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European Standard (Telecommunications series)

**Integrated Services Digital Network (ISDN);
Signalling System No.7 (SS7);
ISDN User Part (ISUP) version 4 for the international interface;
Part 8: User-to-User Signalling (UUS)
supplementary service**

[ITU-T Recommendation Q.737, clause 1 (1997) modified]



Reference

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KeywordsISDN, ISUP, SS7, supplementary service, UUS,
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Foreword

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

The present document is part 8 of a multi-part deliverable covering the ISDN User Part (ISUP) version 4 for the international interface, as identified below:

- Part 1: "Basic services [ITU-T Recommendations Q.761 to Q.764 (1999) modified]";
- Part 2: "ISDN supplementary service [ITU-T Recommendation Q.730 (1999) modified]";
- Part 3: "Calling Line Identification Presentation (CLIP) supplementary service [ITU-T Recommendation Q.731, clause 3 (1993) modified]";
- Part 4: "Calling Line Identification Restriction (CLIR) supplementary service [ITU-T Recommendation Q.731, clause 4 (1993) modified]";
- Part 5: "Connected Line Identification Presentation (COLP) supplementary service [ITU-T Recommendation Q.731, clause 5 (1993) modified]";
- Part 6: "Connected Line Identification Restriction (COLR) supplementary service [ITU-T Recommendation Q.731, clause 6 (1993) modified]";
- Part 7: "Terminal Portability (TP) supplementary service [ITU-T Recommendation Q.733, clause 4 (1993) modified]";
- Part 8: "User-to-User Signalling (UUS) supplementary service [ITU-T Recommendation Q.737, clause 1 (1997) modified]";**
- Part 9: "Closed User Group (CUG) supplementary service [ITU-T Recommendation Q.735, clause 1 (1993) modified]";
- Part 10: "Subaddressing (SUB) supplementary service [ITU-T Recommendation Q.731, clause 8 (1992) modified]";
- Part 11: "Malicious Call Identification (MCID) supplementary service [ITU-T Recommendation Q.731, clause 7 (1997) modified]";
- Part 12: "Conference Call, add-on (CONF) supplementary service [ITU-T Recommendation Q.734, clause 1 (1993) and implementors guide (1998) modified]";
- Part 14: "Explicit Call Transfer (ECT) supplementary service [ITU-T Recommendation Q.732, clause 7 (1996) and implementors guide (1998) modified]";
- Part 15: "Diversion supplementary service [ITU-T Recommendation Q.732, clauses 2 to 5 (1999) modified]";
- Part 16: "Call Hold (HOLD) supplementary service [ITU-T Recommendation Q.733, clause 2 (1993) modified]";
- Part 17: "Call Waiting (CW) supplementary service [ITU-T Recommendation Q.733, clause 1 (1992) modified]";

- Part 18: "Completion of Calls to Busy Subscriber (CCBS) supplementary service [ITU-T Recommendation Q.733, clause 3 (1997) modified]";
- Part 19: "Three-Party (3PTY) supplementary service [ITU-T Recommendation Q.734, clause 2 (1996) and implementors guide (1998) modified]";
- Part 20: "Completion of Calls on No Reply (CCNR) supplementary service [ITU-T Recommendation Q.733, clause 5 (1999) modified]";
- Part 21: "Anonymous Call Rejection (ACR) supplementary service [ITU-T Recommendation Q.731, clause 4 (1993)]";
- 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".

In accordance with ITU-T Recommendation I.130 [1], 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.

The present document details the stage three aspects (signalling system protocols and switching functions) needed to support the User-to-User Signalling (UUS) supplementary service. The stage 1 and stage 2 aspects are detailed in ETS 300 284 [3] and ETR 285 [9], respectively.

National transposition dates	
Date of adoption of this EN:	13 July 2001
Date of latest announcement of this EN (doa):	31 October 2001
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 April 2002
Date of withdrawal of any conflicting National Standard (dow):	30 April 2002

Endorsement notice

The elements of ITU-T Recommendation Q.737, clause 1 (1997) apply, with the following modifications.

- 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.737, clause 1

Insert the following two clauses (Scope and References) at the start of clause 1.

Scope

The present document specifies the stage three of the User-to-User Signalling (UUS) supplementary service 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 ITU-T 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 UUS supplementary service allows an ISDN user to send/receive a limited amount of information to/from another ISDN user over the signalling channel in association with a call to the other ISDN user.

The UUS supplementary service is applicable to all 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 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] ETSI 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] ETSI ETS 300 284 (1996): "Integrated Services Digital Network (ISDN); User-to-User Signalling (UUS) supplementary service; Service description".
- [4] ETSI EN 300 286-1 (V1.2.4): "Integrated Services Digital Network (ISDN); User-to-User Signalling (UUS) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

- [5] ETSI EN 300 356-1: "Integrated Services Digital Network (ISDN); Signalling System No.7 (SS7); ISDN User Part (ISUP) version 4 for the international interface; Part 1: Basic services [ITU-T Recommendations Q.761 to Q.764 (1999) modified]".
- [6] ETSI EN 300 356-2: "Integrated Services Digital Network (ISDN); Signalling System No.7 (SS7); ISDN User Part (ISUP) version 4 for the international interface; Part 2: ISDN supplementary service [ITU-T Recommendation Q.730 (1999) modified]".
- [7] ETSI EN 300 356-18: "Integrated Services Digital Network (ISDN); Signalling System No.7 (SS7); ISDN User Part (ISUP) version 4 for the international interface; Part 18: Completion of Calls to Busy Subscriber (CCBS) supplementary service [ITU-T Recommendation Q.733, clause 3 (1997) modified]".
- [8] ETSI EN 300 403-1 (V1.3.2): "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]".
- [9] ETSI ETR 285 (1996): "Integrated Services Digital Network (ISDN); User-to-User Signalling (UUS) supplementary service; Functional capabilities and information flows".

Throughout the text of ITU-T Recommendation Q.737, clause 1

Replace references as shown in table 1.

Table 1

Reference in ITU-T Recommendation Q.737, clause 1	Modified reference
ITU-T Recommendation I.257.1	ETS 300 284 [3]
ITU-T Recommendation Q.87, clause 1	ETR 285 [9]
ITU-T Recommendation Q.730	ITU-T Recommendation Q.730 as modified by EN 300 356-2 [6]
ITU-T Recommendation Q.761	ITU-T Recommendation Q.761 as modified by EN 300 356-1 [5]
ITU-T Recommendation Q.762	ITU-T Recommendation Q.762 as modified by EN 300 356-1 [5]
ITU-T Recommendation Q.763	ITU-T Recommendation Q.763 as modified by EN 300 356-1 [5]
ITU-T Recommendation Q.764	ITU-T Recommendation Q.764 as modified by EN 300 356-1 [5]
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 [8]
ITU-T Recommendation Q.957, clause 1	EN 300 286-1 [4]

Subclause 1.1.6.10

Replace the complete text of subclause 1.1.6.10 and all of its subclauses by:

No impact on ISUP.

Subclause 1.1.6.19

Replace the text by:

Interactions are described in EN 300 356-18 [7].

Subclause 1.1.7, table 1-1/Q.737

Modify table 1-1/Q.737 as shown in table 2.

Table 2

Interworking network	Implicit request	Non-essential request	Essential request
Non-SS No.7 network	ACM; interworking ind.: "interw. encountered"	ACM; UUI ind.: "service 1 not provided"	REL #29 + diagnostics (note 1)
SS No.7 network, not ISUP or TUP+	ACM; ISUP ind.: "ISUP not all the way"	ACM; UUI ind.: "service 1 not provided"	REL #29 + diagnostics (note 1)
SS No.7 network not supporting the service	ACM or CON; UUI ind.: "UUI discarded" (note 2)	ACM or CON; UUI ind.: "service 1 not provided" (note 3)	REL #29 + diagnostics (notes 1 and 3)
SS No.7 TUP+ network not supporting the service	ACM or CON; UUI ind.: "UUI discarded" (note 2)	ACM or CON; UUI ind.: "service 1 not provided"	REL #29 + diagnostics (note 1)
<p>NOTE 1: The diagnostics field contains the user-to-user indicators parameter name.</p> <p>NOTE 2: If the UUI in the IAM has been discarded, the user-to-user indicators parameter contains "UUI discarded by the network". If it is detected that the originating exchange has performed segmentation by sending UUI in the additional segment, and a subsequent exchange knows that the segmentation procedure is not supported by the succeeding network, the latter exchange will code the user-to-user indicators parameter "UUI discarded by the network". This knowledge may be obtained by reception of a confusion message indicating that the segmentation message has been discarded.</p> <p>NOTE 3: A transit or international gateway exchange may have to generate service rejection in case a confusion message is received indicating that the user-to-user indicators requesting the service are not supported by the succeeding network. Two ISDN networks that interwork may have to retain knowledge of the service request until it is clear whether both can support the service.</p>			

Subclause 1.2.6.10

Replace the complete text of subclause 1.2.6.10 and all of its subclauses by:

No impact on ISUP.

Subclause 1.2.6.19

Replace the text by:

Interactions are described in EN 300 356-18 [7].

Subclause 1.3.2.1

Delete the text:

~~Use is also made of SCCP class 2 protocols defined in Recommendations Q.711 to 714 and Recommendations Q.730. However, the procedures for the application of SCCP class 2 protocols for User-to-User Signalling service 3 are for further study.~~

Subclause 1.3.5.2.5.2.2

Add the following at the end of the subclause:

The cause indicators parameter in the facility reject message is supplied as follows:

- a) if the called user does not respond to the service request, then cause value #69 "requested facility not implemented" without diagnostics is used;
- b) in other situations, e.g. called user rejects the service, network or called user cannot support the service, then cause value #29 "facility rejected" without diagnostics is used.

Subclause 1.3.6.10

Replace the complete text of subclause 1.3.6.10 and all of its subclauses by:

No impact on ISUP.

Subclause 1.3.6.18

Replace the text by:

If a facility request message containing the facility indicator parameter indicating "user-to-user service" is received while a call is suspended, then a facility reject message is returned with the indication "service 3 not provided" in the user-to-user indicators parameter.

User-to-user messages received while a call is suspended are discarded.

Subclause 1.3.6.19

Replace the text by:

Interactions are described in EN 300 356-18 [7].

History

Document history		
Edition 1	February 1995	Publication as ETS 300 356-8
V3.1.3	August 1998	Publication
V4.1.1	September 2000	Public Enquiry PE 20010126: 2000-09-27 to 2001-01-26
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