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SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

H.248.1 package guide – Release 1

ITU-T H-series Recommendations – Supplement 2

ITU-T H-SERIES RECOMMENDATIONS

AUDIOVISUAL AND MULTIMEDIA SYSTEMS

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

Supplement 2 to ITU-T H-series Recommendations

H.248.1 package guide – Release 1

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 publication, 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 publication, ITU had received notice of intellectual property, protected by patents, which may be required to implement this publication. 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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Supplement 2 to ITU-T H-series Recommendations

H.248.1 packages guide – Release 1

1   Scope

This guide summarizes packages that have been standardized in the time frame from June 2000 to June 2001. This guide identifies packages that meet ITU-T Rec. H.248.1 requirements for package definition and are for general use by the wider standards community.

H.248.1 packages guide-Release 1 provides for the:

- identification of packages which are considered technically consistent with ITU-T Rec. H.248.1 principles and packages definition rules in clause 12/H.248.1;

- identification of packages which are currently being worked upon;

- identification of packages which have been worked upon over a certain period of time;

- identification of packages with overlapping functionality.

ITU-T Study Group 16 invites packages' authors/editors to share their current and future work on packages in the form of contribution, liaison or communication to ITU-T Study Group 16. This will assist ITU-T Study Group 16 in producing future releases of this Supplement. ITU-T Study Group 16 will then endeavour to provide constructive comments to assist you in your packages work. If ITU-T Study Group 16 determines that your packages are consistent with ITU-T Rec. H.248.1, and particularly clause 10/H.248.1, it will include the "Externally defined Packages that meet requirements" section of the H.248.1 Packages Implementors' Guide.

2   References

2.1   Normative references

–   ITU-T Recommendation Q.1950 (2001), *Bearer independent call bearer control protocol.*

2.2   Information references

See clauses below for individual references.

3   Definitions

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4   Abbreviations

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5   ITU-T Study Group 16 packages

Annex E/H.248.1	**Basic packages**
	The packages contained in Annex E/H.248.1 are:
	• Generic package;
	• Base Root package
	• Tone Generator package;
	• Tone Detection package;
	• Basic DTMF Generator package;
	• DTMF Detection package;
	• Call Progress Tones Generator package;
	• Call Progress Tones Detection package;
	• Analog Line Supervision package;
	• Basic Continuity package;
	• Network package;
	• RTP package;
	• TDM Circuit package.
ITU-T Rec. H.248.2	**Facsimile, Text Conversation and Call Discrimination packages**
	ITU-T Rec. H.248.2 describes packages for fax, text telephone, call type discrimination, and data call detection.
	The packages contained in ITU-T Rec. H.248.2 are:
	• Call Type Discrimination package – defines control and monitoring of a PSTN line for the signalling protocols used in the beginning of a session of data transmission for fax, text telephony or data;
	• Text Telephone package – defines control of a PSTN text telephone session in any of the modes supported by the automoding text telephone ITU-T Rec. V.18;
	• Fax package – defines control of a PSTN fax transmission;
	• Fax/Textphone/Modem Tones Detection package – defines control over a termination for detection of any signals from a fax, text telephone or data modem during a connection in voice mode;
	• Text Conversation package defines control over a real-time interactive text conversation session using a universal presentation format and transferred with a transport method from a multimedia protocol in any network environment;
	• IP Fax package – defines control over facsimile transmission in a packet network.
ITU-T Rec. H.248.6	**Dynamic Tone Definition package**
	This package defines a mechanism to redefine existing tones and create new tones for playback. The existing tones are the ones described in supported packages that extend the tonegen generic package.
ITU-T Rec. H.248.7	**Generic Announcement package**
	This package supports announcement functionality at a Media Gateway. This announcement could be realized by the Media Gateway as different sorts of messaging. For example: it could be an audio announcement, a text message or a composition of text messages.

ITU-T Rec. H.248.9	**Advanced Announcement Server packages**
	This Basic Audio package provides support for the standard IVR operations of PlayAnnouncement, PlayCollect, and PlayRecord. It supports direct references to simple audio as well as indirect references to simple and complex audio. It provides audio variables, control of audio interruptibility, digit buffer control, special key sequences, and support for reprompting during data collection. The Advanced Audio Package extends the Base Package by providing an arbitrary number of user-defined qualifiers to be used in resolving complex audio structures. For example, the user could define qualifiers for any or all of the following: language, accent, audio file format, gender, speaker, or customer.
ITU-T Rec. H.248.10	**Media Gateway Resource Congestion package**
	This package makes it possible for the MG to control its load.
ITU-T Rec. H.248.12	**H.248 packages for H.323 and H.324 Annex C interworking**
	ITU-T Rec. H.248.12 gathers together packages for H.245, H.245 parameters specific to H-series audiovisual terminal and Annex C/H.324 for use with the H.248.1 gateway control protocol. The packages in ITU-T Rec. H.248.12 are in conformance with clause 12/H.248.1 package definition guidelines.

6 Externally defined packages that meet requirements

The packages identified in this clause are consistent with regards to the package definition rules contained in clause 12/H.248.1.

6.1 ITU-T Study Group 11

Package name and description	Identity		Reference
	Text	**Binary**	
Bearer Characteristics package This package contains the functionality required to identify which bearer services are to be supported by an MG.	BCP	0x001e	Annex A.3/Q.1950
Bearer Network Connection Cut Through package This package provides the functionality to be able to determine the cut through capabilities of the bearer network.	BNCT	0x001f	Annex A.4/Q.1950
Reuse Idle package This package provides the ablity to determine the reuse of idle bearer functionality network.	RI	0x0020	Annex A.5/Q.1950
Generic Bearer Connection package This package provides the functionality to be able to establish/modify/release a bearer connection.	GB	0x0021	Annex A.6/Q.1950
Bearer Control Tunnelling package This package describes the functionality to be able to support the transport of "Bearer Information Transport" information between an MGC and an MG.	BT	0x0022	Annex A.7/Q.1950

Package name and description	Identity		Reference
	Text	**Binary**	
Basic Call Progress Tones Generator with Directionality This package defines the basic call progress tones as signals and extends the allowed values of the tl parameter of playtone in tonegen. In addition, this package extends the Tone Generator Package with the ability to specify in which direction the tone is played.	BCG	0x0023	Annex A.8/Q.1950
Expanded Call Progress Tones Generator package This package defines the expanded call progress tones as signals and extends the allowed values of the tl parameter of playtone in tonegen. In addition, this package extends the Tone Generator Package with the ability to specify in which direction the tone is played.	XCG	0x0024	Annex A.9/Q.1950
Basic Services Tones Generation package This package defines signals for use by telephony services and allows for specification of directionality.	SRVTN	0x0025	Annex A.10/Q.1950
Expanded Services Tones Generation package This package defines additional signals for use by telephony services and allows for specification of directionality.	XSRVTN	0x0026	Annex A.11/Q.1950
Intrusion Tones Generation package This package defines for use by operator-based telephony services and allows for specification of directionality.	INT	0x0027	Annex A.12/Q.1950
Business Tones Generation package This package defines for use by business telephony services and allows for specification of directionality.	BIZTN	0x0028	Annex A.13/Q.1950

6.2   IETF

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6.3   Other organizations' packages

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6.4   Packages undergoing development

The packages identified in this clause are currently under development and/or have not been reviewed by ITU-T Study Group 16. The packages identified here may have inconsistencies with regards to the package definition rules contained in clause 12/H.248.1. The packages below may also overlap in functionality.

7 Externally defined packages

7.1 AMTF (ATM Forum)

Package name and description	Identity		Reference
	Text	Binary	
Generic Supervisory Signalling package	lesgenal	?	BTD-VMOA-LESH248-01.00 A.1
Loop Start Line, Transition Events	lestrls	?	BTD-VMOA-LESH248-01.00 A.2.1
Ground Start Line, Transition Events	lestrgs	?	BTD-VMOA-LESH248-01.00 A.2.2
Loop Reverse Battery Line, Transition Events This package is suitable for CP-IWF analog ports configured for loop reverse battery signalling where the Service Node Interface at the CO-IWF is based on CAS signalling.	lestrrb	?	BTD-VMOA-LESH248-01.00 A.2.3
Basic PSTN Line, Timed Events This package is designed to meet the requirements of CP-IWF analog ports configured for general purpose telephony in markets governed by ETSI standards, with the exception of metering pulses and dial pulses which, for reasons of complexity, are covered in separate packages. This package is intended to meet the main requirements of ETSI DTS/SPAN-09109 "Recommended V5 PSTN Mapping", with the exception of any metering functions.	lesbaspstn	?	BTD-VMOA-LESH248-01.00 A.2.4
Basic PSTN Line with Metering Pulse Support This package is designed to meet the requirements of CP-IWF analog ports configured for general purpose telephony in markets governed by ETSI standards, including a basic capability for transmitting metering pulses. Support for automatic metering is not included in this package, and is covered instead in the enhanced metering package. This package supports the four most common types of metering pulses. These are: 12 kHz pulse, 16 kHz pulse, reverse polarity pulse, and 50 Hz pulse. This approach supports CP-IWF functions that are capable of generating multiple different kinds of metering pulse. By specifying the metering pulse type in the H.248.1 message that requests the application of the metering pulse signal, the need to configure the CP-IWF for metering pulse type is avoided.	lesmetpstn	?	BTD-VMOA-LESH248-01.00 A.2.6
Pulse Dialling package This package defines an event for the detection of dial pulse trains. The number of pulses detected is reported as a parameter of the observed event. Timing criteria for the detection of dial pulses and completion of the dial pulse train are provisioned.	lesdpdd	?	BTD-VMOA-LESH248-01.00 A.3.1

Package name and description	Identity		Reference
	Text	**Binary**	
Enhanced Metering package This package defines the signals and events used for supporting automatic generation and reporting of metering pulses on analog lines.	lesenhmet	?	BTD-VMOA-LESH248-01.00 A.3.2

7.2 ETSI TIPHON

Package name and description	Identity		Reference
	Text	**Binary**	
Bearer Congestion Control package	?	?	ETSI Tiphon TS 101329-3 v0.9.6 – The signalling and control of end-to-end quality of Service in TIPHON Systems (December 2000)

7.3 IETF Megaco

NOTE – The packages are official work items adopted by the IETF Megaco work group.

Package name and description	Identity		Reference
	Text	**Binary**	
Megaco/H.248.1 NAS Packages	?	?	draft-ietf-megaco-naspkg-02.txt

7.4 IETF individual submissions

NOTE – This clause identifies packages that individuals have submitted to the IETF. These have not been taken as official work items of the IETF Megaco work group.

Package name and description	Identity		Reference
	Text	**Binary**	
MF Tone Generation and Detection packages	?	?	Draft-bothwell-megaco-mftonepkgs-01.txt
ISDN package for Megaco	?	?	Draft-bouwen-megaco-isdn-pack-00.txt
Enhanced Alerting packages for Megaco/H.248.1 Enhanced Alerting package CLASS Signalling package	 alert class	?	Draft-boyle-megaco-alerting-01.txt

Package name and description	Identity		Reference
	Text	**Binary**	
Supplemental Tones Packages for Megaco/H.248.1			Draft-boyle-megaco-tonepkgs-04.txt
Call Progress Tones Generator with Directionality package	BCG	0x0023	
Expanded Call Progress tones Generator package	XCG	0x0024	
Basic Services Tones Generation package	SRVTN	0x0025	
Expanded Services Tones Generation package	XSRVTN	0x0026	
Intrusion Tones Generation package	INT	0x0027	
Business Tones Generation package	BIZTN	0x0028	
NOTE – These packages are identical to those defined in Annex A.8 to A.13/Q.1950			
MGC Cookie package for Megaco/H.248.1	?	?	Draft-cutler-megaco-mgc-cookie-00.txt
Megaco/H.248.1 Basic CAS packages		?	Draft-manyfolks-megaco-caspackage-00.txt
Basic CAS (Channel Associated Signalling) package	bcas		
RBS (Robbed Bit Signalling) package	rbs		
Name Pattern package for Megaco	?	?	Draft-rosen-megaco-namepatterns-00.txt
Megaco ATM package	?	?	Draft-rosen-megaco-atm-package-00.txt

7.5　　ITU-T Study Group 11

Package name and description	Identity		Reference
	Text	**Binary**	
Control of SPNE in a media gateway	SPNE	0x????	Q.SPNE
This package defines properties and events for SPNE functions controlled by or integrated into a media gateway.			
NOTE – Echo cancellers associated with media gateways are assumed to be compliant with ITU-T Rec. G.168 as indicated in ITU-T Rec. G.177.			

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