



EUROPEAN
TELECOMMUNICATION
STANDARD

ETS 300 287

October 1993

Source: ETSI TC-SPS

Reference: DE/SPS-02005

ICS: 33.080

Key words: ISDN, Signalling System No.7, TCAP

**Integrated Services Digital Network (ISDN);
CCITT Signalling System No.7
Transaction Capabilities Application Part (TCAP) version 2**

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE

Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE

X.400: c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

Tel.: +33 92 94 42 00 - Fax: +33 93 65 47 16

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 1993. All rights reserved.

Contents

Foreword	5
1 Scope	7
2 Normative references	7
3 General exceptions and clarifications to ITU-T Recommendations Q.771 to Q.775.....	7
3.1 Support of TC by terminal equipment.....	7
3.2 Services assumed from a connectionless network layer	7
4 Specific exceptions and clarifications to ITU-T Recommendation Q.771.....	7
5 Specific exceptions and clarifications to ITU-T Recommendation Q.772.....	8
5.1 Mistyped parameters - Q.772, §§ 3.7.2.3, 3.7.3.3 and 3.7.4.5.....	8
6 Specific exceptions and clarifications to ITU-T Recommendation Q.773.....	8
6.1 Corrections to the Abstract Syntax Notation (ASN) - Q.773, § 3	8
6.1.1 TC-Messages - Q.773, § 3.1	8
6.1.2 Dialogue Portion - Q.773, § 3.2.....	8
7 Specific exceptions and clarifications to ITU-T Recommendation Q.774.....	8
8 Specific exceptions and clarifications to ITU-T Recommendation Q.775.....	9
History	10

Blank page

Foreword

This European Telecommunication Standard (ETS) has been produced by the Signalling Protocols and Switching (SPS) Technical Committee of the European Telecommunications Standards Institute (ETSI).

This ETS details exceptions and clarifications to ITU-T Recommendations Q.771 to Q.775 (1993) defining the Transaction Capabilities (TC) of the Transaction Capabilities Application Part (TCAP) for inter-network dialogues on services such as the: European Digital Cellular Telecommunications System, Global System for Mobile communications (GSM); Integrated Services Digital Network (ISDN); and Intelligent Network (IN).

NOTE: The referenced ITU-T Recommendations were adopted in March 1993 but have not been published prior to the publication of this ETS (the publication by ITU-T is scheduled for December 1993). The relevant Study Group XI reports (COM XI-R 198 to COM XI-R 200) of the March 1992 meeting, which contain the final drafts of the referenced material, can be obtained from:

International Telecommunication Union
General Secretariat
Place des Nations
CH-1211 Geneva 20
Switzerland

Tel: +41 22 730 - 0

Blank page

1 Scope

This ETS defines the Transaction Capabilities (TC) signalling protocol to be used in and between networks, for non-circuit related services which use the CCITT Signalling System No.7, for inter-network dialogues. Only those parts of TC need to be provided which are used by the above services.

This ETS is based on ITU-T Recommendations Q.771 to Q.775 ([1] to [5]). The requirements of these recommendations shall apply unless modified by the exception statements and clarifications contained in this ETS.

2 Normative references

This ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- [1] ITU-T Recommendation Q.771 (1993): "Specifications of Signalling System No.7; Functional description of transaction capabilities".
- [2] ITU-T Recommendation Q.772 (1993): "Specifications of Signalling System No.7; Transaction capabilities information element definitions".
- [3] ITU-T Recommendation Q.773 (1993): "Specifications of Signalling System No.7; Transaction capabilities formats and encoding".
- [4] ITU-T Recommendation Q.774 (1993): "Specifications of Signalling System No.7; Transaction capabilities procedures".
- [5] ITU-T Recommendation Q.775 (1993): "Specifications of Signalling System No.7; Guidelines for using transaction capabilities".

3 General exceptions and clarifications to ITU-T Recommendations Q.771 to Q.775

3.1 Support of TC by terminal equipment

The support of TC by terminal equipment is outside the scope of this ETS.

3.2 Services assumed from a connectionless network layer

There is no requirement for TC to work over any network layer other than CCITT Signalling System No.7 Message Transfer Part (MTP) and Signalling Connection Control Part (SCCP).

NOTE: This is valid for both 1988 and 1993 versions.

The services assumed from the SCCP shall be provided via the N-UNITDATA and N-NOTICE primitives.

4 Specific exceptions and clarifications to ITU-T Recommendation Q.771

The text of ITU-T Recommendation Q.771 [1] with the modifications identified in Clause 3, is endorsed by ETSI.

5 Specific exceptions and clarifications to ITU-T Recommendation Q.772

The text of ITU-T Recommendation Q.772 [2] with the modifications identified in Clause 3 and the clarifications in subclause 5.1, is endorsed by ETSI.

5.1 Mistyped parameters - Q.772, §§ 3.7.2.3, 3.7.3.3 and 3.7.4.5

The definition of mistyped parameters provided in ITU-T Recommendation Q.772 [2] covers error conditions such as ENUMERATED error, value range error, size constraint error, value constraint error and presence constraint error.

6 Specific exceptions and clarifications to ITU-T Recommendation Q.773

The text of ITU-T Recommendation Q.773 [3] with the modifications identified in Clause 3 and in subclause 6.1, is endorsed by ETSI.

6.1 Corrections to the Abstract Syntax Notation (ASN) - Q.773, § 3

6.1.1 TC-Messages - Q.773, § 3.1

Replace the EXPORTS statement with the following statement:

```
EXPORTS OPERATION, ERROR, MessageType, Component, InvokeIdType;
```

A range constraint of "(0..127)" shall be added to all unconstrained INTEGERS, i.e., the following shall be modified:

```
P-AbortCause  
GeneralProblem  
InvokeProblem  
ReturnResultProblem  
ReturnErrorProblem
```

When a value, which is not assigned but is within the specified range, is received this value should be ignored. Values out of range lead to a syntax error.

6.1.2 Dialogue Portion - Q.773, § 3.2

A range constraint of "(0..127)" shall be added to all unconstrained INTEGERS, i.e., the following shall be modified:

```
ABRT-source  
Associate-result  
dialogue-service-user  
dialogue-service-provider  
Release-request-reason  
Release-response-reason
```

When a value, which is not assigned but is within the specified range, is received this value should be ignored. Values out of range lead to a syntax error.

A size constraint shall be added to "user-information" when carried within a dialogue Protocol Data Unit (PDU) and directly as a Dialogue Portion, i.e.:

```
user-information [30] IMPLICIT SEQUENCE SIZE (1..10) OF EXTERNAL OPTIONAL
```

7 Specific exceptions and clarifications to ITU-T Recommendation Q.774

The text of ITU-T Recommendation Q.774 [4] with the modifications identified in Clause 3, is endorsed by ETSI.

8 Specific exceptions and clarifications to ITU-T Recommendation Q.775

The text of ITU-T Recommendation Q.775 [5] with the modifications identified in Clause 3, is endorsed by ETSI.

History

Document history	
October 1993	First Edition
January 1996	Converted into Adobe Acrobat Portable Document Format (PDF)