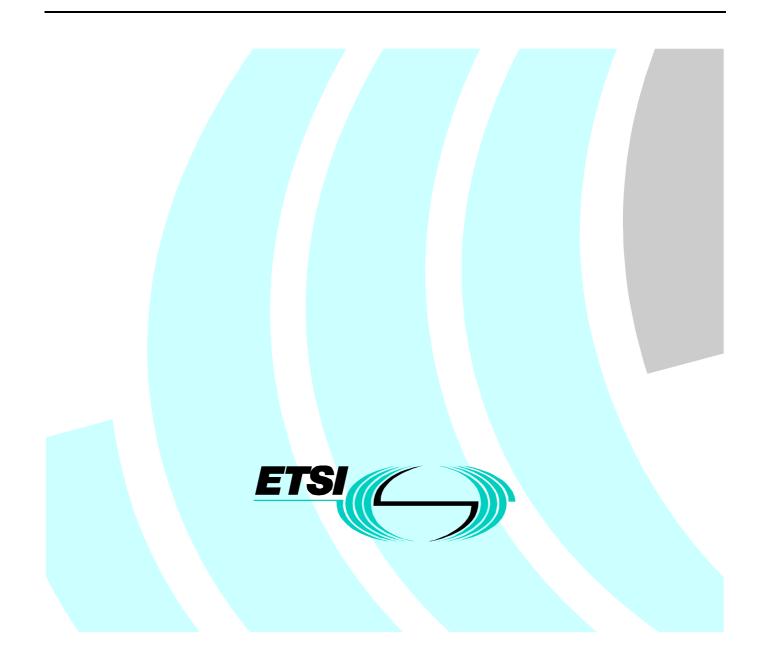# EN 300 356-15 V3.2.2 (1998-08)

European Standard (Telecommunications series)

Integrated Services Digital Network (ISDN);
Signalling System No.7;
ISDN User Part (ISUP) version 3 for the international interface;
Part 15: Diversion supplementary services

[ITU-T Recommendation Q.732, clauses 2 to 5 (1996), modified]

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Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Signalling Protocols and Switching (SPS).

The present document is part 15 of a multi-part EN covering the ISDN User Part (ISUP) version 3 for the international interface, as identified below:

Part 1: "Basic services";
Part 2: "ISDN supplementary services";
Part 3: "Calling Line Identification Presentation (CLIP) supplementary service";
Part 4: "Calling Line Identification Restriction (CLIR) supplementary service";
Part 5: "Connected Line Identification Presentation (COLP) supplementary service";
Part 6: "Connected Line Identification Restriction (COLR) supplementary service";
Part 7: "Terminal Portability (TP) supplementary service";
Part 8: "User-to-User Signalling (UUS) supplementary service";
Part 9: "Closed User Group (CUG) supplementary service";
Part 10: "Subaddressing (SUB) supplementary service";
Part 11: "Malicious Call Identification (MCID) supplementary service";
Part 12: "Conference Call, add-on (CONF) supplementary service";
Part 14: "Explicit Call Transfer (ECT) supplementary service";
Part 15: **"Diversion supplementary services";**
Part 16: "Call Hold (HOLD) supplementary service";
Part 17: "Call Waiting (CW) supplementary service";
Part 18: "Completion of Calls to Busy Subscriber (CCBS) supplementary service";
Part 19: "Three party (3PTY) supplementary service".
Part 20: "Completion of Calls on No Reply (CCNR) supplementary service";
Part 31: "Protocol Implementation Conformance Statement (PICS) proforma specification for basic services"
Part 32: "Test Suite Structure and Test Purposes (TSS&TP) specification for basic services"
Part 33: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for basic services"
Part 34: "Protocol Implementation Conformance Statement (PICS) proforma specification for supplementary services"
Part 35: "Test Suite Structure and Test Purposes (TSS&TP) specification for supplementary services"
Part 36: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for supplementary services"

NOTE: Part 13 has not been issued.

In accordance with CCITT Recommendation I.130, the following three level structure is used to describe the supplementary telecommunication 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 stand-point;

- 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 EN details the stage three aspects (signalling system protocols and switching functions) needed to support the diversion supplementary services. The stage 1 and stage 2 aspects are detailed in ETS 300 199 to ETS 300 202 and ETS 300 203 to ETS 300 206, respectively.

National transposition dates	
Date of adoption of this EN:	31 August 1998
Date of latest announcement of this EN (doa):	30 November 1998
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 May 1999
Date of withdrawal of any conflicting National Standard (dow):	31 May 1999

Endorsement notice

The text of ITU-T Recommendation Q.732, clauses 2 to 5 (1996), was approved by ETSI as an EN with agreed modifications as given below.

NOTE: New or modified text is indicated using sidebars. In addition, underlining and/or strike-out are used to highlight detailed modifications where necessary.

Global modifications to ITU-T Recommendation Q.732, clauses 2 to 5

Insert the following two clauses (Scope and Normative references) at the start of clause 2:

Scope

This fifteenth part of EN 300 356 specifies the stage three of the diversion supplementary services for the pan-European Integrated Services Digital Network (ISDN) as provided by the European public telecommunications operators by means of the Signalling System No.7 protocol for the ISDN User Part (ISUP). Stage three identifies the protocol procedures and switching functions needed to support a telecommunication service
(see CCITT Recommendation I.130 [1]).

The present document does not specify the additional protocol requirements where the service is provided to the user via a telecommunications network that is not an ISDN.

The present document does not specify the additional protocol requirements for the national signalling interface.

Although the present document applies only to the international interconnection, the specification of functions, formats and codes of messages and signals, and actions performed at originating and destination local exchanges are retained.

Formats, codes and procedures marked for national use are included for informative purposes for the international interface specification. If these items so marked are supported within a national network and operator's network, then it is proposed that they shall be supported in this manner.

NOTE: In the case where a national signalling system behaves differently, the international gateway exchange is to support both the concerned national and international network.

The diversion supplementary services are applicable to all circuit-switched telecommunication services.

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]   ETS 300 121 (1992): "Integrated Services Digital Network (ISDN); Application of the ISDN User Part (ISUP) of CCITT Signalling System No.7 for international ISDN interconnections (ISUP version 1)".

[3]   ETS 300 199: "Integrated Services Digital Network (ISDN); Call Forwarding Busy (CFB) supplementary service; Service description".

[4]   ETS 300 202: "Integrated Services Digital Network (ISDN); Call Deflection (CD) supplementary service; Service description".

[5]　　　　　　ETS 300 203: "Integrated Services Digital Network (ISDN); Call Forwarding Busy (CFB) supplementary service; Functional capabilities and information flows".

[6]　　　　　　ETS 300 206: "Integrated Services Digital Network ISDN); Call Deflection (CD) supplementary service; Functional capabilities and information flows".

[7]　　　　　　EN 300 356-1: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 1: Basic services [ITU-T Recommendations Q.761 to Q.764 (1997), modified]".

[8]　　　　　　EN 300 356-2: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 2: ISDN supplementary services [ITU-T Recommendation Q.730 (1997), modified]".

[9]　　　　　　EN 300 356-3: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 3: Calling Line Identification Presentation (CLIP) supplementary service [ITU-T Recommendation Q.731, clause 3 (1993), modified]".

[10]　　　　　EN 300 356-4: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 4: Calling Line Identification Restriction (CLIR) supplementary service [ITU-T Recommendation Q.731, clause 4 (1993), modified]".

[11]　　　　　EN 300 356-18: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 18: Completion of Calls to Busy Subscriber (CCBS) supplementary service [ITU-T Recommendation Q.733, clause 3 (1997), modified]".

[12]　　　　　EN 300 403-1: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 1: Protocol specification [ITU-T Recommendation Q.931 (1993), modified]".

Throughout the text of ITU-T Recommendation Q.732, clauses 2 to 5

Replace references as shown in table 1.

Table 1

Reference in ITU-T Recommendation Q.732, clauses 2 to 5	Modified reference
ITU-T Recommendation Q.730	ITU-T Recommendation Q.730 as modified by EN 300 356-2 [8]
ITU-T Recommendation Q.761	ITU-T Recommendation Q.761 as modified by EN 300 356-1 [7]
ITU-T Recommendation Q.762	ITU-T Recommendation Q.762 as modified by EN 300 356-1 [7]
ITU-T Recommendation Q.763	ITU-T Recommendation Q.763 as modified by EN 300 356-1 [7]
ITU-T Recommendation Q.764	ITU-T Recommendation Q.764 as modified by EN 300 356-1 [7]
ITU-T Recommendation Q.767	ETS 300 121 [2]
ITU-T Recommendation Q.931	ITU-T Recommendation Q.931 as modified by EN 300 403-1 [12]

Subclause 2.5.2.1.1, last sentence

Modify the last sentence as follows:

In these cases the ACM will contain an optional backward call indicator set to "call diversion may occur" which indicates that the call is not yet in a stable state.

Subclause 2.5.2.3.1

Replace the complete text by:

An outgoing international gateway exchange checks the following number parameters received in the IAM:

- original called number;

- redirecting number.

The procedure for the Original called number and the Redirecting number are the same as for the Calling party number as specified in the CLIP/CLIR supplementary service (see EN 300 356-3 [9] and EN 300 356-4 [10]).

Subclause 2.5.2.4.1

Replace the complete text by:

An incoming international gateway exchange checks the following number parameter received in the IAM:

- original called number;

- redirecting number.

The procedure for the Original called number and the Redirecting number are the same as for the Calling party number as specified in the CLIP supplementary service (see EN 300 356-3 [9]).

The passing of the Redirection number is subject to bilateral agreement.

If a Redirection number restriction parameter is received and a Redirection number has been discarded, then the Redirection number restriction parameter is also discarded.

If a network supports the CPG as the first backward message, then the incoming international gateway exchange has to map the CPG into an ACM and the following ACM into CPG.

If the national network supports CPG with event information indicating CFB, CFNR or CFU (see note in subclause 2.4.2), then when the incoming international gateway exchange receives such a CPG without either the generic notification indicator or the call diversion information, it will generate the missing parameters using the event information. If the received CPG is then mapped into a CPG on the international side, then the event information will be set to indicate progress unless bilateral agreements exist permitting the call forwarding codes in event information to be passed (see note in subclause 2.4.2).

Subclause 2.5.2.5.1.2, table 2-4/Q.732

Modify the "NOTE" as follows:

NOTE: The echo control information parameter is handled according to the echo control ~~not transferred into the CPG message. These~~ procedures in subclause 2.7 of Q.764; in this case a diverting exchange is considered to be an intermediate exchange.~~are according to 2.7.2.2.1 of the basic call.~~

Subclause 2.5.2.5.1.2, item e), sub-item ii), first paragraph

Delete "automatic congestion level".

Subclause 2.5.2.5.2.2

Delete "*In Option B:* If it would, the call is cleared."

Add the following note:

NOTE: Option A and option B described in this subclause are completely independent from options A and B in subclause 2.5.2.5.1.2.

Subclause 2.6.2

Replace the complete text by:

No impact on ISUP.

Subclause 2.6.3, last sentence

Delete the last sentence "The setting (...)".

Add the following note:

   NOTE: The diverting exchange shall divert the Connected number and the Generic number (additional connected
            number, if present) parameters.

Subclause 2.6.4, last sentence

Delete the last sentence "The setting (...)".

Subclause 2.6.19

Replace the complete text by:

Interactions are described in EN 300 356-18 [11].

Annex ZA (informative): Coding of the compatibility information

It is recommended that the parameter compatibility information for the call diversion information parameter should be coded as follows:

a) N^{th} upgraded parameter:

0011 0110   call diversion information parameter.

b) Instruction indicators:

bit   A: Transit at intermediate exchange indicator;

0   transit interpretation;

bit   B: Release call indicator;

0   do not release call;

bit   C: Send notification indicator;

0   do not send notification;

bit   D: Discard message indicator;

0   do not discard message (pass on);

bit   E: Discard parameter indicator;

0   do not discard parameter (pass on);

bits   GF: Pass on not possible indicator;

10   discard parameter;

bits   JI: Broadband/narrowband interworking indicator;

00   pass on.

It is recommended that the parameter compatibility information for the generic notification parameter should be coded as follows:

a) N^{th} upgraded parameter:

0010 1100   generic notification parameter.

b) Instruction indicators:

bit   A: Transit at intermediate exchange indicator;

0   transit interpretation;

bit   B: Release call indicator;

0   do not release call;

bit   C: Send notification indicator;

0   do not send notification;

bit   D: Discard message indicator;

0   do not discard message (pass on);

bit   E: Discard parameter indicator;

          0   do not discard parameter (pass on);

bits   GF: Pass on not possible indicator;

         10   discard parameter;

bits   JI: Broadband/narrowband interworking indicator;

         00   pass on.

It is recommended that the parameter compatibility information for the redirection number restriction parameter should be coded as follows:

a) Nth upgraded parameter:

    0100 0000   redirection number restriction parameter.

b) Instruction indicators:

bit   A: Transit at intermediate exchange indicator;

          0   transit interpretation;

bit   B: Release call indicator;

          0   do not release call;

bit   C: Send notification indicator;

          0   do not send notification;

bit   D: Discard message indicator;

          0   do not discard message (pass on);

bit   E: Discard parameter indicator;

          0   do not discard parameter (pass on);

bits   GF: Pass on not possible indicator;

         10   discard parameter;

bits   JI: Broadband/narrowband interworking indicator;

         00   pass on.

History

Document history				
Edition 1	February 1995	Publication as ETS 300 356-15		
V3.1.1	October 1997	Public Enquiry	PE 9809:	1997-10-31 to 1998-02-27
V3.2.1	June 1998	Vote	V 9834:	1998-06-15 to 1998-08-28
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