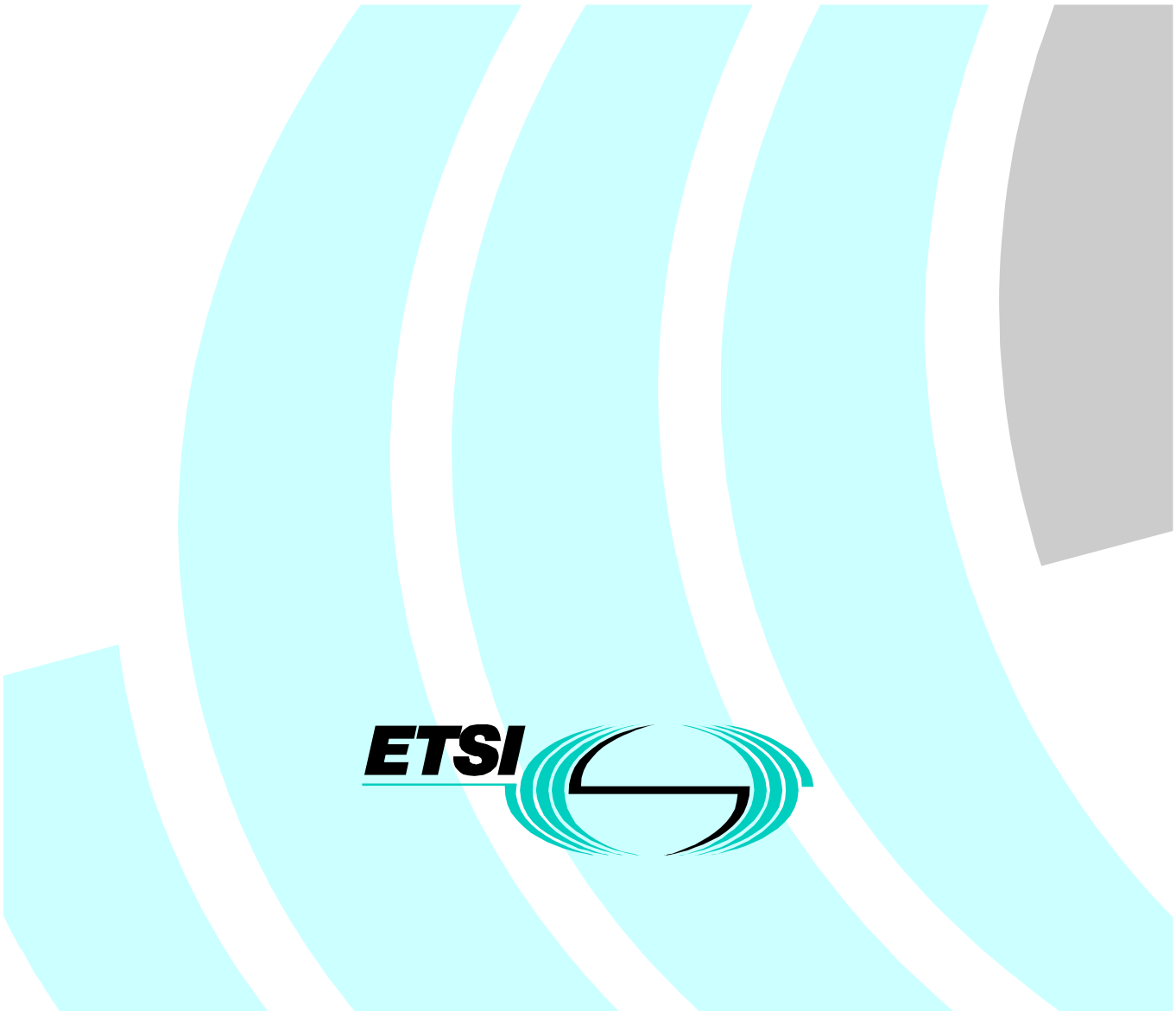
EN 301 003-1 V1.1.3 (1999-05)

European Standard (Telecommunications series)

Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Connection characteristics; Peak cell rate modification by the connection owner; Part 1: Protocol specification

[ITU-T Recommendation Q.2963.1 (1996), modified]



Reference
DEN/SPS-05083-1 (9ac90ie0.PDF)

Keywords
ATM, B-ISDN, broadband, DSS2, ISDN, layer 3, protocol, UNI

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
Individual copies of this ETSI deliverable
can be downloaded from
http://www.etsi.org
If you find errors in the present document, send your
comment to: editor@etsi.fr

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.org/ipr).

Pursuant to the ETSI 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 Signalling Protocols and Switching (SPS).

The present document is part 1 of a multi-part standard covering the Digital Subscriber Signalling System No. two (DSS2) protocol specification for the Broadband Integrated Services Digital Network (B-ISDN) peak cell rate modification by the connection owner, as described below:

Part 1: "Protocol specification [ITU-T Recommendation Q.2963.1 (1996), modified]";

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".

The present document is the initial standard in a family of standards covering the modification of ATM traffic parameters in B-ISDN connections.

National transposition dates	
Date of adoption of this EN:	2 April 1999
Date of latest announcement of this EN (doa):	31 July 1999
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 January 2000
Date of withdrawal of any conflicting National Standard (dow):	31 January 2000

Endorsement notice

The elements of ITU-T Recommendation Q.2963.1 (1996) 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.

Clause 1

Replace clause 1 by:

1 Scope

This first part of EN 301 003 specifies the signalling protocol for peak cell rate modification for the Broadband Integrated Services Digital Network (B-ISDN) at the T_B reference point or coincident S_B and T_B reference point (as defined in ITU-T Recommendation I.413 [1]) by means of the Digital Subscriber Signalling System No. two (DSS2).

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

The capability described in the present document enables the connection owner to modify the peak cell rate for call/connections that have already been established.

Peak cell rate modification is applicable to all connection oriented telecommunication services that are based on single point-to-point calls/connections, however, modification is not applicable to emulated N-ISDN services. The peak cell rate modification for point-to-multipoint calls/connections is outside the scope of the present document.

The present document is applicable to equipment, supporting peak cell rate modification, to be attached at either side of a T_B reference point or coincident S_B and T_B reference point when used as an access to the public B-ISDN.

Further parts of the present document provide the method of testing and detailed application specific requirements to determine conformance to the present document.

The provision of this service requires the support of the protocol for the basic point-to-point call/bearer connections as defined in the EN 300 443-1 [4].

Clause 2, first paragraph

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.

Clause 2

Insert the following references at the end of clause 2:

[4] 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]".

[5] 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 (1997), Q.2961.3 (1997), Q.2961.4 (1997), modified]".

Throughout the text of ITU-T Recommendation Q.2963.1

Replace references as shown in the following table.

Reference in ITU-T Recommendation Q.2963.1	Modified reference
ITU-T Recommendation Q.2931 [2]	ITU-T Recommendation Q.2931 as modified by EN 300 443-1 [4]
ITU-T Recommendation Q.2961.1 [3]	ITU-T Recommendation Q.2961.1 as modified by EN 301 068-1 [5]

Subclause 5.1

Insert the following paragraph at the end of subclause 5.1:

Modification shall not be requested for emulated N-ISDN services, however, a transit entity shall not reject any request for this reason.

Subclause 8.1.1

Replace the first paragraph of subclause 8.1.1 by:

This message is sent by a requesting entity to modify a single connection.

Table 8-1,

Add the following note to table 8-1:

NOTE 3: In a given direction, the PCR for CLP = 0 and the PCR for CLP = 0 + 1 (i.e. CLP0 + 1 = CLP0 + CLP1) can be modified in the same modification request. In this case, the modified parameters in the given direction shall all be increased or all be decreased.

Subclause 8.1.2

Replace the first paragraph of subclause 8.1.2 by:

This message is sent by the responding entity to indicate that the modify request is accepted.

Subclause 8.1.3

Replace the first paragraph of subclause 8.1.3 by:

This message is sent by the responding entity to indicate that the modify request is rejected.

Subclause 8.1.4

Replace the first paragraph of subclause 8.1.4 by:

This message is sent by the modification requesting entity in response to the MODIFY ACKNOWLEDGE message that contains a Broadband report type information element with a Type of Report field coded to "Modification confirmation". It indicates that the network has performed a modification in the addressed user to initiating user direction of transmission.

Subclause 9.1.3

Alter the contents of subclause 9.1.3 as shown below:

An entity receiving a MODIFY REJECT message while in the modify requested state shall:

- if a terminating entity:
  - cancel the reservation of resources (i.e. the ATM traffic parameters are as applied prior to the modification request);
- if a transit entity:
  - cancel the reservation of resources ~~and reinstate the policing policy that applied prior to the modification request~~;
  - forward the modification rejection to the initiating user;
- stop Timer T360; and
- enter the active state.

Subclause 9.1.4

Alter subclause 9.1.4 as indicated below:

On reception of a STATUS message while in the modify requested state, the requesting entity shall:

- if the STATUS message indicates that the responding entity is in the active state and includes a cause value No. 97 "message type non-existent or not implemented" or No. 101 "message not compatible with call state" with a diagnostic indicating that the MODIFY REQUEST message was not understood;
  - if a terminating entity:
    - cancel the reservation of resources (i.e. the ATM traffic parameters are as applied prior to the modification request);
  - if a transit entity:
    - cancel the reservation of resources ~~and reinstate the policing policy that applied prior to the modification request~~;
    - forward the modification rejection to the initiating user;
  - stop Timer T360;
  - enter the active state;
- if the STATUS message includes a cause value No. 97 or No. 101 without a diagnostic indicating that the MODIFY REQUEST message was not understood: send a STATUS ENQUIRY message to the responding entity;
- if a STATUS message is received in response to this STATUS ENQUIRY indicating the modify received state, the entity shall remain in the modify requested state;
- if a STATUS message is received in response to this STATUS ENQUIRY indicating that the responding entity is in the active state the entity shall:
  - if a terminating entity:
    - cancel the reservation of resources (i.e. the ATM traffic parameters are as applied prior to the modification request);

- if a transit entity:
  - cancel the reservation of resources ~~and reinstate the policing policy that applied prior to the modification request~~;
  - forward the modification rejection to the initiating user;
- stop Timer T360; and
- enter the active state.

Subclause 9.2.4

Replace the complete text of subclause 9.2.4 with the following text:

If the responding entity is a transit entity, on receiving an indication that the modification has been rejected while in the Modify Received state, it shall:

- cancel the reservation of resources and reinstate the policing policy that applied prior to the modification request;
- send a MODIFY REJECT message including the Cause information element generated by the addressed entity; and
- enter the Active state.

If the responding entity is a terminating entity and receives a request for modification of emulated N-ISDN services it shall:

- send a MODIFY REJECT message including a cause information element with cause value #29 "Facility rejected"; and
- enter the Active state.

If the responding entity is a terminating entity, and the request for modification is to be rejected while in the Modify Received state, it shall:

- send a MODIFY REJECT message including a Cause information element with an appropriate cause value; and
- enter the Active state.

Subclause 9.2

Add subclause 9.2.5:

9.2.5 Exceptional procedures

If the responding entity receives the MODIFY REQUEST message with the ATM traffic parameters which are not according to the allowed combinations as specified in subclause 1.8.1.1 in the active state, it shall reject the request as specified in subclause 1.9.2.4 with cause No. 73 "unsupported combination of traffic parameters".

Clause 11

Add the following note:

NOTE: It is anticipated that an interworking unit may perform the role of a responding entity in order to undertake the rejection of any modification request.

History

Document history				
V1.1.1	December 1997	Public Enquiry	PE 9815:	1997-12-12 to 1998-04-10
V1.1.2	January 1999	Vote	V 9913:	1999-01-26 to 1999-03-26
V1.1.3	May 1999	Publication		

ISBN 2-7437-3046-3
Dépôt légal : Mai 1999