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SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS
Infrastructure of audiovisual services - Communication
procedures

HSTP.CONF-H.721
Conformance testing specification for H.721

Summary

The purpose of conformance testing is to increase the probability that different implementations are able to interconnect. Conformance testing in this document explains test specifications regarding the IPTV terminal device specified in ITU-T Rec.H.721 "IPTV Terminal Device (Basic Model)". The test involves testing both the capabilities and behaviour of an implementation, and checking what is observed against the conformance requirements in the Recommendation and against what the implementer states the implementation capabilities are.

Change Log

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Contents

List of Tables

List of Figures

Page

No table of figures entries found.

ITU-T Technical Paper HSTP.CONF-H.721

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Keywords

IPTV, conformance, conformance testing, IPTV terminal device, IPTV basic services,

1   Scope

This document specifies a set of attributes and procedures designed to indicate whether IPTV terminal devices meet the requirements in ITU-T Rec. H.721. This set of conformance tests can provide a basic level of interoperability testing.

2   References

[ITU-T H.721]   Recommendation ITU-T H.721 (2009), *IPTV terminal devices: Basic model*

3   Definitions

N/A

4   Abbreviations and acronyms

N/A

5   Conventions

N/A

6   Description

IPTV basic model terminal device (hereafter referred to as IPTV TD-Basic model) is required to have the following features.

–   Network attachment and service discovery

–   Security

–   Privacy

–   Quality of service (QoS)

Appendix I:
H.721 Conformance Checklist

The following is a preliminary checklist for basic terminal device conformance testing. It is intended to be gradually incorporated to the main text of this draft recommendation as contributions on testing procedures are made.

NOTE: [b_ITU-T H.IPTV-ProComp] may be also checked

LinearTV Checklist

Monomedia	Video MPEG-2	
	Video H.264 (AVC)	
	Audio MPEG2 AAC	
	Audio MPEG1 Layer II	
	Audio MPEG-4 HE AAC v1	
	Dolby AC-3	
	ARIB Captioning	
	ATSC Closed Captioning	
	EBU Teletext Subtitles	
	DVB Subtitling	
Multiplex format	MPEG-2 TS	
	TTS*	
Streaming	RTP	

VoD Checklist

Monomedia	Video MPEG-2	
	Video H.264 (AVC)	
	Audio MPEG2 AAC	
	Audio MPEG1	
	ARIB Captioning	
	ATSC Closed Captioning	
Multiplex Format	MPEG-2 TS	
	TTS	
Streaming	RTP, RTSP	

Terminal Device Attachment and Initialization

Protocol	IP, ICMP	
	IPv6, ICMPv6	
	DHCP	
	DNS	

Service provider discovery and service attachment

Multiplex Format	MPEG-2 TS	
	TTS	
Streaming	RTP, RTSP	
Multicast	IGMPv2	
	MLDv2	
HTTP	HTTP	

TD-Basic model service security

Secure Communication	SSL/TLS	
Encryption Algorithm	AES	
	CSA	

Multicast content delivery

Multicast	IGMPv2	
	MLDv2	

Unicast content delivery

Control of the unicast stream	RTP, RTSP	
HTTP	HTTP	

Video decoding

H.262	1920x1080i MP@HL	
	1440x1080i MP@HL	
	1280x720p MP@HL	
	720, 544, 480x480i MP@ML	
H.264	1920x1080i HPorMP@Level4.0	
	1440x1080i HPorMP@Level4.0	
	1280x720p HPorMP@Level4.0	
	720x480i HPorMP@Level3.0/3.1/3.2	
	720x576i (the format used in Europe)	

Audio decoding

MPEG2 AAC	
MPEG1 Layer II	
Audio MPEG-4 HE AAC v1	
Dolby AC-3	

Bibliography

[b_ITU-T H.IPTV-ProComp]   Draft new ITU-T Recommendation H.IPTV-ProComp, *Profiles of IPTV Service and Compliance*, TD71/WP2-16 (2009)

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