



**SLOVENSKI STANDARD**  
**SIST EN 300 199 V1.2.1:2004**  
**01-april-2004**

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**Digitalno omrežje z integriranimi storitvami (ISDN) - Dopolnilna storitev: predaja klica ob zasedenosti (CFB) - Opis storitve**

Integrated Services Digital Network (ISDN); Call Forwarding Busy (CFB) supplementary service; Service description

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*European Standard (Telecommunications series)*

## **Integrated Services Digital Network (ISDN); Call Forwarding Busy (CFB) supplementary service; Service description**

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## Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Services and Protocols for Advanced Networks (SPAN).

In accordance with ITU-T 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.

The present document details the stage 1 aspects (overall service description) for the Call Forwarding Busy (CFB) supplementary service. The stage 2 are detailed in ETS 300 203 (1994) and stage 3 aspects are detailed in EN 300 207-1 (V2.0.1) and EN 300 356-15 (V3.2.2).

### National transposition dates

Date of adoption of this EN:	1 June 2001
Date of latest announcement of this EN (doa):	30 September 2001
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 March 2002
Date of withdrawal of any conflicting National Standard (dow):	31 March 2002

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# 1 Scope

The present document defines the stage one of the Call Forwarding Busy (CFB) 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 ITU-T Recommendation I.130 [1]), but does not deal with the details of the human interface itself.

The present document defines the interworking requirements of private ISDNs with the public ISDN.

In addition the present document specifies the base functionality where the service is provided to the user via a private ISDN.

The present document 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.

Charging principles are outside the scope of the present document.

Interaction with supplementary services not listed in clause 7 is outside the scope of the present document.

The CFB supplementary service enables a served user to have the network redirect to another user calls which are addressed to the served user's ISDN number and meet busy. The CFB supplementary service may operate on all calls, or just those associated with specified basic services. The served user's ability to originate calls is unaffected by the CFB supplementary service.

The CFB supplementary service is applicable to all circuit-switched telecommunication services.

The present document is applicable to the stage two and stage three documents for the ISDN CFB supplementary service. The terms "stage two" and "stage three" are also defined in ITU-T Recommendation I.130 [1]. Where the text indicates the status of a requirement, (i.e. as strict command or prohibition, as authorization leaving freedom, as a capability or possibility), this shall be reflected in the text of the relevant stage two and stage three documents.

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

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# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

- [1] ITU-T Recommendation I.130 (1988): "Method for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN".
- [2] ITU-T Recommendation I.112 (1993): "Vocabulary of terms for ISDNs".
- [3] ITU-T Recommendation I.221 (1993): "Common specific characteristics of services".
- [4] ITU-T Recommendation I.210 (1993): "Principles of telecommunication services supported by an ISDN and the means to describe them".
- [5] ITU-T Recommendation E.164 (1997): "The international public telecommunication numbering plan".
- [6] ITU-T Recommendation Q.9 (1988): "Vocabulary of switching and signalling terms".



## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

**address:** see ITU-T Recommendation E.164 [5], clause 12

**basic access:** see ITU-T Recommendation Q.9 [6], clause 1, definition 1551

**basic call procedures:** procedures by which a call (as an instance of a basic telecommunication service) is established and terminated

**(basic) service; telecommunications service:** see ITU-T Recommendation I.112 [2], clause 2.2, definition 201

**busy:** see ITU-T Recommendation I.221 [3], clause 3.1.5

**(call) forwarding:** general term applied to any functionality whereby a call is redirected automatically by the service provider to another user. The forms of forwarding are: unconditional, whereby all calls are redirected; busy, whereby calls encountering busy are redirected; and, no reply, whereby calls which are not answered within a time period are redirected.

**diverted-to user:** user to whom a call is redirected as a result of diversion

**diversion:** general term which includes all forms of forwarding, and includes deflection whereby calls are redirected by the user instead of being answered

**diverting user:** user for whom the call is subjected to diversion

**forwarded-to user:** user to whom the call is redirected as a result of forwarding

**Integrated Services Digital Network (ISDN):** see ITU-T Recommendation I.112 [2], clause 2.3, definition 308

**ISDN number:** number conforming to the numbering plan and structure specified in ITU-T Recommendation E.164 [5]

**network determined user busy:** see ITU-T Recommendation I.221 [3], clause 3.1.4

**primary rate access:** see ITU-T Recommendation Q.9 [6], clause 1, definition 1552

**served user:** user to whom the CFB supplementary service is provided

**subaddress:** see ITU-T Recommendation E.164 [5], clause 12.2

**supplementary service:** see ITU-T Recommendation I.210 [4], clause 2.4

**user A:** calling user in a call which is subject to diversion

**user B:** served user when a call (from user A) is subject to the CFB supplementary service

**NOTE:** In the context of multiple diversions, a suffix is used, e.g. 1, 2, ... n, n + 1, ... m, to denote the successive diverting users. For example, user B3 is also the diverted-to user with respect to the diversion applied at user B2.

**user C:** forwarded-to user in a call which is subject to the CFB supplementary service. In the case of a call which is subject to multiple diversions, user C is the forwarded-to user with respect to the final call forwarding.

**user determined user busy:** see ITU-T Recommendation I.221 [3], clause 3.1.4

## 3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

CFB	Call Forwarding Busy
ISDN	Integrated Services Digital Network
PSTN	Public Switched Telephone Network

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## 4 Description

The CFB supplementary service shall be available to users who are connected to the network via a basic access or a primary rate access.

The CFB supplementary service enables a served user to have the network redirect to another user calls which are addressed to the served user's ISDN number and meet busy. The CFB supplementary service may operate on all calls, or just those associated with specified basic services. The served user's ability to originate calls is unaffected by the CFB supplementary service.

As a service provider option, a subscription option can be provided to enable the served user to receive an indication that the CFB supplementary service has been activated. This indication shall be provided when the served user originates a call if the CFB supplementary service has been activated for the served user's ISDN number and for the basic service requested for the call.

The maximum number of diversions permitted for each call is a service provider option with an upper limit of five diversions. When counting the number of diversions, all types of diversion are included.

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## 5 Procedures **(standards.iteh.ai)**

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### 5.1 Provision and withdrawal

The CFB supplementary service shall be provided after prior arrangement with the service provider.

As a service provider option, the CFB supplementary service can be provided on a per ISDN number basis, or the CFB supplementary service can apply to the whole access. If a service provider offers both of these options, then it shall be a subscription option to choose which of these options applies.

In addition, the CFB supplementary service (including options) can be subscribed to for all basic services subscribed to by the user, or as a service provider option, the user can identify particular basic service(s) for which the CFB supplementary service shall apply.

As a service provider option, the service can be offered with one or more of four subscription options, which can apply separately to each basic service subscribed to. If the CFB supplementary service is provided on a per ISDN number basis, then these options can apply separately to each ISDN number. For each subscription option, only one value can be selected. Subscription options are summarized in table 1.

Table 1

Subscription options	Value
Served user receives notification that the call has been forwarded	- no - yes
Calling user receives notification that the call has been forwarded	- no - yes, without the ISDN number of the forwarded-to user - yes, with the ISDN number of the forwarded-to user
Served user receives notification that the CFB supplementary service is currently activated	- no - yes
The served users ISDN number can be presented to the forwarded-to user	- no - yes

As a service provider option, a subscription option can be offered to serve users, to enable the CFB supplementary service to be activated, deactivated and interrogated for all ISDN numbers on the same access. ISDN numbers for which the CFB supplementary service is not subscribed to shall not be affected.

The CFB supplementary service shall be withdrawn by the service provider upon request of the subscriber, or for service provider reasons.

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## 5.2 Normal procedures

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### 5.2.1 Registration and erasure

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#### 5.2.1.1 Registration

Registration of information is performed on activation of the CFB supplementary service.

There are no separate registration procedures for the CFB supplementary service.

#### 5.2.1.2 Erasure

Not applicable.

## 5.2.2 Activation and deactivation

### 5.2.2.1 Activation

The served user shall supply the following information when requesting the activation of the CFB supplementary service:

- the ISDN number of the forwarded-to user, which can be accompanied by a subaddress for additional identification of the forwarded-to user; and
- information as to whether the activation of the CFB supplementary service is for all basic services to which the CFB supplementary service applies, or for a specific basic service out of the basic services to which the CFB supplementary service applies.