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Integrated Services Digital Network (ISDN); Completion of Calls to Busy Subscriber (CCBS) supplementary service; Service description

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Digitalno omrežje z
integriranimi storitvami
(ISDN)

Integrated Services Digital
Network (ISDN)

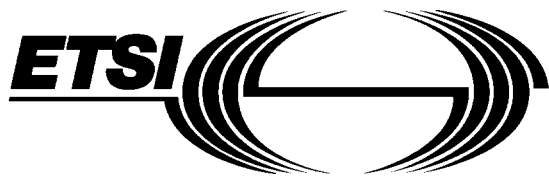
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supplementary service
Service description**

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Foreword

This European Telecommunication Standard (ETS) has been produced by the Network Aspects (NA) Technical Committee of the European Telecommunications Standards Institute (ETSI).

In accordance with CCITT Recommendation I.130 [1], the following three level structure is used to describe the supplementary telecommunications services as provided by European public telecommunications operators under the pan-European Integrated Services Digital Network (ISDN):

- Stage 1: is an overall service description, from the user's standpoint;
- Stage 2: identifies the functional capabilities and information flows needed to support the service described in stage 1; and
- Stage 3: defines the signalling system protocols and switching functions needed to implement the service described in stage 1.

This ETS details the stage 1 aspects (overall service description) for the Completion of Calls to Busy Subscriber (CCBS) supplementary service. The stage 2 aspects are detailed in ETS 300 358 (1994) and the stage 3 aspects are detailed in ETS 300 359 (1994) and ETS 300 356-18 (1994).

Proposed transposition dates	
Date of adoption of this ETS	31 October 1995
Date of latest announcement of this ETS (doa):	31 January 1996
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	31 July 1996
Date of withdrawal of any conflicting National Standard (dow):	31 July 1996

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1 Scope

This standard defines the stage one of the Completion of Calls to Busy Subscriber (CCBS) supplementary service for the pan-European Integrated Services Digital Network (ISDN) as provided by European public telecommunications operators. Stage one is an overall service description from the user's point of view (see CCITT Recommendation I.130 [1]), but does not deal with the details of the human interface itself.

This standard defines the interworking requirements of private ISDNs with the public ISDN.

In addition, this standard specifies the base functionality where the service is provided to the user via a private ISDN.

This standard does not specify the additional requirements where the service is provided to the user via a telecommunications network that is not an ISDN but does include interworking requirements of other networks with the public ISDN.

Interactions with supplementary services not listed in clause 8 are outside the scope of this standard.

Charging principles are outside the scope of this standard.

The CCBS supplementary service enables user A, encountering a busy destination B, to have the call completed without having to make a new call attempt when the destination B becomes not busy.

The CCBS supplementary service is applicable to all circuit-switched telecommunications services with the following exceptions:

- a) call 2, of the videotelephony teleservice (see ETS 300 264);
- b) all other circuit-switched telecommunications services requiring the use of more than one B-channel.

This standard is applicable to the stage two and stage three standards for the ISDN CCBS supplementary service. The terms "stage two" and "stage three" are also defined in CCITT Recommendation I.130 [1]. Where the text indicates the status of a requirement (i.e. as strict command or prohibition, as authorisation leaving freedom, or as a capability or possibility), this shall be reflected in the text of the relevant stage two and stage three standards.

Furthermore, conformance to this standard is met by conforming to the stage three standard with the field of application appropriate to the equipment being implemented. Therefore, no method of testing is provided for this standard.

2 Normative references

This standard incorporates by dated and undated reference, provisions from other publications. These normative 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 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 I.130 (1988): "Method for the characterisation of telecommunication services supported by an ISDN and network capabilities of an ISDN".
- [2] CCITT Recommendation I.112 (1988): "Vocabulary of terms for ISDNs".
- [3] CCITT Recommendation I.210 (1988): "Principles of telecommunication services supported by an ISDN and the means to describe them".
- [4] CCITT Recommendation E.164 (1991): "Numbering plan for the ISDN era".
- [5] CCITT Recommendation Q.9 (1988): "Vocabulary of switching and signalling terms".
- [6] CCITT Recommendation I.221 (1988): "Common specific characteristics of services".

3 Definitions

For the purposes of this standard the following definitions apply:

Integrated Services Digital Network (ISDN): see CCITT Recommendation I.112 [2], § 2.3, definition 308.

Service; telecommunications service: see CCITT Recommendation I.112 [2], § 2.2, definition 201.

Supplementary service: see CCITT Recommendation I.210 [3], § 2.4.

ISDN number: a number conforming to the numbering plan and structure specified in CCITT Recommendation E.164 [4].

User A: the user who originated the call and to whom the CCBS supplementary service is provided.

ISDN number: a number conforming to the numbering plan and structure specified in CCITT Recommendation E.164 [4].

Subaddress: see CCITT Recommendation E.164 [4], § 11.2.

Basic access: see CCITT Recommendation Q.9 [5], § 1, definition 1551.

Primary rate access: see CCITT Recommendation Q.9 [5], § 1, definition 1552.

Busy: see CCITT Recommendation I.221 [6], § 3.

Destination B: the entity addressed in the original call.

Basic call procedures: the procedures by which a call (as an instance of a telecommunications service) is established and terminated.

Retention timer: this timer specifies the amount of time that the network retains all of the information supplied by the calling user when the call encounters busy. This timer is part of the basic call procedures. Although this timer is optional for the basic call procedures, it is needed for the operation of the CCBS supplementary service. The value shall be greater than 15 seconds.

CCBS service duration timer: the maximum time the CCBS supplementary service will remain activated for user A within the network. The value of this timer shall be a minimum of 15 minutes and a maximum of 45 minutes.

CCBS recall timer: the maximum time the network will wait for user A to respond to a CCBS recall. The value of this timer shall be a minimum of 10 seconds and a maximum of 20 seconds.

Destination B idle guard timer: the time the network will wait after destination B has become not busy before informing user A. The value of this timer shall be a maximum of 15 seconds.

CCBS busy: any one of the following conditions will cause user A to be considered as CCBS busy:

- maximum number of calls reached at user A;
- no B-channels available at user A;
- CCBS recall pending on user A.

CCBS call: a call generated by the network from user A to destination B resulting from user A's acceptance of a CCBS recall.

CCBS recall: an indication informing user A that the network is ready to initiate a CCBS call to destination B and that the network is awaiting a response to this indication.

CCBS request: an instance of an activation of the CCBS supplementary service which is held in a queue pending the correct conditions for the CCBS supplementary service to be completed.

Suspended CCBS request: a CCBS request which cannot be served even if destination B is not busy, because user A is busy or CCBS busy.

Compatible terminal: a terminal which can support the bearer service or teleservice requested for the original call to destination B and which can accept calls to the ISDN number and subaddress identifying the called user in the original call to destination B.

4 Symbols and abbreviations

CCBS	Completion of Calls to Busy Subscriber
ISDN	Integrated Services Digital Network