



SLOVENSKI STANDARD
SIST ETS 300 100 E1:2003
01-december-2003

8 [[]HJbc`ca fYy`Y`n`]bhY[f]fUb]a]'glcf]hj Ua]'fIG8 BL`E`l ga Yf`Ub`Y`_chdca c
glcf]hj Ua `=Gl DžfUh`]]WU%

Integrated Services Digital Network (ISDN); Routing in support of ISUP Version 1 services

iteh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: **ETS 300 100 Edition 1**
<https://standards.iteh.ai/catalog/standards/sist/8d0b2c74-85e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003>

ICS:

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

SIST ETS 300 100 E1:2003

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST ETS 300 100 E1:2003](#)

<https://standards.iteh.ai/catalog/standards/sist/8d0b2e74-83e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003>



EUROPEAN
TELECOMMUNICATION
STANDARD

ETS 300 100

January 1992

Source: ETSI TC-NA

Reference: T/N 23-03

ICS: 33.080

Key words: ISDN, routing

iTeh STANDARD PREVIEW
Integrated Services Digital Network (ISDN);
(standards.iteh.ai)
Routing in support of ISUP version 1 services

[SIST ETS 300 100 E1:2003](https://standards.iteh.ai/catalog/standards/sist/8d0b2e74-83e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003)

<https://standards.iteh.ai/catalog/standards/sist/8d0b2e74-83e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003>

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE

Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE

X.400: c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

Tel.: +33 92 94 42 00 - Fax: +33 93 65 47 16

Copyright Notification: No part may be reproduced except as authorized by written permission. The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 1992. All rights reserved.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST ETS 300 100 E1:2003](https://standards.iteh.ai/catalog/standards/sist/8d0b2e74-83e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003)

<https://standards.iteh.ai/catalog/standards/sist/8d0b2e74-83e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003>

Contents

| | |
|--|----|
| Foreword | 5 |
| 1 Scope | 7 |
| 2 Normative references | 7 |
| 3 Symbols and abbreviations | 8 |
| 4 Additions and/or clarifications to CCITT Recommendation E.172 [1] | 9 |
| 4.1 Paragraph 6: Signalling Capability | 9 |
| 4.2 Annex A to E.172 | 9 |
| 4.3 Annex B to E.172 | 9 |
| 5 Additional information on parameters used for routing | 9 |
| 5.1 Use of the Transmission Medium Requirement parameter | 9 |
| 5.2 Capability of signalling systems to support various TMRs | 10 |
| 5.3 Relationship between requested service and TMR values | 11 |
| 5.4 ISUP preference indicator values for ISDN services | 11 |
| 5.4.1 General | 11 |
| 5.4.2 Services requiring "ISUP Required" | 12 |
| 5.4.3 Services requiring "ISUP Preferred" | 12 |
| 5.4.4 Services requiring "ISUP Not Required" | 12 |
| 6 Interworking requirements for the support of PSTN/IDN services in ISDN | 12 |
| 6.1 Interworking between TUP/channel associated signalling and ISUP | 12 |
| 6.1.1 Interworking from TUP/channel associated signalling to ISUP | 12 |
| 6.1.2 Interworking from ISUP to TUP/channel associated signalling systems | 12 |
| 6.2 Interworking between TUP+ and ISUP | 13 |
| 6.2.1 Interworking from TUP+ to ISUP | 13 |
| 6.2.2 Interworking from ISUP to TUP+ | 14 |
| 6.3 Interworking impact on supplementary services | 15 |
| 6.4 Service interworking/intercommunication and fall back | 16 |
| 6.4.1 Impact on service interworking and intercommunication on routing | 16 |
| 7 Selection of path/traffic distribution | 18 |
| Annex A (normative): Support of supplementary services in ISDN by ISUP version 1 | 19 |
| Annex B (informative): Bibliography | 19 |
| History | 20 |

Blank page

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST ETS 300 100 E1:2003](https://standards.iteh.ai/catalog/standards/sist/8d0b2e74-83e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003)

<https://standards.iteh.ai/catalog/standards/sist/8d0b2e74-83e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003>

Foreword

This European Telecommunication Standard (ETS) has been produced by the Network Aspects (NA) Technical Committee of the European Telecommunications Standards Institute (ETSI), in co-operation with the Signalling Protocols and Switching Sub-Committee, and with the T/SF Committee of the Conference of European Posts and Telecommunications.

This ETS is based on CCITT Recommendation E.172 [1] as given in the CCITT Blue Book, Volume II, Fascicle II.2, 1988. The requirements of this CCITT Recommendation shall apply together with the additional elements, and subject to the clarifications identified in this ETS.

CCITT Recommendation I.335 [2], as given in the CCITT Blue Book, Volume II, Fascicle III.8, 1988 describes the use of the ISUP Transmission Medium Requirement for routing.

This ETS has been prepared in support of the ISDN, as defined in ETSI Technical Report ETR 010 "The ETSI Basic Guide on the European Integrated Services Digital Network (ISDN)", which contains a complete list of services which the ISDN will provide. This ETS also supports services and capabilities as specified in ETS 300 121 [3].

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST ETS 300 100 E1:2003](https://standards.iteh.ai/catalog/standards/sist/8d0b2e74-83e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003)

<https://standards.iteh.ai/catalog/standards/sist/8d0b2e74-83e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003>

Blank page

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST ETS 300 100 E1:2003](https://standards.iteh.ai/catalog/standards/sist/8d0b2e74-83e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003)

<https://standards.iteh.ai/catalog/standards/sist/8d0b2e74-83e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003>

1 Scope

This standard gives guidance on call routing during the implementation of ISDN in Europe, as defined by the Memorandum of Understanding on the Implementation of the ISDN in Europe in 1992.

It is applicable to the functions required at ISDN international gateways and international transit exchanges for routing and network planning in order to achieve practical international interconnection of networks.

The relevant CCITT routing recommendations are identified and clarifications and additions to them are provided where necessary.

This standard is produced in connection with the implementation of ISDN services, using either ISUP version 1 or CEPT No. 7 TUP+ in the international network. This standard covers the services which are supported by ISUP version 1.

The following bearer and teleservices are not within the scope of this standard:

- 2 X 64 kbit/s circuit mode bearer service;
- videotex photographic mode;
- computerised communication;
- teleaction;
- audiographic teleconferencing;
- 7 kHz telephony;
- videotelephony.

ITeH STANDARD PREVIEW
(standards.iteh.ai)

2 Normative references

[SIST ETS 300 100 E1:2003](https://standards.iteh.ai/catalog/standards/sist/8d0b2e74-83e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003)

<https://standards.iteh.ai/catalog/standards/sist/8d0b2e74-83e2-427f-a3a0-fe1a2a9dc2cf/sist-ets-300-100-e1-2003>

This standard incorporates, by dated or undated reference, provisions from other publications. Those normative references specific to this part are cited at the appropriate places in the text and listed below. For dated references, subsequent amendments to, or revisions of these publications will apply to this standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- | | |
|-----|--|
| [1] | CCITT Recommendation E.172 (1988): "Call Routing in the ISDN Era". |
| [2] | CCITT Recommendation I.335 (1988): "ISDN Routing Principles". |
| [3] | ETS 300 121: "Integrated Services Digital Network (ISDN); Application of the ISDN user part of CCITT Signalling System No.7 for international ISDN interconnections; CCITT Recommendation Q.767 draft edition 3: 1990 - modified". |
| [4] | CCITT Recommendation I.530 (1988): "Network Interworking between an ISDN and a PSTN". |

3 Symbols and abbreviations

| | |
|-------|--|
| BC | Bearer Capability |
| CCITT | Comité Consultatif International Telegraphic et Telephonique |
| CEPT | Conférence des Administrations Européenes des Postes et Télécommunications |
| CLIP | Calling Line Identification Presentation |
| CLIR | Calling Line Identification Restriction |
| COLP | Connected Line Identification Presentation |
| COLR | Connected Line Identification Restriction |
| CUG | Closed User Group |
| DDI | Direct Dialling In |
| ETSI | European Telecommunications Standards Institute |
| IDN | Integrated Digital Network |
| IPI | ISUP Preference Indicator |
| ISDN | Integrated Services Digital Network |
| ISUP | ISDN User Part |
| ITC | Information Transfer Capability |
| MSN | Multiple Subscriber Number |
| PSPDN | Public Switched Packet Data Network |
| PSTN | Public Switched Telephone Network |
| R2 | Signalling System R2 |
| SC | Signalling Capability |
| SUB | Subaddressing |
| TMR | Transmission Medium Requirement |
| TP | Terminal Portability |
| TUP | Telephone User Part |
| TUP+ | Enhanced Telephone User Part |
| UUS | User-to-User Signalling |

4 Additions and/or clarifications to CCITT Recommendation E.172 [1]

4.1 Paragraph 6: Signalling Capability

Subclause 5.4 of this standard contains the application of the criteria for setting the IPI parameter for the implementation of the ISDN in Europe.

In table 3 of the CCITT Recommendation, the cases "64 kbit/s unrestricted" and "ISUP not required" are characterised by "Not applicable". The conjunction of these two values could nevertheless be used, according to bilateral agreements, in order to provide an international digital connectivity service (see also subclause 5.4 of this standard and Note 11 to table 4 of the CCITT Recommendation).

4.2 Annex A to E.172

The information contained in this annex is extended in subclauses 5.1 to 5.3 of this standard, to cover the implementation of the ISDN in Europe. The interworking situation from PSTN to ISDN is further detailed in Clause 6 of this standard.

4.3 Annex B to E.172

The application of the criteria defined in this annex to the implementation of the ISDN in Europe is specified in subclause 5.4 of this standard.

5 Additional information on parameters used for routing

5.1 Use of the Transmission Medium Requirement parameter

The use of the ISUP Transmission Medium Requirement (TMR) parameter for routing is described in:

- CCITT Recommendation E.172 [1], paragraph 5 (h); and
- CCITT Recommendation E.335 [2], paragraphs 4.2.1 (e) and 4.4.4.

In addition to the statements made in the above mentioned paragraphs, the following shall apply:

The TMR shall be used for routing in the international network;

The TMR parameter shall be conveyed unchanged in the international network.

For a specific service request, one TMR value shall be used in the international network and across internetwork boundaries. For its value see subclause 5.3.

It is recommended that national networks use the same TMR values as the international network. Conversion from the requested service to the TMR value can then be performed in the originating local exchange. If not done there, then the TMR information must be available from the outgoing international gateway onwards. It is then forwarded to following exchanges, if possible even up to the destination exchange.

At transit international exchanges as well as at incoming international gateway exchanges, the TMR shall be examined for routing purposes, irrespective of the service requested. This does not preclude that incoming gateway exchanges may need to examine additional information available to determine national routing.