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Digitalno omrežje z integriranimi storitvami (ISDN) – Avdiovizualne storitve – Postopki znotrajpasovnega krmiljenja pri avdiovizualnih terminalih, ki uporabljajo digitalne kanale s hitrostmi do 2 048 kbit/s

Integrated Services Digital Network (ISDN); Audiovisual services; Inband signalling procedures for audiovisual terminals using digital channels up to 2 048 kbit/s

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33.080	Digitalno omrežje z integriranimi storitvami (ISDN)	Integrated Services Digital Network (ISDN)

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AMENDMENT

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**This amendment A1 modifies
the European Telecommunication Standard ETS 300 143 (1994)**

Integrated Services Digital Network (ISDN);

Audiovisual services;

Inband signalling procedures for audiovisual terminals using digital channels up to 2 048 kbit/s

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Foreword

This amendment to ETS 300 143 (1994) was produced by the Terminal Equipment (TE) Technical Committee of the European Telecommunications Standards Institute (ETSI).

Transposition dates	
Date of adoption of this ETS:	31 January 1996
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Amendments

The proposed amendments are as follows:

Page 7, clause 1 (Scope), amend the present NOTE to read as NOTE 1 and add the following second note:

> NOTE 2: Terminals in accordance with this ETS can interwork with equipment conforming to ITU-T Recommendation H.242.

Page 7, clause 2 (Normative references), add the following references:

[7]   ITU-T Recommendation H.224 (1994): "A real time control protocol for simplex applications using the H.221 LSD/HSD/MLP channels".

[8]   Draft prETS 300 481: "Terminal Equipment (TE); Integrated Services Digital Network (ISDN) B-Channel Aggregation; Procedures and terminal requirements".

[9]   ITU-T Recommendation T.122 (1993): "Multipoint communication service for audiographic and audiovisual conferencing service definition".

[10]   ITU-T Recommendation T.123 (1994): "Protocol stacks for audiographic and audiovisual teleconference applications".

[11]   ITU-T Recommendation T.124: "Generic conference control".

[12]   Draft ITU-T Recommendation T.125 (1994): "Multipoint communication service protocol specification".

[13]   ITU-T Recommendation H.243 (1993): "Procedures for establishing communication between three or more audiovisual terminals using digital channels up to 2 Mbit/s".

[14]   Draft prETS 300 483: "Terminal Equipment (TE); Integrated Services Digital Network (ISDN); Multipoint communications for audiovisual services; Main functionalities and basic requirements for Multipoint Control Units (MCUs)".

Page 8, clause 4 (Symbols and abbreviations), amend the following abbreviations to read as follows and insert the note as given below:

H-MLP   High speed MLP logical subchannel
MLP   Logical data subchannel named "MLP"

> NOTE: MLP was previously referred to the ITU-T Recommendation T.120 Multilayer Protocol, but now is just a name for the logical subchannel which may contain T.120 or ITU-T Recommendation H.224 [7] protocol, or Dummy data, see ETS 300 144 [1].

Page 9, subclause 5.1.1 (Audio capabilities), insert the following new paragraphs after the second paragraph and before table 1 as follows:

At the beginning of the call the default encoding law shall be A-law. If information is available to the terminal, either by configuration or by user input, as to whether the destination is within a μ-law region, then this encoding law shall be used after the reception of the ALERTING message or, if the ALERTING message is not received, the CONNECT message, or in-band signalling, as described in clause 6 has been initiated.

The information shall be encoded using the μ-law at 64 kbit/s as defined in CCITT Recommendation G.711 [3].

It is the responsibility of the calling terminal to ensure that correct encoding law is used. If no indication on the coding law is available, the calling terminal shall use the default coding law while monitoring the statistics of the incoming signal. In order to determine whether the incoming signal was encoded by A-law or μ-law PCM, the algorithm described in appendix 1 to CCITT Recommendation G.725 [5] shall be used.

Page 11, subclause 5.1.9 (Rules for capability sets), amend the first paragraph to read as follows:

A capability set is valid if it conforms to the rules set out in this clause. If a received capability set is found to have broken one or more of these rules it shall be considered invalid and consequently ignored. The capability set consists of the capability marker (111) [24] followed by all currently valid values, in any order (except for MPI values). No values other than {Null} shall be repeated within a set (except for MPI values, see subclause 5.1.2).

Page 12, subclause 5.1.9 (Rules for capability sets), replace table 2 by the new table given below:

Table 2: BAS capabilities that can be included in a valid capability set

Audio	Absent or one or more values from {A-law, μ-law, G.722-48, G.728, Au-ISO} (ETS 300 144 [1], tables 8 & 10)
Video	Absent, or { [(QCIF plus one MPI value) or (CIF plus two MPI values)] and/or video-ISO}
Transfer rate	Absent (meaning rate = 64 kbit/s only, see also note), or { no or one value of {1B; 2B; 3B; 4B; 5B; 6B}, and/or no or one value of {1H0; 2H0; 3H0; 4H0; 5H0}, and/or H11, and/or H12, and/or any relevant values from {128, 192, 256, 512, 768, 1 152, 1 472 kbit/s}}
Restricted network	Absent or present
Single/multiple channel Compatibility	Absent or {SM-comp} or {6B-H0-com}
Low-Speed Data (LSD)	Absent or all relevant values (ETS 300 144 [1], table 8)
High-Speed Data (HSD)	Absent or all relevant values (ETS 300 144 [1], table 10)
Low-speed MLP	Absent or all relevant values or MLP Set1 or MLP Set2 (ETS 300 144 [1], tables 8 & 10)
High-speed MLP	Absent or all relevant values (ETS 300 144 [1], table 10)
Applications in data channel	Absent or all relevant values (ETS 300 144 [1], table 12)
Encryption	Absent or present
Multiple-Byte Extension	Absent or present
NOTE:	When reducing the transfer-rate capability to 64 kbit/s from an higher rate, the value (001)[0] shall be included.

Page 12, subclause 5.1.9 (Rules for capability sets), amend the first sentence after the two bullet points of the text to read:

Repetition of the capability set is limited to 10 seconds - see subclause 6.1.1.

Page 13, sublause 5.2.3 (LSD/MLP commands), modify the first paragraph to read as follows:

5.2.3   LSD/MLP commands

Fixed rate LSD/MLP cannot penetrate into Audio bit positions. It can reduce its capacity within the data bit positions currently occupied.

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Page 14, subclause 5.2.4 (Rules for commands), replace table 3 with the table given below:

Table 3: Command summary

Attribute		Alternative values (value sent last is valid only)	Default assumed	Comments
Audio	(000)	[0, 4-7, 18-19, 24-31]	[18]	
Transfer rate	(001)	[0-16, 23, 24, 26, 29]	[0]	
	(001)	[17]		See subclause 7.5
Video and other	(010)	[0-3]	[0]	
	(010)	[6, 7]	[7]	
	(010)	[16]		Cancelled by command in video frame
	(010)	[17]		Expires after fast update completed
	(010)	[18, 21]	[21]	
	(010)	[19, 21]	[21]	
	(010)	[20, 21]	[21]	
	(010)	[23, 26]	[26]	
	(010)	[27, 28]	[28]	
LSD	(011)	[0-15, 31] or [0-31]	[0]	Simultaneous LSD and MLP may be sent only if {H.224-sim}
MLP	(011)	[16-30] or [0-31]	[16]	Has been received - see ITU-T Recommendation H.224 [7]
HSD	**(011)	[0, 17-22]	[0]	
H-MLP	**(011)	[2-8, 13, 14]	[14]	**Reached from
Au-ISO	**(001)	[0-22]	[0]	escape table (111)[16]
	**(001)	[23, 24]	[24]	
	**(001)	[25-28]	[25]	

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Page 15, subclause 6.1 (Capability exchange (sequence A)), replace by the text given below:

This sequence involves the transmission by both terminals of their current capability sets. Either terminal may initiate the sequence and there is no problem caused by both doing so simultaneously or nearly simultaneously. Capability BAS should not be sent unnecessarily when the incoming signal is unframed. The sequence is used in various procedures, in which the initiating terminal wishes to inform the other of its own capability set (for example at the start of the call or when the capability set has been changed), or wishes to check the current capability set of the other (for example in a fault a fault recovery procedure), or both.

When a terminal activates sequence A during a call, it shall maintain the current mode of multimedia multiplexing, including FAS and BAS in additional channels if relevant.

A terminal which is intended to interwork with a Channel Aggregation Unit according to draft prETS 300 481 [8], on receiving the command [capex], shall immediately initiate this sequence A unless a capability exchange is already in progress: in the latter case, the terminal shall continue the sequence, ensuring that at least one complete capability set is transmitted after receipt of [capex].

Page 15, subclause 6.1.1 (Initiating terminal), delete the last paragraph and insert the following text:

If X receives any further capability sets before expiry of timer T_1, it shall not respond to this by repeating its own capability set; after expiry of T_1, it shall respond according to subclause 6.1.2.

Capability sets shall not be sent continuously for more than 10 seconds: if necessary, the sequence shall be terminated, one or more commands sent, and then a new sequence started.

Page 19, subclause 7.1.1 (Initial channel), insert the following text at the end of the subclause:

BAS commands other than default values (1B transfer rate, A/µ-law audio, video-off, etc) shall not be transmitted before the sequence A is finished at the start of the communication.

Pages 21 and 22, subclause 7.5 (Procedure for activation and deactivation of data channels), replace the subclause by the following text:

7.5 Procedure for activation and de-activation of data channels

7.5.1 General

ETS 300 144 [1] provides capability and command BAS codes for four types of logical data channel: MLP, H-MLP, LSD, HSD. A number of alternative bitrates are provided for each type. The following rules apply to the simultaneous activation of two or more types:

a)   MLP and H-MLP may be activated simultaneously, and when both are open, with appropriate commands, then a single MLP sub-channel at the combined rate shall result (e.g. MLP rates of about 100 kbit/s on a 2B call);

b)   neither LSD nor HSD may be opened when MLP and/or H-MLP are open, with the exception of the case when the remote equipment has declared the capability {H.224-sim} - see ITU-T Recommendation H.224 [7]; similarly, and again with this exception, neither MLP nor H-MLP may be opened when either LSD or HSD is open;

c)   LSD may not be opened if HSD is open; likewise HSD may not be opened if LSD is open;

d)   the commands [var-MLP] and [var-LSD] both identify as a data path the whole of the I-channel capacity not otherwise allocated by other commands; they shall not be used together, nor when any other data type or rate is in force.

7.5.2 Activation of data channels

Each terminal shall transmit a data-rate capability code (see ETS 300 144 [1]) for each data type and rate it is able to receive (see also subclause 7.5.7 concerning dummy data capability). This may be done during the capability exchange sequence at the start of the call or, later, by initiating a new capability exchange.

A terminal may transmit a data stream (simultaneous use of two or more data channels is dealt with in subclause 7.5.1 above) of any type and at any rate which has been indicated in the data capability codes it has received from the remote equipment (see note). The appropriate data command (in accordance with ETS 300 144 [1]) is sent, and in the following sub-multiframe, the data channel is opened, occupying the bits within each frame as defined in ETS 300 144 [1]. However, at the time the data command is first sent, these bits shall be unoccupied or contain only video or other variable rate information; therefore, for example, audio or other fixed data rate signals shall be removed from this part of the frame with the prior transmission of an appropriate command. In the case of occupancy by video information, commands are not available to reduce the video rate.

> NOTE: Sometimes symmetrical data transmission is required, e.g. in data transmission through the V.24/V.28 interface. If more than one data rate has been identified as common between two terminals, asymmetrical data transmission may take place according to different terminal procedures. This can be avoided by e.g., declaring only one rate as a data capability.

7.5.3 Rate-change of data channels

At any time during data transmission the rate may be changed by an appropriate data command, subject to the provisions given above.