# Draft EN 300 356-1 V3.1.1 (1997-10)

*European Standard (Telecommunications series)*

# Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 1: Basic services

**[ITU-T Recommendations Q.761 to Q.764 (1997), modified]**

*European Telecommunications Standards Institute*

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# Foreword

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

The present document is part 1 of a multi-part EN covering the ISDN User Part (ISUP) version 3 for the international interface, as identified below:

**Part 1: "Basic services";**
Part 2: "ISDN supplementary services";
Part 3: "Calling Line Identification Presentation (CLIP) supplementary service";
Part 4: "Calling Line Identification Restriction (CLIR) supplementary service";
Part 5: "Connected Line Identification Presentation (COLP) supplementary service";
Part 6: "Connected Line Identification Restriction (COLR) supplementary service";
Part 7: "Terminal Portability (TP) supplementary service";
Part 8: "User-to-User Signalling (UUS) supplementary service";
Part 9: "Closed User Group (CUG) supplementary service";
Part 10: "Subaddressing (SUB) supplementary service";
Part 11: "Malicious Call Identification (MCID) supplementary service";
Part 12: "Conference call, add-on (CONF) supplementary service";
Part 14: "Explicit Call Transfer (ECT) supplementary service";
Part 15: "Diversion supplementary services";
Part 16: "Call Hold (HOLD) supplementary service";
Part 17: "Call Waiting (CW) supplementary service";
Part 18: "Completion of Calls to Busy Subscriber (CCBS) supplementary service";
Part 19: "Three party (3PTY) supplementary service".
Part 20: "Completion of Calls on No Reply (CCNR) supplementary service";
Part 31: "Basic Services; PICS proforma specification";
Part 32: "Basic Services; Test suite structure and test purposes";
Part 33: "Basic Services; ATS and partial PIXIT proforma specification";
Part 34: "Supplementary Services; PICS proforma specification";
Part 35: "Supplementary Services; Test suite structure and test purposes";
Part 36: "Supplementary Services; ATS and partial PIXIT proforma specification".

NOTE: Part 13 has not been issued.

| 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 text of ITU-T Recommendations Q.761, Q.762, Q.763 and Q.764 (1997) was approved by ETSI as an EN with agreed modifications as given below.

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

# Global modifications to ITU-T Recommendations Q.761 to Q.764

Replace the clauses "Scope", "References" and "Abbreviations" with the following three clauses (Scope, Normative references, and Abbreviations):

# Scope

This first part of EN 300 356 specifies procedures to support basic bearer services and supplementary services defined for the pan-European Integrated Services Digital Network (ISDN) as provided by the European public telecommunications operators by means of the Signalling System No.7 protocol for the ISDN User Part (ISUP).

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 an ISDN.

Although the present document applies only to the international interconnection, the specification of functions, formats and codes of messages and signals, and actions performed at originating and destination local exchanges are retained.

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.

Items in the present document marked "not required" are not required to be supported.

NOTE: In the case where a national signalling system behaves differently, the international gateway exchange is to support both the concerned national and international network.

The present document is compatible with ETS 300 121 [2] (CCITT Recommendation Q.767).

Descriptions of interworking with CCITT Blue Book (1988) exchanges are informative only.

# Normative references

References may be made to:

a) specific versions of publications (identified by date of publication, edition number, version number, etc.), in which case, subsequent revisions to the referenced document do not apply; or

b) all versions up to and including the identified version (identified by "up to and including" before the version identity); or

c) all versions subsequent to and including the identified version (identified by "onwards" following the version identity); or

d) publications without mention of a specific version, in which case 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] CCITT Recommendation E.164 (1991): "Numbering plan for the ISDN era".

[2] ETS 300 121 (1992): "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)".

[3] EN 300 356-2: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 2: ISDN supplementary services [ITU-T Recommendation Q.730 (1997), modified]".

[4] EN 300 356-3: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 3: Calling Line Identification Presentation (CLIP) supplementary service [ITU-T Recommendation Q.731, clause 3 (1993), modified]".

[5] EN 300 356-4: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 4: Calling Line Identification Restriction (CLIR) supplementary service [ITU-T Recommendation Q.731, clause 4 (1993), modified]".

[6] EN 300 356-5: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 5: Connected Line Identification Presentation (COLP) supplementary service [ITU-T Recommendation Q.731, clause 5 (1993), modified]".

[7] EN 300 356-6: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 6: Connected Line Identification Restriction (COLR) supplementary service [ITU-T Recommendation Q.731, clause 6 (1993), modified]".

[8] EN 300 356-7: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 7: Terminal Portability (TP) supplementary service [ITU-T Recommendation Q.733, clause 4 (1993), modified]".

[9] EN 300 356-8: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 8: User-to-User Signalling (UUS) supplementary service [ITU-T Recommendation Q.737, clause 1 (1997), modified]".

[10] EN 300 356-9: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 9: Closed User Group (CUG) supplementary service [ITU-T Recommendation Q.735, clause 1 (1993), modified]".

[11] EN 300 356-10: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 10: Subaddressing (SUB) supplementary service [ITU-T Recommendation Q.731, clause 8 (1992), modified]".

[12] EN 300 356-11: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 11: Malicious Call Identification (MCID) supplementary service [ITU-T Recommendation Q.731, clause 7 (1997), modified]".

[13] EN 300 356-12: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 12: Conference call, add-on (CONF) supplementary service [ITU-T Recommendation Q.734, clause 1 (1993), modified]".

[14] EN 300 356-14: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 14: Explicit Call Transfer (ECT) supplementary service [ITU-T Recommendation Q.732, clause 7 (1996), modified]".

[15] EN 300 356-15: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 15: Diversion supplementary services [ITU-T Recommendation Q.732, clauses 2 to 5 (1997), modified]".

[16] EN 300 356-16: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 16: Call Hold (HOLD) supplementary service [ITU-T Recommendation Q.733, clause 2 (1993), modified]".

[17] EN 300 356-17: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 17: Call Waiting (CW) supplementary service [ITU-T Recommendation Q.733, clause 1 (1992), modified]".

[18] EN 300 356-18: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 18: Completion of Calls to Busy Subscriber (CCBS) supplementary service [ITU-T Recommendation Q.733, clause 3 (1997), modified]".

[19] EN 300 356-19: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 19: Three party (3PTY) supplementary service [ITU-T Recommendation Q.734, clause 2 (1996), modified]".

[20] EN 300 403-1: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1); User-network interface layer 3 specification for basic call control; Part 1: Protocol specification [ITU-T Recommendation Q.931 (1993), modified]".

[21] ETS 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 ISDN USer Part (ISUP) [ITU-T Recommendation Q.850 (1993), modified]".

# Abbreviations

For the purposes of the present document, the following abbreviations apply:

| | |
|---|---|
| 3PTY | Three Party |
| APM | Application transPort Mechanism |
| CCBS | Completion of Calls to Busy Subscriber |
| CCNR | Completion of Calls on No Reply |
| CD | Call Deflection |
| CFB | Call Forwarding Busy |
| CFNR | Call Forwarding No Reply |
| CFU | Call Forwarding Unconditional |
| CLIP | Calling Line Identification Presentation |
| CLIR | Calling Line Identification Restriction |
| COLP | Connected Line Identification Presentation |
| COLR | Connected Line Identification Restriction |
| CONF | Conference call, add-on |
| CUG | Closed User Group |
| CW | Call Waiting |
| ECT | Explicit Call Transfer |
| HOLD | Call Hold |
| ISDN | Integrated Services Digital Network |
| ISUP | ISDN User Part |
| MCID | Malicious Call Identification |
| MLPP | Multi-Level Precedence and Preemption |
| MWI | Message Waiting Indication |
| SUB | Subaddressing |
| TP | Terminal Portability |
| UUS | User-to-User Signalling |
| VPN | Virtual Private Network |

## Throughout the text of ITU-T Recommendations Q.761 to Q.764

Replace references as shown below:

| Reference in ITU-T Recommendations Q.761 to Q.764 | Modified reference |
|---|---|
| ITU-T Recommendation Q.730 | ITU-T Recommendation Q.730 as modified by EN 300 356-2 [3] |
| ITU-T Recommendation Q.731.3 | ITU-T Recommendation Q.731.3 as modified by EN 300 356-3 [4] |
| ITU-T Recommendation Q.731.4 | ITU-T Recommendation Q.731.4 as modified by EN 300 356-4 [5] |
| ITU-T Recommendation Q.731.5 | ITU-T Recommendation Q.731.5 as modified by EN 300 356-5 [6] |
| ITU-T Recommendation Q.731.6 | ITU-T Recommendation Q.731.6 as modified by EN 300 356-6 [7] |
| ITU-T Recommendation Q.731.7 | ITU-T Recommendation Q.731.7 as modified by EN 300 356-11 [12] |
| ITU-T Recommendation Q.731.8 | ITU-T Recommendation Q.731.8 as modified by EN 300 356-10 [11] |
| ITU-T Recommendation Q.732.2 | ITU-T Recommendation Q.732.2 as modified by EN 300 356-15 [15] |
| ITU-T Recommendation Q.732.3 | ITU-T Recommendation Q.732.3 as modified by EN 300 356-15 [15] |
| ITU-T Recommendation Q.732.4 | ITU-T Recommendation Q.732.4 as modified by EN 300 356-15 [15] |
| ITU-T Recommendation Q.732.5 | ITU-T Recommendation Q.732.5 as modified by EN 300 356-15 [15] |
| ITU-T Recommendation Q.732.7 | ITU-T Recommendation Q.732.7 as modified by EN 300 356-14 [14] |
| ITU-T Recommendation Q.733.1 | ITU-T Recommendation Q.733.1 as modified by EN 300 356-17 [17] |
| ITU-T Recommendation Q.733.2 | ITU-T Recommendation Q.733.2 as modified by EN 300 356-16 [16] |
| ITU-T Recommendation Q.733.3 | ITU-T Recommendation Q.733.3 as modified by EN 300 356-18 [18] |
| ITU-T Recommendation Q.733.4 | ITU-T Recommendation Q.733.4 as modified by EN 300 356-7 [8] |
| ITU-T Recommendation Q.734.1 | ITU-T Recommendation Q.734.1 as modified by EN 300 356-12 [13] |
| ITU-T Recommendation Q.734.2 | ITU-T Recommendation Q.734.2 as modified by EN 300 356-19 [19] |
| ITU-T Recommendation Q.735.1 | ITU-T Recommendation Q.735.1 as modified by EN 300 356-9 [10] |
| ITU-T Recommendation Q.737.1 | ITU-T Recommendation Q.737.1 as modified by EN 300 356-8 [9] |
| ITU-T Recommendation Q.761 | ITU-T Recommendation Q.761 as modified by this EN |
| ITU-T Recommendation Q.762 | ITU-T Recommendation Q.762 as modified by this EN |
| ITU-T Recommendation Q.763 | ITU-T Recommendation Q.763 as modified by this EN |
| ITU-T Recommendation Q.764 | ITU-T Recommendation Q.764 as modified by this EN |
| ITU-T Recommendation Q.767 | ETS 300 121 [2] |
| ITU-T Recommendation Q.850 | ITU-T Recommendation Q.850 as modified by ETS 300 485 [21] |
| ITU-T Recommendation Q.931 | ITU-T Recommendation Q.931 as modified by EN 300 403-1 [20] |

# Modifications to ITU-T Recommendation Q.761

## Table 1/Q.761

Replace table 1/Q.761 by:

| Function/service | National use according to ITU-T | International use according to ITU-T | International use according to the present document |
|---|---|---|---|
| Basic call | | | |
| Speech/3,1 kHz audio | + | + | + |
| 64 kbit/s unrestricted | + | + | + |
| Multirate connection types (Note) | + | + | + |
| Nx64 kbit/s connection types | + | + | - |
| En-bloc address signalling | + | + | + |
| Overlap address signalling | + | + | + |
| Transit network selection | + | - | - |
| Continuity check | + | + | + |
| Forward transfer | - | + | + |
| Signalling procedures for connection type allowing fallback | + | + | + |
| capability | + | + | + |
| Compatibility procedure | + | + | + |
| Simple segmentation | + | + | + |
| Tones and announcements | + | + | + |
| User part availability control | + | + | + |
| Propagation delay determination procedure | + | + | + |
| Enhanced echo control signalling procedures | + | + | + |
| Simple echo control signalling procedures | + | + | + |
| Automatic repeat attempt | + | + | + |
| Blocking and unblocking of circuits and circuit groups | + | - | - |
| Circuit group query | + | + | + |
| Dual seizure | + | + | + |
| Transmission alarm handling for digital inter-exchange circuits | + | + | + |
| Reset of circuits and circuit groups | + | + | + |
| Receipt of unreasonable signalling information | + | + | + |
| Access delivery information | + | + | + |
| Transportation of user teleservice information | + | + | + |
| Suspend and resume | + | - | - |
| Temporary trunk blocking | + | + | + |
| ISDN user part signalling congestion control | + | + | + |
| Automatic congestion control | + | + | + |
| Interaction between ISUP and INAP | + | - | - |
| Unequipped circuit identification code | + | + | + |
| ISDN user part availability control | + | + | + |
| MTP pause and resume | + | + | + |
| Overlength messages | + | + | + |
| Temporary alternative routing (TAR) | + | + | + |
| Hop counter procedure | + | + | + |
| Collect call request procedure | - | - | + |
| Pre-release information support | | | |
| Key: + support<br>- non-support | | | |
| NOTE: Multirate connection types are 2 × 64, 384, 1 536 and 1 920 kbit/s. | | | |

| Function/service | National use according to ITU-T | International use according to ITU-T | International use according to the present document |
|---|---|---|---|
| Generic signalling procedures for supplementary services | | | |
| End-to-end signalling - Pass along method | + | - | - |
| End-to-end signalling - SCCP connection oriented | + | + | - |
| End-to-end signalling - SCCP connectionless | + | - | - |
| Generic number transfer | + | + | + |
| Generic digit transfer | + | - | - |
| Generic notification procedure | + | + | + |
| Service activation | + | + | + |
| Remote operations service (ROSE) capability | + | - | - |
| Network specific facilities | + | - | - |
| Supplementary services | | | |
| DDI | + | + | + |
| MSN | + | + | + |
| CLIP/CLIR | + | + | + |
| COLP/COLR | + | + | + |
| MCID | + | + | + |
| SUB | + | + | + |
| TP | + | + | + |
| CFU, CFB, CFNR | + | + | + |
| CD | + | + | + |
| CW | + | + | + |
| HOLD | + | + | + |
| CONF | + | + | + |
| 3PTY | + | + | + |
| CUG | + | + | + |
| MLPP | + | + | - |
| UUS, service 1 (implicit) | + | + | + |
| UUS, service 1 (explicit) | + | + | + |
| UUS, service 2 | + | + | + |
| UUS, service 3 | + | + | + |
| ECT | + | + | + |
| CCBS | + | + | + |
| CCNR | - | - | + |
| MWI | - | - | + |
| ITCC | + | + | - |
| GVNS | + | + | - |
| REV | + | - | - |
| Additional functions/services | | | |
| APM | - | - | + |
| VPN | - | - | + |
| Key: + support<br>- non-support | | | |

## Subclause 6.1

Insert the following before the second last sentence:

"It is a network operator's option whether compatibility information is included for network specific messages and parameters."

## Appendix A

Appendix A has the status of an informative annex.

# Modifications to ITU-T Recommendation Q.762

## Clause 2

Insert the following new items:

**2.2A application transport message (APM)**: A message sent in either direction to convey application information using the Application Transport mechanism.

**2.33A pre-release information message (PRI)**: A message to be used with the Release message for the transport of information where sending of that information in the Release message itself would cause compatibility problems with earlier versions of ISUP.

Item 2.34 (release message):

Delete the sentence "Where the call is to be redirected the message will also carry the redirection number."

## Clause 3

Insert the following new items:

**3.3A application transport**: Information sent in either direction to allow the peer to peer communication of Application Transport mechanism user applications.

**3.17A CCNR possible indicator**: Information sent in ACM(subscriber free)/CPG(alerting) to indicate the possibility to invoke a possible succeeding CCNR service request.

Modify item 3.18 as follows:

**3.18 CCSS:** Information sent in an initial address message indicating that a call is a CCBS or a CCNR call as defined in the CCBS or CCNR supplementary service.

## Clause 4

Insert the following new items:

**4.3A application context identifier**: A value that uniquely identifies the application using the application transport mechanism.

**4.3B application transport instruction indicators**: Information sent in either direction indicating how an exchange should react in case the indicated application using the application transport mechanism is not supported.

**4.15A CCNR possible indicator**: Indicator used in the CCNR possible indicator parameter in the ACM (subscriber free) / CPG (alerting) to indicate the possibility to invoke a possible succeeding CCNR service request.

**4.33A encapsulated application information**: Application information required to be transported by the application transport mechanism.

**4.99A segmentation indicator**: Information sent in either direction to indicate the number of remaining segments, carrying information using the application transport mechanism, that will be forwarded.

Modify item 4.16 as follows:

**4.16 CCSS call indicator:** Information sent in the forward direction, used in a CCBS or CCNR call set-up, to distinguish this call from an ordinary call, at the destination local exchange.

# Modifications to ITU-T Recommendation Q.763

## Subclause 1.0.5, first paragraph

Insert after the first paragraph:

"It is not necessary to check the parameter values of the parameters that are not under control of ISUP (e.g. User service information, User service information prime, User teleservice information)."

## Subclause 1.2, (item e)

Not supported.

## Subclause 1.2, table 3/Q.763, part 2

Not supported.

## Subclause 1.13

Replace the word "ITU-T" by "ETSI" in the three instances of the word in the subclause.

## Clause 1

Insert a new subclause 1.14:

**1.14 Number lengths**

For the international interface the number lengths to be supported by the ISUP 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 ISUP, 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:

Interoperability problems can be foreseen with peer-to-peer interworking to earlier 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.

## Figure 3/Q.763

Add an octet "Length Indicator of Parameter Z" between the octets "Parameter Name = Z" and "Parameter Z".

## Table 4/Q.763

Modify table 4/Q.763 as follows:

| Message type | Reference (table) | Code |
|---|---|---|
| ⋮ | ⋮ | ⋮ |
| Application transport | 22A | to be allocated |
| ⋮ | ⋮ | ⋮ |
| Pre-release information | 32A | to be allocated |
| ⋮ | ⋮ | ⋮ |

## Table 5/Q.763

Modify table 5/Q.763 as follows:

| Parameter name | Reference (subclause) | Code |
|---|---|---|
| ⋮ | ⋮ | ⋮ |
| Application transport | 3.83 | to be allocated |
| ⋮ | ⋮ | ⋮ |
| Backward GVNS (not required) | 3.62 | 01001101 |
| ⋮ | ⋮ | ⋮ |
| Connection Request (not required) | 3.17 | 0000 1101 |
| ⋮ | ⋮ | ⋮ |
| CCNR possible indicator | 3.82 | to be allocated |
| ⋮ | ⋮ | ⋮ |
| Forward GVNS (not required) | 3.66 | 01001100 |
| ⋮ | ⋮ | ⋮ |
| MLPP precedence (not required) | 3.34 | 0011 1010 |
| ⋮ | ⋮ | ⋮ |
| Reserved for national use | | 0100 0001 |

## Subclause 3.17

Add "(not required)" to the subclause title.

## Subclause 3.26, (item a)

Modify the code definition of the following codes as follows:

0000 0001 additional called number ~~(national use)~~

0000 1010 ~~spare~~reserved for national use

## Subclause 3.26, (item c)

Modify the code definition of the following codes as follows:

0000001 subscriber number ~~(national use)~~

0000010 unknown ~~(national use)~~

0000101 ~~spare~~PISN specific number

## Subclause 3.26, (item e)

Modify code definition of the following code as follows:

000 ~~spare~~unknown

101 private numbering plan ~~(national use)~~

## Subclause 3.34

Add "(not required)" to the subclause title.

## Subclause 3.37, bit D

Add "(not required)" to the value 1 (MLPP user) of the MLPP user indicator.

## Subclause 3.54

Modify as follows:

The following codes are used in the transmission medium requirement parameter field:

| | |
|---|---|
| 00000000 | speech |
| 00000001 | spare |
| 00000010 | 64 kbit/s unrestricted |
| 00000011 | 3,1 kHz audio |
| 00000100 | reserved for alternate speech (service 2)/64 kbit/s unrestricted (service 1) |
| 00000101 | reserved for alternate 64 kbit/s unrestricted (service 1)/speech (service 2) |
| 00000110 | 64 kbit/s preferred |
| 00000111 | 2 × 64 kbit/s unrestricted |
| 00001000 | 384 kbit/s unrestricted |
| 00001001 | 1 536 kbit/s unrestricted |
| 00001010 | 1 920 kbit/s unrestricted |
| 00001011 to 00001111 | spare |
| 00010000 | reserved for 3 × 64 kbit/s unrestricted |
| 00010001 | reserved for 4 × 64 kbit/s unrestricted |
| 00010010 | reserved for 5 × 64 kbit/s unrestricted |
| 00010011 | spare |
| 00010100 | reserved for 7 × 64 kbit/s unrestricted |
| 00010101 | reserved for 8 × 64 kbit/s unrestricted |
| 00010110 | reserved for 9 × 64 kbit/s unrestricted |
| 00010111 | reserved for 10 × 64 kbit/s unrestricted |
| 00011000 | reserved for 11 × 64 kbit/s unrestricted |
| 00011001 | reserved for 12 × 64 kbit/s unrestricted |
| 00011010 | reserved for 13 × 64 kbit/s unrestricted |
| 00011011 | reserved for 14 × 64 kbit/s unrestricted |
| 00011100 | reserved for 15 × 64 kbit/s unrestricted |
| 00011101 | reserved for 16 × 64 kbit/s unrestricted |
| 00011110 | reserved for 17 × 64 kbit/s unrestricted |
| 00011111 | reserved for 18 × 64 kbit/s unrestricted |
| 00100000 | reserved for 19 × 64 kbit/s unrestricted |
| 00100001 | reserved for 20 × 64 kbit/s unrestricted |
| 00100010 | reserved for 21 × 64 kbit/s unrestricted |
| 00100011 | reserved for 22 × 64 kbit/s unrestricted |
| 00100100 | reserved for 23 × 64 kbit/s unrestricted |
| 00100101 | spare |
| 00100110 | reserved for 25 × 64 kbit/s unrestricted |
| 00100111 | reserved for 26 × 64 kbit/s unrestricted |
| 00101000 | reserved for 27 × 64 kbit/s unrestricted |
| 00101001 | reserved for 28 × 64 kbit/s unrestricted |
| 00101010 | reserved for 29 × 64 kbit/s unrestricted |
| 00101011 to 11111111 | spare |

## Subclause 3.62

Add "(not required)" to the subclause title.

## Subclause 3.66

Add "(not required)" to the subclause title.

## Subclause 3.69

Not supported.

## Clause 3

Insert new subclauses:

**3.82 CCNR possible indicator**

The format of the CCNR possible indicator parameter fields is shown as follows:

| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|---|
| H | G | F | E | D | C | B | A |

**Figure 76A/Q.763: CCNR possible indicator parameter field**

The following codes are used in the CCNR possible indicator parameter field:

bit A CCNR Possible indicator

0 CCNR not possible

1 CCNR possible

bits H-B: Spare

**3.83 Application transport**

The format of the Application transport parameter fields is shown as follows:

| | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|---|---|
| 1 | Ext | Application Context Identifier | | | | | | |
| 2 | ATII | | | | | | | |
| 3 | Segmentation Indicator | | | | | | | |
| 4a | Encapsulated Application Information | | | | | | | |
| 4n | | | | | | | | |

**Figure 76Ba/Q.763: Application transport parameter field**

The following codes are used in the Application transport parameter field:

a) Application Context Identifier (Octet 1). Note: All values are to be treated as recognized.

0 Unidentified Context and Error Handling (UCEH) ASE.

1 PSS1 ASE (VPN).

2-62 Spare.

63 Reserved for future extensions of context identifiers in ASN.1 object identifier format. For further study.

64-126 Reserved for non-standardized applications.

127 Reserved for future expansion of Application Context Identifier field.

b) Application Transport Instruction Indicators (ATII) (Octet 2)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2 | ext/1 | G | F | E | D | C | B | A |
| 2a | ext/1 | More instruction indicators if required | | | | | | |
| | . . | | | | | | | |
| 2n | 1 | More instruction indicators if required | | | | | | |

**Figure 76Bb/Q.763: Application transport instruction indicators subfield**

bit A: Release call indicator

0 do not release call

1 release call

bit B: Send notification indicator

0 do not send notification

1 send notification

bits C-G: Spare

c) Segmentation indicators (Octet 3)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 3 | ext/1 | G | F | E | D | C | B | A |
| 3a | 1 | Segmentation sequence identifier | | | | | | |

**Figure 76Bc/Q.763: Segmentation indicators subfield**

Octet 3

bit G: Sequence indicator

0 Subsequent segment to first segment

1 New sequence

bits A-F: Number of segments remaining

0 final segment

1-9 indicates the number of following segments

10-63 spare

Octet 3a

bits A-G: Segmentation sequence identifier

0-127 identified values

d) Encapsulated Application Information

Contains the application specific information.

The format and coding of this field is dependant upon the APM-user application and defined in the appropriate recommendation. For APM-user applications that wish to provide a service of transparent transport of information (e.g. the case where existing information elements are defined for the transport of certain information) as well as having the ability of passing additional network related information within the public network, then the following guideline is provided:

It is suggested that this field be structured such that the first octet (i.e. first octet of first segment for long APM-user information) is a pointer to information to be transported transparently. The pointer value (in binary) gives the number of octets between the pointer itself (included) and the first octet (not included) of transparent data. The pointer value all zeros is used to indicate that no transparent data is present. The range of octets between the pointer octet and the first octet of transparent data (to which the pointer octet points) contains the network related information to be passed between applications residing within the public network. The format and coding of both the transparent information and the network related information is application specific and defined in the appropriate recommendation.

## Table 21/Q.763

Modify table 21/Q.763 as follows:

**Message Type: Address complete**

| Parameter | Reference (subclause) | Type | Length (octets) |
|---|---|---|---|
| ⋮ | ⋮ | ⋮ | ⋮ |
| Application transport | 3.83 | O | 5-? |
| ⋮ | ⋮ | ⋮ | ⋮ |
| CCNR possible indicator | 3.82 | O | 3 |
| ⋮ | ⋮ | ⋮ | ⋮ |

NOTE 3: The message may contain one or more Application transport parameters referring to different Application context identifiers.

## Table 22/Q.763

Modify table 22/Q.763 as follows:

**Message Type: Answer**

| Parameter | Reference (subclause) | Type | Length (octets) |
|---|---|---|---|
| ⋮ | ⋮ | ⋮ | ⋮ |
| Application transport | 3.83 | O | 5-? |
| ⋮ | ⋮ | ⋮ | ⋮ |
| Backward GVNS (not required) | 3.62 | O | 3-? |
| ⋮ | ⋮ | ⋮ | ⋮ |

NOTE 3: The message may contain one or more Application transport parameters referring to different Application context identifiers.

## Clause 4

Add a new table:

**Table 22A**

**Message Type: Application transport**

| Parameter | Reference (subclause) | Type | Length (octets) |
|---|---|---|---|
| Message type | 2.1 | F | 1 |
| Message compatibility information | 3.33 | O | 3-? |
| Parameter compatibility information | 3.41 | O | 4-? |
| Application transport | 3.83 | O | 5-? |
| End of optional parameters | 3.20 | O | 1 |

## Table 23/Q.763

Modify table 23/Q.763 as follows:

**Message Type: Call progress**

| Parameter | Reference (subclause) | Type | Length (octets) |
|---|---|---|---|
| ⋮ | ⋮ | ⋮ | ⋮ |
| Application transport | 3.83 | O | 5-? |
| ⋮ | ⋮ | ⋮ | ⋮ |
| Backward GVNS (not required) | 3.62 | O | 3-? |
| ⋮ | ⋮ | ⋮ | ⋮ |
| CCNR possible indicator | 3.82 | O | 3 |
| ⋮ | ⋮ | ⋮ | ⋮ |

NOTE 3: The message may contain one or more Application transport parameters referring to different Application context identifiers.

## Table 27/Q.763

Modify table 27/Q.763 as follows:

**Message Type: Connect**

| Parameter | Reference (subclause) | Type | Length (octets) |
|---|---|---|---|
| ⋮ | ⋮ | ⋮ | ⋮ |
| Application transport | 3.83 | O | 5-? |
| ⋮ | ⋮ | ⋮ | ⋮ |
| Backward GVNS (not required) | 3.62 | O | 3-? |
| ⋮ | ⋮ | ⋮ | ⋮ |

NOTE 3: The message may contain one or more Application transport parameters referring to different Application context identifiers.

## Table 32/Q.763

Modify table 32/Q.763 as follows:

**Message Type: Initial address**

| Parameter | Reference (subclause) | Type | Length (octets) |
|---|---|---|---|
| ⋮ | ⋮ | ⋮ | ⋮ |
| Application transport | 3.83 | O | 5-? |
| ⋮ | ⋮ | ⋮ | ⋮ |
| ~~Circuit assignment map~~ | ~~3.69~~ | ~~O~~ | ~~6-7~~ |
| ⋮ | ⋮ | ⋮ | ⋮ |
| Connection request (not required) | 3.17 | O | 7-9 |
| ⋮ | ⋮ | ⋮ | ⋮ |
| Forward GVNS (not required) | 3.66 | O | 5-26 |
| ⋮ | ⋮ | ⋮ | ⋮ |
| CCSS | 3.63 | O | 3~~-?~~ |
| ⋮ | ⋮ | ⋮ | ⋮ |
| MLPP precedence (not required) | 3.34 | O | 8 |
| ⋮ | ⋮ | ⋮ | ⋮ |

NOTE 3: The message may contain one or more Application transport parameters referring to different Application context identifiers.

## Clause 4

Add new table:

**Table 32A**

**Message Type: Pre-release information**

| Parameter | Reference (subclause) | Type | Length (octets) |
|---|---|---|---|
| Message type | 2.1 | F | 1 |
| Optional backward call indicators (note 1) | 3.37 | O | 3 |
| Optional forward call indicators (note 1) | 3.38 | O | 3 |
| Parameter compatibility information | 3.41 | O | 4-? |
| Message compatibility information | 3.33 | O | 3-? |
| Application transport | 3.83 | O | 5-? |
| End of optional parameters | 3.20 | O | 1 |

NOTE 1: These parameters are required to allow the message to be segmented using ISUP Simple Segmentation mechanism. They should be mutually exclusive.

NOTE 2: The message may contain one or more Application transport parameters referring to different Application context identifiers.

## Table 49/Q.763

Modify table 27/Q.763 as follows:

**Message Type: Segmentation**

| Parameter | Reference (subclause) | Type | Length (octets) |
|---|---|---|---|
| ⋮ | ⋮ | ⋮ | ⋮ |
| Application transport | 3.83 | O | 5-? |
| ⋮ | ⋮ | ⋮ | ⋮ |

NOTE 3: The message may contain one or more Application transport parameters referring to different Application context identifiers.

## Annex A

Annex A has the status of a normative annex.

## Table A-2/Q.763

Modify the two entries:

| Reference (subclause) | Title | Action |
|---|---|---|
| ⋮ | ⋮ | ⋮ |
| 3.44 | Redirecting number | |
| | Nature of address ind. | No Default~~Discard parameter~~ |
| | ~~Number incomplete ind.~~ | ~~Discard parameter~~ |
| | Numbering plan ind. | No Default~~Discard parameter~~ |
| | Presentation restricted ind. | No Default~~Default: 01 "presentation restricted"~~ |
| | Address signals | No Default |
| | Filler | Ignore~~Default: 0000~~ |
| ⋮ | ⋮ | ⋮ |
| 3.46 | Redirection number | |
| | Nature of address ind. | No Default~~Discard parameter~~ |
| | Internal network number ind.~~Number incomplete ind~~ | No Default |
| | Numbering plan ind. | No Default~~Discard parameter~~ |
| | Address signals | No Default |
| | Filler | Ignore~~Default: 0000~~ |
| ⋮ | ⋮ | ⋮ |

## Annex B

Annex B has the status of an informative annex for national use.

# Modifications to ITU-T Recommendation Q.764

## Subclause 2.1

Add new following sentence to the beginning of subclause 2.1:

"The number of digits supported for a call shall be independent of whether enbloc or overlap operation is used".

## Subclause 2.1.1.1 (item a)

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; multirate connection types
- 384 kbit/s unrestricted; multirate connection types
- 1 536 kbit/s unrestricted; multirate connection types
- 1 920 kbit/s unrestricted; multirate connection types
- ~~Nx64 kbit/s unrestricted (N = 2 - 30).~~

~~NOTE The procedure assumes that Recommendation E.172 will at an appropriate time include routing rules for the transmission medium requirement parameter value "Nx64 kbit/s unrestricted".~~

## Subclause 2.1.1.1 (item c)

Delete the sentence:

"The location number parameter is generated by the originating exchange when the originating exchange is a mobile switching centre."

## Subclause 2.1.2.1 (item a)

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; multirate connection types
- 384 kbit/s unrestricted; multirate connection types
- 1 536 kbit/s unrestricted; multirate connection types
- 1 920 kbit/s unrestricted; multirate connection types
- ~~Nx64 kbit/s unrestricted (N = 2 - 30).~~

~~NOTE The procedure assumes that Recommendation E.172 will at an appropriate time include routing rules for the transmission medium requirement parameter value "Nx64 kbit/s unrestricted".~~

## Subclause 2.1.13

Not supported.

## Subclause 2.3

Add new subclause 2.3.5:

**2.3.5 Pre-release information support**

This capability allows information to be transported at release in a manner which is compatible with ISUP version 2.

Parameters which do not appear in ISUP version 2 may not be carried in the Release message without the possibility of their loss at an intermediate type A exchange. An exchange wishing to send such parameters at release time shall include them instead within a 'Pre-release information' message, which shall be sent immediately prior to the Release message.

An exchange receiving a Pre-release information message shall store the received information and process it upon release of the call.

## Subclause 2.8.2, last paragraph

Modify last paragraph as follows:

The use of circuits for multirate calls ~~or Nx64 kbit/s connection type~~ has no effect on the blocking (unblocking) procedures, which apply on a per circuit, not per call basis.

## Subclause 2.9.1.2, last paragraph

Modify last paragraph as follows:

As a circuit group may handle a mixture of 64 kbit/s and multirate connection types~~, and Nx64 kbit/s connection type~~, dual seizure by calls of different connection types is possible. In this case the initial address messages may have different circuit identification codes.

## Subclause 2.9.1.3, first paragraph

Delete the sentence "Further study is required to determine the field of application of each method and to ensure that the two methods do inter-work satisfactorily".

## Subclause 2.9.1.3, last paragraph

The last paragraph "It is necessary (...) with long propagation time" is applicable to both methods described.

## Subclause 2.9.1.4 (item a)

Modify as follows:

a) Where neither call involved is a multirate connection type~~ or Nx64 kbit/s connection types~~

## Subclause 2.9.1.4 (item d)

Not supported.

## Subclause 2.9.3.1 (item h)

Modify as follows:

h) when the reset circuit message identifies a circuit being used by a multirate connection type ~~or Nx64 kbit/s connection type~~ call, in addition, in order to make idle all circuits used for the call but not indicated in the reset circuit message, send reset circuit messages (or circuit group reset messages) for those circuits to the affected exchange.

## Subclause 2.9.3.2 (item g)

Modify as follows:

g) when the circuit group reset message identifies circuits being used by a multirate connection type ~~or Nx64 kbit/s connection type~~ call, in addition, in order to make idle all circuits used for the call but not indicated in the circuit group reset message, send reset circuit messages (or circuit group reset messages) for those circuits to the affected exchange.

## Subclause 2.9.5, third paragraph

Delete the paragraph "The degree of applicability (...) is for further study.".

## Subclause 2.9.5.1 (item e)

Modify as follows:

"e) if a release complete message is received identifying one of the busy circuits being used by a multirate connection type ~~or Nx64 kbit/s connection type~~ call for which a release message has not been sent, the call will be cleared, all circuits made idle and a release message sent indicating the lowest circuit identification code of the multiple 64 kbit/s circuits used by the call;

## Subclause 2.9.5.1 (item f)

Modify as follows:

- if the circuit is seized by a call, before receipt of a backward message required for the call set-up, the Reset Circuit Message is sent (or, in the case of a multirate connection type ~~or Nx64 kbit/s connection type~~ call, a circuit group reset message or multiple reset circuit messages are sent).

## Subclause 2.9.5.2 (item i)

Delete the paragraph:

~~i) Signalling for a facility completely provided between the originating and destination local exchanges could utilise one of the end-to-end methods defined in Recommendation Q.730 [16], i.e. such facilities do not have to be supported by transit exchanges.~~

## Subclause 2.16

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.

## Annex A

Annex A has the status of a normative annex.

## Annex B

Annex B has the status of an informative annex.

## Annex C

Annex C has the status of an informative annex.

## Annex D

Annex D has the status of an informative annex.

## Annex E

Annex E has the status of an informative annex.

## Annex F

Annex F has the status of a normative annex.

Add the following note:

NOTE: Exceptions and clarifications to ITU-T Recommendation Q.850 are given in ETS 300 485 [21].

## Annex G

Annex G has the status of a normative annex.

# Annex ZA (informative): Coding of the compatibility information for basic call procedures

It is recommended that the compatibility information should be coded as follows:

## ZA.1 Successful call set-up

### ZA.1.1 New messages

#### ZA.1.1.1 Segmentation

a) Instruction indicators

bit A: Transit at intermediate exchange indicator

0 transit interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Pass on not possible indicator

1 discard information

bits GF: Broadband/narrowband interworking indicator

00 pass on

### ZA.1.2 New parameters

#### ZA.1.2.1 Location number

a) $N^{th}$ upgraded parameter

0011 1111 location number

b) Instruction indicators

bit A: Transit at intermediate exchange indicator

0 transit interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Discard parameter indicator

0 do not discard parameter (pass on)

bits GF: Pass on not possible indicator

10 discard parameter

bits JI: Broadband/narrowband interworking indicator

00 pass on

## ZA.1.2.2 Origination ISC point code

a) $N^{th}$ upgraded parameter

0010 1011 origination ISC point code

b) Instruction indicators

bit A: Transit at intermediate exchange indicator

0 transit interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Discard parameter indicator

1 discard parameter

bits GF: Pass on not possible indicator

10 discard parameter

bits JI: Broadband/narrowband interworking indicator

00 pass on

# ZA.2 Transportation of user teleservice information

## ZA.2.1 New parameters

### ZA.2.1.1 User teleservice information

a) $N^{th}$ upgraded parameter

0011 0100 user teleservice information

b) Instruction indicators

bit A: Transit at intermediate exchange indicator

0 transit interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Discard parameter indicator

0 do not discard parameter (pass on)

bits GF: Pass on not possible indicator

10 discard parameter

bits JI: Broadband/narrowband interworking indicator

00 pass on

# ZA.3 Access delivery information

## ZA.3.1 New parameters

### ZA.3.1.1 Access delivery information

a) $N^{th}$ upgraded parameter

0010 1110 access delivery information

b) Instruction indicators

bit A: Transit at intermediate exchange indicator

0 transit interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Discard parameter indicator

0 do not discard parameter (pass on)

bits GF: Pass on not possible indicator

10 discard parameter

bits JI: Broadband/narrowband interworking indicator

00 pass on

# ZA.4 Signalling procedures for connection type allowing fallback capability

## ZA.4.1 New parameters

### ZA.4.1.1 Transmission medium requirement prime

a) $N^{th}$ upgraded parameter

0011 1110 transmission medium requirement prime

b) Instruction indicators

bit A: Transit at intermediate exchange indicator

1 end node interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Discard parameter indicator

1 discard parameter

bits GF: Pass on not possible indicator

10 discard parameter

bits JI: Broadband/narrowband interworking indicator

00 pass on

## ZA.4.1.2 Transmission medium used

a) $N^{th}$ upgraded parameter

0011 0101 transmission medium used

b) Instruction indicators

bit A: Transit at intermediate exchange indicator

1 end node interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Discard parameter indicator

1 discard parameter

bits GF: Pass on not possible indicator

10 discard parameter

bits JI: Broadband/narrowband interworking indicator

00 pass on

## ZA.4.1.3 User service information prime

a) $N^{th}$ upgraded parameter

0011 0000 user service information prime

b) Instruction indicators

bit A: Transit at intermediate exchange indicator

1 end node interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Discard parameter indicator

1 discard parameter

bits GF: Pass on not possible indicator

10 discard parameter

bits JI: Broadband/narrowband interworking indicator

00 pass on

# ZA.5 Propagation delay determination

## ZA.5.1 New parameters

### ZA.5.1.1 Call history information

a) $N^{th}$ upgraded parameter

0010 1101 call history information

b) Instruction indicators

bit A: Transit at intermediate exchange indicator

0 transit interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Discard parameter indicator

0 do not discard parameter (pass on)

bits GF: Pass on not possible indicator

10 discard parameter

bits JI: Broadband/narrowband interworking indicator

00 pass on

### ZA.5.1.2 Propagation delay counter

a) $N^{th}$ upgraded parameter

0011 0001 propagation delay counter

b) Instruction indicators

bit A: Transit at intermediate exchange indicator

0 transit interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Discard parameter indicator

0 do not discard parameter (pass on)

bits GF: Pass on not possible indicator

10 discard parameter

bits JI: Broadband/narrowband interworking indicator

00 pass on

# ZA.6 ISDN user part availability control

## ZA.6.1 New messages

### ZA.6.1.1 User part test

a) Instruction indicators

bit A: Transit at intermediate exchange indicator

1 end node interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

1 send notification

bit D: Discard message indicator

1 discard message

bit E: Pass on not possible indicator

1 discard information

bits GF: Broadband/narrowband interworking indicator

00 pass on

### ZA.6.1.2 User part available

a) Instruction indicators

bit A: Transit at intermediate exchange indicator

1 end node interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

1 discard message

bit E: Pass on not possible indicator

1 discard information

bits GF: Broadband/narrowband interworking indicator

00 pass on

# ZA.7 Echo control procedure

## ZA.7.1 New messages

### ZA.7.1.1 Network resource management

a) Instruction indicators

bit A: Transit at intermediate exchange indicator

0 transit interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Pass on not possible indicator

1 discard information

bits GF: Broadband/narrowband interworking indicator

00 pass on

## ZA.7.2 New parameters

### ZA.7.2.1 Echo control information

a) $N^{th}$ upgraded parameter

0011 0111 echo control information

b) Instruction indicators

bit A: Transit at intermediate exchange indicator

0 transit interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Discard parameter indicator

0 do not discard parameter (pass on)

bits GF: Pass on not possible indicator

10 discard parameter

bits JI: Broadband/narrowband interworking indicator

00 pass on

# ZA.8 Pre-release information procedure

## ZA.8.1 New messages

### ZA.8.1.1 Pre-release information

a) Instruction indicators

bit A: Transit at intermediate exchange indicator

0 transit interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Pass on not possible indicator

1 discard information

bits GF: Broadband/narrowband interworking indicator

00 pass on

# ZA.9 Support of Temporary Alternative Routing (TAR)

## ZA.9.1 New parameters

### ZA.9.2.1 Network management controls

a) $N^{th}$ upgraded parameter

0101 1011 network management controls

b) Instruction indicators

bit A: Transit at intermediate exchange indicator

0 transit interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Discard parameter indicator

0 do not discard parameter (pass on)

bits GF: Pass on not possible indicator

10 discard parameter

bits JI: Broadband/narrowband interworking indicator

00 pass on

# ZA.10 Hop counter procedure

## ZA.10.1 New parameters

### ZA.10.2.1 Hop counter

a) $N^{th}$ upgraded parameter

0011 1101 hop counter

b) Instruction indicators

bit A: Transit at intermediate exchange indicator

0 transit interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Discard parameter indicator

0 do not discard parameter (pass on)

bits GF: Pass on not possible indicator

10 discard parameter

bits JI: Broadband/narrowband interworking indicator

00 pass on

# ZA.11 Call collect request procedure

## ZA.11.1 New parameters

### ZA.11.2.1 Collect call request

a) $N^{th}$ upgraded parameter

0111 1001 collect call request

b) Instruction indicators

bit A: Transit at intermediate exchange indicator

0 transit interpretation

bit B: Release call indicator

0 do not release call

bit C: Send notification indicator

0 do not send notification

bit D: Discard message indicator

0 do not discard message (pass on)

bit E: Discard parameter indicator

0 do not discard parameter (pass on)

bits GF: Pass on not possible indicator

10 discard parameter

bits JI: Broadband/narrowband interworking indicator

00 pass on

# History

| Document history | | | |
|---|---|---|---|
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