

Final draft **EN 301 174-1** V1.1.2 (1998-08)

European Standard (Telecommunications series)

**Broadband Integrated Services Digital Network (B-ISDN);
Digital Subscriber Signalling System No. two (DSS2) protocol;
Signalling specification for frame relay service;
Part 1: Protocol specification**

[ITU-T Recommendation Q.2933 (1996), modified]



Reference

DEN/SPS-05142-1 (avc90idc.PDF)

Keywords

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Foreword

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

The present document is part 1 of a multi-part standard covering the signalling specification for frame relay service for the Digital Subscriber Signalling System No. two (DSS2) protocol as described below:

- Part 1:** "**Protocol specification**";
- Part 2: "Protocol Implementation Conformance Statement (PICS) proforma specification";
- Part 3: "Test Suite Structure and Test Purposes (TSS&TP) specification for the user";
- Part 4: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the user";
- Part 5: "Test Suite Structure and Test Purposes (TSS&TP) specification for the network";
- Part 6: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the network".

NOTE: At the time of publication of the present document, the final structure of the parts containing the test specifications was still under study.

In accordance with CCITT Recommendation I.130, the following three level structure is used to describe the telecommunication services as provided by European public telecommunications operators under the pan-European 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 3 aspects (DSS2 protocol) needed to support the frame relay service.

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

Endorsement notice

The elements of ITU-T Recommendation Q.2933 (1996) apply, with the following modifications:

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

Page 1, clause 1

Replace clause 1 by:

1 Scope

This first part of EN 301 174 specifies the stage three of the pan-European Broadband Integrated Services Digital Network (B-ISDN) Frame Relaying bearer service as provided by European public telecommunications operators at the T reference point or coincident S and T reference point (as defined in CCITT Recommendation I.413 [4]) by means of the Broadband Digital Subscriber Signalling System No. two (DSS2). Stage three identifies the protocol procedures and switching functions needed to support a telecommunications service (see CCITT Recommendation I.130 [3]).

In addition, the present document specifies the protocol requirements at the T reference point where the service is provided to the user via a private ISDN.

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 a B-ISDN.

The present document specifies the procedures for the establishing, maintaining and clearing of Broadband-Integrated Services Digital Network (B-ISDN) Frame Relaying connections at the User-network interface. The capability specified in the present document also allows the user of the Frame Relaying bearer service to access a frame handler in a B-ISDN.

The present document specifies extensions to ITU-T Recommendation Q.2931 as modified by EN 300 443-1, and does not repeat states, information elements, messages and procedures contained therein, but only specifies extensions related to the support of frame relay bearer service.

The present document does not cover procedures for the negotiation and modification/renegotiation of traffic parameters.

The present document supports only single step call control with one virtual connection supporting only one frame relay connection. multiple frame relay switched virtual connections (each identified by a DLCI value at the FR-SSCS level) over a single broadband virtual channel connection is not supported.

Whenever differences exist in procedures, messages and/or information elements, these are clearly pointed out and fully specified. Information elements of ITU-T Recommendation Q.2931 as modified by EN 300 443-1 which are applicable for B-ISDN calls providing frame relaying bearer service, but require no enhancements are handled by direct reference to ITU-T Recommendation Q.2931 as modified by EN 300 443-1.

Page 1, clause 2

Replace the first paragraph of clause 2 by:

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, the latest version applies.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

Page 1, clause 2

Insert the following references at the end of clause 2:

- [11] EN 300 443-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. Two (DSS2) protocol; B-ISDN user-network interface layer 3 specification for basic call/bearer control; Part 1: Protocol specification [ITU-T Recommendation Q.2931 (1995), modified]".
- [12] EN 301 068-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. Two (DSS2) protocol; Connection characteristics; ATM transfer capability and traffic parameter indication; Part 1: Protocol specification [ITU-T Recommendations Q.2961.1 (1995), Q.2961.2 to Q.296.4 (1997), modified]".
- [13] ETS 300 661-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. Two (DSS2) protocol; Direct Dialling In (DDI) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 1 (1995), modified]".
- [14] ETS 300 662-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. Two (DSS2) protocol; Multiple Subscriber Number (MSN) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 2 (1995), modified]".
- [15] ETS 300 663-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. Two (DSS2) protocol; Calling Line Identification Presentation (CLIP) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 3 (1995), modified]".
- [16] ETS 300 664-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. Two (DSS2) protocol; Calling Line Identification Restriction (CLIR) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 4 (1995), modified]".
- [17] ETS 300 665-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. Two (DSS2) protocol; Connected Line Identification Presentation (COLP) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 5 (1995), modified]".
- [18] ETS 300 666-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. Two (DSS2) protocol; Connected Line Identification Restriction (COLR) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 6 (1995), modified]".
- [19] ETS 300 667-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. Two (DSS2) protocol; Subaddressing (SUB) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 8 (1995), modified]".
- [20] ETS 300 668-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. Two (DSS2) protocol; User-to-User Signalling (UUS) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2957 (1995), modified]".

Throughout the text of ITU-T Recommendation Q.2933

Replace references as shown in the following table:

Reference in ITU-T Recommendation Q.2933	Modified reference
ITU-T Recommendation Q.2931	ITU-T Recommendation Q.2931 as modified by EN 300 443-1 [11]
ITU-T Recommendation Q.2961.1	ITU-T Recommendation Q.2961.1 as modified by ETS 301 068-1 [12]
ITU-T Recommendation Q.2951 clause 1 (DDI)	ITU-T Recommendation Q.2951, clause 1 as modified by ETS 300 661-1 [13]
ITU-T Recommendation Q.2951, clause 2 (MSN)	ITU-T Recommendation Q.2951, clause 2 as modified by ETS 300 662-1 [14]
ITU-T Recommendation Q.2951, clause 3 (CLIP)	ITU-T Recommendation Q.2951, clause 3 as modified by ETS 300 663-1 [15]
ITU-T Recommendation Q.2951, clause 4 (CLIR)	ITU-T Recommendation Q.2951, clause 4 as modified by ETS 300 664-1 [16]
ITU-T Recommendation Q.2951, clause 5 (COLP)	ITU-T Recommendation Q.2951, clause 5 as modified by ETS 300 665-1 [17]
ITU-T Recommendation Q.2951, clause 6 (COLR)	ITU-T Recommendation Q.2951, clause 6 as modified by ETS 300 666-1 [18]
ITU-T Recommendation Q.2951, clause 8 (SUB)	ITU-T Recommendation Q.2951, clause 8 as modified by ETS 300 667-1 [19]
ITU-T Recommendation Q.2957 (UUS)] ITU-T Recommendation Q.2957 as modified by ETS 300 668-1 [20]

Page 7, subclause 8.3.5

Delete subclause 8.3.5.

Page 8, subclause 8.3.6

Delete subclause 8.3.6.

History

Document history				
V1.1.1	April 1998	Public Enquiry	PE 9831:	1998-04-03 to 1998-07-31
V1.1.2	August 1998	Vote	V 9843:	1998-08-25 to 1998-10-23