

Draft **ETSI EN 301 848-1** V1.1.1 (2000-10)

---

*European Standard (Telecommunications series)*

**Integrated Service Digital Network (ISDN)  
Signalling System No.7 (SS7);  
Bearer Independent Call Control (BICC);  
Signalling procedures in an ATM/IP/.. backbone network;  
Capability Set 1 (CS1);  
Part 1: Protocol specification**

[ITU-T Recommendations Q.1901 and Q.765.5, modified]

---



---

**Reference**

DEN/SPAN-01079-1

---

**Keywords**

ATM, ISDN, protocol, ISUP

**ETSI**

---

650 Route des Lucioles  
F-06921 Sophia Antipolis Cedex - 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

---

**Important notice**

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at <http://www.etsi.org/tb/status/>

If you find errors in the present document, send your comment to:  
editor@etsi.fr

---

**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 2000.  
All rights reserved.

---

# Contents

Intellectual Property Rights .....	4
Foreword.....	4
1 Scope .....	5
2 References .....	6
3 Definitions.....	6
4 Endorsement notice .....	7
4.1 Q.1901 .....	7
4.2 Q.765.5 .....	7
History .....	8

---

## 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 ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available 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 ETSI 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 Services and Protocols for Advanced Networks (SPAN), and is now submitted for the ETSI standards One-step Approval Procedure.

The present document is part 1 of a multi-part EN providing endorsement of the ITU Bearer Independent Call Control protocol (BICC).

**Part 1: "Protocol specification [ITU-T Recommendations Q.1901 and Q.765.5, modified]"**.

Further parts may be produced in the future.

<b>Proposed national transposition dates</b>	
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

---

# 1 Scope

The present document provides the ETSI endorsement of the ITU-T BICC Capability Set 1 protocol recommendations Q.1901 and Q.765.5.

Q.1901 describes the adaptation of the narrowband ISDN User Part (ISUP) for the support of narrowband ISDN services independent of the bearer technology and signalling message transport technology used, for the pan-European Integrated Services Digital Network (ISDN) as provided by the European public telecommunications operators.

Q.1901 is written as a set of exceptions to the ISUP Recommendations.

The protocol defined by Q.1901 is the call control protocol to be used between "Serving Nodes". This protocol is called the "Bearer Independent Call Control" protocol, (BICC). Between Serving Nodes the control of bearers is provided by other protocols – not specified by this Recommendation.

Three types of Serving Node (SN) are defined:

- Interface Serving Node (ISN) – this type of node provides an interface to circuit switched networks;
- Transit Serving Node (TSN) – this type of node provides transit functionality, for call and bearer, within one network using the BICC protocol;
- Gateway Serving Node (GSN) – this type of node provides inter-network gateway functionality, for call and bearer, using the BICC protocol.

Q.1901 also contains an appendix that is relevant to a Call Mediation Node, where call control functions may reside, without any bearer control capability.

Q.765.5 describes the extensions required for the transport of bearer related information associated with the BICC protocol. The BICC is used to manage the call control instance that has been separated from the bearer control instance. The BICC needs to transport bearer related information between call control instances. The Application Transport Mechanism is used for this purpose. Q.765.5 specifies the APM-user to support the transport of the bearer related information for the BICC.

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.

---

## 2 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, 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.

- [1] ITU-T Recommendation Q.1901 (06/00): "Bearer independent call control protocol".
- [2] ITU-T Recommendation Q.765.5 (06/00): "Application transport mechanism - Bearer independent call control (BICC)".
- [3] ETSI EN 300 356-1: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 4 for the international interface; Part 1: Basic services [ITU-T Recommendations Q.761 to Q.764 modified]".
- [4] ETSI EN 300 356-2: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 4 for the international interface; Part 2: ISDN supplementary services [ITU-T Recommendation Q.730, modified]".
- [5] ETSI EN 301 069-1: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP); Application transport mechanism; Part 1: Protocol specification [ITU-T Recommendation Q.765, modified]".
- [6] ETSI EN 300 008-1: "Integrated Services Digital Network (ISDN); Signalling System No.7; Message Transfer Part (MTP) to support international interconnection; Part 1: Protocol specification [ITU-T Recommendations Q.701, Q.702, Q.703, Q.704, Q.705, Q.706, Q.707 and Q.708 modified]".
- [7] ETSI EN 301 004-1: "Broadband Integrated Services Digital Network (B-ISDN); Signalling System No.7; Message Transfer Part (MTP) level 3 functions and messages to support international interconnection; Part 1: Protocol specification [ITU-T Recommendation Q.2210 (1996), modified]".
- [8] ETSI EN 300 436-1: "Broadband Integrated Services Digital Network (B-ISDN); Signalling ATM Adaptation Layer (SAAL); Service Specific Connection Oriented Protocol (SSCOP); Part 1: Protocol specification [ITU-T Recommendation Q.2110, modified]".

---

## 3 Definitions

For the purposes of the present document, the terms and definitions given in BICC reference specifications [1] and [2] apply.

## 4 Endorsement notice

### 4.1 Q.1901

The elements of ITU-T Recommendation Q.1901 (2000) apply, with the following modifications:

**Throughout the text of ITU-T Recommendation Q.1901:**

Replace references as shown below.

Reference in ITU-T Recommendation Q.1901	Modified reference
ITU-T Recommendation Q.761	EN 300 356-1 [3]
ITU-T Recommendation Q.762	EN 300 356-1 [3]
ITU-T Recommendation Q.763	EN 300 356-1 [3]
ITU-T Recommendation Q.764	EN 300 356-1 [3]
ITU-T Recommendation Q.730	EN 300 356-2 [4]
ITU-T Recommendation Q.765.5	ITU-T Recommendation Q.765.5 as modified by the present document
ITU-T Recommendation Q.765	EN 301 069-1 [5]
ITU-T Recommendation Q.701	EN 300 008-1 [6]
ITU-T Recommendation Q.704	EN 300 008-1 [6]
ITU-T Recommendation Q.2210	EN 301 004-1 [7]
ITU-T Recommendation Q.2110	EN 300 436-1 [8]

#### Appendix I

Appendix I has the status of an informative annex.

#### Appendix II

Appendix II has the status of an informative annex.

#### Appendix III

Appendix III has the status of an informative annex.

### 4.2 Q.765.5

The elements of ITU-T Recommendation Q.765.5 (2000) apply, with the following modifications:

**Throughout the text of ITU-T Recommendation Q.765.5:**

Replace references as shown below.

Reference in ITU-T Recommendation Q.765.5	Modified reference
ITU-T Recommendation Q.765	EN 301 069-1 [5]
ITU-T Recommendation Q.1901	ITU-T Recommendation Q.1901 as modified by the present document

---

## History

<b>Document history</b>		
V1.1.1	October 2000	One-step Approval Procedure OAP 20010209: 2000-10-11 to 2001-02-09