

FORMATS AND CODES

Q.763

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## 1. General

ISDN user part messages are carried on the signalling link by means of signal units the format of which is described in Recommendation Q.703, section 2.2.

The format of and the codes used in the service information octet are described in Recommendation Q.704, section 13.2. The service indicator for the ISDN user part is coded '0 1 0 1'.

The signalling information field of each message signal unit containing an ISDN user part message consists of an integral number of octets and encompasses the following parts (see Figure 1/Q.763):

- a) routing label;
- b) circuit identification code;
- c) message type code;
- d) the mandatory fixed part;
- e) the mandatory variable part;
- f) the optional part, which may contain fixed length and variable length parameter fields.

Note: The service information octet, the routing label and circuit identification code are not included in the information transferred between the ISDN user part and signalling connection control part.

A description of the various message parts is given in the following sections.

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A \* indicates a change from the CCITT Red Book Vol. VI.

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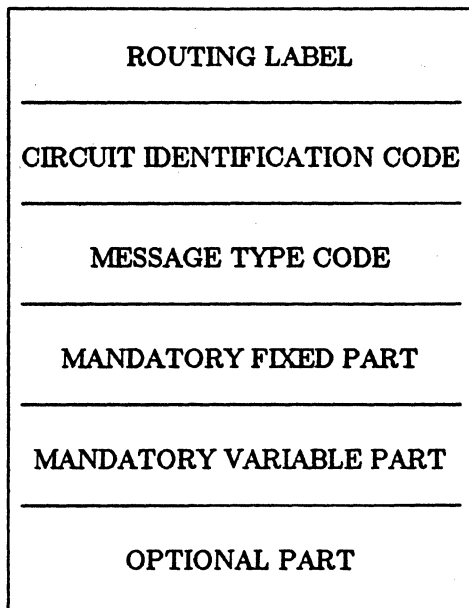


Figure 1/Q.763 - ISDN user part message parts

**1.1 Routing Label.** The format and codes used for the routing label are described in Recommendation Q.704, section 2.2. For each individual circuit connection, the same routing label must be used for each message that is transmitted for that connection.

**1.2 Circuit Identification Code.** The format of the circuit identification code is shown in Figure 2/Q.763.

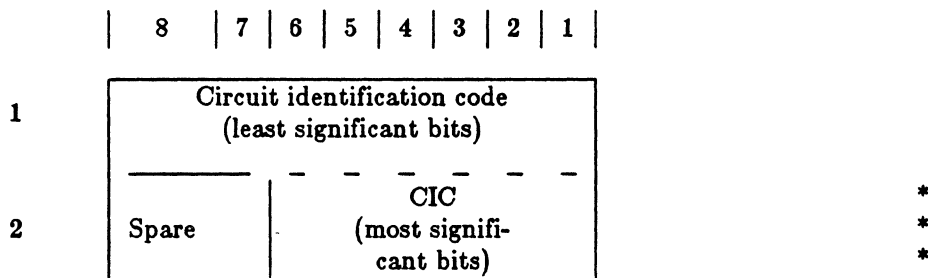


Figure 2/Q.763 - Circuit identification field

The allocation of circuit identification codes to individual circuits is determined by bilateral agreement and/or in accordance with applicable predetermined allocations.

Allocations for certain applications are defined below:

- a) *2048 kbit/s digital path* (Not specified for the U.S. networks.) \*
- b) *8448 kbit/s digital path* (Not specified for the U.S. networks.) \*
- c) *Frequency division multiplex (FDM) systems in networks using the 2048 kbit/s pulse code modulation standard* (Not specified for the U.S. networks.) \*

**1.3 Message Type Code.** The message type code consists of a one octet field and is mandatory for all messages. The message type code uniquely defines the function and format of each ISDN user part message.



The allocation with reference to the appropriate descriptive section of this Recommendation is summarized in Table 3/Q.763.

**1.4 Formatting Principles.** Each message consists of a number of PARAMETERS listed and described in Section 2. Each parameter has a NAME which is coded as a single octet (see Table 4/Q.763). The length of a parameter may be fixed or variable, and a LENGTH INDICATOR of one octet for each parameter may be included as described below.

The detailed format is uniquely defined for each message type as described in Section 3.

A general format diagram is shown in Figure 3/Q.763.

**1.5 Mandatory Fixed Part.** Those parameters that are mandatory and of fixed length for a particular message type will be contained in the Mandatory Fixed Part. The position, length and order of the parameters is uniquely defined by the message type, thus the names of the parameters and the length indicators are not included in the message.

**1.6 Mandatory Variable Part.** Mandatory parameters of variable length will be included in the mandatory variable part.

Pointers are used to indicate the beginning of each parameter. Each pointer is encoded as single octet.

The name of each parameter and the order in which the pointers are sent is implicit in the message type. Parameter names are, therefore, not included in the message.

The details of how pointers are encoded is found in Section 2.3. The number of parameters, and thus the number of pointers is uniquely defined by the message type.

A pointer is also included to indicate the beginning of the optional part. If the message type indicates that no optional part is allowed, then this pointer will not be present. If the message type indicates that an optional part is possible, but there is no optional part included in this particular message, then a pointer field containing all zeros will be used.

All the pointers are sent consecutively at the beginning of the variable mandatory part. Each parameter contains the parameter length indicator followed by the contents of the parameters.

**1.7 Optional Part.** The optional part consists of parameters that may or may not occur in any particular message type. Both fixed length and variable length parameters may be included. Optional parameters may be transmitted in any order. Each optional parameter will include the parameter name (one octet) and the length indicator (one octet) followed by the parameter contents.

**1.8 Number of Pointers in a Message.** The number of pointers will be equal to the number of mandatory variable parameters in a message, plus one additional pointer if there are any optional parameters allowed in the message. \*

**1.9 End of Optional Parameters Octet.** After all optional parameters have been sent an "end of optional parameters" octet containing all zeros will be transmitted.

**1.10 Order of Transmission.** Since all the fields consist of an integral number of octets, the formats are presented as a stack of octets. The first octet transmitted is the one shown at the top of the stack and the last is the bottom (see Figure 3/Q.763).

Within each octet the bits are transmitted with the least significant bit first.

**1.11 Coding of Spare Bits.** Spare bits are coded 0 unless indicated otherwise.

**1.12 National Message Types and Parameters.** If message type codes and parameter codes are required for national uses, the codes chosen should be from the highest code downwards, that is starting at code 1 1 1 1 1 1 1 0. Code 1 1 1 1 1 1 1 1 is reserved for future use. Codes 1 1 1 1 1 1 1 0 to 1 1 1 1 0 0 0 0 are reserved for individual network use only. \*

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<— order of bit transmission

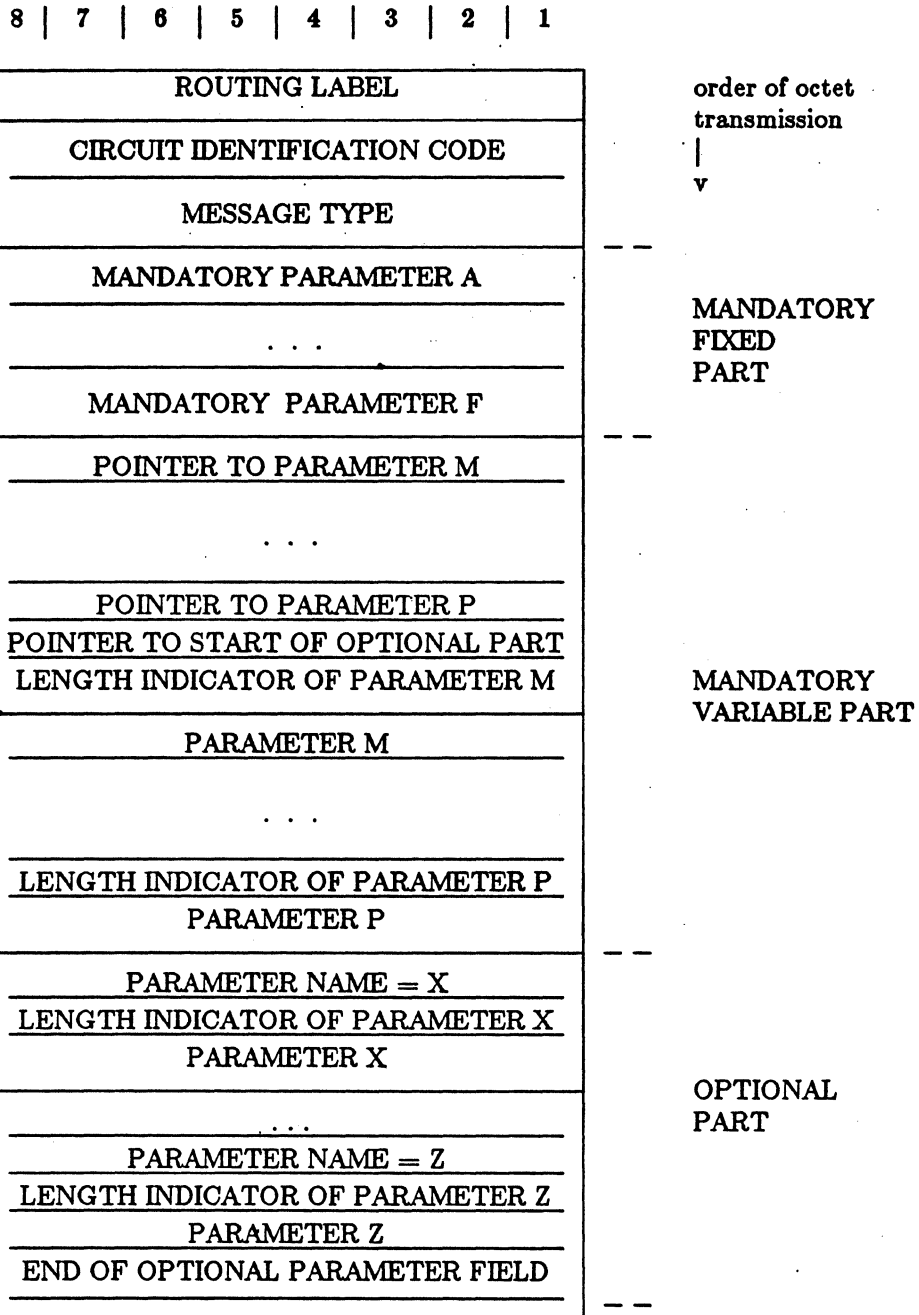


Figure 3/Q.763 - Message Format

2. Parameter formats and codes

2.1 Message Type Codes. The encoding of the message type parameter is shown in Table 1/Q.763.



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**Table 1/Q.763 - Message Type Codes (continued)**

Message Type	Reference Table	Code
Reset circuit	5/Q.763	00010010
Resume	23/Q.763	00001110
Suspend	23/Q.763	00001101
Unblocking	5/Q.763	00010100
Unblocking acknowledgement	5/Q.763	00010110
Unequipped circuit ident. code	5/Q.763	00101110
Reserved		00001010
		00001011
		00001111
		00011100
		00011101
		00011110
		00100101
		00100110
		00100111

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**2.2 Coding of the Length Indicator.** The length indicator field is binary coded to indicate the number of octets in the parameter content field. The length indicator does not include the parameter name octet or the length indicator octet.

**2.3 Coding of the Pointers.** The pointer value (in binary) gives the number of octets between the pointer itself (included) and the first octet (not included) of the parameter associated with that pointer.

The pointer value all zeros is used to indicate that, in the case of optional parameters, no optional parameter is present.

**3. ISDN User Part parameters**

**3.1 Parameter Names.** The parameter name codes are given in Table 2/Q.763 together with references to the subsections in which they are described.

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Table 2/Q.763 - Parameter Name Codes

Parameter name	Reference Section	Code
Access transport	3.2	00000011
Automatic congestion level	3.3	00100111
Backward call indicators	3.4	00010001
Call modification indicators (not used)	3.5	00010111
Call reference	3.6	00000001
Called party number	3.7	00000100
Calling party number	3.8	00001010
Calling party's category	3.9	00001001
Carrier selection information	3.10	11101110
Cause indicator	3.11	00010010
Charge number	3.12	11101011
Circuit group characteristics	3.13	11100101
Circuit group supervision type	3.14	00010101
Circuit identification name	3.15	11101000
Circuit state	3.16	00100110
Circuit validation response	3.17	11100110
Closed user group check response (not used)	3.18	00011100
Closed user group interlock code	3.19	00011010
Common language location ID code	3.20	11101001
Connected number	3.21	00100001
Connection request	3.22	00001101
Continuity indicators	3.23	00010000
End of optional parameters	3.24	00000000

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3.2 Access Transport. The format of the access transport parameter field is shown in Figure 4/Q.763. \*

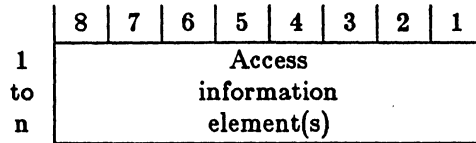


Figure 4/Q.763 - Access transport parameter field \*

The access information element is coded as described in Recommendation Q.931, section 4.5. Multiple Q.931 information elements can be included within the access transport parameter. \*

3.3 Automatic Congestion Level. The format of the automatic congestion level parameter is shown in Figure 5/Q.763. \*

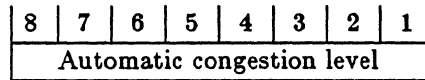


Figure 5/Q.763 - Automatic congestion level parameter \*

The following codes are used in the automatic congestion level parameter field: \*

- 00000000 spare \*
- 00000001 ACL 1 \*
- 00000010 ACL 2 \*
- 00000011 \*
- to spare \*
- 11111111 \*

3.4 Backward Call Indicators. The format of the backward call indicators parameter field is shown in Figure 6/Q.763. \*

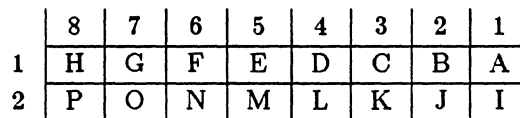


Figure 6/Q.763 - Backward call indicators parameter field \*

The following codes are used in the backward call indicators parameter field: \*

- bits BA charge indicator \*
- 00 no indication \*
- 01 no charge \*
- 10 charge \*
- 11 spare (interpreted as 00) \*
- bits DC called party's status indicator \*
- 00 no indication \*
- 01 subscriber free \*
- 10 connect when free \*
- 11 call delay at the terminating interface \*

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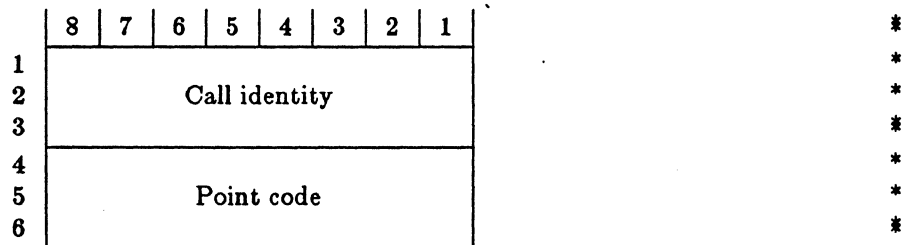
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bits	FE	called party's category indicator	
	00	no indication	
	01	ordinary subscriber (non-payphone)	*
	10	payphone	*
	11	spare (interpreted as 00)	*
bits	HG	end-to-end method indicator (note)	
	00	no end-to-end method available	
	01	pass along method available	
	10	SCCP method available	
	11	pass along and SCCP methods available	
bit	I	interworking indicator (note)	
	0	no interworking encountered (SS7 all the way)	
	1	interworking encountered	
bit	J	end-to-end information indicator (note)	
	0	no end-to-end information available	
	1	end-to-end information available	
bit	K	ISDN User Part indicator (note)	
	0	ISDN User Part not used all the way	
	1	ISDN User Part used all the way	
bit	L	reverse holding indicator	
	0	reverse holding not required	
	1	reverse holding required	
bit	M	ISDN access indicator	*
	0	non-ISDN access signalling	*
	1	ISDN access signalling	*
bits	N-P	spare	*

Note: Bits G-K constitute the protocol control indicator.

3.5 Call Modification Indicators. [Parameter for further study.]

3.6 Call Reference. The format of the call reference parameter is shown in Figure 7/Q.763.



Note: The least significant octet is send first for each subfield.

Figure 7/Q.763 - Call reference parameter field

The following codes are used in the subfields of the call reference parameter field:

- a) Call identity. A code expressing in pure binary representation the identification number allocated to the call.
- b) Point code. The code of the signalling point in which the call identity is relevant.



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3.7 Called Party Number. The format of the called party number parameter field is shown in Figure 8/Q.763.

	8	7	6	5	4	3	2	1	
1	O/E	Nature of address indicator							*
2	Spare	Numbering Plan			Spare				*
3	2nd address signal				1st address signal				*
to									
n									

Figure 8/Q.763 - Called party number parameter field

The following codes are used in the subfields of the called party number parameter field:

- a) Odd/even (O/E) indicator
  - 0 even number of address signals
  - 1 odd number of address signals

- b) Nature of address indicator

```

0 0 0 0 0 0 0 0 spare
0 0 0 0 0 0 0 1 subscriber number
0 0 0 0 0 1 0 0 spare, reserved for national use
0 0 0 0 0 1 1 1 national (significant) number
0 0 0 0 1 0 0 0 international number
0 0 0 0 1 0 1 1
to spare
1 1 1 0 0 0 0 0
1 1 1 0 0 0 1 0 subscriber number, operator requested
1 1 1 0 0 1 0 0 national number, operator requested
1 1 1 0 0 1 1 0 international number, operator requested
1 1 1 0 1 0 0 0 no number present, operator requested
1 1 1 0 1 0 1 0 no number present, cut-through to carrier
1 1 1 0 1 1 0 0 950+ call from local exchange carrier public station,
hotel/motel, or non-exchange access end office
1 1 1 0 1 1 1 1 test line test call
1 1 1 1 0 0 0 0
to reserved for network specific codes
1 1 1 1 1 1 0 0
1 1 1 1 1 1 1 1 reserved for expansion
  
```

- c) Numbering plan

```

0 0 0 spare
0 0 1 ISDN (Telephony) numbering plan (CCITT Rec. E.164(E.163))
0 1 0
to reserved
1 0 0
1 0 1 private numbering plan
1 1 0 reserved
  
```

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1 1 1 reserved

d) Address information

The address information is divided into 4-bit address signals coded as follows.

- 0 0 0 0 digit 0
- 0 0 0 1 digit 1
- 0 0 1 0 digit 2
- 0 0 1 1 digit 3
- 0 1 0 0 digit 4
- 0 1 0 1 digit 5
- 0 1 1 0 digit 6
- 0 1 1 1 digit 7
- 1 0 0 0 digit 8
- 1 0 0 1 digit 9
- 1 0 1 0 spare
- 1 0 1 1 code 11
- 1 1 0 0 code 12
- 1 1 0 1 spare
- 1 1 1 0 spare
- 1 1 1 1 ST

The most significant address signal is sent first. Subsequent address signals are sent in successive 4-bit fields. In case of an odd number of address signals, the filler code '0 0 0 0' is inserted after the last address signal.

**3.8 Calling Party Number.** The format of the calling party number parameter field is as shown in Figure 9/Q.763.

	8	7	6	5	4	3	2	1
1	O/E	Nature of address indicator						
2	Spare	Numbering Plan			Presentation		Screening	
3	2nd address signal				1st address signal			
to								
n								

Figure 9/Q.763 - Calling party number parameter field

The following codes are used in the calling party number parameter field.

- a) Odd/even indicator: see para. 3.7 a)
- b) Nature of address indicator:

- 0 0 0 0 0 0 0 spare
- 0 0 0 0 0 0 1 unique subscriber number
- 0 0 0 0 0 1 0 spare, reserved for national use
- 0 0 0 0 0 1 1 unique national (significant) number
- 0 0 0 0 1 0 0 unique international number
- 0 0 0 0 1 0 1
- to spare

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1 1 1 0 0 0 0		*
1 1 1 0 0 0 1	non-unique subscriber number	*
1 1 1 0 0 1 0	spare	*
1 1 1 0 0 1 1	non-unique national number	*
1 1 1 0 1 0 0	non-unique international number	*
1 1 1 0 1 0 1	spare	*
1 1 1 0 1 1 0	spare	*
1 1 1 0 1 1 1	test line test call	*
1 1 1 1 0 0 0		*
to	reserved for network specific codes	*
1 1 1 1 1 1 0		*
1 1 1 1 1 1 1	reserved for expansion	*

c) Numbering plan: see para. 3.7 c)

d) Presentation indicator:

0 0	presentation allowed	*
0 1	presentation restricted	*
1 0	spare	*
1 1	spare	*

e) Screening indicator:

0 0	User provided, not screened	*
0 1	User provided, passed network screening	*
1 0	User provided, failed network screening	*
1 1	Network provided	*

f) Address information: see para. 3.7 e), as applicable

Note: Other types of nature of address indications (e.g. transit exchange identity) are for further study.

**3.9 Calling Party's Category.** The format of the calling party's category parameter field is shown in Figure 9/Q.763.

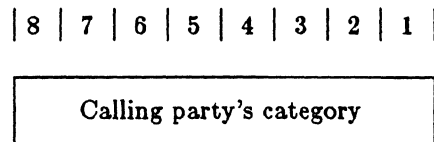


Figure 10/Q.763 - Calling party's category indicator parameter field

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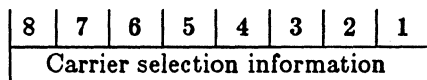
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The following codes are used in the calling party's category indicator parameter field.

00000000	calling party's category unknown	
00000001	operator, language French	
00000010	operator, language English	
00000011	operator, language German	
00000100	operator, language Russian	
00000101	operator, language Spanish	
00000110	available to administrations for	
00000111	selecting a particular language	
00001000	by mutual agreement	
00001001	reserved (see CCITT Rec. Q.104)(note)	
00001010	ordinary calling subscriber (precedence level 1)	*
00001011	calling subscriber with priority	
00001100	data call (voice band data)	
00001101	test call	
00001110	non-voice terminal (for further study)	
00001111	payphone	
00010000		
	to	
	spare	
11111001		
11111010	calling subscriber with precedence level 2	*
11111011	calling subscriber with precedence level 3	*
11111100	calling subscriber with precedence level 4	*
11111101	calling subscriber with precedence level 5	*
11111110	spare	
11111111	spare	

Note: In national networks code 00001001 may be used to indicate that the calling party is a national operator.

**3.10 Carrier selection information** The format of the carrier selection information parameter is shown in Figure 11/Q.763. \*



**Figure 11/Q.763 - Carrier selection information parameter** \*

The following codes are used: \*

00000000	no indication(default)	*
00000001	selected carrier ID code presubscribed and not input by calling party	*
00000010	selected carrier ID code presubscribed and input by calling party	*
00000011	selected carrier ID code presubscribed, no indication	*
00000100	selected carrier ID code not presubscribed and input by calling party	*
00000101		*
	to	*
	spare	*
11111110		*
11111111	reserved	*

**3.11 Cause indicator** The format of the cause indicator parameter field is shown in Figure 12/Q.763. \*

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8	7	6	5	4	3	2	1
1 ext	Coding Standard		0	General Location			
0/1 ext	Cause Value (class)		(value in class)				
Diagnostics (if any)							

Figure 12/Q.763 - Cause indicator parameter field

Coding standard would be set as follows:

- 00 CCITT standard
- 01 reserved for other internat. standard
- 10 national standard
- 11 network specific

General location would be coded as follows:

- 0000 user
- 0001 local private network
- 0010 local local network
- 0011 transit network
- 0100 remote network
- 0101 remote private network
- 0110 local interface
- 0111 international network
- 1010 unknown (default)

Cause values currently used are as follows:

- 000 normal event class
- 000 0001 unallocated number
- 000 0010 no route to specified transit network
- 000 0011 no route to destination
- 000 0101 misdialled trunk prefix
- 001 normal event class
- 001 0000 normal release
- 001 0001 user busy
- 001 0010 no user responding
- 001 0101 call rejected
- 001 0110 number changed
- 001 1011 destination out of order
- 001 1100 address incomplete
- 001 1111 normal, unspecified (default)
- 010 resource unavailable
- 010 0010 no circuit available
- 010 0110 network out of order
- 010 1001 temporary failure
- 010 1010 switching congestion

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010 1011	access information discarded	*
010 1100	requested channel not available	*
010 1101	preemption	*
010 1111	resource unavailable, unspecified (default)	*
011	service or option not available	*
011 1001	bearer capability not authorized	*
011 1010	bearer capability not presently available	*
011 1111	service not available, unspecified (default)	*
100	service or option not implemented	*
100 0001	bearer capability not implemented	*
100 0110	only restricted digital information available	*
100 1111	service not implemented, unspecified (default)	*
101	invalid message	*
101 1111	invalid message, unspecified (default)	*
110	protocol error	*
110 0001	message type non-existent or not implemented	*
110 0011	parameter non-existent or not implemented	*
110 0100	invalid parameter contents	*
110 0101	parameter non-existent or not implemented - discarded	*
110 1111	protocol error, unspecified (default)	*
111	interworking	*
111 1111	failure unspecified due to interworking (default)	*

Those cause value codepoints which are not specifically labeled are considered reserved. \*

The format and existence of the diagnostic field is dependant on the cause value and the location of generation. For causes generated within the network, the following diagnostics may be included: \*

Cause	Diagnostic	Format	*
22	Called party number	see 3.7	*
38	Network identity	see 3.49	*
42	Network identity	see 3.49	*
57	Attribute identity	for further study	*
58	Attribute identity	for further study	*
65	Attribute identity	for further study	*
97-110	Concerned message type or parameter name code	Tables 1-2	*

**3.12 Charge Number** The format of the charge number parameter field is shown in Figure 8/Q.763. \*

The following codes are used in the subfields of the charge number parameter field: \*

- a. Odd/even indicator: see para.3.7a. \*
- b. Nature of address indicator: \*

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0 0 0 0 0 0 0	spare	*
0 0 0 0 0 0 1	ANI of calling party; subscriber number	*
0 0 0 0 0 1 0	ANI not available or not provided	*
0 0 0 0 0 1 1	ANI of the calling party; national number	*
0 0 0 0 1 0 0	spare	*
0 0 0 0 1 0 1	ANI of the called party included; subscriber number	*
0 0 0 0 1 1 0	ANI of the called party not included	*
0 0 0 0 1 1 1	ANI of the called party included; national number	*
0 0 0 1 0 0 0		*
to	spare	*
1 1 1 0 1 1 1		*
1 1 1 1 0 0 0		*
to	reserved for network specific use	*
1 1 1 1 1 1 0		*
1 1 1 1 1 1 1	reserved	*

c. Numbering plan and Address signals coded as in section 3.7.

**3.13 Circuit Group Characteristic Indicators** The format of the circuit group characteristic indicators parameter field is shown in Figure 13/Q.763.

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

Figure 13/Q.763 - Circuit group characteristics parameter field

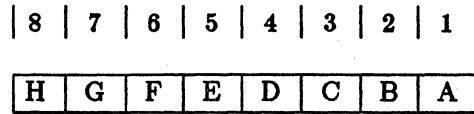
The following codes are used in the circuit group characteristics indicator parameter field.

bits BA	Circuit Group Carrier Indicator	*
00	unknown	*
02	analog	*
10	digital	*
11	digital and analog	*
bits DC	Double Seizing Control Indicator	*
00	unknown	*
01	odd CIC control	*
10	even CIC control	*
11	all circuit control	*
bits FE	Alarm Carrier Indicator	*
00	unknown	*
01	software carrier handling	*
10	hardware carrier handling	*
11	spare	*
bits GH	Continuity Check Requirements Indicator	*
00	unknown	*
01	no continuity check	*
10	statistical continuity check	*
11	per call continuity check	*

**3.14 Circuit Group Supervision Message Type Indicator.** The format of the circuit group supervision message type indicator parameter field is shown in Figure 14/Q.763.

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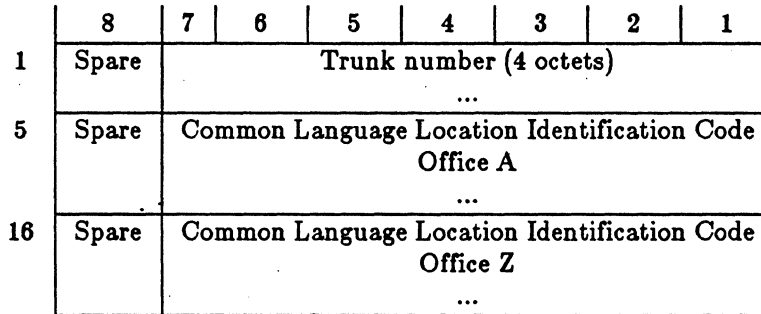


**Figure 14/Q.763** - Circuit group supervision message type indicator parameter field

The following codes are used in the circuit group supervision message type indicator parameter field:

bits	BA	
	00	maintenance oriented (no immediate release)
	01	hardware failure oriented (immediate release)
	10	software generated
	11	spare
bits	C-H	spare

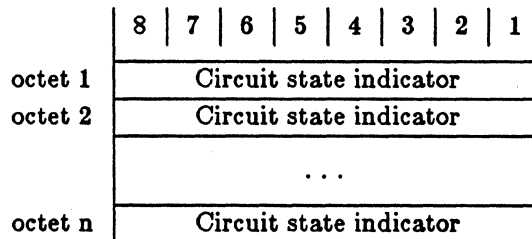
**3.15 Circuit Identification Name** The format of the circuit identification name parameter field is shown in Figure 15/Q.763.



**Figure 15/Q.763** - Circuit ID name parameter field

All octets consist of IA5 characters, one per octet. The Common Language Location Identification (CLLI)<sup>1</sup> Code can also be used as separate parameter, in cases where the full CIN is not known.

**3.16 Circuit State Indicator** The format of the circuit state indicator parameter field is shown in Figure 16/Q.763.



**Figure 16/Q.763** - Circuit state indicator parameter field

The number of octets in the circuit state indicator parameter field is equal to the specified range + 1, and is limited to 24 octets (32 internationally). Each circuit state indicator octet is

1. Common Language and CLLI are registered trademarks of Bell Communications Research, Inc.



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associated with a circuit identification code such that octet n is associated with circuit identification code m+n, where m is the circuit identification code contained in the message. \*

The following codes are used in each circuit state indicator octet: \*

bits	HGFEDCBA	Circuit state indicator	*
	00000000	transient	*
	00000001	spare	*
	00000010	spare	*
	00000011	unequipped	*
	00000100	incoming circuit busy, active	*
	00000101	incoming circuit busy, locally blocked	*
	00000110	incoming circuit busy, remotely blocked	*
	00000111	incoming circuit busy, locally and remotely blocked	*
	00001000	outgoing circuit busy, active	*
	00001001	outgoing circuit busy, locally blocked	*
	00001010	outgoing circuit busy, remotely blocked	*
	00001011	outgoing circuit busy, locally and remotely blocked	*
	00001100	idle	*
	00001101	idle, locally blocked	*
	00001110	idle, remotely blocked	*
	00001111	idle, locally and remotely blocked	*
	00010000		*
	to	spare	*
	11111111		*

**3.17 Circuit Validation Response** The format of the circuit validation response indicator parameter field is shown in Figure 17/Q.763. \*

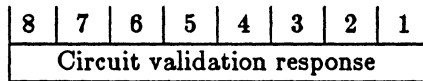


Figure 17/Q.763 - Circuit validation response parameter field \*

The following codes are used in the circuit validation response indicator parameter field: \*

00000000	successful	*
00000001	failure	*
other	spare	*

**3.18 Closed User Group Interlock Code.** The format of the closed user group interlock code parameter field is shown in Figure 18/Q.763.

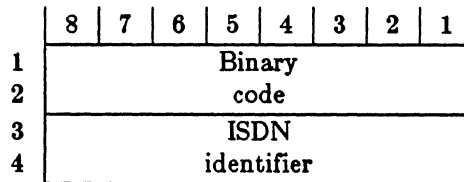


Figure 18/Q.763 - Closed user group interlock code

Note: The least significant octet is sent first for each subfield. \*

The following codes are used in the subfields of the closed user group interlock code parameter field:

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- a) Binary code  
 A code allocated to a closed user group in a particular ISDN.
- b) ISDN identifier  
 A code identifying a particular ISDN (for further study).

**3.19 CLLI Code** The format of the CLLI code parameter field is shown in Figure 19/Q.763. All octets are coded with IA5 characters.

	8	7	6	5	4	3	2	1
1	Spare		Town (4 octets)					
	...							
5	Spare		State (2 octets)					
	...							
7	Spare		Building (2 octets)					
	...							
9	Spare		Subdivision (3 octets)					
	...							

Figure 19/Q.763 - CLLI code parameter field

**3.20 Connected Number** The format of the connected number parameter field corresponds to the format shown in Figure 20/Q.763.

	8	7	6	5	4	3	2	1
1	O/E	Nature of address indicator						
2	Spare	Numbering Plan			Presentation		Reserved	
3	2nd address signal				1st address signal			
to								
n								

Figure 20/Q.763 - Connected number parameter field

The fields are coded as in section 3.8.

**3.21 Connection Request.** The format of the connection request parameter field is shown in Figure 21/Q.763.

	8	7	6	5	4	3	2	1
1	Local reference							
2								
3								
4	Point code							
5								
6								
7	Protocol class							
8	Credit							

Note: The least significant octet is sent first for each subfield.

Figure 21/Q.763 - Connection request parameter field

The following codes are used in the subfields of the connection request parameter field:

- a) Local reference  
 A code indicating the local reference allocated by the signalling connection control part to the end-to-end connection.
- b) Point code  
 A code identifying the signalling point at which the connection request originated.
- c) Protocol class  
 A code identifying in pure binary representation the protocol class requested for the end-to-end connection.
- d) Credit  
 A code identifying in pure binary representation the window size requested for the end-to-end connection.

Note: The credit subfield is required only for protocol class 3 and class 4.

**3.22 Continuity Indicators.** The format of the continuity indicators parameter field is shown in Figure 22/Q.763.

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

**Figure 22/Q.763** - Continuity indicators parameter field

The following codes are used in the continuity indicators parameter field:

bit	A	continuity indicator
	0	continuity check failed
	1	continuity check successful
bits	B-H	spare

**3.23 End of Optional Parameter Fields Indicator.** The last optional parameter field of a message is followed by the end of optional parameter fields indicator, which occupies a one octet field containing all zeros. \*

**3.24 Event Information.** The format of the Event Information Indicators parameter is shown in Figure 23/Q.763. \*

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

**Figure 23/Q.763** - Event information parameter \*

It conveys information about the type of event which caused the message to be sent. The following codes are used in the event information indicators parameter field: \*

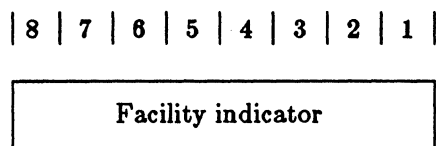
GFEDCBA	Event indication
0000000	spare
0000001	alerting
0000010	progress
0000011	inband information or appropriate pattern now available
0000100	call forwarded on busy
0000101	call forwarded on no reply

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0000110	call forwarded unconditional	*
0000111		*
to	spare	*
1111110		*
1111111	reserved	*
		*
Bit H	Event presentation restriction indicator	*
0	no indication	*
1	presentation restricted	*

**3.25 Facility Indicator.** The format of the facility indicator parameter field is shown in Figure 24/Q.763.

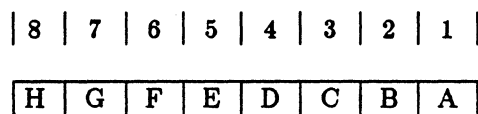


**Figure 24/Q.763 - Facility indicator parameter field**

The following codes are used in the facility indicator parameter field.

00000000	spare
00000001	reserved
00000010	
to	spare
11111111	

**3.26 Facility Information Indicators.** The format of the facility information indicators parameter field is shown in Figure 25/Q.763. \*



**Figure 25/Q.763 - Facility information indicators parameters field**

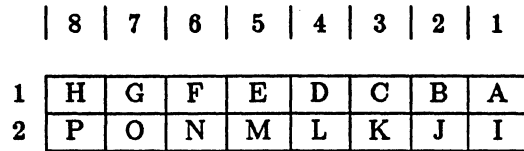
The following codes are used in the facility information indicators parameter field: \*

bit A	:	Called party free indicator
0		called party busy
1		called party free
bit B	:	Calling party answer indicator
0		no calling party answer
1		calling party answer
bit C	:	Facility request enquiry indicator
0		no enquiry
1		facility request active enquiry
bit D	:	Facility request active indicator
0		facility request not active
1		facility request active

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**3.27 Forward Call Indicators.** The format of the forward call indicators parameter field is shown in Figure 26/Q.763.



**Figure 26/Q.763 - Forward call indicators parameter field**

The following codes are used in the forward call indicators parameter field:

- bit A : National/international call indicator
  - 0 incoming national call
  - 1 incoming international call
- bits CB: End-to-end method indicator (note)
  - 00 no end-to-end method available
  - 01 pass along method available
  - 10 SCCP method available
  - 11 pass along and SCCP methods available
- bit D : Interworking indicator (note)
  - 0 no interworking encountered  
(No. 7 signalling all the way)
  - 1 interworking encountered
- bit E : End-to-end information indicator (note)
  - 0 no end-to-end information available
  - 1 end-to-end information available
- bit F : ISDN user part indicator (note)
  - 0 ISDN user part not used all the way
  - 1 ISDN user part used all the way
- bits HG : ISDN User Part Preference indicator
  - 00 ISUP preferred \*
  - 01 no preference \*
  - 10 ISUP required \*
  - 11 spare \*
- bit I : ISDN access signalling indicator
  - 0 non-ISDN access protocol \*
  - 1 ISDN access protocol \*
- bits H-L: spare
- bits M-P: reserved for national use

Note: Bits B-F constitute the protocol control indicator

**3.28 Generic Address** The format of the generic address parameter field is shown in Figure 27/Q.763. \*

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	8	7	6	5	4	3	2	1
	Type of Address							
1	O/E	Nature of address indicator						
2	Spare	Numbering Plan		Presentation		Reserved		
3	2nd address signal				1st address signal			
to								
n								

Figure 27/Q.763 - Generic address parameter field

The following codes are used in the sub-fields of the generic address parameter field:

1. Type of Address:

00000000	dialed number
00000001	destination number
00000010	supplemental user-provided calling address - failed screening
00000011	supplemental user-provided calling address - not screened
00000100	
to	spare
01111111	
10000000	
to	network specific use
11111110	
11111111	reserved

2. Other fields are used as in 3.7.

3.29 Generic Digits The format of the generic digits parameter field is shown in Figure 28/Q.763.

	8	7	6	5	4	3	2	1
1	Encoding Scheme				Type of Digits			
2 to n	Digits							

Figure 28/Q.763 - Generic digits parameter field

The following codes are used in the subfields of the generic digits parameter field:

1. Type of digits:

00000	account code
00001	authorization code
00010	private network traveling classmark
00011	
to	spare
01111	
10000	
to	network specific use
11110	
11111	reserved

2. Encoding scheme:

000	BCD even
001	BCD odd

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010 IA5  
 011 binary  
 100  
 to spare  
 111

\*  
\*  
\*  
\*  
\*

3.30 Index. The format of the index parameter field is shown in Figure 29/Q.763.

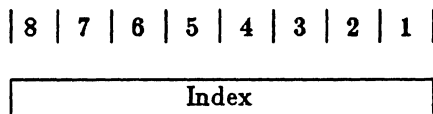


Figure 29/Q.763 - Index parameter field

The code used in the index parameter field is a number in pure binary representation, which identifies one of several possible closed user groups accessible to a subscriber.

3.31 Information Indicators. The format of the information indicators parameter field is shown in Figure 30/Q.763.

	8	7	6	5	4	3	2	1
1	H	G	F	E	D	C	B	A
2	P	O	N	M	L	K	J	I

Figure 30/Q.763 - Information indicators parameter field

The following codes are used in the information indicators parameter field:

- bits CBA: Calling party address response indicator
  - 000 calling party address not included
  - 001 calling party address not available
  - 010 spare
  - 011 calling party address included, hold not provided
  - 100 calling party address included, hold provided
  - 101 spare
  - 110 spare
  - 111 spare
- bits ED : Connected address response indicator
  - 00 connected address not included
  - 01 connected address not available
  - 10 spare
  - 11 connected address included
- bit F : Calling party's category response indicator
  - 0 calling party's category not included
  - 1 calling party's category included
- bit G : Charge information response indicator

\*  
\*  
\*  
\*  
\*

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- 0 charge information not included
- 1 charge information included
- bits IH : Redirecting address response indicator
  - 00 redirecting address not included
  - 01 redirecting address not available
  - 10 spare
  - 11 redirecting address included
- bit J : Index response indicator
  - 0 index not included
  - 1 index included
- bit K : Solicited/unsolicited indicator
  - 0 solicited message
  - 1 unsolicited message
- bits L-P: spare

\*  
\*  
\*

**3.32 Information Request Indicators.** The format of the information request indicators parameter field is shown in Figure 31/Q.763.

	8	7	6	5	4	3	2	1
1	H	G	F	E	D	C	B	A
2	P	O	N	M	L	K	J	I

Figure 31/Q.763 - Information request indicators parameter field

The following codes are used in the information request indicators parameter field.

\*

- bits BA: Calling party address request indicator
  - 00 calling party address not requested
  - 01 calling party address requested, hold not required
  - 11 calling party address requested, hold required
- bit C : Connected address request indicator
  - 0 connected address not requested
  - 1 connected address requested
- bit D : Calling party's category request indicator
  - 0 calling party's category not requested
  - 1 calling party's category requested
- bit E : Charge information request indicator
  - 0 charge information not requested
  - 1 charge information requested
- bit F : Redirecting address request indicator
  - 0 redirecting address not requested
  - 1 redirecting address requested
- bit G : Index request indicator
  - 0 index not requested
  - 1 index requested
- bit H : Malicious call identification request indicator
  - 0 malicious call identification not requested
  - 1 malicious call identification requested



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bit I: Holding indicator  
 0 holding of the connection not requested  
 1 holding of the connection requested  
 bits J-P: spare

**3.33 Nature Of Connection Indicators.** The format of the nature of connection indicators parameter field is shown in Figure 32/Q.763.

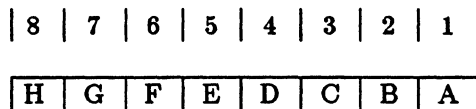


Figure 32/Q.763 - Nature of connection indicators parameter field

The following codes are used in the nature of connection indicators parameter field:

bits BA: Satellite indicator  
 00 no satellite circuit in the connection  
 01 one satellite circuit in the connection  
 10 spare  
 11 spare  
 bits DC: Continuity check indicator  
 00 continuity check not required  
 01 continuity check required on this circuit  
 10 continuity check performed on a previous circuit  
 11 spare  
 bit E: Echo suppressor indicator  
 0 outgoing half echo suppressor not included  
 1 outgoing half echo suppressor included  
 bits F-H: spare

**3.34 Optional Backward Call Indicators.** The format of the optional backward call indicators parameter field is shown in Figure 33/Q.763.

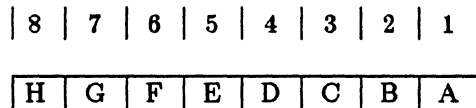


Figure 33/Q.763 - Optional backward call indicators parameter field

The following codes are in the optional backward call indicators parameter field:

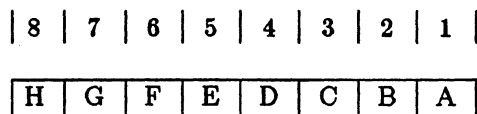
bit A Inband information indicator

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	0	no indication	*
	1	inband information or appropriate pattern now available	*
bit	B	Call forwarding may occur indication	*
	0	no indication	*
	1	call forwarding may occur	*
bits	C-G	spare	*
bit	H	User-network interaction indicator	*
	0	no indication	*
	1	user-network interaction, cut-through of bearer needed	*

**3.35 Optional Forward Call Indicators.** The format of the optional forward call indicators parameter field is shown in Figure 34/Q.763.



**Figure 34/Q.763 - Optional forward call indicators parameter field**

The following codes are in the optional forward call indicators parameter field:

bits	BA:	Closed user group call indicator	
	00	closed user group check successful	
	01	ordinary call	
	10	closed user group call, outgoing access allowed	
	11	closed user group call, outgoing access not allowed	
bit	C :	spare	
bit	D :	spare	*
bit	E :	CCBS call indicator	
	0	not a CCBS call	
	1	CCBS call	
bit	F :	spare	
bit	G :	Calling party address incomplete indicator	*
	0	calling party address complete	
	1	calling party address incomplete	
bit	H :	Connected address request indicator	
	0	connected address not requested	
	1	connected address requested	

**3.36 Original Called Number** The format of the original called number parameter is identical to that shown in Figure 20/Q.763. \*

The following codes are used in the subfields of the redirection number parameter field: \*

- a) Odd/even (O/E) indicator: see para. 3.7 a)
- b) Nature of address indicator: see para. 3.7 b)
- c) Numbering plan: see para. 3.7 c) \*

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- d) Presentation: see para. 3.8 d) \*
- e) Address information: see para. 3.7 e), as applicable \*

**3.37 Originating Line Information** The format of the originating line information parameter is shown in Figure 35/Q.763.

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

**Figure 35/Q.763 - Originating Line Information**

The codes used in the originating line information parameter are the binary equivalents of the decimal codes used in the II digits of the ANI sequence for inband signalling systems. The decimal codes are assigned and administered by Bell Communications Research. Examples of existing codes are given below.

00000000	Identified Line - No special treatment
00000001	ONI (Multiparty)
00000010	ANI failure (unavailable)
00000110	Hotel (without room identification)
00000111	Coinless, Hospital, Inmate
00001000	InterLATA restricted
00010100	AIOD - listed DN sent
00010111	Coin or non-coin (identified line)
00011000	800 call
00011011	Coin line
01000100	InterLATA restricted - Hotel line
01001110	InterLATA restricted - Coinless line

**3.38 Outgoing Trunk Group Number** The format of the trunk group number parameter is given in Figure 36/Q.763.

	8	7	6	5	4	3	2	1
1	digit 2				digit 1			
2	digit 4				digit 3			
:								
n	digit 2n				digit 2n-1			

**Figure 36/Q.763 - Trunk group number parameter field**

The number of octets, n, may be 1, 2 or 3. Most trunk group numbers will consist of four digits. The number will be coded in binary coded decimal. Only an even number of digits will be sent.

**3.39 Range And Status.** The format of the range and status parameter field is shown in Figure 37/Q.763.

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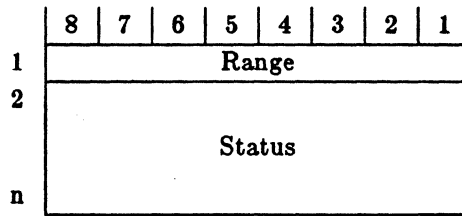


Figure 37/Q.763 - Range and status parameter field

The following codes are used in the subfields of the range and status parameter field:

- a) **Range**  
 A number in pure binary representation ranging from 0 to 23(31 internationally). Range code 0 indicates absence of the status field. The number represented by a non-zero range code +1 indicates the range of circuits affected by the message. \*
- b) **Status**  
 The status subfield contains from 1 to 24(32 internationally) status bits numbered from 0 to 23(31 internationally). Status bit 0 is located in bit position 1 of the first status subfield octet. Other status bits follow in numerical order. The number of relevant status bits in a given status subfield is equal to range +1. Each status bit is associated with a circuit identification code such that status bit n is associated with circuit identification code m+n, where m is the circuit identification code contained in the message. \*

The status bits are coded as follows:

- in circuit group blocking messages  
 0 no blocking  
 1 blocking
- in circuit group blocking acknowledgement messages  
 0 no blocking acknowledgement  
 1 blocking acknowledgement
- in circuit group unblocking messages  
 0 no unblocking  
 1 unblocking
- in circuit group unblocking acknowledgement messages  
 0 no unblocking acknowledgement  
 1 unblocking acknowledgement
- in circuit group reset acknowledgement messages  
 0 no blocking  
 1 blocking for maintenance reasons

**3.40 Redirecting Number.** The format of the redirecting number parameter field corresponds to the format shown in Figure 9/Q.763. \*

The following codes are used in the subfields of the redirecting number parameter field:

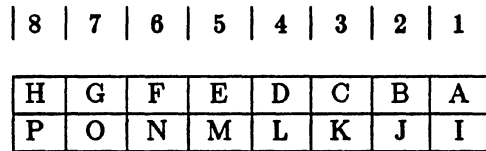
- a) Odd/even indicator: see para. 3.7 a)
- b) Nature of address indicator: see para. 3.8 b)
- c) Numbering plan: see para 3.7 c) \*

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- d) Presentation indicator: see para. 3.8 d) \*
- e) Screening indicator: see para. 3.8 e) \*
- f) Address information: see para. 3.7 f), as applicable \*

**3.41 Redirection Information.** The format of the redirection information parameter field is shown in Figure 38/Q.763.



**Figure 38/Q.763 - Redirection information parameter field**

The following codes are used in the redirection information parameter field:

- bits CBA: Redirecting indicator
  - 000 no redirection
  - 001 call rerouted
  - 010 call rerouted, redirection information restricted
  - 011 call forwarded
  - 100 call forwarded, redirection information restricted
  - 101 call rerouted, redirection number restricted
  - 110 call forwarded, redirection number restricted
  - 111 spare
- bit D : Call forwarding no reply undergone indicator
  - 0 false
  - 1 true
- bits HGFE: Original redirecting reason
  - 0000 unknown/not available
  - 0001 user busy
  - 0010 no reply
  - 0011 unconditional
  - 0100 to spare
  - 1111 spare
- bits KJI: Redirection counter
  - The number of redirections undergone expressed as a binary number in the range 1 to 5
- bit L: spare
- bits PONM: Redirecting reason
  - 0000 unknown/not available
  - 0001 user busy
  - 0010 no reply
  - 0011 unconditional
  - 0100 to spare
  - 1111 spare

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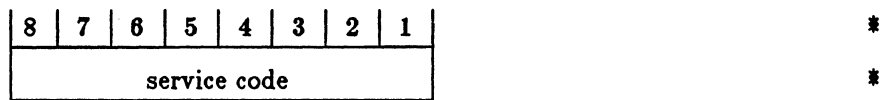
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**3.42 Redirection Number.** The format of the redirection number parameter field corresponds to the format shown in Figure 20/Q.763. \*

The following codes are used in the subfields of the redirection number parameter field: \*

- a) Odd/even (O/E) indicator: see para. 3.7 a) \*
- b) Nature of address indicator: see para. 3.7 b) \*
- c) Numbering plan: see para. 3.7 c) \*
- d) Presentation: see para. 3.8 d) \*
- e) Address information: see para. 3.7 e), as applicable \*

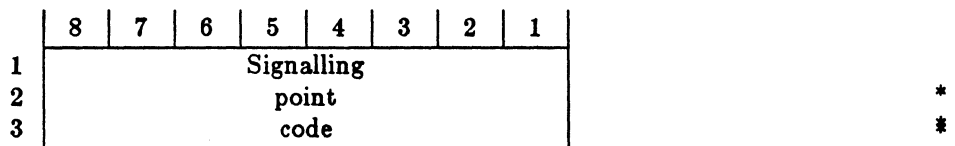
**3.43 Service Code Indicator** The format of the service code indicator parameter field is shown in Figure 39/Q.763. \*



**Figure 39/Q.763 - Service code indicator parameter field** \*

The codes used in the service code indicator parameter field are the binary equivalents of the decimal codes used in the Service Code digits for Facility/Service Selective Signalling. These decimal codes are assigned and administered by Bell Communications Research. \*

**3.44 Signalling Point Code.** The format of the signalling point code parameter field is shown in Figure 40/Q.763. \*

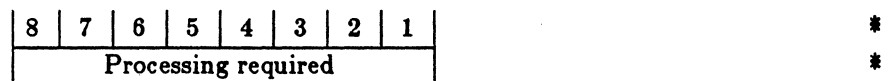


Note: The least significant octet is sent first. \*

**Figure 40/Q.763 - Signalling point code** \*

The signalling point code is a pure binary representation of the code allocated to a node in the signalling network. \*

**3.45 Special Processing Request** The format of the special processing request parameter field is shown in Figure 41/Q.763. \*



**Figure 41/Q.763 - Special processing request parameter** \*

The following codes are used in the special processing request parameter: \*

00000000 spare \*

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00000001 reserved for international use, starting with 00000001  
 to reserved for national use, starting with 01111110  
 01111110  
 01111111 SSP processing required  
 10000000  
 to reserved for network specific use  
 11111110  
 11111111 reserved

**3.46 Supplementary Line Information** The format of the supplementary line information parameter field is shown in Figure 42/Q.763.

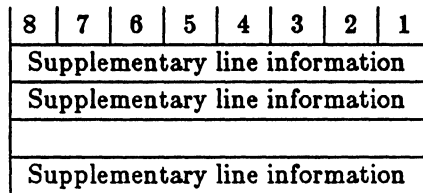


Figure 42/Q.763 - Supplementary line information parameter

Coding of the octets is for further study.

**3.47 Suspend/Resume Indicators.** The format of the suspend/resume indicators parameter field is shown in Figure 43/Q.763.

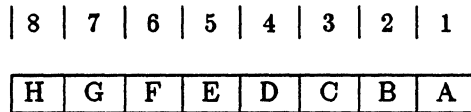


Figure 43/Q.763 - Suspend/Resume indicators parameter field

The following codes are used in the suspend/resume indicators parameter field:

bit A: Network initiated indicator  
 0: ISDN subscriber initiated  
 1: network initiated  
 bits B-H: spare

**3.48 Transaction Request** The format of the transaction request parameter is shown in Figure 44/Q.763.

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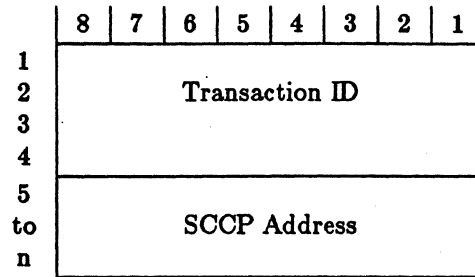


Figure 44/Q.763 - Transaction request parameter field

The Transaction ID field is used to identify a Transaction Capabilities interaction that is to be associated with further call processing by the TC Application Specific Entity (ASE) indicated in the SCCP address field. It is coded per paragraph 3.5 of Q.773.

The SCCP address field is used to identify a TC ASE at a signalling point in the network. It is coded per paragraph 3.4 of Q.713.

**3.49 Transit Network Selection** The format of the transit network selection parameter is shown in Figure 45/Q.763.

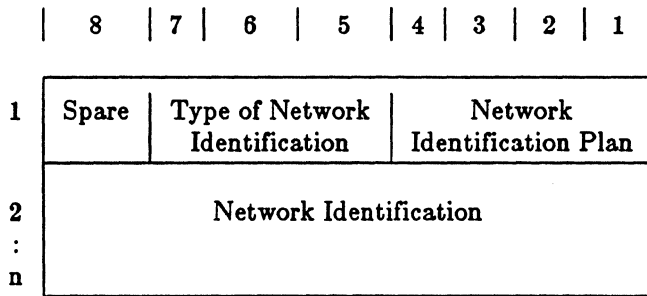


Figure 45/Q.763 - Transit network selection parameter field

The following codes are used in the subfields of the transit network selection parameter field:

a) Type of network identification

- 0 0 0 CCITT-standardized identification
- 0 1 0 national network identification
- other reserved

b) Network identification plan

i. CCITT-standardized identification

- 0 0 0 0 unknown
- 0 0 1 1 public data network identification code  
(DNIC - CCITT Recommendation X.121)
- 0 1 1 0 public land mobile network identification code  
(MNIC - CCITT Recommendation E.212)
- other reserved

(Routing to these networks using the ISDN User Part is for further study.)

ii. National network identification



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- 0 0 0 0 unknown
- 0 0 0 1 Carrier identification code with circuit code  
 (Three digit code for interexchange carrier, plus  
 circuit code. Coding for interexchange carrier  
 is administered by Bell Communications Research.)
- other reserved

c) Network identification

Currently, only the national network identification carrier identification code is required to be recognized for routing purposes. The network identification in that case is shown in Figure 46/Q.763.

8	7	6	5	4	3	2	1
2nd digit				1st digit			
Circuit code				3rd digit			

Figure 46/Q.763 - Carrier Identification Code with Circuit Code

The four bits allocated for circuit code are coded as follows:

- 0000 unspecified
- 0001 international call, no operator requested
- 0010 international call, operator requested
- 0011
- to spare
- 0111
- 1000
- to network specific use
- 1111

**3.50 User Service Information.** The format of the user service information parameter field is shown in Figure 47/Q.763. This format is the same as the bearer capability information element from CCITT Recommendation Q.931 and not all capabilities coded here are supported at this time.

	8	7	6	5	4	3	2	1
1	1	Coding standard		Information transfer capability				
2	ext	transfer mode		Information transfer rate				
2a	ext	Structure			Configur.		Establishment	
2b	1	Symmetry		Information transfer rate (destination → origination)				
3	ext	Multiplier or Layer Identification		Bearer capability multiplier/ Protocol identification				

Figure 47/Q.763 - User service information parameter field

- Notes:
- o Octet 2a may be omitted, except when 2b is present.
  - o Octet 2b may be omitted.
  - o Octet 3 may be omitted. It may also be repeated; e.g. to identify several protocols at one or more layers.

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The following codes are used in the subfields of the User service information parameter field: \*

- a) Extension indicator (ext) \*
  - 0 octet continues through the next octet \*
  - (e.g. octet 2 to 2a, 2a to 2b, 3 to 3a) \*
  - 1 last octet \*
- b) Coding standard \*
  - 00 CCITT standardized in this recommendation \*
  - 01 reserved for other international standards \*
  - 10 national standard \*
  - 11 reserved \*
- c) Information transfer capability \*
  - 00000 speech \*
  - 01000 unrestricted digital information \*
  - 01001 restricted digital information (note) \*
  - 10000 3.1 kHz audio \*
  - 10001 7kHz audio \*
  - 10010 15 kHz audio \*
  - 11000 Video \*
  - All other values are reserved \*

Note: Only permitted in conjunction with 64 kbit/s information transfer rate. See \*  
CCITT Recommendation I.340, Appendix 1, for details. \*

- d) Transfer mode \*
  - 00 circuit mode \*
  - 10 packet mode \*
  - All other values are reserved for further study \*
- e) Information transfer rate (octets 2 and 2b) (note) \*
  - 00000 channel size \*
  - 10000 64 kbit/s \*
  - 10011 384 kbit/s \*
  - 10101 1536 kbit/s \*
  - 10111 1920 kbit/s \*

All other values are for further study. The definition of throughput rates for packet-mode \*  
bearer capabilities is for further study; 00000 shall be used for packet mode calls. \*

Note: When octet 2b is omitted, the bearer capability is bidirectional symmetric at the \*  
information transfer rate specified in octet 2. When octet 2b is included, the \*  
information rate in octet 2 refers to the origination → destination direction. \*

- f) Structure \*
  - 000 default (note) \*
  - 001 8 kHz integrity \*
  - 100 service data unit integrity \*
  - 111 unstructured \*
  - All other values are reserved \*

Note: If octet 2a is omitted, or the structure field is coded 000, then the value of the \*  
structure attribute is according to the following: \*

*transfer mode    transfer capability    structure* \*

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circuit	speech	8 kHz integrity	*
circuit	unrestricted digital	8 kHz integrity	*
circuit	restricted digital	8kHz integrity	*
circuit	audio	8kHz integrity	*
circuit	video	8kHz integrity	*
packet	unrestricted digital	service data unit integrity	*

g) Configuration \*  
 0 0 point-to-point \*  
 1 0 multipoint \*  
 All other values are reserved for further study. If omitted, the configuration is assumed to be point-to-point. \*

h) Establishment \*  
 0 0 demand \*  
 All other values are reserved for further study. If omitted, the establishment is assumed to be demand. \*

i) Symmetry \*  
 0 0 bidirectional symmetric \*  
 0 1 bidirectional asymmetric \*  
 1 0 unidirectional (origination → destination) \*  
 1 1 unidirectional (destination → origination) \*  
 If omitted, the symmetry is assumed to be bidirectional symmetric. \*

j) Multiplier or layer identification \*  
 0 0 bearer capability multiplier: \*  
 bits 5-1 represent the number (binary encoding) of instances of bearer capability requested; e.g. "00010" means two instances of the described bearer capability are requested \*  
 0 1 user information layer 1 protocol \*  
 1 0 user information layer 2 protocol \*  
 1 1 user information layer 3 protocol \*

Note: When this subfield indicates a user information protocol, bits 5-1 of the same octet represent the corresponding identification as per sections k, l, and m below. \*

k) User information layer 1 protocol identification \*  
 0 0 0 0 0 CCITT Recommendation I.412; no additional layer 1 \*  
 protocol specified for this bearer capability \*  
 0 0 0 0 1 Rate adaption: the extension bit in this octet is \*  
 set to "0" and the following octet is coded: \*

8	7	6	5	4	3	2	1
1	Spare		rate				

The rate is encoded as follows: \*

0 0 0 0 0	<i>synchronous rate</i>	<i>CCITT reference</i>	*
0 0 0 0 1	0.6 kbit/s	Rec X.1 and I.461	*

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0 0 0 1 0	1.2 kbit/s	Rec. X.1 and I.461	*
0 0 0 1 1	2.4 kbit/s	Rec. X.1 and I.461	*
0 0 1 0 0	3.6 kbit/s	Rec. V.5 and I.463	*
0 0 1 0 1	4.8 kbit/s	Rec. X.1 and I.461	*
0 0 1 1 0	7.2 kbit/s	Rec. V.5 and I.463	*
0 0 1 1 1	8.0 kbit/s	Rec. I.460	*
0 1 0 0 0	9.6 kbit/s	Rec. X.1 and I.461	*
0 1 0 0 1	14.4 kbit/s	Rec. V.5 and I.463	*
0 1 0 1 0	16.0 kbit/s	Rec. I.460	*
0 1 0 1 1	19.2 kbit/s	Rec. V.5 and I.463	*
0 1 1 0 0	32.0 kbit/s	Rec. I.460	*
0 1 1 1 0	48.0 kbit/s	Rec. X.1 and I.461	*
0 1 1 1 1	56.0 kbit/s	Rec. I.463	*

0 0 0 1 0 Rec. G.711 u-law speech \*

0 0 0 1 1 Rec. G.711 A-law speech \*

0 0 1 0 0 Rec. G.721 32 kbit/s ADPCM and Rec. I.460 \*

All other values are reserved for further study. \*

l) User information layer 2 protocol identification \*

0 0 0 0 0 undefined \*

0 0 0 0 0 Rec. Q.921 (I.441) \*

0 0 1 0 0 Rec. Q.710 \*

0 0 1 1 0 Rec. X.25 link level \*

All other values are reserved for further study. \*

m) User information layer 3 protocol identification \*

0 0 0 0 0 undefined \*

0 0 0 1 0 Rec. Q.931 (I.451) \*

0 0 1 1 0 Rec. X.25 packet level \*

All other values are reserved for further study. \*

Note: If octet 3 is omitted, the user information low layer protocols are assumed to be \*  
 undefined. Octet 3 *may* be omitted if the transfer mode is "circuit-mode" and the \*  
 information transfer capability is "unrestricted digital information" or "restricted \*  
 digital information"; otherwise octet 3 must be provided. \*

3.51 User-To-User Information. The format of the user-to-user information parameter is shown in \*  
 Figure 48/Q.763. This field is used to carry the contents of the User-user information element described \*  
 in Recommendation Q.931, and is not interpreted by the network. \*

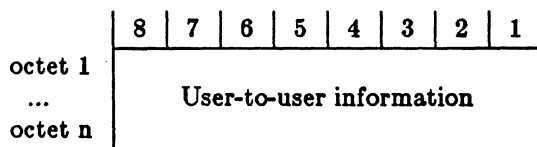


Figure 48/Q.763 - User-to-user Information Parameter

4. ISDN User Part Messages And Codes

4.1 General.

4.1A Message Tables. In the following the format and coding of ISDN user part messages is specified.

For each message a list of the relevant parameters is given in a tabular form.

**4.1B Parameter References.** For each parameter the table also includes:

- *a reference* to the section where the formatting and coding of the parameter content is specified;
- *the type* of the parameter. The following types are used in the tables:
  - F = mandatory fixed length parameter;
  - V = mandatory variable length parameter;
  - O = optional parameter of fixed or variable length;
- *the length* of the parameter. The value in the table includes:
  - *for the type F parameters* the length, in octets, of the parameter content;
  - *for type V parameters* the length, in octets, of the length indicator and of the parameter content. The minimum and the maximum length are indicated;
  - *for type O parameters* the length, in octets, of the parameter name, length indicator and parameter content.

For variable length parameters the minimum and maximum length is indicated.

**4.1C Principles.** For each message type, type F parameters and the pointers for the type V parameters must be sent in the order specified in the following tables.

The routing label and circuit identification code fields, which are transmitted ahead of the message type field if required are not shown. Parameter names, pointer to variable mandatory fields and length indicators appear in the message in accordance with Figure 1/Q.763 and are not shown explicitly in Tables 3-23/Q.763.

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**Table 3/Q.763 -**  
 Message type: Address complete

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Backward call indicators	3.4	F	2
Access transport	3.2	O	3-?
Call reference	3.6	O	8
Cause indicator	3.11	O	5-11
Connection request	3.21	O	10
Optional backward indicators	3.34	O	3
Redirection information	3.41	O	3-4
Redirection number	3.42	O	5-12
Supplementary line information	3.46	O	4-10
User-to-user information	3.51	O	3-130

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**Table 4/Q.763 -**  
 Message type: Answer

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Access transport	3.2	O	3-?
Backward call indicators	3.4	O	4
Connection request	3.21	O	10
Call reference	3.6	O	8
Connected number	3.20	O	5-12
Supplementary line information	3.46	O	4-10
User-to-user information	3.51	O	3-130

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**Table 5/Q.763 -**

- Message type:
- Blocking
  - Blocking acknowledgement
  - Circuit reservation acknowledgement
  - Circuit validation test
  - Continuity check request
  - Loop back acknowledgement
  - Release complete
  - Reset circuit
  - Unblocking
  - Unblocking acknowledgement
  - Unequipped circuit identification code

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Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1

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**Table 6/Q.763 -**  
 Message type: Call progress

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Event information	3.24	F	1 (note)
Access transport	3.2	O	2-33
Backward call indicators	3.4	O	4
Call reference	3.6	O	8
Cause	3.11	O	5-11
Redirection number	3.42	O	5-12
User-to-user information	3.51	O	2-33

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**Table 7/Q.763 -**

Message type:                   Circuit group blocking  
                                   Circuit group blocking acknowledgement  
                                   Circuit group unblocking  
                                   Circuit group unblocking acknowledgement (note 2)

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Circuit group supervision message type indicator	3.14	F	1
Range and status	3.39	V	2-34

Note: In these messages the status subfield is not present when the range code is zero.

**Table 8/Q.763 -**

Message type:                   Circuit group reset (note 1)  
                                   Circuit group reset acknowledgement (note 2)  
                                   Circuit query (note 1)

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Range and status	3.39	V	2-34

\*  
\*

Note 1: In this message the status subfield is not present

Note 2: In these messages the status subfield is not present when the range code is zero.

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**Table 9/Q.763 -**  
 Message type: Circuit query response

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Range and status	3.39	V	2 (note)
Circuit state indicator	3.16	V	3-16

note: status field is not included

**Table 10/Q.763 -**  
 Message type: Circuit reservation

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Nature of connection indicators	3.33	F	1

**Table 11/Q.763 -**

Message type: Circuit validation response

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Circuit validation response indicator	3.17	F	1
Circuit group characteristics	3.13	F	1
CLLI identification (sending end)	3.19	O	13
Circuit identification name	3.15	O	28

**Table 12/Q.763 -**  
 Message type: Continuity

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Continuity indicators	3.22	F	1



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**Table 13/Q.763 -**

Message type: Exit

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Outgoing trunk group number	3.38	O	3-5

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**Table 14/Q.763 -**

Message type: Facility accepted  
 Facility deactivated  
 Facility request

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Facility indicator	3.25	F	1
Called party number	3.7	O	5-12
Calling party number	3.8	O	5-12
Compatibility information	note	O	note
Call reference	3.6	O	8

\*  
\*  
\*

Note: For further study

**Table 15/Q.763 -**

Message type: Facility information

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Facility indicator	3.25	F	1
Facility information indicator	3.26	F	1
Called party number	3.7	O	5-12
Calling party number	3.8	O	5-12
Call reference	3.6	O	8

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**Table 16/Q.763 -**  
 Message type: Facility reject

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Facility indicator	3.25	F	1
Cause indicator	3.11	V	4-10
Called party number	3.7	O	5-12
Calling party number	3.8	O	5-12
Call reference	3.6	O	8

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\*

**Table 17/Q.763 -**  
 Message type: Forward transfer

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Call reference	3.6	O	8

\*

**Table 18/Q.763 -**  
 Message type: Information

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Information indicators	3.31	F	2
Calling party's category	3.9	O	3
Calling party number	3.8	O	5-12
Connected number	3.20	O	5-12
Charge number	3.12	O	3-12
Call reference	3.6	O	8
Connection request	3.21	O	10
User-to-user information	3.51	O	3-130
Index	3.30	O	3
Redirecting number	3.40	O	5-12
Access transport	3.2	O	3-?
Redirection information	3.41	O	3-4
Originating line information	3.37	O	3

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**Table 21/Q.763 -**  
 Message type: Pass along

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Any of the messages defined in Table 5-22/Q.763			

**Table 22/Q.763 -**

Message type: Release

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Cause indicator	3.11	V	4-10
Access transport	3.2	O	3-?
Automatic congestion level	3.3	O	3
Call reference	3.6	O	8
Closed user group interlock code	3.13	O	6
Redirection information	3.41	O	3-4
Redirection number	3.42	O	5-12
Redirecting number	3.40	O	5-12
Signalling point code (Note 2)	3.44	O	5
User-to-user information	3.51	O	3-130

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Note 2: For national use only

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**Table 23/Q.763 -**  
Message type: Suspend  
Resume

Parameter	Reference section	Type	Length (octets)
Message type	2.1	F	1
Suspend/Resume indicators	3.47	F	1
Call reference	3.6	O	8

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