 priority call.

Source

ITU-T Recommendation H.460.4 was approved on 13 January 2007 by ITU-T Study Group 16 (2005-2008) under the ITU-T Recommendation A.8 procedure.

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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ITU-T Recommendation H.460.4

Call priority designation and country/international network of call origination identification for H.323 priority calls

1 Scope

This Recommendation specifies the call priority designation and country/international network of call origination identification for H.323 priority calls. The use of the call priority designation provides a mechanism to indicate the desired or approved call establishment priority for an H.323 call. It is necessary to signal the call priority during registration, admission, location, and call setup signalling in order for the Gatekeepers, Gateways, and other network elements to take appropriate action to attempt to assure the successful establishment of priority calls over normal traffic during times of degraded operation due to damaged resources or heavy loads. The use of country/international network of call origination identifies the country or the international network of priority call origination. It is necessary to signal the country/international network of call origination during registration, admission, location, and call setup signalling in order for the Gatekeepers, Gateways, and other network elements to take appropriate action associated with the country or the international network of priority call origination.

The H.323 systems compliant with the 2002 version of this Recommendation are not required to generate or process the country/international network of call origination information.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

- [ITU-T E.106] ITU-T Recommendation E.106 (2003), *International Emergency Preference Scheme (IEPS) for disaster relief operations*.
- [ITU-T E.164] ITU-T Recommendation E.164 (2005), *The international public telecommunication numbering plan*.
- [ITU-T H.225.0] ITU-T Recommendation H.225.0 Version 4 (2000), *Call signalling protocols and media stream packetization for packet-based multimedia communication systems*.
- [ITU-T H.246] ITU-T Recommendation H.246 (2006), *Interworking of H-series multimedia terminals with H-series multimedia terminals and voice/voiceband terminals on GSTN, ISDN and PLMN*.
- [ITU-T H.323] ITU-T Recommendation H.323 Version 4 (2000), *Packet-based multimedia communications systems*.
- [ITU-T H.460.1] ITU-T Recommendation H.460.1 (2002), *Guidelines for the use of the generic extensible framework*.
- [ITU-T H.501] ITU-T Recommendation H.501 (2002), *Protocol for mobility management and intra/inter-domain communication in multimedia systems*.

- [ITU-T Q.931] ITU-T Recommendation Q.931 (1998), *ISDN user-network interface layer 3 specification for basic call control*.
- [ITU-T X.121] ITU-T Recommendation X.121 (2000), *International numbering plan for public data networks*.

3 Terms and definitions

This Recommendation defines the following terms:

- 3.1 call priority:** An indication of the importance of a call, as it relates to the probability of call completion and maintenance of call connection.
- 3.2 call completion:** The ability to successfully make a call connection between a calling and called endpoint, assuming a called user is available to accept the call.
- 3.3 token:** A piece of information, either clear or encrypted, which can be used to validate a request for a specific call priority.
- 3.4 domain:** A network or collection of networks under a single administrative authority that provides priority call establishment services.
- 3.5 country/international network of call origination:** Information sent to identify the country or the international network of call origination.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

ACF	Admission Confirmation
ARQ	Admission Request
ASN.1	Abstract Syntax Notation One
LCF	Location Confirmation
LRQ	Location Request
PDU	Payload Data Unit
PIN	Personal Identification Number
QoS	Quality of Service
RAS	Registration, Admission and Status
RCF	Registration Confirmation
RRQ	Registration Request

5 Call priority and country/international network of call origination parameter definitions

There are times when it is important to indicate the desired or required importance of a call. This may be due to service level agreements, emergency communications, or other system requirements. This importance, or call priority, is represented by a Call Priority Designation feature parameter that may be used to control those elements of the network that affect the probability of call completion and minimize call loss. This is not used to specify the quality of the media streams, but pertains only to the completion of the call establishment process. Under normal circumstances, on a well-designed, lightly loaded network, this parameter may have no apparent effect. However, in times of degraded operation, due to damaged resources or heavy loads, the parameter may allow for preferential treatment of certain call classes.