International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
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H.230

Amendment 1

(10/2005)

SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

Infrastructure of audiovisual services – Systems aspects

Frame-synchronous control and indication signals for audiovisual systems

Amendment 1: Support of Unicode in H.320 systems and new Annex A for H.230 generic capabilities and messages in H.245

ITU-T Recommendation H.230 (2004) – Amendment 1

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ITU-T Recommendation H.230

Frame-synchronous control and indication signals for audiovisual systems

Amendment 1

Support of Unicode in H.320 systems and new Annex A for H.230 generic capabilities and messages in H.245

Summary

This amendment to ITU-T Rec. H.230 adds support for Unicode characters in H.320 terminals along with a new Annex A that defines H.230 generic capabilities and messages used in H.245-signalling based systems.

Source

Amendment 1 to ITU-T Recommendation H.230 (2004) was approved on 7 October 2005 by ITU-T Study Group 16 (2005-2008) under the ITU-T Recommendation A.8 procedure.

FOREWORD

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1) Clause 3.5 – SBE and MBE symbols used in multipoint working

To support Unicode characters in H.32x systems, some of the existing messages are adapted and new messages are created. Clause 3.5 is changed as shown.

[Begin Correction]

...

TCS-*n*	*Terminal Command String* – Sent by an MCU to a directly-connected terminal or vice versa to exact information in the form of a symbol IIS; the meaning according to the different values of *n* is thus: *n* = 0: reserved *n* = 1: password *n* = 2: ASCII identity (person or terminal) *n* = 3: conference identity *n* = 4: extension address *n* = 5: Unicode identity (person or terminal) *n* = 6~~5~~ to 31: reserved
	...
IIS	*Information Indicate String* – An MBE message sent in response to TCS-*n*; the message has the form {start-MBE/~~/~~N/<iis>/<n>/(N – 2) characters} where <iis> has the value given in Table 2, where *n* corresponds to the value of *n* in TCS-*n*; characters are as specified for TIP. When *n* = 5, the message has the form {start-MBE/N/<iis>/<n>/languageID/(N – 4) characters} where languageID and characters are as specified for TIP-5.
TCP*	*Terminal Command Personal-identifier* – Sent by a terminal requesting the MCU to provide the personal identity string associated with the terminal specified by the following identifier <M>, <T>. The MCU responds with TIP.
TCP-5*	*Terminal Command Unicode Personal-identifier* – Sent by a terminal requesting the MCU to provide the Unicode personal identity string associated with the terminal specified by the following identifier <M>, <T>. The MCU responds with TIP-5.
	...
TIP	*Terminal Indicate Personal-identifier* – Response to TCP in the form {start-MBE/N/<tip>/m/t/(N – 3) characters}, where <tip> has the value given in Table 2. Characters are given in Table 3 and m and t are binary numbers representing the terminal number associated with this personal identifier. The null response is of the form {start-MBE/3/<tip>/m/t}.

TIP-5	*Terminal Indicate Unicode Personal-identifier* – Response to TCP-5 in the form {start-MBE/N/<tip-5>/m/t/languageID/(N – 5) characters}, where: <tip-5> has the value given in Table 2. m and t are binary numbers representing the terminal number associated with this personal identifier. LanguageID consists of 2 octets representing a two-letter code as defined in ISO 639-1 encoded using the letter values given in Table 3. LanguageID identifies the language associated with the following Unicode characters. Characters are drawn from the Unicode set as defined in ISO/IEC 10646, and shall be encoded as specified in 7.4/H.243. The null response is of the form {start-MBE/3/<tip-5>/m/t}.

...

[End Correction]

2) Table 1

New BAS code values for TCP-5 and TCS-5 are added. Table 1 is updated as shown.

[Begin Correction]

...

(011)	[12]	TCP-5**	#	#	#	#	H.243
(011)	[18]	TCS-5	#	#	#	#	H.243

...

[End Correction]

3) Table 2

A MBE code value for TIP-5 is added to Table 2 (by using a previously "reserved" value) as shown.

[Begin Correction]

...

0001 1101	<tip-5>	ITU-T Rec. H.243
0001 1110 to 1101 1111	Reserved	

...

[End Correction]

4) Table 4

New BAS code values for TCP-5 and TCS-5 are added to column (011) of Table 4 as shown.

[Begin Correction]

	(000)	(001)	(010)	(011)	(100)	(101)	(110)	(111)
				...				
[12]		TIN**	MVC	TCP-5**	ØH.262S_4SIF			
[13]		TID**	MVA	NIA-s	ØH.262M_SIF			
[14]		TCU	MVR	NIQ-s	ØH.262M_2SIF			
[15]		TCA	MIJ	NIQ-m	ØH.262M_4SIF			
[16]	VIS	MCV	DCA-L	NIR	ØH.263_SQCIF			
[17]	VIA	Cancel-MCV	DIT-L	TCS-4	ØH.263_QCIF			
[18]	VIA2	MIV	DCR-L	TCS-5	ØH.263_CIF			

...

[End Correction]

5) New Annex A

[Begin Correction]

Annex A

H.230 generic capabilities and messages

A.1 Scope

This annex defines H.230 generic capabilities and messages used in H.245-signalling based systems. Generic capabilities and messages allow recently defined H.230 messages that do not equate to existing H.245 messages to be signalled in H.310, H.323 and H.324 systems.

A.2 References

– ITU-T Recommendation H.245 (2005), *Control protocol for multimedia communication*.

– ITU-T Recommendation H.320 (2004), *Narrow-band visual telephone systems and terminal equipment*.

– ITU-T Recommendation H.323 (2003), *Packet-based multimedia communications systems*.

– ISO 639-1:2002, *Codes for the representation of names of languages – Part 1: Alpha-2 code*.

– ISO/IEC 10646:2003, *Information technology – Universal Multiple-Octet Coded Character Set (UCS)*.

A.3 Generic capabilities

For further study. Note that the following OID has been reserved for generic capabilities: { itu-t(0) recommendation(0) h(8) 230 generic-capabilities(1) }.

A.4 Generic messages

For H.245, each H.230 generic message shall consist of a GenericRequest, GenericResponse, GenericCommand or GenericIndication according to Table A.1 containing a **GenericMessage.messageIdentifier** with the OID { itu-t(0) recommendation(0) h(8) 230 generic-message(2) }, and a **subMessageIdentifier**. Each particular **subMessageIdentifier**, listed in Table A.1, may have an associated **messageContent** described in the following clauses.

Table A.1/H.230 – subMessageIdentifier values

subMessageIdentifier	Message name	Message type (for H.245)
1	requestUnicodeTerminalID	GenericRequest
2	mCUnicodeTerminalIDResponse	GenericResponse
3	enterH243UnicodeTerminalID	GenericRequest
4	unicodeTerminalIDResponse	GenericResponse

A.4.1 Generic parameters used in H.230 messages

Table A.2 lists the **GenericParameters** used in **messageContent** sequences.

Table A.2/H.230 – Generic parameters used in H.230 messageContent sequences

Parameter identifier	Parameter name	Parameter value
41	terminalLabel	Integer (0..65535)
42	languageID	Octet string (Size (2))
43	unicodeTerminalID	Octet string (Size (1..128))

A.4.1.1 Terminal label

The terminalLabel parameter value shall contain both the terminal number and MCU number as defined in clause 7/H.243. The MCU number M and the terminal number T shall be combined into a single integer as follows: terminalLabel = (M × 256) + T.

NOTE – When in a point-to-point call (without an MCU), terminalLabel shall be set to 0.

A.4.1.2 Language ID

The languageID parameter value shall contain the language ID as defined for TIP-5 and described in clause 7/H.243.

A.4.1.3 Unicode terminal ID

The unicodeTerminalID parameter value shall contain the Unicode characters as defined for TIP-5. When communicating between an H.323 terminal and an H.320 terminal via a H.323 Gateway, unicodeTerminalID will be truncated so as not to exceed 32 octets.

A.4.2 Conference Request and Response Messages

A.4.2.1 Request Unicode Terminal ID

requestUnicodeTerminalID equates to TCP-5 as described in ITU-T Rec. H.230. The response to this request is **mCUnicodeTerminalIDResponse**. The **messageContent** field contains a terminalLabel parameter.

A.4.2.2 MC Unicode Terminal Response

mCUnicodeTerminalIDResponse equates to TIP-5 as described in ITU-T Rec. H.230. The **messageContent** field contains a sequence of terminalLabel, languageID, and unicodeTerminalID parameters.

A.4.2.3 Enter H.243 Unicode Terminal ID

enterH243UnicodeTerminalID equates to TCS-5 as described in ITU-T Rec. H.230. The response to this request is **unicodeTerminalIDResponse**.

A.4.2.4 Unicode Terminal ID Response

unicodeTerminalIDResponse equates to IIS-5 (value of n = 5) as described in ITU-T Rec. H.230. The **messageContent** field contains a sequence of terminalLabel, languageID, and unicodeTerminalID parameters.

[End Correction]

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