

**Integrated Services Digital Network (ISDN);
Outgoing Call Barring-Fixed (OCB-F) supplementary service;
Service description**



Reference

DEN/NA-020006 (a0o00ico.PDF)

Keywords

call barring, stage 1, supplementary service

ETSI

Postal address

F-06921 Sophia Antipolis Cedex - FRANCE

Office address

650 Route des Lucioles - Sophia Antipolis
Valbonne - FRANCE
Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16
Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Internet

secretariat@etsi.fr
<http://www.etsi.fr>
<http://www.etsi.org>

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 1998.
All rights reserved.

Contents

Intellectual Property Rights.....	5
Foreword	5
1 Scope	6
2 References	6
3 Definitions and abbreviations	7
3.1 Definitions	7
3.2 Abbreviations.....	7
4 Description	8
5 Procedures.....	8
5.1 Provision and withdrawal.....	8
5.2 Normal procedures.....	8
5.2.1 Registration and erasure	8
5.2.2 Activation and deactivation.....	9
5.2.3 Invocation and operation	9
5.2.4 Interrogation	9
5.3 Exceptional procedures.....	9
5.3.1 Registration and erasure	9
5.3.2 Activation and deactivation.....	9
5.3.2.1 Activation	9
5.3.2.2 Deactivation.....	9
5.3.3 Invocation and operation	10
5.3.4 Interrogation	10
6 Interworking requirements	10
6.1 Interworking with non-ISDNs.....	10
6.2 Interworking with private networks	10
7 Interaction with ISDN supplementary services.....	10
7.1 Advice of charge	10
7.1.1 Advice of charge at call set-up	10
7.1.2 Advice of charge during the call	10
7.1.3 Advice of charge at the end of a call	10
7.2 Call waiting.....	10
7.3 Call hold	10
7.4 Explicit call transfer.....	10
7.5 Number identification services	11
7.5.1 Calling line identification presentation.....	11
7.5.2 Calling line identification restriction.....	11
7.5.3 Connected line identification presentation	11
7.5.4 Connected line identification restriction.....	11
7.6 Closed user group	11
7.7 Call completion services	11
7.7.1 Completion of calls to busy subscriber.....	11
7.7.2 Completion of calls on no reply	11
7.8 Conference services	11
7.8.1 Conference call, add-on.....	11
7.8.2 Conference call, meet-me	11
7.9 Direct dialling in	11
7.10 Diversion services.....	12
7.10.1 Call forwarding unconditional.....	12
7.10.2 Call forwarding busy	12
7.10.3 Call forwarding no reply	12
7.10.4 Call deflection	12
7.10.5 Selective call forwarding.....	12

7.11	Freephone	12
7.12	Malicious call identification.....	12
7.13	Multiple subscriber number	13
7.14	Subaddressing	13
7.15	Terminal portability	13
7.16	Three party.....	13
7.17	User-to-user signalling	13
7.18	Call barring services	13
7.19	Outgoing call barring-fixed.....	13
7.20	Outgoing call barring-user controlled	13
8	Interactions with other services	13
8.1	Universal access number.....	13
8.2	Virtual card calling	13
8.3	Premium rate.....	14
8.4	Televoting	14
8.5	Remote control.....	14
History	15

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available **free of charge** from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<http://www.etsi.fr/ipr> or <http://www.etsi.org/ipr>).

Pursuant to the ETSI Interim IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Network Aspects (NA), and is now submitted for the Voting phase of the ETSI standards Two-step Approval Procedure.

Proposed national transposition dates	
Date of latest announcement of this EN (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

1 Scope

The present document defines the stage one of the Fixed Outgoing Call Barring (OCB-F) supplementary service for the pan-European Integrated Services Digital Network (ISDN) as provided by European telecommunication 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.

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 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 and other services not listed in clause 9 are outside the scope of the present document.

Charging principles are outside the scope of the present document.

The OCB-F supplementary service enables calls belonging to certain types to be rejected when they are originated by the served user. The served user's ability to receive incoming calls is unaffected by the OCB-F supplementary service. The OCB-F supplementary service operates according to the requirements specified by the user on provision and it cannot be activated or deactivated under the control of the user.

NOTE: Barring of certain types of calls by the network provider due to national legislation, regulations or for any other reason, are out of the scope of this service.

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

The present document is applicable to the stage two and stage three standards for the ISDN OCB-F 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 authorization 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 the present document is met by conforming to the stage three standards with the field of application appropriate to the equipment being implemented. Therefore, no method of testing is provided for the present document.

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, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, subsequent revisions do apply.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

[1] CCITT 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 E.164 (1997): "The international public telecommunication numbering plan".
- [4] ITU-T Recommendation I.210 (1993): "Principles of telecommunication services supported by an ISDN and the means to describe them".
- [5] ETS 300 345 (1994): "Integrated Services Digital Network (ISDN); Interworking between public ISDNs and private ISDNs for the provision of telecommunication services; General aspects".

3 Definitions and abbreviations

3.1 Definitions

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

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

barring program: A selection of type of calls to which the calls can be barred.

basic access: See ITU-T Recommendation I.112 [2], section 2.4, definition 425.

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

ISDN number: A number conforming to the numbering plan and structure specified in ITU-T Recommendation E.164 [3].

network operator: Entity which provides the network operating elements and resources for the execution of the OCB-F supplementary service.

primary rate access: See ITU-T Recommendation I.112 [2], section 2.4, definition 426.

served user: The user to whom the OCB-F supplementary service is provided.

service provider: Entity which offers the OCB-F supplementary service subscription. The network operator may be the service provider.

supplementary service: See ITU-T Recommendation I.210 [4], section 2.4.

3.2 Abbreviations

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

CCBS	Completion of Calls to Busy Subscribers
CCNR	Completion of Calls on No Reply
ISDN	Integrated Services Digital Network
OCB-F	Outgoing Call Barring-Fixed
OCB-UC	Outgoing Call Barring-User Controlled

4 Description

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

The OCB-F supplementary service enables calls belonging to certain types to be rejected when they are originated by the served user. The served user's ability to receive incoming calls is unaffected by the OCB-F supplementary service.

Barring programs can contain one type of call, or a combination of different types of call. Examples of the different types of call are:

- national calls;
- international calls;
- special services (e.g. Premium rate services).

NOTE: Service providers may permit calls to numbers having special significance (e.g. emergency services) regardless of the active barring program. These numbers are outside the scope of the present document.

Outgoing calls from the served user's termination shall be barred according to the barring program which is active at the served user's access or ISDN number, and the associated basic service for the call.

5 Procedures

5.1 Provision and withdrawal

The OCB-F supplementary service shall be provided after prior arrangement with the service provider.

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

The OCB-F supplementary service 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 OCB-F supplementary service shall apply.

The service provider shall define the number of barring programs (maximum 256) and shall define the contents of each barring program (e.g. types of call) available for the OCB-F supplementary service.

On subscription, the user shall indicate the barring program(s) that shall apply.

Only one barring program shall be active at a given time for each basic service. As a service provider option, more than one barring program may be active at a given time for each basic service. If, on subscribing to the OCB-F supplementary service, the user attempts to register barring programs which have conflicting requirements, e.g. activation periods overlap for a basic service, then the service provider shall inform the user so that corrections can be made to the information to be registered.

As a service provider option the OCB-F may be activated for specific period of the day or days of the week.

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

5.2 Normal procedures

5.2.1 Registration and erasure

Not applicable.

5.2.2 Activation and deactivation

If a user has subscribed to the OCB-F supplementary service, the service shall be activated for the periods indicated on subscription.

The OCB-F supplementary service cannot be activated or deactivated by the served user. The OCB-F supplementary service shall be activated and deactivated automatically by the service provider, according to the requirements registered on provision. If no information is registered with the service provider, the OCB-F supplementary service shall be activated on provision.

When the requirements registered on provision result in sequential application of different barring programs for a basic service i.e. the time of the end of one or more programs is the start of the next (group of) barring program(s), then the deactivation of the OCB-F supplementary service for the first (group of) barring program(s) shall coincide with the activation of the OCB-F supplementary service for the second (group of) barring program(s).

When the service provider activates or deactivates the OCB-F supplementary service, no indication shall be given to the served user.

The OCB-F supplementary service shall be deactivated on withdrawal.

Calls originated prior to the activation of the OCB-F supplementary service shall not be affected. In the case a user has subscribed to the OCB-F supplementary service for specific periods of the day or days of the week, and there is a call established which began while call attempts to the requested destination would not be barred, but lasts so long that it ends in the period where call attempts to the destination would be barred, the call shall not be affected.

5.2.3 Invocation and operation

When the OCB-F supplementary service has been activated, the type of call originated by the served user shall be checked with respect to the active barring program.

If this check indicates that the call shall be barred, then the call attempt shall be rejected. The served user shall be informed that the call was rejected due to outgoing call barring. This response shall be the same as the response for the OCB-UC supplementary service.

If this check indicates that the call shall not be barred, then the call shall proceed as for the basic call procedures.

5.2.4 Interrogation

Not applicable.

5.3 Exceptional procedures

5.3.1 Registration and erasure

Not applicable.

5.3.2 Activation and deactivation

5.3.2.1 Activation

Not applicable.

5.3.2.2 Deactivation

Not applicable.

5.3.3 Invocation and operation

Not applicable.

5.3.4 Interrogation

Not applicable.

6 Interworking requirements

6.1 Interworking with non-ISDNs

No additional requirements besides normal basic call.

6.2 Interworking with private networks

The OCB-F supplementary service can be provided to a private ISDN.

Interworking with private ISDNs shall include the requirements given in ETS 300 345 [5].

7 Interaction with ISDN supplementary services

7.1 Advice of charge

7.1.1 Advice of charge at call set-up

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.1.2 Advice of charge during the call

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.1.3 Advice of charge at the end of a call

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.2 Call waiting

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.3 Call hold

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.4 Explicit call transfer

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.5 Number identification services

7.5.1 Calling line identification presentation

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.5.2 Calling line identification restriction

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.5.3 Connected line identification presentation

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.5.4 Connected line identification restriction

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.6 Closed user group

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

NOTE: Both the OCB-F supplementary service restrictions and the closed user group supplementary service restriction have to be met.

7.7 Call completion services

7.7.1 Completion of calls to busy subscriber

When the OCB-F supplementary service is activated after the served user activates the CCBS supplementary service, the CCBS call shall be treated as a normal call.

7.7.2 Completion of calls on no reply

When the OCB-F supplementary service is activated after the served user activates the CCNR supplementary service, the CCNR call shall be treated as a normal call.

7.8 Conference services

7.8.1 Conference call, add-on

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.8.2 Conference call, meet-me

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.9 Direct dialling in

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.10 Diversion services

7.10.1 Call forwarding unconditional

If the OCB-F supplementary service has already been activated, a request to activate the call forwarding unconditional supplementary service shall be rejected if the served user's call to the forwarded-to user would be barred by the OCB-F supplementary service.

If the call forwarding unconditional supplementary service was activated before the activation of the OCB-F supplementary service, the call forwarding unconditional supplementary service shall not be affected.

7.10.2 Call forwarding busy

If the OCB-F supplementary service has already been activated, a request to activate the call forwarding busy supplementary service shall be rejected if the served user's calls to the forwarded-to user would be barred by the OCB-F supplementary service.

If the call forwarding busy supplementary service was activated before the activation of the OCB-F supplementary service, the call forwarding busy supplementary service shall not be affected.

7.10.3 Call forwarding no reply

If the OCB-F supplementary service has already been activated, a request to activate the call forwarding no reply supplementary service shall be rejected if the served user's calls to the forwarded-to user would be barred by the OCB-F supplementary service.

If the call forwarding no reply supplementary service was activated before the activation of the OCB-F supplementary service, the call forwarding no reply supplementary service shall not be affected.

7.10.4 Call deflection

If the OCB-F supplementary service has been activated, a request to invoke the call deflection supplementary service shall be rejected if the served user's calls to the deflected-to user would be barred by the OCB-F supplementary service.

7.10.5 Selective call forwarding

If the selective call forwarding supplementary service has been activated and the OCB-F supplementary service has been activated the following shall apply:

- If the OCB-F supplementary service has already been activated, a request to activate the selective call forwarding supplementary service shall be rejected if the served user's call to the forwarded-to user would be barred by the OCB-F supplementary service.
- If the selective call forwarding supplementary service was activated before the activation of the OCB-F supplementary service, the selective call forwarding supplementary service shall not be affected.

7.11 Freephone

It shall be possible to bar a call to a Freephone number.

7.12 Malicious call identification

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.13 Multiple subscriber number

The OCB-F supplementary service applying to the user indicated by the "number of the calling user" in the outgoing call shall be used to determine whether the outgoing call can be set up. The network cannot guarantee that outgoing calls are restricted beyond applying the restrictions for the indicated "number of the calling user". If no "number of the calling user" is indicated when making the outgoing call, or the "number of the calling user" is not known at the served user's access, then the outgoing call shall be barred according to the active barring program (if any) belonging to the default ISDN number of the served user's access.

7.14 Subaddressing

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.15 Terminal portability

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.16 Three party

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.17 User-to-user signalling

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

7.18 Call barring services

7.19 Outgoing call barring-fixed

Not applicable.

7.20 Outgoing call barring-user controlled

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

NOTE: When placing an outgoing call both the OCB-F barring program and the OCB-UC barring program has to be applied (if active).

8 Interactions with other services

8.1 Universal access number

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.2 Virtual card calling

Calls using the service access code to the virtual card calling service may be barred by the OCB-F supplementary service.

Once the user gains access to the virtual card calling service, the OCB-F supplementary service shall be overridden by the virtual card calling service.

8.3 Premium rate

It shall be possible to bar a call to a Premium rate number.

8.4 Televoting

It shall be possible to bar a call to a Televoting number.

8.5 Remote control

The OCB-F supplementary service cannot be remotely controlled.

History

Document history				
V1.1.1	August 1997	Public Enquiry	PE 9748:	1997-08-01 to 1997-11-28
V1.1.1	June 1998	Vote	V 9836:	1998-06-29 to 1998-09-11