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STANDARDIZATION SECTOR
OF ITU

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Amendment 1

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SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

Infrastructure of audiovisual services – Communication procedures

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Gateway control protocol: Guidelines on the use of the international emergency preference scheme (IEPS) call indicator and priority indicator in ITU-T H.248 profiles

Amendment 1: New Appendix II, plus additions and corrections

Recommendation ITU-T H.248.81 (2011) – Amendment 1

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Recommendation ITU-T H.248.81

Gateway control protocol: Guidelines on the use of the international emergency preference scheme (IEPS) call indicator and priority indicator in ITU-T H.248 profiles

Amendment 1

New Appendix II, plus additions and corrections

Summary

Recommendation ITU-T H.248.81 provides guidelines on the use of the international emergency preference scheme (IEPS) call indicator and priority indicator in ITU-T H.248 profiles for ITU-T H.323 and NGN systems. These guidelines may be used by other standards development organizations (SDOs) when defining their profiles in support of priority services, e.g., the emergency telecommunications service (ETS) and the multimedia priority service (MPS).

Amendment 1 to Recommendation ITU-T H.248.81 (2011/05) introduces additions and corrections to the Recommendation and adds Appendix II, "Use of ECN in the context of ETS traffic".

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T H.248.81	2011-05-14	16
1.1	ITU-T H.248.81 (2011) Amd. 1	2013-03-16	16

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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.

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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.

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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, 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/.

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Recommendation ITU-T H.248.81

Gateway control protocol: Guidelines on the use of the international emergency preference scheme (IEPS) call indicator and priority indicator in ITU-T H.248 profiles

Amendment 1

New Appendix II, plus additions and corrections

1 Scope

[ITU-T H.248.1] defines the international emergency preference scheme (IEPS) call indicator and priority indicator in support of priority services, e.g., the emergency telecommunications service (ETS) and the multimedia priority service (MPS). Use of the IEPS call indicator and priority indicator, as defined in [ITU-T H.248.1], satisfies the ETS requirements of indicating an ETS context and carrying the priority level.

Any prioritization of ITU-T H.248 procedures in the media gateway controller (MGC) and the transport of ITU-T H.248 control signalling towards the media gateway (MG) is based on the identification of ETS.

The IEPS call indicator, identifying an ETS call/session, indicates to the MG that the context is an ETS context and enables prioritization of ITU-T H.248 control signalling once received. In addition, it enables prioritized resource allocation in the MG for an ETS context.

The priority indicator, carrying the priority level, provides the MG with a means to distinguish different priority handling of resources on the MG when ETS is used.

This Recommendation provides guidelines on the use of the IEPS call indicator and priority indicator in ITU-T H.248 profiles for [ITU-T H.323] and NGN systems. These guidelines may be used by other standards development organizations (SDOs) when defining their ITU-T H.248.1 profiles in support of priority services (e.g., ETS and the MPS). Further details on how these guidelines are used by other networks are outside the scope of this Recommendation. It is up to other SDOs to decide their use when defining their profiles.

ETS and IEPS are defined in [ITU-T E.107] and [ITU-T E.106], respectively. ETS and IEPS involve authority-to-authority communication. The emergency indicator, as defined in [ITU-T H.248.1], is used for identification of emergency calls (i.e., individual-to-authority communication). The IEPS call indicator is used for the identification of a priority call/session (e.g., ETS call/session, IEPS call/session), allowing differentiation from an emergency call/session. The specification of profile procedures for the emergency indicator is outside the scope of this Recommendation.

National regulators may implement ETS in various ways. This Recommendation describes an implementation where the IEPS call indicator and priority indicator are supported.

NOTE 1 – National, regional or local emergency and public safety services, where an individual from the general public is seeking assistance (i.e., individual-to-authority communication), are outside the scope of this Recommendation.

NOTE 2 – [b-ITU-T Q-Sup.53] provides the signalling requirements to support the IEPS. It is also applicable for ITU-T H.248 entities, but does not indicate any requirement in addition to clause 7.

NOTE 3 – [b-ITU-T Q-Sup.57] provides the signalling requirements to support the ETS in IP networks. It is also applicable for ITU-T H.248 entities, but does not indicate any requirement in addition to clause 7.

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

[ITU-T E.107] Recommendation ITU-T E.107 (2007), *Emergency Telecommunications Service (ETS) and interconnection framework for national implementations of ETS.*

[ITU-T H.225.0] Recommendation ITU-T H.225.0 (2009), *Call signalling protocols and media stream packetization for packet-based multimedia communication systems.*

[ITU-T H.248.1] Recommendation ITU-T H.248.1 (~~2005~~2013), *Gateway control protocol: Version 3, including its Amendment 2* (2009).

[ITU-T H.248.4] Recommendation ITU-T H.248.4 (2009), *Gateway control protocol: Transport over Stream Control Transmission Protocol (SCTP).*

[ITU-T H.248.10] Recommendation ITU-T H.248.10 (2001), *Gateway control protocol: Media gateway resource congestion handling package.*

[ITU-T H.248.11] Recommendation ITU-T H.248.11 (~~2002~~2013), *Gateway control protocol: Media gateway overload control package.*

[ITU-T H.248.32] Recommendation ITU-T H.248.32 (~~2005~~2013), *Gateway control protocol: Detailed congestion reporting package.*

[ITU-T H.248.52] Recommendation ITU-T H.248.52 (2008), *Gateway control protocol: QoS support packages.*

[ITU-T H.248.54] Recommendation ITU-T H.248.54 (2007), *Gateway control protocol: MPLS support package.*

[ITU-T H.248.56] Recommendation ITU-T H.248.56 (2007), *Gateway control protocol: Packages for virtual private network support.*

[ITU-T H.248.63] Recommendation ITU-T H.248.63 (2009), *Gateway control protocol: Resource management packages.*

[ITU-T H.248.82] Recommendation ITU-T H.248.82 (2013), *Gateway control protocol: Explicit congestion notification support.*

[ITU-T H.323] Recommendation ITU-T H.323 (2009), *Packet-based multimedia communications systems.*

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

[ITU-T Q.1950 Amd.1] Recommendation ITU-T Q.1950 (2002) Amendment 1 (2006), *New Annex G – Call bearer control – International Emergency Preference Scheme.*

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3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following term defined elsewhere:

3.1.1 emergency telecommunications service (ETS) [ITU-T E.107]: A national service providing priority telecommunications to the ETS authorized users in times of disaster and emergencies.

3.2 Terms defined in this Recommendation

This Recommendation defines the following term:

3.2.1 subject to profile specification: When used, this term indicates that the ITU-T H.248 profile template section requires further specification by a profile specification.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations:

AQM	Active Queue Management
DSCP	DiffServ Code Point
ECN	Explicit Congestion Notification
ETS	Emergency Telecommunications Service
GoS	Grade of Service
IEPS	International Emergency Preference Scheme
IP	Internet Protocol
IPDV	IP Packet Delay Variation
IPLR	IP Packet Loss Rate
ISUP	ISDN User Part
LSP	Label Switched Path
LTE	Long Term Evolution
Lx	Layer number
MG	Media Gateway
MGC	Media Gateway Controller
MLPP	Multi-Level Precedence and Pre-emption
MPLS	Multi-Protocol Label Switching
MPS	Multimedia Priority Service
N/A	Not Applicable
NGN	Next Generation Network
PHB	Per-Hop Behaviour
QoE	Quality of Experience
QoS	Quality of Service
RPH	Resource Priority Header

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