



SLOVENSKI STANDARD SIST ETS 300 834 E1:2003

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HYfa]bUg_UcdfYa UfH9LÈCn_cdUgcj bUca fYy'UfDGHB'UJ'G8 BLÈ'8 cglcd'Xc
Uj X]cj]ni Ub] 'dc]g_Uj b] 'glcf]hYj 'VfYn'a cÿbcgh'XcglcdU'Xc 'dcXUh_cj 'È'8 cglcd
df]_`1 _cj 'G8 B'U]j]XYcZb]Y'ca fYy'UDGHB'Xc'Uj X]cj]ni Ub] 'dcXUh_cj b] 'nV]f_

Terminal Equipment (TE); Narrowband networks (PSTN or ISDN); Access to interactive audio-visual retrieval services without datafacility; Access for ISDN or PSTN videophony terminals to audio-visual databases

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35.180	Terminalska in druga periferna oprema IT	IT Terminal and other peripheral equipment

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**Terminal Equipment (TE);
Narrowband networks (PSTN or ISDN);
Access to interactive audio-visual
retrieval services without datafacility;
Access for ISDN or PSTN videophony
terminals to audio-visual databases**

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Foreword

This European Telecommunication Standard (ETS) has been produced by the Terminal Equipment (TE) Technical Committee of the European Telecommunications Standards Institute (ETSI).

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1 Scope

This European Telecommunication Standard (ETS) specifies how narrowband (Integrated Services Digital Network (ISDN) or Public Switched Telephony Network (PSTN)) videophony terminals without data-facility can access interactive audio-visual retrieval services. To control the retrieval process, the terminal should support some interactive protocol between the end user and the service centre. For ISDN videophony terminals, the solutions using inband signalling via Dual Tone Multi Frequency (DTMF), CCITT Recommendation Q.23 [1] in the audio stream and the use of transmitting Single Byte Extension (SBE) control and indication messages (ETS 300 144 [5]) are specified in this ETS. In the case of the PSTN, use of transmitting UserInputIndication (UII) via ITU-T Recommendation H.245 [23] messages in the control channel is specified. In I-ETS 300 837 [4], this user input is not considered as data capability.

The use of DTMF, SBE and UII enables a user to control the retrieval process via input of alphanumeric characters from a keypad or keyboard, equivalent to the DTMF signals used in analogue telephony. This may be used to manually operate remote equipment such as voice mail or video mail systems, menu-driven information services etc. DTMF, SBE and UII support at least, the transmission of user input characters '0-9', '*', and '#'. Transmission of other characters is optional. The use of DTMF, SBE or UII as interactive protocols is very simple, since the service centre can instruct the user, either in text or spoken, in the same way as in voice response systems.

For Personal Computer (PC) / Work station (WS) based ISDN and PSTN videophony terminals, an additional selection mechanism that permits pointing device selections via (push) buttons in the video presentation area using SBE or UII messages is specified.

This ETS is applicable to audio-visual services based on retrieval of information, coded according to ETS 300 145 [2] (in the ISDN case) or I-ETS 300 837 [4] (in the PSTN case). In this ETS the definition "videophony" is used to address both videotelephony and videoconferencing applications.

The audio-visual retrieval services will be hosted on an audio-visual service centre. In this ETS only the audio-visual database functionality of the service centre will be specified.

NOTE: Information retrieval using videophony terminals in combination with DTMF or SBE/UII, are only two of the possible scenarios for the access of retrieval services and audio-visual services on narrowband networks. In ETR 176 and ETR 272 (see annex A) other scenarios have been described.

2 Normative references

This ETS incorporates by dated or undated reference, provisions from other publications. These references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the application referred to applies.

[1] CCITT Recommendation Q.23 (1990): "Signalling frequencies for push-button telephone sETS and reception of those signals in exchanges".

[2] ETS 300 145 (1996): "Integrated Services Digital Network (ISDN); Audiovisual services Videotelephone systems and terminal equipment operating on one or two 64 kbit/s channels".

NOTE 1: ETS 300 145 is the ETSI equivalent to ITU-T Recommendation H.320 [3]. The scope of ETS 300 145 is restricted to 1B and 2B ISDN videophones.

[3] ITU-T Recommendation H.320 (1993): "Narrow-band visual telephone systems and terminal equipment".

[4] pri-ETS 300 837: "Public Switched Telephone Network (PSTN); Terminals for low bitrate Multimedia communication".

NOTE 2: pri-ETS 300 837 is the ETSI equivalent to ITU-T Recommendation H.324 [18].

- [5] ETS 300 144 (1996): "Integrated Services Digital Network (ISDN); Audiovisual services; Frame structure for a 64 kbit/s to 1 920 kbit/s channel and associated syntax for inband signalling".
- NOTE 3: ETS 300 144 is the ETSI equivalent to ITU-T Recommendations H.221 [6] and H.242 [12].
- [6] ITU-T Recommendation H.221 (1995): "Frame structure for a 64 to 1 920 kbit/s channel in audiovisual services".
- [7] ITU-T Recommendation H.230 (1995): "Frame-synchronous control and indication signals for audiovisual systems".
- [8] ITU-T Recommendation H.223 (1996): "Multiplexing protocol for low-bitrate multimedia communication".
- [9] CCITT Recommendation B.13 (Blue Book Fasc. I.3 1991): I.3: "Terms and definitions".
- [10] ITU-T Recommendation F.300 (1994): "Videotex service".
- [11] ETS 300 143 (1994) and A1: "Integrated Services Digital Network (ISDN); Audiovisual services; Inband signalling procedures for audiovisual terminals using digital channels up to 2 048 kbit/s".
- NOTE 4: ETS 300 143 is the ETSI equivalent to ITU-T Recommendation H.242 [12].
- [12] ITU-T Recommendation H.242 (1993): "System for establishing communication between audiovisual terminals using digital channels up to 2 Mbit/s".
- [13] ETS 300 142 (1995): "Integrated Services Digital Network (ISDN) and other digital telecommunications networks; Line transmission of non-telephone signals; Video codec for audio visual services at $p \times 64$ kbits [ITU-T Recommendation H.261 (1993), modified]".
- NOTE 5: ETS 300 142 is the ETSI equivalent to ITU-T Recommendation H.261 [14].
- [14] ITU-T Recommendation H.261 (1993): "Video codec for audiovisual services at $p \times 64$ kbps".
- [15] CCITT Recommendation G.711 (1990): "Pulse code modulation (PCM) of voice frequencies".
- [16] CCITT Recommendation G.722 (1990): "7 kHz audio-coding within 64 kbit/s".
- [17] CCITT Recommendation G.728 (1992): "Coding of speech at 16 kbit/s using low-delay code excited linear prediction".
- [18] ITU-T Recommendation H.324 (1996): "Terminal for low bitrate multimedia communication".
- [19] I-ETS 300 380 (1995): "Universal Personal Telecommunications (UPT); Access devices Dual Tone Multi Frequency (DTMF) sender for acoustic coupling to the microphone of a handset telephone".
- [20] ITU-T Recommendation V.34 (1994): "A modem operating at data signalling rates of up to 28 800 bit/s for use on the GSTN and on leased point-to-point 2-wire telephone-type circuits".
- [21] ITU-T Recommendation G.723.1 (1996): "Dual rate speech coder for multimedia communication transmitting at 5,3 and 6,3 kbit/s".

- [22] ITU-T Recommendation H.263 (1996): "Videocoding for low bit rate communication".
- [23] ITU-T Recommendation H.245 (1996): "Control protocol for multimedia communication".
- [24] ITU-T Recommendation V.8 (1994): "Procedures for starting sessions of data transmission over the GSTN".
- [25] ITU-T Recommendation V.8bis (1996): "Procedures for the identification and selection of common modes of operation between data circuit terminating equipment (DCE) and between data terminal equipment (DTE) over the general switched telephone network and on leased point-to-point telephone-type circuits".
- [26] ITU-T Recommendation V.25ter (1995): "Serial asynchronous automatic dialling and control".
- [27] CCITT Recommendation T.61: "International Alphabet No. 5".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this ETS, the following definitions apply:

audio-visual retrieval service: An interactive service which provides uni-directional communication by means of real-time (no store-and-forward) end-to-end audio-visual information transfer from an audio-visual database to the user (see also retrieval service).

ISDN audio-visual database: An information database that contains audio-visual information coded according to ETS 300 145 [2]. In the scope of this ETS it implies that the database is least capable of sending audio and video in a framed structure (ETS 300 144 [5]).

ISDN videophony terminal: A videophony terminal equipment that conforms to the methods described in ETS 300 145 [2]. In the scope of this ETS it implies that the terminal is at least capable of receiving audio and video sent in a framed structure (ETS 300 144 [5]). The terminal also may support data capabilities.

interactive protocol: A formal statement of the procedures that are adopted to ensure interactive communication between a terminal and a service centre within the application layer function (definition derived from protocol definition in ITU-T Recommendation F.300 [10]).

PSTN audio-visual database: An information database that contains audio-visual information coded according to I-ETS 300 837 [4]. In the scope of this ETS it implies that the database is least capable of sending audio and video in packet mode structure (ITU-T Recommendation H.223 [8]).

PSTN videophony terminal: A videophony terminal equipment that conforms to the methods described in I-ETS 300 837 [4]. In the scope of this ETS it implies that the terminal is at least capable of receiving audio and video sent in packed mode (ITU-T Recommendation H.223 [8]). The terminal also may support data capabilities.

retrieval service: An interactive service which provides the capability of accessing information stored in databases. The information will be sent to the user on demand only. The information can be retrieved on an individual basis, i.e., the time at which an information sequence is to start is under the control of the user (CCITT Recommendation B.13 [9]).

service centre: A computer system used by a service provider to authorize access to a service. Other functions of the service centre may include assistance to users in selecting the particular application required (either provided by the service centre or by other host computers), as well as management facilities such as billing, statistics gathering, etc. The same computer may also be a host computer and/or provide a gateway function (definition derived from ITU-T Recommendation F.300 [10]).