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European Standard (Telecommunications series)

**Services and Protocols for Advanced Networks (SPAN);
Bearer Independent Call Control (BICC)
Capability Set 2 (CS2);
Protocol specification**

[ITU-T Recommendations Q.1902.1, Q.1902.2, Q.1902.3, Q.1902.4, Q.1902.5,
Q.1902.6, Q.765.5 Amendment 1, Q.1912.1, Q.1912.2, Q.1912.3, Q.1912.4, Q.1922.2,
Q.1950, Q.1970, Q.1990, Q.2150.0, Q.2150.1, Q.2150.2, Q.2150.3, modified]



Reference

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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 Public Enquiry phase of the ETSI standards Two-step Approval Procedure.

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

1 Scope

The present document provides the ETSI endorsement of the ITU-T Bearer Independent Call Control (BICC) Capability Set 2 protocol Recommendations Q.1902.1, Q.1902.2, Q.1902.3, Q.1902.4, Q.1902.5, Q.1902.6, Q.765.5 Amendment 1, Q.1912.1, Q.1912.2, Q.1912.3, Q.1912.4, Q.1922.2, Q.1950, Q.1970, Q.1990, Q.2150.0, Q.2150.1, Q.2150.2, Q.2150.3.

Formats, codes and procedures marked for national use or as network option 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 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.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

- [1] ITU-T Recommendation Q.1902.1 (2001): "Bearer Independent Call Control protocol (Capability Set 2): Functional description".
- [2] ITU-T Recommendation Q.1902.2 (2001): "Bearer Independent Call Control protocol (Capability Set 2) and Signalling System No. 7 ISDN user part: General functions of messages and parameters".
- [3] ITU-T Recommendation Q.1902.3 (2001): "Bearer Independent Call Control protocol (Capability Set 2) and Signalling System No. 7 ISDN user part: Formats and codes".
- [4] ITU-T Recommendation Q.1902.4 (2001): "Bearer Independent Call Control protocol (Capability Set 2): Basic call procedures".
- [5] ITU-T Recommendation Q.1902.5 (2001): "Bearer Independent Call Control protocol (Capability Set 2): Exceptions to the application transport mechanism in the context of BICC".
- [6] ITU-T Recommendation Q.1902.6 (2001): "Bearer Independent Call Control protocol (Capability Set 2): Generic signalling procedures for the support of the ISDN user part supplementary services and for bearer redirection".
- [7] ITU-T Recommendation Q.765.5 (2000): "Signalling system No. 7 - Application transport mechanism: Bearer Independent Call Control (BICC)".
- [8] ITU-T Recommendation Q.765.5 (Amendment 1) (2001): "Bearer Independent Call Control Capability Set 2".
- [9] ITU-T Recommendation Q.1912.1 (2001): "Interworking between Signalling System No. 7 ISDN user part and the Bearer Independent Call Control protocol".
- [10] ITU-T Recommendation Q.1912.2 (2001): "Interworking between selected signalling systems (PSTN access, DSS1, C5, R1, R2, TUP) and the Bearer Independent Call Control protocol".
- [11] ITU-T Recommendation Q.1912.3 (2001): "Interworking between H.323 and the Bearer Independent Call Control protocol".

- [12] ITU-T Recommendation Q.1912.4 (2001): "Interworking between Digital Subscriber Signalling System No. 2 and the Bearer Independent Call Control protocol".
- [13] ITU-T Recommendation Q.1922.2 (2001): "Interaction between the Intelligent Network application protocol Capability set 2 and the Bearer independent call control protocol".
- [14] ITU-T Recommendation Q.1950 (2002): "Bearer independent call bearer control protocol".
- [15] ITU-T Recommendation Q.1970 (2001): "BICC IP Bearer control protocol".
- [16] ITU-T Recommendation Q.1990 (2001): "BICC Bearer Control Tunnelling Protocol".
- [17] ITU-T Recommendation Q.2150.0 (2001): "Generic Signalling Transport Service".
- [18] ITU-T Recommendation Q.2150.1 (2001): "Signalling Transport Converter on MTP3 and MTP3b".
- [19] ITU-T Recommendation Q.2150.2 (2001): "Signalling Transport Converter on SSCOP and SSCOPMCE".
- [20] ITU-T Recommendation Q.2150.3 (2002): "Signalling transport converter on SCTP".
- [21] ETSI EN 301 069-1 (V1.3.1): "Integrated Services Digital Network (ISDN); Signalling System No.7 (SS7); ISDN User Part (ISUP); Application transport mechanism; Part 1: Protocol specification [ITU-T Recommendation Q.765, modified]".
- [22] ETSI EN 300 485: "Integrated Services Digital Network (ISDN); Definition and usage of cause and location in Digital Subscriber Signalling System No. one (DSS1) and Signalling System No.7 (SS7) ISDN User Part (ISUP) [ITU-T Recommendation Q.850 (1998) with addendum modified]".
- [23] ETSI EN 300 356-2 (V4.2.1): "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]".
- [24] 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]".
- [25] ETSI EN 302 097: "Integrated Services Digital Network (ISDN); Signalling System No.7 (SS7); ISDN User Part (ISUP); Enhancement for support of Number Portability (NP) [ITU-T Recommendation Q.769.1 (2000), modified]".
- [26] ETSI EN 301 848-1: "Integrated Services 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]".
- [27] 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]".
- [28] 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]".
- [29] 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]".
- [30] ETSI EN 301 062-1: "Integrated Services Digital Network (ISDN); Signalling System No.7; Support of Virtual Private Network (VPN) applications with Private network Q reference point Signalling System number 1 (PSS1) information flows; Part 1: Protocol specification [ITU-T Recommendations Q.765.1 and Q.699.1, modified]".

- [31] ETSI ETS 300 374-1: "Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP); Part 1: Protocol specification".
- [32] ETSI EN 301 140-1: "Intelligent Network (IN); Intelligent Network Application Protocol (INAP); Capability Set 2 (CS2); Part 1: Protocol specification".
- [33] ETSI ETS 300 656: "Broadband Integrated Services Digital Network (B-ISDN); Signalling System No.7; B-ISDN User Part (B-ISUP) Capability Set 1 (CS1); Basic services [ITU-T Recommendations Q.2761 to Q.2764 (1995), modified]".
- [34] ETSI EN 300 403-1: "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]".
- [35] ETSI EN 300 403-2: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 2: Specification and Description Language (SDL) diagrams".
- [36] ETSI EN 300 196-1: "Integrated Services Digital Network (ISDN); Generic functional protocol for the support of supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".
- [37] ETSI ETS 300 121: "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)".
- [38] ETSI EN 300 356 (all parts): "Integrated Services Digital Network (ISDN); Signalling System No.7 (SS7); ISDN User Part (ISUP) version 3 for the international interface".
- [39] ETSI EN 301 850-1: "Integrated Services Digital Network (ISDN); Signalling System No.7 (SS7); ISDN User Part (ISUP); Application transport mechanism; Support of the generic addressing and transport protocol; Part 1: Protocol specification [ITU-T Recommendation Q.765.4, modified]".
- [40] ETSI EN 300 899-1: "Integrated Services Digital Network (ISDN); Signalling System No.7; Interworking between ISDN User Part (ISUP) version 2 and Digital Subscriber Signalling System No. one (DSS1); Part 1: Protocol specification [ITU-T Recommendation Q.699, modified]".
- [41] ETSI TS 101 521: "Telecommunications and Internet Protocol Harmonization Over Networks (TIPHON); Protocol Implementation Conformance Statement (PICS) proforma for the support of call signalling protocols and media stream packetization for packet-based multimedia communication systems; Support of ITU-T Recommendation H.225.0".
- [42] ETSI TS 101 520: "Telecommunications and Internet Protocol Harmonization Over Networks (TIPHON); Implementation Conformance Statement (ICS) proforma for the support of packet based multimedia communications systems; Support of ITU-T Recommendation H.323".
- [43] ETSI TS 101 341: "Telecommunications and Internet Protocol Harmonization Over Networks (TIPHON); Protocol Implementation Conformance Statement (PICS) proforma for the support of supplementary services in H.323; Support of H.450.2: Call transfer supplementary services for H.323".
- [44] ETSI TS 101 342: "Telecommunications and Internet Protocol Harmonization Over Networks (TIPHON); Protocol Implementation Conformance Statement (PICS) proforma for the support of supplementary services in H.323; Support of H.450.3: Call diversion supplementary services for H.323".
- [45] ETSI TS 101 522: "Telecommunications and Internet Protocol Harmonization Over Networks (TIPHON); Protocol Implementation Conformance Statement (PICS) proforma for the support of control protocol for multimedia communication; Support of ITU-T Recommendation H.245".
- [46] ETSI ETS 300 495: "Broadband Integrated Services Digital Network (B-ISDN); Signalling System No.7; Interworking between Broadband ISDN User Part (B-ISUP) and Digital Subscriber Signalling System No. two (DSS2) [ITU-T Recommendation Q.2650 (1995), modified]".

- [47] ETSI ETS 300 496: "Broadband Integrated Services Digital Network (B-ISDN); Signalling System No.7; Interworking between Broadband ISDN User Part (B-ISUP) and narrowband ISDN User Part (ISUP) [ITU-T Recommendation Q.2660 (1995), modified]".
- [48] ETSI ETS 300 657: "Broadband Integrated Services Digital Network (B-ISDN); Signalling System No.7; B-ISDN User Part (B-ISUP) Capability Set 1 (CS1); Supplementary services [ITU-T Recommendation Q.2730 (1995), modified]".
- [49] ETSI 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]".
- [50] ETSI ETS 300 796-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Generic functional protocol; Core aspects; Part 1: Protocol specification [ITU-T Recommendation Q.2932.1 (1996), modified]".
- [51] ETSI 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]".
- [52] ETSI 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]".
- [53] ETSI 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]".
- [54] ETSI 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]".
- [55] ETSI 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]".
- [56] ETSI 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]".
- [57] ETSI 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]".
- [58] ETSI EN 301 485-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Support of ATM end system addressing format by Number identification supplementary services; Part 1: Protocol specification [ITU-T Recommendation Q.2951.9 (1999) modified]".
- [59] ETSI 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, clause 1 (1995), modified]".

- [60] ETSI EN 301 464: "Integrated Services Digital Network (ISDN); Signalling System No.7 (SS7); ISDN User Part (ISUP) version 4 interactions with the Intelligent Network Application Part (INAP); Part 1: Protocol specification [ITU-T Recommendation Q.1601 (1999), modified]".

3 Definitions and abbreviations

For the purposes of the present document, the terms, definitions and abbreviations given in [1] to [20] apply.

Endorsement notice

The elements of ITU-T Recommendations Q.1902.1, Q.1902.2, Q.1902.3, Q.1902.4, Q.1902.5, Q.1902.6, Q.765.5 Amendment 1, Q.1912.1, Q.1912.2, Q.1912.3, Q.1912.4, Q.1922.2, Q.1950, Q.1970, Q.1990, Q.2150.0, Q.2150.1, Q.2150.2, Q.2150.3 apply, with the following modifications.

ITU-T Recommendation Q.1902.1

1. Replace references as shown below

Reference in ITU-T Recommendation Q.1902.1	Modified reference
ITU-T Recommendation Q.850	EN 300 485
ITU-T Recommendation Q.730	EN 300 356-2
ITU-T Recommendation Q.761	EN 300 356-1
ITU-T Recommendation Q.762	EN 300 356-1
ITU-T Recommendation Q.763	EN 300 356-1
ITU-T Recommendation Q.764	EN 300 356-1
ITU-T Recommendation Q.765	EN 301 069-1
ITU-T Recommendation Q.769.1	EN 302 097
ITU-T Recommendation Q.1901	EN 301 848-1
ITU-T Recommendation Q.1902.2	EN 302 213
ITU-T Recommendation Q.1902.3	EN 302 213
ITU-T Recommendation Q.1902.4	EN 302 213
ITU-T Recommendation Q.1902.5	EN 302 213
ITU-T Recommendation Q.1902.6	EN 302 213
ITU-T Recommendation Q.1912.1	EN 302 213
ITU-T Recommendation Q.701	EN 300 008-1
ITU-T Recommendation Q.704	EN 300 008-1
ITU-T Recommendation Q.2210	EN 301 004-1
ITU-T Recommendation Q.2110	EN 300 436-1
ITU-T Recommendation Q.2111	FFS (For Further Study)
ITU-T Recommendation Q.765.1	EN 301 062-1
ITU-T Recommendation Q.765.4	EN 301 850-1
ITU-T Recommendation Q.765.5	EN 302 213
ITU-T Recommendation Q.765.5 Amd. 1	EN 302 213
ITU-T Recommendation Q.1218	ETS 300 374-1
ITU-T Recommendation Q.1228	EN 301 140-1
ITU-T Recommendation Q.2150.0	EN 302 213
ITU-T Recommendation E.412	FFS (For Further Study)
ITU-T Recommendation Q.703	EN 300 008-1
ITU-T Recommendation Q.2763	ETS 300 656
ITU-T Recommendation G.711	FFS (For Further Study)
ITU-T Recommendation Q.115	FFS (For Further Study)
ITU-T Recommendation Q.542	FFS (For Further Study)
ITU-T Recommendation Q.706	EN 300 008-1
ITU-T Recommendation Q.931	EN 300 403-1 and EN 300 403-2
ITU-T Recommendation Q.932	EN 300 196-1
ITU-T Recommendation G.732	FFS (For Further Study)
ITU-T Recommendation G.744	FFS (For Further Study)
ITU-T Recommendation Q.1950	EN 302 213
ITU-T Recommendation Q.1990	EN 302 213
ITU-T Recommendation Q.2150.1	EN 302 213

2. Replace Table 1/Q.1902.1 by the following table

Basic Call			
Function/service	National use according to ITU-T	International use according to ITU-T	International use according to ETSI
Speech/3,1 kHz audio	+	+	+
64 kbit/s unrestricted	+	+	+
Multirate connection types (note 1)	+	+	+
Nx64 kbit/s connection types	+	+	-
En-bloc address signalling	+	+	+
Overlap address signalling	+	+	+
Transit network selection	+	-	-
Continuity indication	+	+	+
Forward transfer	-	+	+
Signalling procedures for connection type allowing fallback capability	+	+	+
Compatibility procedure (BICC and BAT APM user application)	+	+	+
Simple segmentation	+	+	+
Tones and announcements	+	+	+
Propagation delay determination procedure	+	+	+
Simplified echo control signalling procedures	+	+	+
Automatic repeat attempt	+	+	+
Blocking and unblocking	+	+	+
CIC group query	+	-	-
Dual seizure	+	+	+
Reset	+	+	+
Receipt of unreasonable signalling information	+	+	+
Access delivery information	+	+	+
Transportation of user teleservice information	+	+	+
Suspend and resume	+	+	+
ISDN user part signalling congestion control	Note 2	Note 2	Note 2
Automatic congestion control	+	+	+
Interaction with INAP	+	+	+
Unequipped CIC	+	-	-
ISDN user part availability control	Note 3	Note 3	Note 3
MTP pause and resume	Note 2	Note 2	Note 2
Overlength messages	+	+	+
Temporary Alternative Routing (TAR)	+	+	+
Hop counter procedure	+	+	+
Collect call request procedure	+	+	+
Hard-to Reach	+	+	-
Calling Geodetic location procedure	+	+	+
Carrier Selection Information	+	-	-
Inter-nodal traffic group identification	+	+	+
Codec negotiation and modification procedures	+	+	+
Joint BIWF support	+	+	+
Global Call Reference procedure	+	+	+
Out of band transport of DTMF tones and information	+	+	+
Key:	+ required		
	- not required		
NOTE 1:	Multirate connection types are 2 × 64, 384 kbit/s, 1 536 kbit/s and 1 920 kbit/s.		
NOTE 2:	If BICC is deployed on an MTP3 or MTP3b signalling transport service, these functions are provided by the STC sublayer as described in ITU-T Recommendation Q.2150.1 as modified by EN 302 213.		
NOTE 3:	If BICC is deployed on an MTP3 or MTP3b signalling transport service, an equivalent procedure is provided by the STC sublayer as described in ITU-T Recommendation Q.2150.1 as modified by the present document.		

3. Replace Table 2/Q.1902.1 by the following table

Generic signalling procedures, services and functions			
Function/service	National use according to ITU-T	International use according to ITU-T	International use according to ETSI
Generic signalling procedures			
Generic number transfer	+	+	+
Generic digit transfer	+	-	-
Generic notification procedure	+	+	+
Service activation	+	+	+
Remote Operations Service (ROSE) capability	+	-	-
Network specific facilities	+	-	-
Pre-release Information transport	+	+	+
Application Transport Mechanism (APM)	+	+	+
Redirection	+	-	-
Pivot Routeing	+	+	-
Bearer Redirection	+	+	+
Supplementary services			
DDI	+	+	+
MSN	+	+	+
CLIP/CLIR	+	+	+
COLP/COLR	+	+	+
MCID	+	+	+
SUB	+	+	+
TP	+	+	+
CFU, CFB, CFNR	+	+	+
CD	+	+	+
CW	+	+	+
HOLD	+	+	+
CONF	+	+	+
3PTY	+	+	+
CUG	+	+	+
MLPP	Note 1	Note 1	Note 1
UUS, service 1 (implicit)	+	+	+
UUS, service 1 (explicit)	+	+	+
UUS, service 2	+	+	+
UUS, service 3	+	+	+
ECT	+	+	+
CCBS	+	+	+
CCNR	+	+	+
MWI	-	-	+
ITCC	+	+	-
GVNS	+	+	Note 2
REV	+	-	-
ACR	-	-	+
Additional functions / services			
VPN	+	+	+
NP	+	-	-
Support of GAT protocol	+	+	+
Key: + required - not required			
NOTE 1: Only transiting of MLPP information is supported.			
NOTE 2: GVNS is not required as an ETSI service, but the ITU-T parameters can still be used in conjunction with Core INAP CS2.			

4. Appendix I

Appendix I to ITU-T Recommendation Q.1902.1 [1] has the status of an informative annex.

ITU-T Recommendation Q.1902.2

1. Any information in ITU-T Recommendation Q.1902.2 [2] on ISUP is outside the scope of the present document. The scope of the present document is BICC CS2 only.

2. Replace references as shown below

Reference in ITU-T Recommendation Q.1902.2	Modified reference
ITU-T Recommendation Q.1902.1	EN 302 213

3. Exceptions

Paragraph in ITU-T Recommendation Q.1902.2	Comment
5.36, Release message	Delete the sentence: 'Where the call is to be redirected the message will also carry the redirection number'.
7.2, Address Presentation Restricted indicator	Add the following to the last sentence: 'It may also be used to indicate that the address cannot be ascertained, <u>and in the case of the Calling Party Number only, to indicate that the number may not be presented to a user for reasons other than invocation of the CLIR service ('Presentation Restricted by network')</u> '.

ITU-T Recommendation Q.1902.3

The elements of ITU-T Recommendation Q.1902.3 [3] apply, with the following modifications.

1. Any information in ITU-T Recommendation Q.1902.3 [3] on ISUP is outside the scope of the present document. The scope of the present document is BICC CS2 only.

2. Replace reference as shown below.

Reference in ITU-T Recommendation Q.1902.3	Modified reference
ITU-T Recommendation Q.1902.1	EN 302 213

3. Exceptions

Paragraph in ITU-T Recommendation Q.1902.3	Comment
5.16, Meaning of 'spare' and 'reserved codes'	Replace the word 'ITU-T' by 'ETSI' in the three instances of the word in the subclause.
New subclause 5.17 (not existing in ITU-T Recommendation Q.1902.3)	<p>Insert a new subclause 5.17 Number Lengths: 'For the international interface the number lengths to be supported by BICC are restricted by the limits defined by E.164. This applies to the called party number, whether signalled by the en bloc or overlap methods, and all the other number types transferred by BICC, e.g. Calling Party Number, etc. However, within national networks, it is acknowledged that the E.164 number length is too restrictive for some applications, and specifically various national requirements for the extension of the called party number are known. The following remarks are made with regard to extension of number lengths for use within national networks: Interworking/Interoperability problems can be foreseen with interworking to versions of ISUP which may only support the parameter lengths indicated in previous versions of ISUP. Gateway exchanges between networks using extended number lengths and the international network have to ensure that only E.164 number lengths are passed to the international network.'</p>
Table 2/Q.1902.3, Parameter names	<p>Modify table 2/Q.1902.3 as follows: Backward GVNS (<u>not required</u>) Forward GVNS (<u>not required</u>) MLPP precedence (<u>not required</u>) Pivot capability (<u>not required</u>) Pivot routing forward indicator (<u>not required</u>) HTR information (<u>not required</u>) Pivot counter (<u>not required</u>) Pivot routing forward information (<u>not required</u>) Pivot routing backward information (<u>not required</u>) 0100 0001 <u>reserved for national use</u></p> <p>In the rest of the present document, this information is not repeated.</p>
6.20, Calling party number	<p>Modify the code definition of Address Presentation Restricted indicator as follows: 11 reserved for restriction by the network Presentation restricted by the network</p>
6.22, Carrier selection information (national use)	<p>The format and codes as specified in EN 300 356-1 apply. NOTE: The parameter as such is existing in ITU-T Recommendation Q.1902.3, but the format and codes differ from the ETSI definition.</p>
6.66, Optional backward call indicators	Add '(Not Required)' to the value 1 (MLPP user) of the 'MLPP user indicator'.

Paragraph in ITU-T Recommendation Q.1902.3	Comment
6.97, Transmission medium requirement	<p>Modify as follows: The following codes are used in the transmission medium requirement parameter field:</p> <pre> 0000 0000 speech 0000 0001 spare 0000 0010 64 kbit/s unrestricted 0000 0011 3,1 kHz audio 0000 0100 reserved for alternate speech (service 2)/64 kbit/s unrestricted (service 1) 0000 0101 reserved for alternate 64 kbit/s unrestricted (service 1)/speech (service 2) 0000 0110 64 kbit/s preferred 0000 0111 2 x 64 kbit/s unrestricted 0000 1000 384 kbit/s unrestricted 0000 1001 1 536 kbit/s unrestricted 0000 1010 1 920 kbit/s unrestricted 0000 1011 } to } spare 0000 1111 } 0001 0000 <u>reserved for</u> 3 x 64 kbit/s unrestricted 0001 0001 <u>reserved for</u> 4 x 64 kbit/s unrestricted 0001 0010 <u>reserved for</u> 5 x 64 kbit/s unrestricted 0001 0011 spare 0001 0100 <u>reserved for</u> 7 x 64 kbit/s unrestricted 0001 0101 <u>reserved for</u> 8 x 64 kbit/s unrestricted 0001 0110 <u>reserved for</u> 9 x 64 kbit/s unrestricted 0001 0111 <u>reserved for</u> 10 x 64 kbit/s unrestricted 0001 1000 <u>reserved for</u> 11 x 64 kbit/s unrestricted 0001 1001 <u>reserved for</u> 12 x 64 kbit/s unrestricted 0001 1010 <u>reserved for</u> 13 x 64 kbit/s unrestricted 0001 1011 <u>reserved for</u> 14 x 64 kbit/s unrestricted 0001 1100 <u>reserved for</u> 15 x 64 kbit/s unrestricted 0001 1101 <u>reserved for</u> 16 x 64 kbit/s unrestricted 0001 1110 <u>reserved for</u> 17 x 64 kbit/s unrestricted 0001 1111 <u>reserved for</u> 18 x 64 kbit/s unrestricted 0010 0000 <u>reserved for</u> 19 x 64 kbit/s unrestricted 0010 0001 <u>reserved for</u> 20 x 64 kbit/s unrestricted 0010 0010 <u>reserved for</u> 21 x 64 kbit/s unrestricted 0010 0011 <u>reserved for</u> 22 x 64 kbit/s unrestricted 0010 0100 <u>reserved for</u> 23 x 64 kbit/s unrestricted 0010 0101 spare 0010 0110 <u>reserved for</u> 25 x 64 kbit/s unrestricted 0010 0111 <u>reserved for</u> 26 x 64 kbit/s unrestricted 0010 1000 <u>reserved for</u> 27 x 64 kbit/s unrestricted 0010 1001 <u>reserved for</u> 28 x 64 kbit/s unrestricted 0010 1010 <u>reserved for</u> 29 x 64 kbit/s unrestricted 0010 1011 } to } spare 1111 1111 } </pre>
Annex A, Tables for handling of unrecognised parameter values	Annex A has the status of a normative annex.
Annex B, General description of component encoding rules	Annex B has the status of an informative annex.

ITU-T Recommendation Q.1902.4

1. Replace reference as shown below

Reference in ITU-T Recommendation Q.1902.4	Modified reference
ITU-T Recommendation Q.1902.1	EN 302 213

2. Exceptions

Paragraph in ITU-T Recommendation Q.1902.4	Comment
7.1, Introduction	Add the following sentence to the beginning of subclause 7.1: 'The number of digits supported for a call shall be independent of whether enbloc or overlap operation is used.'
7.2.1.1, Outgoing selection	Modify as follows: The connection types allowed are: - speech; - 3,1 kHz audio; - 64 kbit/s unrestricted; - 64 kbit/s unrestricted preferred; - 2 × 64 kbit/s unrestricted; <u>multirate connection types</u> - 384 kbit/s unrestricted; <u>multirate connection types</u> - 1 536 kbit/s unrestricted; <u>multirate connection types</u> - 1 920 kbit/s unrestricted; <u>multirate connection types</u> N×64 kbit/s unrestricted (N = 2 – 30).
8.8, Support for Temporary Alternative Routeing	Insert the following at the end of the subclause: 'An outgoing gateway shall set the Temporary Alternative Routing (TAR) indicator to 0 (no indication) independent of the value received from the national network. An incoming gateway shall set the Temporary Alternative Routing (TAR) indicator to 0 (no indication) independent of the value received from the intermediate network.'
8.17, Carrier selection information (national use)	The text as specified in EN 300 356-1 applies.
12.7, Support for Hard to Reach Network Management functions	Not supported.
12.9, Signalling transport out-of-service and in-service indications	Add at the end of b): 'Or as a national option this CSF shall remain locally blocked, a non-call control message requiring a response shall be sent to the distant BICC. On receipt of the response message (or any other signalling message) from the distant BICC the local blocking resulting from the previously received OUT-OF-SERVICE primitive shall be removed. Normal call release procedures that may have started during the period of signalling isolation continue and as such will ensure that affected calls are returned to the idle state.'
13.4, Receipt of unreasonable signalling information	Delete the paragraph 'The degree of applicability (...) is for further study.'
Annex A, Timers	Annex A has the status of a normative annex.
Annex B, Procedures for reuse of idle bearers (network option)	Annex B has the status of an informative annex.
Annex C, Test calls	Annex C has the status of an informative annex.
Annex D, Start-up procedures	Annex D has the status of a normative annex.
Annex E, Procedures for use of Structured AAL1 bearers (network option)	Annex E has the status of an informative annex.
Appendix I, Message flow examples	Appendix I has the status of an informative annex.
Appendix II, Generic BCF functions	Appendix II has the status of an informative annex.

ITU-T Recommendation Q.1902.5

1. Replace references as shown below

Reference in ITU-T Recommendation Q.1902.5	Modified reference
ITU-T Recommendation Q.765	EN 301 069-1
ITU-T Recommendation Q.1902.1	EN 302 213
ITU-T Recommendation Q.1902.3	EN 302 213
ITU-T Recommendation Q.1902.4	EN 302 213
ITU-T Recommendation Q.2150.0	EN 302 213
ITU-T Recommendation Q.2150.1	EN 302 213
ITU-T Recommendation Q.2150.2	EN 302 213
ITU-T Recommendation Q.2150.3	EN 302 213

ITU-T Recommendation Q.1902.6

1. Replace references as shown below

Reference in ITU-T Recommendation Q.1902.6	Modified reference
ITU-T Recommendation Q.73x-series	EN 300 356 (all parts) - series for the individual supplementary services
ITU-T Recommendations Q.761 to Q.764	EN 300 356-1
ITU-T Recommendation Q.767	ETS 300 121
ITU-T Recommendations Q.1902.1 to Q.1902.4	EN 302 213
ITU-T Recommendation Q.2150.0	EN 302 213
ITU-T Recommendation Q.2150.1	EN 302 213
ITU-T Recommendations Q.765.5 and its Amendment	EN 302 213

ITU-T Recommendation Q.765.5

1. Replace references as shown below

Reference in ITU-T Recommendation Q.765.5	Modified reference
ITU-T Recommendation Q.765	EN 301 069-1
ITU-T Recommendation Q.1901	EN 301 848-1

ITU-T Recommendation Q.765.5 Amendment 1

1. Replace references as shown below

Reference in ITU-T Recommendation Q.765.5 Amendment 1	Modified reference
ITU-T Recommendation Q.1902.5	EN 302 213
ITU-T Recommendation Q.1902.1	EN 302 213
ITU-T Recommendation Q.1990	EN 302 213

ITU-T Recommendation Q.1912.1

1. Replace references as shown below

Reference in ITU-T Recommendation Q.1912.1	Modified reference
ITU-T Recommendation Q.761	EN 300 356-1
ITU-T Recommendation Q.762	EN 300 356-1
ITU-T Recommendation Q.763	EN 300 356-1
ITU-T Recommendation Q.764	EN 300 356-1
ITU-T Recommendation Q.730	EN 300 356-2
ITU-T Recommendation Q.1902.1	EN 302 213
ITU-T Recommendation Q.1902.2	EN 302 213
ITU-T Recommendation Q.1902.3	EN 302 213
ITU-T Recommendation Q.1902.4	EN 302 213
ITU-T Recommendation Q.767	ETS 300 121

ITU-T Recommendation Q.1912.2

1. Replace references as shown below

Reference in ITU-T Recommendation Q.1912.2	Modified reference
ITU-T Recommendation G.964	FFS (For Further Study)
ITU-T Recommendation G.965	FFS (For Further Study)
ITU-T Recommendation G.995.1	FFS (For Further Study)
ITU-T Recommendation Q.118	FFS (For Further Study)
ITU-T Recommendations Q.140 to Q.164	Not applicable
ITU-T Recommendations Q.310 to Q.332	Not applicable
ITU-T Recommendations Q.400 to Q.490	Not applicable
ITU-T Recommendation Q.543	FFS (For Further Study)
ITU-T Recommendation Q.617	EN 300 356-1
ITU-T Recommendation Q.627	EN 300 356-1
ITU-T Recommendation Q.646	Not applicable
ITU-T Recommendation Q.667	Not applicable
ITU-T Recommendation Q.675	Not applicable
ITU-T Recommendation Q.686	Not applicable
ITU-T Recommendation Q.690	Not applicable
ITU-T Recommendation Q.692	Not applicable
ITU-T Recommendation Q.694	Not applicable
ITU-T Recommendation Q.695	Not applicable
ITU-T Recommendation Q.699	EN 300 899-1
ITU-T Recommendations Q.721 to Q.725	Not applicable
ITU-T Recommendations Q.761 to Q.764	EN 300 356-1
ITU-T Recommendation Q.931	EN 300 403-1 and EN 300 403-2
ITU-T Recommendations Q.1902.1 to Q.1902.4	EN 302 213
ITU-T Recommendation Q.1912.1	EN 302 213

2. Exceptions

Paragraph in ITU-T Recommendation Q.1912.2	Comment
7, Interworking with network signalling systems	Not supported. NOTE: This means interworking with R1, R2, C5, TUP is not supported.

ITU-T Recommendation Q.1912.3

1. Replace references as shown below

Reference in ITU-T Recommendation Q.1912.3	Modified reference
ITU-T Recommendation H.225.0,	TS 101 521
ITU-T Recommendation H.246,	FFS (For Futher Study)
ITU-T Recommendation H.323,	TS 101 520
ITU-T Recommendation H.450.x-family, Implementors Guide (2001) for H.323,	TS 101 341 and TS 101 342
ITU-T Recommendation H.245,	TS 101 522
ITU-T Recommendation H.283,	FFS (For Futher Study)
ITU-T Recommendation H.235,	FFS (For Futher Study)
ITU-T Recommendation H.341,	FFS (For Futher Study)
ITU-T Recommendations Q.761 to Q.764	EN 300 356-1
ITU-T Recommendations Q.1902.1 to Q.1902.4	EN 302 213
ITU-T Recommendation Q.1912.1	EN 302 213

2. Appendix I

Appendix I to ITU-T Recommendation Q.1912.3 [11], Guidelines BICC/H.323 interworking for end-to-end codec negotiation, has the status of an informative annex.

ITU-T Recommendation Q.1912.4

1. Replace references as shown below

Reference in ITU-T Recommendation Q.1912.4	Modified reference
ITU-T Recommendation Q.617	EN 300 356-1
ITU-T Recommendation Q.627	EN 300 356-1
ITU-T Recommendation Q.699	EN 300 899-1
ITU-T Recommendations Q.761 to Q.764	EN 300 356-1
ITU-T Recommendation Q.931	EN 300 403-1 and EN 300 403-2
ITU-T Recommendations Q.1902.1 to Q.1902.4	EN 302 213
ITU-T Recommendation Q.1912.1	EN 302 213
ITU-T Recommendations Q.118,	FFS (For Futher Study)
ITU-T Recommendation Q.543,	FFS (For Futher Study)
ITU-T Recommendation Q.2650,	ETS 300 495
ITU-T Recommendation Q.2660,	ETS 300 496
ITU-T Recommendation Q.2730,	ETS 300 657
ITU-T Recommendation Q.2735.1,	FFS (For Futher Study)
ITU-T Recommendations Q.2761-Q.2764,	ETS 300 656
ITU-T Recommendation Q.2931,	EN 300 443-1
ITU-T Recommendation Q.2931 Amendment 2,	FFS (For Futher Study)
ITU-T Recommendation Q.2932.1,	ETS 300 796-1
ITU-T Recommendation Q.2951.1-8,	ETS 300 661-1, ETS 300 662-1, ETS 300 663-1, ETS 300 664-1, ETS 300 665-1, ETS 300 666-1, ETS 300 667-1
ITU-T Recommendation Q.2951.9,	EN 301 485-1
ITU-T Recommendation Q.2957,	ETS 300 668-1
ITU-T Recommendation Q.2941.2	FFS (For Futher Study)

ITU-T Recommendation Q.1922.2

1. Replace references as shown below

Reference in ITU-T Recommendation Q.1922.2	Modified reference
ITU-T Recommendations Q.761 to Q.764	EN 300 356-1
ITU-T Recommendation Q.1228	EN 301 140-1
ITU-T Recommendation Q.1601	EN 301 464
ITU-T Recommendations Q.1902.1 to Q.1902.4	EN 302 213
ITU-T Recommendation Q.1912.1	EN 302 213

ITU-T Recommendation Q.1950

1. Replace references as shown below

Reference in ITU-T Recommendation Q.1950	Modified reference
ITU-T Recommendation H.248, H.248 annex K	FFS (For Further Study)
ITU-T Recommendation I.230	FFS (For Further Study)
ITU-T Recommendation Q.765.5	EN 302 213
ITU-T Recommendation Q.1902.3	EN 302 213
ITU-T Recommendation Q.2150.0	EN 302 213

2. Annex A

Annex A to ITU-T Recommendation Q.1950 [14], Q.1950 packages, has the status of a normative annex.

ITU-T Recommendation Q.1970

1. Replace references as shown below

Reference in ITU-T Recommendation Q.1970	Modified reference
ITU-T Recommendation Q.1901	EN 301 848-1
ITU-T Recommendation Q.1902.1	EN 302 213
ITU-T Recommendation Q.1902.2	EN 302 213
ITU-T Recommendation Q.1902.3	EN 302 213
ITU-T Recommendation Q.1902.4	EN 302 213
ITU-T Recommendation Q.1902.5	EN 302 213
ITU-T Recommendation Q.1902.6	EN 302 213

2. Exceptions

Paragraph in ITU-T Recommendation Q.1970	Comment
6.2, IPBCP message fields	Modify item 7), Media Announcement as follows: 'The "fmt list" is limited to only one payload type. For further details see RFC 2327'.

ITU-T Recommendation Q.1990

1. Replace references as shown below

Reference in ITU-T Recommendation Q.1990	Modified reference
ITU-T Recommendation Q.765.5	EN 302 213
ITU-T Recommendations Q.1902.1 to Q.1902.4	EN 302 213
ITU-T Recommendation Q.1950	EN 302 213
ITU-T Recommendation Q.1970	EN 302 213

ITU-T Recommendation Q.2150.0

The elements of ITU-T Recommendation Q.2150.0 [17] apply.

ITU-T Recommendation Q.2150.1

1. Replace references as shown below

Reference in ITU-T Recommendation Q.2150.1	Modified reference
ITU-T Recommendation Q.2150.0	EN 302 213
ITU-T Recommendation Q.701	EN 300 008-1
ITU-T Recommendation Q.703	EN 300 008-1
ITU-T Recommendation Q.704	EN 300 008-1
ITU-T Recommendation Q.764	EN 300 356-1
ITU-T Recommendation Q.2210	EN 301 004-1

2. Appendix I

Appendix I to ITU-T Recommendation Q.2150.1 [18], Protocol Implementation Conformance Statement (PICS) Proforma, has the status of an informative annex.

ITU-T Recommendation Q.2150.2

1. Replace references as shown below

Reference in ITU-T Recommendation Q.2150.2	Modified reference
ITU-T Recommendation Q.2150.0	EN 302 213
ITU-T Recommendation Q.2110	EN 300 436-1
ITU-T Recommendation Q.2111	FFS (For Further Study)

2. Appendix I, Appendix II

Appendix I to ITU-T Recommendation Q.2150.2 [19], Signalling Transport Converter on SSCF-UNI for AAL type 2 signalling, has the status of an informative annex.

Appendix II to ITU-T Recommendation Q.2150.2 [19], Protocol Implementation Conformance Statement (PICS) Proforma, has the status of an informative annex.

ITU-T Recommendation Q.2150.3

1. Replace references as shown below

Reference in ITU-T Recommendation Q.2150.3	Modified reference
ITU-T Recommendation Q.2150.0	EN 302 213

2. Appendix I

Appendix I to ITU-T Recommendation Q.2150.3 [20], Protocol Implementation Conformance Statement (PICS) Proforma, has the status of an informative annex.

History

Document history			
V1.1.1	May 2003	Public Enquiry	PE 20030926: 2003-05-28 to 2003-09-26